



Railroad Yard Lighting Report

August 2015



Prepared by

The Minnesota Department of Transportation
395 John Ireland Boulevard
Saint Paul, Minnesota 55155-1899
Phone: 651-296-3000
Toll-Free: 1-800-657-3774
TTY, Voice or ASCII: 1-800-627-3529

To request this document in an alternative format

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Legislative Request

This report is issued to comply with [Minnesota Statutes 219.375, subs. 1-4.](#)

219.375 RAILROAD YARD LIGHTING.

Subdivision 1. Lighting status reports submitted by railroad common carriers.

By January 15 of each year, each Class I and Class II railroad common carrier that operates one or more railroad yards in this state where, between sunset and sunrise, cars or locomotives are frequently switched, repaired, or inspected, or where trains are assembled and disassembled, shall submit to the commissioner of transportation a plan that:

- (1) identifies all railroad yards operated by the railroad where the described work is frequently accomplished between sunset and sunrise;
- (2) describes the nature and placement of lighting equipment currently in use in the yard and the maintenance status and practices regarding this equipment;
- (3) states whether the lighting meets or exceeds guidelines for illumination established by the American Railway Engineering and Maintenance-of-Way Association;
- (4) describes whether existing lighting is installed and operated in a manner consistent with energy conservation, glare reduction, minimization of light pollution, and preservation of the natural night environment; and
- (5) identifies plans and timelines to bring into compliance railroad yards that do not utilize and maintain lighting equipment that meets or exceeds the standards and guidelines under clauses (3) and (4), or states any reason why the standards and guidelines should not apply.

Subd. 2. Maintenance of lighting equipment.

A railroad common carrier that is required to file a report under subdivision 1 shall maintain all railroad yard lighting equipment in good working order and shall repair or replace any malfunctioning equipment within 48 hours after the malfunction has been reported to the carrier. Repairs must be made in compliance with, or to exceed the standards in, the Minnesota Electrical Code and chapter 326B.

Subd. 3. Lighting status reports submitted by worker representative.

By January 15 of each year, the union representative of the workers at each railroad yard required to submit a report under subdivision 1 shall submit to the commissioner of transportation a report that:

- (1) describes the nature and placement of lighting equipment currently in use in the yard and maintenance status and practices regarding the equipment;
- (2) describes the level of maintenance of lighting equipment and the carrier's promptness in responding to reports of lighting malfunction;
- (3) states whether the available lighting is adequate to provide safe working conditions for crews working at night; and
- (4) describes changes in the lighting equipment and its adequacy that have occurred since the last previous worker representative report.

Subd. 4. Commissioner response.

The commissioner shall review the reports submitted under subdivisions 1 and 3. The commissioner shall investigate any discrepancies between lighting status reports submitted under subdivisions 1 and 3, and shall report findings to the affected yard's owner and worker representative. The commissioner shall annually advise the chairs and ranking minority members of the house of representatives and senate committees and divisions with jurisdiction over transportation budget and policy as to the content of the reports submitted, discrepancies investigated, the progress achieved by the railroad common carriers towards achieving the standards and guidelines under clauses (3) and (4), and any recommendations for legislation to achieve compliance with the standards and guidelines within a reasonable period of time.

The cost of preparing this report is under \$5,000.

Lighting Reports Summary

[Minnesota Statutes 219.375](#), subd. 1 and 3, direct Class I railroads, Class II railroads and the union representative for each railroad to submit reports to the commissioner of transportation. According to the statute, these reports should include specific information regarding lighting conditions in rail yards where train cars or locomotives are frequently switched, repaired, inspected, assembled or disassembled at night. After the railroad yard lighting reports are received, the commissioner is to advise the transportation committees about the content of reports, any discrepancies investigated, the railroads progress toward achieving the standards and guidelines identified in the statute, and any recommendations for legislation to achieve compliance.

BNSF Railway, Canadian Pacific Railway, Canadian National Railroad, Union Pacific Railroad, and United Transportation Union's SMART Transportation Division submitted initial reports to Minnesota Department of Transportation's Office of Freight and Commercial Vehicle Operations. Three of the four railroads stated in their cover letters that while they were submitting information in a spirit of cooperation, each believes that some or all of the requirements placed on the railroads in [Minn. Stat. 219.375](#) may be preempted by federal laws. No documentation or analysis was provided supporting the contention of preemption by federal laws.

The respondents provided most of the information required by the statute with some exceptions:

- BNSF, CN and CP did not initially provide information on the status or maintenance practices of yard lighting. Some of this information was received in a follow-up letter.
- UP did not provide information on maintenance status or practices either. Then, in a subsequent response, it was reported that lighting is being installed at the Roseport yard, but the response did not include a specific timeline or plan regarding the Roseport yard.
- Initially, UTU did not include descriptions of the nature and placement of lighting, lighting maintenance status or lighting related maintenance practices of individual yards. Information on the nature and placement of yard lighting was received in a follow-up response, but the UTU reported that only the railroads have access to maintenance records, therefore the maintenance information was not available from the UTU.

MnDOT Analysis

MnDOT evaluated the yard lighting information received and requested additional information from each railroad and the worker's representative. Based on the evaluations of all the information received, MnDOT sent an initial summary of conclusions and recommendations directed to each railroad and to the UTU. All respondents were given the opportunity to edit and comment on the conclusions and recommendations.

Summary of Results

The railroads and the UTU did not agree on whether existing lighting is required at 14 rail yards. There are two additional yards where the railroad and the UTU disagree that the lighting is The American Railway Engineering and Maintenance-of-Way Association compliant. In cases where the UTU did not have data, the lighting condition was reported as unknown. At 20 of these locations, the UTU follow-up response stated that it disagrees with the railroad's assertion that the lighting is AREMA compliant.

The discrepancies between the railroads and the UTU reports over the applicability of subd. 1 to a particular yard likely arises from one or more of the following:

- **Interpretation of “frequent operations.”** The statute lacks a specific definition of the term “frequent operations.” For example, a railroad may not consider seasonal operations as frequent, but the UTU may do so. The UTU defined frequent operation as occurring five days or nights per calendar week.
- **Lack of data to assess operations.** MnDOT is not aware of any data available from the railroads or the UTU to quantify operational activities by time of day. In addition, railroad operations are not constant, so any attempt to conduct spot audits will not resolve discrepancies. Determining conformance with the statute is difficult without a source of complete and objective data.
- **Interpretation of the statute.** [Subd. 5 of Minn. Stat. 219.375](#) imposes an obligation on the railroads to install lighting that meets the standards listed in the statute in certain rail yards by Dec. 31, 2015. The UTU and the railroads have different interpretations of which rail yards are subject to this requirement. The UTU interprets subd. 5 as having much broader applicability than the interpretation by the railroads. The UTU indicated that all the yards the UTU identified in its reports as “Applicable to Statute” would, under its interpretation, be subject to the standards imposed by subd. 5 of the statute.
- **Geographic and operational yard definitions.** There are instances of the UTU and the railroad using different terminology to identify a rail yard. For example, the UTU identified part of the CP yard in St. Paul as the “Dunn” yard, but the CP considers that area to be part of the “St. Paul” yard. The UTU asserts that the “Dunn” yard is within two miles of the refinery in St. Paul Park, but according to MnDOT's evaluation, it is more than two miles. This discrepancy could be the result of different definitions of the yard boundary.

The discrepancies within the reports from the railroads and the UTU over yard lighting compliance with the AREMA guidelines likely arises from one or more of the following:

- The statute does not require reporting entities to conduct lighting measurements or to provide measurement data to MnDOT. Even if data was provided, the locations and methods of measurement could result in different conclusions.
- CN is relying on the use of personal illumination devices to meet the AREMA guidelines. CN reported that light levels were inconsistent and frequently below the AREMA-recommended level of illumination when only measuring light levels from fixed lighting. MnDOT reviewed the CN reports, the AREMA guideline and referenced the Illuminating Engineering Society Handbook. Based on this review, MnDOT concludes that relying on personal illumination devices does not meet the intent of the AREMA guideline. CN should only report compliance/non-compliance based upon fixed lighting levels.

Lighting maintenance issues were also difficult to evaluate for each yard because of a lack of specific reporting by the railroads and the UTU. The railroads provided general procedure information. The UTU provided some specific complaints that could not be evaluated due to lack of railroad response time. The UTU reported that only the railroads keep maintenance records. Based upon railroad responses to follow-up questions on some of the complaints provided by the UTU, it appears the railroads responded to those lighting maintenance requests.

The information provided by the railroads and the UTU regarding energy conservation, glare reduction, minimization of light pollution and preservation of the natural night environment was not specific or detailed. The railroads generally identified the type of lighting. The UTU stated that the yards were in industrial areas and that they do not have access to information to fulfill this requirement.

Progress Achieved

Since this is the first report, the charts in Appendix A indicate the current lighting status at the yards. Any progress achieved will then be included in the 2016 report.

Recommendations

MnDOT recommends the following to improve compliance and reporting:

- Develop a definition of “frequent operations” that clearly defines the extent of operation needed to meet the statutory requirements, including seasonal operations.
- Clarify the intent of subd. 5 so that all parties understand which yards must meet the December 2015 lighting installation date. This can be accomplished by providing a specific list of yards subject to subd. 5 to all parties.
- In order to simplify reporting, comparison and analysis, MnDOT proposes to provide a standard form for all respondents to fill out. The form would be based on rail yards mutually agreed to by the railroads and UTU. The information provided would be the starting point for a MnDOT investigation.

Reporting fields on the form would be limited to the following:

- Yard Name
- Frequent nighttime switching occurs (Yes/No);
- If frequent nighttime switching occurs, provide the following information:
 - Lighting is/is not installed;
 - Type and location of lighting;
 - Installed lighting meets the AREMA guideline (Yes/No), and;
 - Lighting is maintained per subd. 2 (Yes/No)
- Define the role for the Minnesota Occupational Safety and Health Administration in inspecting and enforcing worker safety in rail yards. Under [Minn. Stat. 182.653](#), MNOSHA has the authority to inspect and enforce the Minnesota Occupational Safety and Health Act and federal standards, including minimum levels of illumination as described in [Minnesota Administrative Rules 5205.0120](#).

The employer is responsible to ensure the workplace’s illumination meets this rule. MNOSHA could determine if a rail yard’s illumination meets safety requirements and could also act on any immediate safety concerns in the rail yards, including lighting installation and maintenance. MNOSHA could report on investigated complaints and compliance to those standards as an objective party. MnDOT will work with MNOSHA to clarify roles and procedures on rail yard lighting and other yard safety issues, including any additional statutory changes necessary to better ensure railroad worker safety.

Appendix A: Railroad Yard Lighting Charts

BNSF Rail Yards Chart: Comparison of Yard Lighting Status

Yard	Does the yard fall under the operation requirements of subd. 1?		Is lighting installed and operational at the yard?		Is the lighting AREMA compliant?	
	BNSF	UTU	BNSF	UTU	BNSF	UTU
Dayton's Bluff	No ¹	Yes		No		No
Duluth Rice Point	No ²	Yes		Yes		Unknown
Minneapolis Union	No ³	Yes		No		No
Northtown	Yes	Yes Section	Yes	Yes	Yes	Unknown
Willmar	Yes	Yes Section 4 ⁴	Yes	Yes	Yes	Unknown
Dilworth	Yes	Yes Section 4 ⁴	Yes	Yes	Yes	Unknown
Midway	Yes	No	Yes	Yes	Yes	Yes
East Grand Forks	No ⁵	Yes Section 4 ⁴		Yes		Unknown
St. Cloud	No ⁶	unknown		Yes		Unknown
Staples	No	No		Yes		Unknown
Grand Rapids	No	No		Yes		Unknown
Little Falls	No	No		No		No
Florence	No	No		No		No
Minneapolis Grove	No	No		No		No

¹ BNSF reports that switching does not occur between sunset and sunrise. Infrequent assembly of trains occurs.

² BNSF reports that infrequent switching of rail cars between sunset and sunrise may occur on some afternoon shifts during months of shorter daylight hours. No evening switch job is at this location. Operations are subject to BNSF operational needs and may shift to other locations at BNSF's discretion.

³ BNSF reports that no switching of rail cars between sunset and sunrise occurs. Yard tracks are used as storage tracks and no switching occurs. Switching, car loading or unloading are done on the strip tracks which are lighted.

⁴ Section 4 of the UTU report incorrectly referred to subd. 5 of the statute.

⁵ BNSF reports that switching does not occur between sunset and sunrise.

⁶ BNSF reports that due to seasonal hours of daylight, some switching of rail cars may occur between the extended hours of sunset and sunrise during afternoon shifts. No evening switching jobs are at this location.

CN Rail Yards Chart: Comparison of Yard Lighting Status

Yard	Does the yard fall under the operation requirements of subd. 1?		Is lighting installed and operational ¹ at the yard?		Is the lighting AREMA compliant?	
	CN	UTU	CN	UTU	CN	UTU
Proctor	Yes	Yes	Yes	Yes	Yes ¹	No
Rainier	Yes	Yes	Yes	Yes	Yes ¹	Unknown
Keenan	Yes	Yes	Yes	Yes	Yes ¹	Unknown
Missabe	No	Yes		No		Unknown
Wilpen	No	Yes		No		No
Two Harbors	Yes		Yes	Yes	Yes ¹	Unknown
Biwabik	No	Yes ²		No		No
Virginia	Yes	Unknown	Yes	Yes	Yes ¹	Unknown
Steelton	No			Yes		Unknown
Allen Junction	No			No		No
Wales	No	Yes ³		No		No

¹ CN reports inconsistent lighting from fixed, overhead lighting, but that AREMA recommended levels are exceeded with the use of personal illumination.

² UTU describes as seasonal night operations, dependent on the Duluth port being open for approximately 10 months.

³ UTU describes as seasonal night operations.

CP Rail Yards Chart: Comparison of Yard Lighting Status

Yard	Does the yard fall under operation requirements of subd. 1?		Is lighting installed and operational at the yard?		Is the lighting AREMA compliant?		Is there a plan to meet the lighting requirement?
	CP	UTU	CP	UTU	CP	UTU	CP
St. Paul	Yes		Yes		Yes		Issue advanced to the Safety Advisory Board for evaluation.
Dunn ¹	NA	Yes		No		Unknown	
New Ulm	Yes	Yes	Yes	No	Unknown	Unknown	
Northfield		Yes		Yes		Unknown	
Hastings ²	No	Yes		No		Unknown	Issue advanced to the Safety Advisory Board for evaluation.
Thief River Falls	Yes		Yes	Yes	Yes	Unknown	
Humboldt	Yes		Yes	Yes	Yes	Unknown	
Shoreham	Yes		Yes	Yes	Yes	Unknown	
Glenwood	Yes	Yes	Yes	Yes	Yes	Unknown	
Glenwood East ³	NA			No		Unknown	
Waseca	Yes		Yes	Yes	Yes	Unknown	
River Junction	Yes	Yes	unknown	Yes	unknown	Unknown	
River Junction South ⁴	NA			No		Unknown	
Noyes ⁵	NA			Yes		Unknown	
Austin	Yes		Yes		Yes		
Wells	Yes		Yes		Yes		
Tracy	Yes		Yes		Yes		

¹ CP considers Dunn to be part of the St. Paul Yard.

² CP reports that night time operations occur on an irregular basis at Hastings. They do not consider this yard to meet the frequency requirement of subd. 1.

³ CP considers Glenwood East to be part of the Glenwood Yard.

⁴ CP considers River Junction South to be part of the River Junction Yard.

⁵ CP does not consider the operations at Noyes to meet any definition of yard operations.

UP Rail Yards Chart: Comparison of Yard Lighting Status

Yard	Does the yard fall under the operation requirements of subd. 1?		Is lighting installed and operational at the yard?		Is the lighting AREMA compliant?		Is there a plan to meet the lighting requirement?
	UP	UTU	UP	UTU	UP	UTU	UP
Roseport North	Yes ¹	Yes	being installed	No	No	No	States lighting being installed but not described
Roseport South				No		No	
Western Avenue	Yes	Yes	No	No	No	No	
Merriam	Yes	Yes	No	No	No	No	
St. Paul Hoffman	Yes	Yes	Yes	Yes	Yes	Unknown	
East Minneapolis	Yes	Yes	Yes	No	Blank	No	
Albert Lea	Yes	Yes	Yes	No	Yes	No	
So. St. Paul	Yes		Yes	Yes	Yes	Unknown	
Valley Park	Yes		Yes	Yes	Yes	Unknown	
Mankato	Yes ²		Yes	Yes	Yes	Unknown	
Mankato New Yard				Yes		Unknown	
Worthington	Yes		Yes	Yes	Yes	Unknown	
Winona	Yes		Yes	No	Yes	No	
Elk Creek	Yes		Yes	Yes	Yes	Unknown	
Hazel Park	Yes		No		No		

¹ UP report describes one yard as Roseport and does not distinguish between North and South areas

² UP report describes one yard as Mankato and does not distinguish between Mankato and Mankato new

Appendix B: All Responses from Railroads and the UTU



January 14, 2015

VIA CERTIFIED MAIL AND EMAIL DELIVERY

Commissioner Charles A. Zelle
Minnesota Department of Transportation
395 John Ireland Boulevard
St. Paul, MN 55155-1899

William Gardner
Director of Freight Planning
Minnesota Department of Transportation
395 John Ireland Boulevard, St. Paul, MN
55155-1899

Re: Request for extension of time to comply with railroad yard lighting statute

Dear Commissioner and Mr. Gardner:

On behalf of BNSF Railway Company ("BNSF"), I submit this request for an extension to comply with the railroad yard lighting status report requirements set forth in Minnesota Statutes section 219.375, subd. 1. Pursuant to the statute, BNSF's annual report complying with the directives of subdivision 1 is due on January 15, 2015. BNSF seeks an extension of time until February 15, 2015 to file the lighting status report.

BNSF is a Class I railroad common carrier operating numerous railroad yards in Minnesota that may be implicated by the requirements of section 219.375, subd. 1. Accordingly, the brief extension of time to file the report is necessary to comply with the reporting requirements for those yards.

Please direct any questions to my attention. Thank you for your anticipated cooperation.

Sincerely,

Brian Sweeney



Brian J. Sweeney
Region AVP
State Government Affairs

BNSF Railway Company
325 Cedar Street, Suite 620
St. Paul, MN 55101
651-298-2458 Office

Brian.Sweeney@bnsf.com

March 12, 2014

Mr. William Gardner
Director of Freight Planning
Minnesota Department of Transportation
395 John Ireland Boulevard
St. Paul, MN 55155-1899

Dear Mr. Gardner,

In accordance with the requirements of the railroad yard lighting status report set forth in Minnesota Statutes section 219.375, subdivision 1 and BNSF Railway Company's request for an extension, we would like to submit the attached as our formal response.

BNSF remains committed to providing a safe work environment for all of our employees and the communities in which we operate. Should any additional information be needed in regard to this submission please direct those inquiries to my attention. Thank you for your cooperation and support in granting the initial extension to the timeline.

Sincerely,

Brian Sweeney

Brian Sweeney
State Government Affairs

cc

Tom Albanese
Ryan Ringelman
Michael Dodge
Jonathon Schmidt

In order to ensure national uniformity of regulation, federal law regulates all aspects of the railroad industry. Railroads are exclusively governed by federal laws and regulations. Nonetheless, in good-faith cooperation with the State of Minnesota, BNSF Railway Company (“BNSF”) submits the following report pursuant to Minnesota Statutes 2014 § 219.375 Railroad Yard Lighting.

Subdivision 1. Lighting status reports submitted by railroad common carriers. By January 15 of each year, each Class I and Class II railroad common carrier that operates one or more railroad yards in this state where, between sunset and sunrise, cars or locomotives are frequently switched, repaired, or inspected, or where trains are assembled and disassembled, shall submit to the commissioner of transportation a plan that:

- (1) identifies all railroad yards operated by the railroad where the described work is frequently accomplished between sunset and sunrise;

BNSF identifies those railway yards as follows:

- **Northtown Yard, Minneapolis, MN**
- **Midway Yard, St. Paul, MN**
- **Dilworth Yard, Dilworth, MN**
- **Willmar Yard, Willmar, MN**

No other locations on BNSF property in Minnesota meet the criteria noted above

- (2) describes the nature and placement of lighting equipment currently in use in the yard and the maintenance status and practices regarding this equipment;

BNSF designs and maintains lighting to the Illuminating Engineering Society (“IES”) guidelines. Although the IES guidelines do not address light entering property adjacent to BNSF’s property, BNSF has developed rules, implemented mechanisms, and purchased technology to address concerns regarding light pollution. BNSF employees must follow rules and are provided with appropriate equipment (*i.e.*, lanterns, site specific lights, etc.) that allow operations to be safely performed with minimal effect on the surrounding community.

All outdoor lighting is HID or LED. Light fixtures are mounted on either wood or metal poles. Wood poles are 25 to 45 feet high. Metal poles are 25 to 120 feet high and are single poles or 4 leg towers. Maintenance status is maintained by annual inspections, site safety team inspections and monitoring by employees working at night. Light fixtures needing repair are reported to a third party contractor who then issues a work order to the in house electrical crews for repair. All repairs are made in compliance with Minnesota Electrical Code and Chapter 326B and are made by electricians licensed as Journeymen or Master Electricians by the State of Minnesota.

- (3) states whether the lighting meets or exceeds guidelines for illumination established by the American Railway Engineering and Maintenance-of-Way Association;

It is our opinion that the lighting installed meets or exceeds either our existing guidelines as set forth in the Illuminating Engineering Society (“IES”) of North America’s Handbook or the established guidelines set forth by AREMA.

- (4) describes whether existing lighting is installed and operated in a manner consistent with energy conservation, glare reduction, minimization of light pollution, and preservation of the natural night environment; and

All new installations are designed with the requirements of this subsection utilized and considered as necessary. Some installations are over 20 years old when no such guidelines existed. However, all old incandescent and Mercury Vapor lighting has been upgraded to more efficient HID and/or LED style for energy conservation and for environmental concerns.

- (5) identifies plans and timelines to bring into compliance railroad yards that do not utilize and maintain lighting equipment that meets or exceeds the standards and guidelines under clauses (3) and (4), or states any reason why the standards and guidelines should not apply.

BNSF does not have any rail yards in Minnesota that are located within two miles of a petroleum refinery having a crude oil production capacity of 150,000 or more barrels per day. BNSF’s Minnesota rail yards—as well as the rail yards in other states throughout BNSF’s system—comply with federal laws and regulations that govern all aspects of railroad operations. BNSF utilizes rules, mechanisms, and technology to ensure safe working environments while minimizing effects on the surrounding communities.

Any perceived issues regarding a railroad’s facility must be resolved by the Surface Transportation Board (“STB”), which has the sole jurisdiction over nearly all aspects of railroad operations, properties and facilities (including rail yards). A state law that attempts to regulate a railroad’s operation, construction, or facility interferes with the STB’s exclusive jurisdiction.

219.375 RAILROAD YARD LIGHTING.

Subdivision 1. **Lighting status reports submitted by railroad common carriers.** By January 15 of each year, each Class I and Class II railroad common carrier that operates one or more railroad yards in this state where, between sunset and sunrise, cars or locomotives are frequently switched, repaired, or inspected, or where trains are assembled and disassembled, shall submit to the commissioner of transportation a plan that:

(1) identifies all railroad yards operated by the railroad where the described work is frequently accomplished between sunset and sunrise;

(2) describes the nature and placement of lighting equipment currently in use in the yard and the maintenance status and practices regarding this equipment;

(3) states whether the lighting meets or exceeds guidelines for illumination established by the American Railway Engineering and Maintenance-of-Way Association;

(4) describes whether existing lighting is installed and operated in a manner consistent with energy conservation, glare reduction, minimization of light pollution, and preservation of the natural night environment; and

(5) identifies plans and timelines to bring into compliance railroad yards that do not utilize and maintain lighting equipment that meets or exceeds the standards and guidelines under clauses (3) and (4), or states any reason why the standards and guidelines should not apply.

Subd. 2. **Maintenance of lighting equipment.** A railroad common carrier that is required to file a report under subdivision 1 shall maintain all railroad yard lighting equipment in good working order and shall repair or replace any malfunctioning equipment within 48 hours after the malfunction has been reported to the carrier. Repairs must be made in compliance with, or to exceed the standards in, the Minnesota Electrical Code and chapter 326B.

Subd. 3. **Lighting status reports submitted by worker representative.** By January 15 of each year, the union representative of the workers at each railroad yard required to submit a report under subdivision 1 shall submit to the commissioner of transportation a report that:

(1) describes the nature and placement of lighting equipment currently in use in the yard and maintenance status and practices regarding the equipment;

(2) describes the level of maintenance of lighting equipment and the carrier's promptness in responding to reports of lighting malfunction;

(3) states whether the available lighting is adequate to provide safe working conditions for crews working at night; and

(4) describes changes in the lighting equipment and its adequacy that have occurred since the last previous worker representative report.

Subd. 4. **Commissioner response.** The commissioner shall review the reports submitted under subdivisions 1 and 3. The commissioner shall investigate any discrepancies between lighting status reports submitted under subdivisions 1 and 3, and shall report findings to the affected yard's owner and worker representative. The commissioner shall annually advise the chairs and ranking minority members of the

house of representatives and senate committees and divisions with jurisdiction over transportation budget and policy as to the content of the reports submitted, discrepancies investigated, the progress achieved by the railroad common carriers towards achieving the standards and guidelines under clauses (3) and (4), and any recommendations for legislation to achieve compliance with the standards and guidelines within a reasonable period of time.

Subd. 5. Required lighting. By December 31, 2015, a railroad common carrier shall establish lighting that meets the standards and guidelines under subdivision 1, clauses (3) and (4), at each railroad yard where:

(1) between sunset and sunrise:

(i) locomotives, or railcars carrying placarded hazardous materials, are frequently switched, repaired, or inspected; or

(ii) trains with more than 25 tanker railcars carrying placarded hazardous materials are assembled and disassembled; and

(2) the yard is located within two miles of a petroleum refinery having a crude oil production capacity of 150,000 or more barrels per day.

History: 2014 c 312 art 11 s 27



Brian J. Sweeney
Regional AVP
State Government Affairs

BNSF Railway Company
Suite 620
325 Cedar St.
St. Paul, MN 55101

Tel: (651) 298-2458

March 23, 2015

Mr. William Gardner
Director, Office of Freight
Minnesota Department of Transportation

Dear Mr. Gardner:

Following is the supplemental information you requested regarding lighting at BNSF yards in Minnesota:

Dayton's Bluff: BNSF does not switch rail cars between sunset and sunrise. Infrequent assembly of trains occurs during this period, but no switching operations.

Union Yard: BNSF does not switch rail cars between sunset and sunrise. Yard tracks are used as storage tracks and no switching occurs. Switching, car loading or unloading is done on the strip tracks, which are lighted.

East Grand Forks: We do not switch rail cars between sunset and sunrise.

St. Cloud: Due to seasonal hours of daylight, some BNSF switching of rail cars may occur between the extended hours of sunset and sunrise during afternoon shifts. However, BNSF does not have evening switching jobs in this location. These operations are subject to BNSF operational need and flexibility and may shift to other locations at BNSF's discretion.

Rice's Point: Like St. Cloud, BNSF may infrequently switch rail cars between sunset and sunrise on some afternoon shifts during months of shorter daylight hours. Again, there is no evening switch job at this location. These operations are subject to BNSF's operational need and flexibility and may shift to other locations at BNSF's discretion.

Sincerely,

A handwritten signature in black ink that reads "Brian J. Sweeney".

Brian J. Sweeney



www.cn.ca

Network Operations

James Schwichtenberg
Director of Safety & Regulatory
17650 S. Ashland Ave
Homewood, IL 60430
T 708-332-3224
F 708-332-4472

April 02, 2015

William Gardner
Minnesota Department of Transportation
395 John Ireland Blvd.
St. Paul, MN 55155-1899

Re: Canadian Nation Railroad Yard Lighting Report

Dear Director Gardner:

Thank you for your March 16, 2015, letter to CN requesting follow up information. Please see the following; we hope this information fully responds to your request.

Additional information on the following requirements of the statute required:

1. Subdivision 1, clause (2), requires you to describe the nature and placement of lighting equipment currently in use in the yard and the maintenance status and practices regarding this equipment.

Lighting is used to conduct business through out CN's rail yards especially for track and signal maintainers. Poles are positioned 100ft from the track and 400ft pole to pole. Yard lighting maintenance is performed on a quarterly basis.

2. Subdivision 1, clause (4) requires you to describe whether existing lighting is installed and operated in a manner consistent with energy conservation, glare reduction, minimization of light pollution, and preservation of the natural night environment.

Original lighting consisted of High Pressure Sodium. Over the years we have converted to new ballasts, Metal Halide lighting and currently to LED lighting. Overall approximately 30% of our yard lighting has been upgraded.

I also request that you provide additional information to clarify your response in the following areas:

1. Please provide documentation from AREMA that verifies use of personal illumination devices is adequate to meet the lighting guidelines. If no supporting documentation can be provided, your report should address Subdivision 1, clause (5) that requires you to identify plans and timelines to bring into compliance railroad yards that do not utilize and

maintain lighting equipment that meets or exceeds the standards and guidelines under clauses (3) and (4), or states any reason why the standards and guidelines should not apply.

The AREMA document has recommended light measurements within general areas of the switching lead, body tracks, and pulls out leads. CN would note that these are recommendations for railroad companies. CN also notes the AREMA report does not give specific information to the nature of the recommended lighting, or state that handheld /portable (given to each CN employee) illumination would be inadequate.

The document provides recommendations based on seeing tasks. Some examples are switch points when checking position of switch, walking conditions during switching and inspecting, and air hose illumination while coupling hoses. CN data (See ANNEX 1) from field testing shows that illumination levels produced with a portable illumination device far exceed the AREMA recommendations cited in the state legislation.. The below chart compares recommended levels to tested levels with and without a portable illumination device:

Sample Number	Location	AREMA Recommended Illumination Level (footcandles)	Actual Level with Portable Illumination (footcandles)
1	Switch P501, at Feet of Employee, Lantern OFF	2.00	1.6
2	Switch P501, at Feet of Employee, Lantern ON	2.00	250
3	Switch P501, 5-feet away, Lantern OFF	2.00	2.1
4	Switch P501, 5-feet away, Lantern ON	2.00	51.3
5	Switch P501, 10-feet away, Lantern OFF	2.00	3.7
6	Switch P501, 10-feet away, Lantern ON	2.00	15.8
7	Switch P501, 20-feet away, Lantern OFF	2.00	1.9
8	Switch P501, 20-feet away, Lantern ON	2.00	5.9

In the scenario above the illumination ranged from 1.6 to 3.7 footcandles with the lantern off and 5.9 to 250 footcandles with the lantern on. Footcandle ratings of 250, 51, 15, or 18 at a switch point are more desirable than 2.0. CN long standing processes far exceed the recommended AREMA levels and the statute requirements. CN purchases and provides employees with CN-

approved illumination devices and has operating rules that require the use of those portable illumination devices.

Portable illumination devices carry additional benefits. They are easy to replace when defective, unlike a fixed lighting structure that may require significant time to repair. Portable devices do not add to light pollution as the addition to fixed light would. Portable illumination can be focused by an employee when additional lighting is desired while fixed lighting cannot.

The addition of fixed lighting can increase risk and create new hazards. Common parallel spacing of yard body track is approximately 13 feet from track center to track center. In a situation where the railroad did not meet the recommended level of illumination from fixed lighting, additional poles and fixed lighting would have to be installed. The poles between tracks can create a close clearance situation and would increase the risk of serious injury or death in the event an employee struck a pole while riding the side of a railcar. In some cases, the railroad may have to remove a body track to accommodate the installation of a pole line. This would reduce the amount of capacity in a rail yard. The maintenance of additional lighting in the rail yard would require employees to foul railroad track to perform those duties. This would expose employees to the hazards recognized in the railroad industry.

CN believes the use of portable illumination meets and exceeds the AREMA recommended level of illumination as well as an exemption from the requirements based on the information provided herein.

2. Does the operation at the Missabe Junction, Wales, Biwabek or Wilpen yards fall under the requirements of Statute 219.375 at any time during the year?

The above mentioned yards are owned by CN. However, CN does not, between sunset and sunrise, frequently switch, repair or inspect, or assemble and disassemble trains. On occasion CN will pick up a block of cars and haul out of the yard. The nature of the operation does not meet the criteria of Statute 219.375.

However, employees working in those yards also have access and are required to use the handheld / portable lighting.

3. Please provide information from the testing that you conducted so that we can evaluate and report back to the legislature. This should include the location, measurement procedure and test results.

ANNEX 1: 7592-15 Report Lantern Lighting Survey - Proctor, Minnesota (2-16-2015).pdf

ANNEX 2: 7592-15 Report Lighting Survey Proctor Minnesota (1-29-2015).pdf

ANNEX 3: 7592-15 Report Lighting Survey -Two Harbors, Minnesota (2-2-2015).pdf

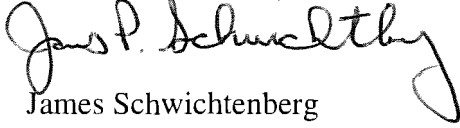
ANNEX 4: 7592-15 Report Lighting Survey - Ranier (1-31-2015).pdf

ANNEX 5: 7592-15 Report Lighting Survey -Keenan, Minnesota (1-30-2015).pdf

ANNEX 6: 7592-15 Report Lighting Survey - Virginia, Minnesota (1-30-2015).pdf

Please direct any questions to my attention or to Patrick Waldron, Senior Manager, Public and Government Affairs at 708-332-4377. Thank you for your consideration.

Sincerely,


James Schwichtenberg

Arrowhead Consulting & Testing, Inc.

5606 Miller Trunk Highway • Duluth, Minnesota 55811 • Phone: 218/729-0987 • Fax: 218/729-8297

February 17, 2015

Mr. Lyndle Burton
CN Railway
17641 South Ashland Avenue
Homewood, Illinois 60430

**RE: Project #7592-15
Lantern Lighting Evaluation
Proctor, Minnesota**

INTRODUCTION

Arrowhead Consulting & Testing, Inc. (Arrowhead) has prepared this document to report results of a lantern lighting evaluation conduct for CN at their rail yard located in Proctor, Minnesota (Site) on February 16, 2015. The assessment was to evaluate the lighting on the lanterns used by employees.

FIELD ACTIVITIES

Arrowhead personnel, Greg Heinecke, documented the illumination levels of the lanterns at various parameters on February 16, 2015. The illumination levels were measured in footcandles. A CN representative escorted Arrowhead personnel during the evaluation. The time of the evaluation was after sunset at 2000 hours.

Measurement were taken at the feet of the employee. A measurement was taken when the lantern was both off and on, then 5, 10 and 20 feet away from the employee. The type of lantern used was a Star Headlight and Lantern Company type with dual LED bulbs.

FIELD EQUIPMENT AND ANALYTICAL METHODS

The following tables summarize field instruments and the method of analysis used for the assessment:

Table 1. Field Instruments Used

Identification Number	Instrument	Calibration Date
39029249 / 202	Testo 545 – Light Meter	12/11/2014

SUMMATION OF RESULTS

The following Table 2 summarizes the footcandles measurement observed during the evaluation.

Table 2. Results

Sample Number	Sample Location	Illumination Level (Footcandles)
1	Switch P501, at Feet of Employee, Lantern Off	1.6
2	Switch P501, at Feet of Employee, Lantern On	250
3	Switch P501, 5-feet away, Lantern Off	2.1
4	Switch P501, 5-feet away, Lantern On	51.3
5	Switch P501, 10-feet away, Lantern Off	3.7
6	Switch P501, 10-feet away, Lantern On	15.8
7	Switch P501, 20-feet away, Lantern Off	1.9
8	Switch P501, 20-feet away, Lantern On	5.9
9	Yard Light at Office	1.9

SUMMARY

Arrowhead Consulting & Testing personnel conducted a lantern lighting survey at the Proctor, Minnesota rail yard on February 16, 2015. The illumination ranged from 1.6 to 3.7 footcandles with the lantern off and 5.9 to 250 footcandles with the lantern on.

Thank you for the opportunity to assist you on this project. If you have any questions or comments regarding this report, please call me at (218) 729-0987 or (218) 590-5969.

Report Prepared By:

Arrowhead Consulting & Testing, Inc.



Linda K. Thiry

President/Industrial Hygienist

Lm009

Calibration certificate

We measure it.



L0140-14

Instrument description Testo 545 (0560 0545)

Manufacturer Testo

Type of instrument Light meter

Serial no. instrument 39029249 / 202

Type of probe n/a

Serial no. probe n/a

Customer Galson Laboratories

Address 6601 Kirkville Road

City, State Zip E, Syracuse, NY 13057

Customer ID no. 1225109

Order no. 7188245

Date of calibration (mo/day/yr) 12/11/2014

Re-calibration date 12/11/2015

Testo, Inc. calibration laboratory certifies that the described measuring system was calibrated in compliance with an accredited quality assurance system, which has been certified to **ISO 9001:2008**. The reference gases used for calibration are traceable to the national standards of the **National Institute of Standards and Technology (NIST)** or other national standards. Should no national standards exist, the measuring procedure corresponds with the technical regulations and norms valid at the time of the measurement. All measured data can be found on the following page(s) of this calibration certificate. The data and results documented in this certificate pertain only to the listed instrument and probe. The certificate applies to the span of points tested within the manufacturer's specified range of use.


This calibration certificate may not be reproduced other than in full except with the permission of the issuing laboratory. Calibration certificates without signature and seal are not valid.

Seal

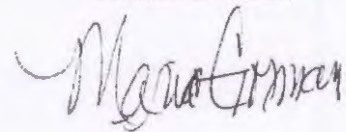
Supervisor

Service technician

12/18/2014



John DelPezzo



Maria Gorman

Testo Inc.
 40 White Lake Road
 Sparta, NJ, 07871
 Phone: (800) 227-0729

Calibration certificate

We measure it.



L0140-14

measuring equipment

Reference	NIST Traceable #	Cal Due Date	ID-no.
Led Light Reference Standard	1311041	11/4/2015	IPM-342

Ambient conditions

Temperature 23 °C

Humidity 30 %

Barometric Pressure 993mbar

measurement procedure

Comparison of the displayed reference value and the Unit Under Test (UUT) value.

measuring results

reference measurement (fc)	As found UUT measurement (fc)	Pass/Fail	As left UUT measurement (fc)	deviation as left (fc)	Allowed Deviation (\pm fc)	Pass/Fail
10.20	10.4	Pass	10.4	0.20	0.5	Pass
75.80	76.6	Pass	76.6	0.80	3.8	Pass
149.80	152.5	Pass	152.5	2.70	7.5	Pass
182.90	182.9	Pass	182.9	0.00	9.0	Pass

special remarks

Arrowhead Consulting & Testing, Inc.

5606 Miller Trunk Highway • Duluth, Minnesota 55811 • Phone: 218/729-0987 • Fax: 218/729-8297

February 3, 2015

Mr. Lyndle Burton
CN Railway
17641 South Ashland Avenue
Homewood, Illinois 60430

**RE: Project #7592-15
Yard Lighting Evaluation
Two Harbors, Minnesota**

INTRODUCTION

Arrowhead Consulting & Testing, Inc. (Arrowhead) has prepared this document to report results of a yard lighting evaluation conduct for CN at their rail yard located in Two Harbors, Minnesota (Site) on February 2, 2015. The assessment was to evaluate the lighting in the yard for illumination.

FIELD ACTIVITIES

Arrowhead personnel, Greg Heinecke, documented the illumination levels at the yard switches and other requested areas on February 2, 2015. The illumination levels were measured in footcandles. A CN representative escorted Arrowhead personnel during the evaluation. The time of the evaluation was after sunset at approximately 1800 hours.

Measurement taken at the switches were at rail level and approximately five (5) feet from the track. Measurement taken by yard office was approximately four (4) feet from ground and approximately 10 feet from the building. All footcandle values were in the horizontal plane. No information was available on the type of lighting fixtures in place at the time of the survey. Appendix A contains a diagram of sample locations.

FIELD EQUIPMENT AND ANALYTICAL METHODS

The following tables summarize field instruments and the method of analysis used for the assessment:

Table 1. Field Instruments Used

Identification Number	Instrument	Calibration Date
39029249 / 202	Testo 545 – Light Meter	12/11/2014

SUMMATION OF RESULTS

The following Table 2 summarizes the footcandles measurement observed during the evaluation.

Table 2. Results

Sample Number	Sample Location	Illumination Level (Footcandles)
1	R1 – East of Dump Pocket	0.0
2	R3 to R2 Crossover	0.6
3	R4 to R3 Switch	0.0
4	R4 to R3 Cross Over West End	0.0
5	Riverside Switch	0.1
6	Tie Up Switch	0.6
7	R1 Leads Switch	0.0
8	R3/R4 Lead Switch	0.0
9	R5/R6 Lead Switch	0.0
10	R7/Commercial Yard	0.0
11	R3/R4 West	0.1
12	R5/R6 West	0.0
13	R7/Commercial Inside Switch	0.0
14	R20 Commercial	0.1
15	R18 N038 – Lighting Blocked by Rail Cars	0.0
16	0N028 – Lighting blocked by Rail Cars	0.0
17	N029 – Lighting Blocked by Rail Cars	0.0
18	N030 – Lighting Blocked by Rail Cars	0.0
19	R17/R18 East End	0.7
20	R20 East End	0.0
21	R1 East	1.6
22	R2 East	0.4
23	R3 East	0.1
24	North/South Fuel Switch	0.6
25	South Run/Stub Track	0.2
26	Mat. Yard/Wye Track	0.2
27	South Run	0.7
28	Wye Track	1.6
29	Track 10/11	1.0
30	Track 12/13	1.7
31	Track 13	2.2
32	Track 14	2.6
33	Track 15	2.3
34	Track N760 Reclaim	2.1
35	N571 RIP Track	1.1
36	1Dock/2Dock	0.2
37	OutGo Switch	0.2
38	1OG/2OG North	1.6
39	No Test	
40	3OG North	3.6

Sample Number	Sample Location	Illumination Level (Footcandles)
41	2OG South	0.1
42	1Og/3OG South	0.0
43	Reclaim	0.7
44	Docks	3.8
45	Docks	0.6
46	Docks	0.5
47	Docks	0.6
48	Docks	0.5
49	Yard Office	0.8

SUMMARY

Arrowhead Consulting & Testing personnel conducted a lighting survey at the Two Harbors, Minnesota rail yard on February 2, 2015. The illumination at the switches ranged from 0.0 to 3.8 footcandles.

Thank you for the opportunity to assist you on this project. If you have any questions or comments regarding this report, please call me at (218) 729-0987 or (218) 590-5969.

Report Prepared By:

Arrowhead Consulting & Testing, Inc.

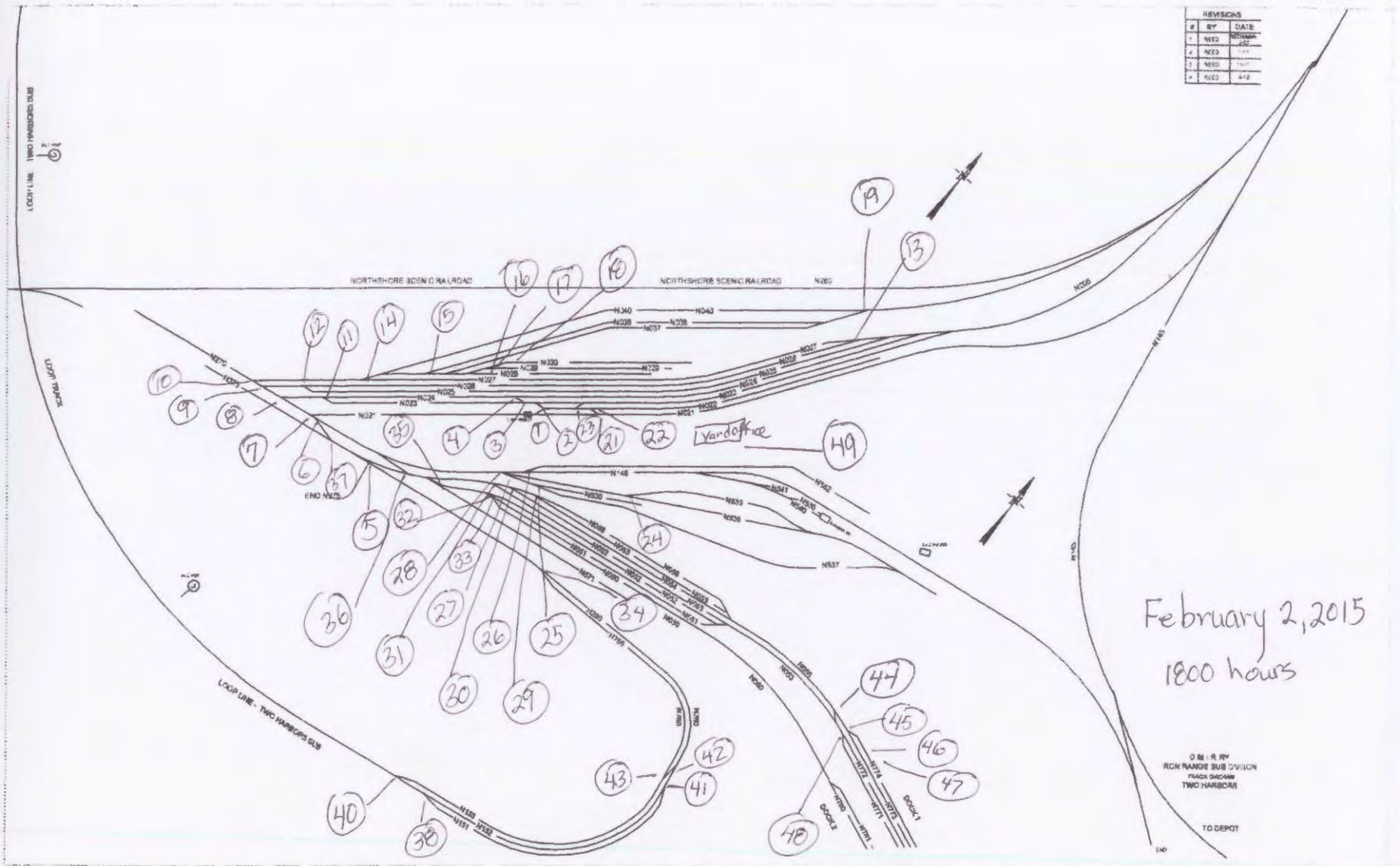


Linda K. Thiry
President/Industrial Hygienist

APPENDIX A

Diagram – Sample Locations


REVISIONS		
#	BY	DATE
1	MSD	1-22-15
2	MSD	1-27-15
3	MSD	1-27-15
4	MSD	1-28-15



APPENDIX B
Calibration Certificate

Lm009

Calibration certificate

We measure it. 

L0140-14

Instrument description Testo 545 (0560 0545)
Manufacturer Testo
Type of instrument Light meter
Serial no. instrument 39029249 / 202
Type of probe n/a
Serial no. probe n/a
Customer Galson Laboratories
Address 6601 Kirkville Road
City, State Zip E, Syracuse, NY 13057
Customer ID no. 1225109
Order no. 7188245
Date of calibration (mo/day/yr) 12/11/2014
Re-calibration date 12/11/2015

Testo, Inc. calibration laboratory certifies that the described measuring system was calibrated in compliance with an accredited quality assurance system, which has been certified to **ISO 9001:2008**. The reference gases used for calibration are traceable to the national standards of the **National Institute of Standards and Technology (NIST)** or other national standards. Should no national standards exist, the measuring procedure corresponds with the technical regulations and norms valid at the time of the measurement. All measured data can be found on the following page(s) of this calibration certificate. The data and results documented in this certificate pertain only to the listed instrument and probe. The certificate applies to the span of points tested within the manufacturer's specified range of use.

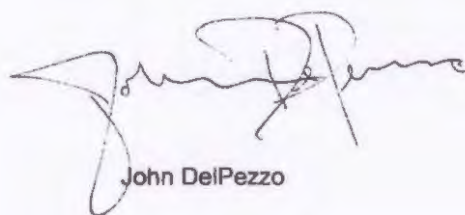
This calibration certificate may not be reproduced other than in full except with the permission of the issuing laboratory. Calibration certificates without signature and seal are not valid.

Seal

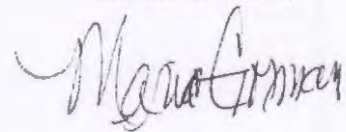
Supervisor

Service technician

12/18/2014



John DelPezzo



Maria Gorman

Maria Gorman

Calibration certificate

We measure it.



L0140-14

measuring equipment

Reference	NIST Traceable #	Cal Due Date	ID-no.
Led Light Reference Standard	1311041	11/4/2015	IPM-342

Ambient conditions

Temperature 23 °C

Humidity 30 %

Barometric Pressure 993mbar

measurement procedure

Comparison of the displayed reference value and the Unit Under Test (UUT) value.

measuring results

reference measurement (fc)	As found UUT measurement (fc)	Pass/Fail	As left UUT measurement (fc)	deviation as left (fc)	Allowed Deviation (\pm fc)	Pass/Fail
10.20	10.4	Pass	10.4	0.20	0.5	Pass
75.80	76.6	Pass	76.6	0.80	3.8	Pass
149.80	152.5	Pass	152.5	2.70	7.5	Pass
182.90	182.9	Pass	182.9	0.00	9.0	Pass

special remarks

Arrowhead Consulting & Testing, Inc.

5606 Miller Trunk Highway • Duluth, Minnesota 55811 • Phone: 218/729-0987 • Fax: 218/729-8297

February 6, 2015

Mr. Lyndle Burton
CN Railway
17641 South Ashland Avenue
Homewood, Illinois 60430

**RE: Project #7592-15
Yard Lighting Evaluation
Proctor, Minnesota**

INTRODUCTION

Arrowhead Consulting & Testing, Inc. (Arrowhead) has prepared this document to report results of a yard lighting evaluation conduct for CN at their rail yard located in Proctor, Minnesota (Site) on January 29, 2015. The assessment was to evaluate the lighting in the yard for illumination.

FIELD ACTIVITIES

Arrowhead personnel, Greg Heinecke and Linda Thiry, documented the illumination levels at the yard switches and other requested areas on January 29, 2015. The illumination levels were measured in footcandles. A CN representative escorted Arrowhead personnel during the evaluation. The time of the evaluation was after sunset at approximately 1735 hours.

Measurement taken at the switches were at rail level and approximately five (5) feet from the track. Measurement taken by the yard office was approximately four (4) feet from ground and approximately 10 feet from the building. All footcandle values were in the horizontal plane. No information was available on the type of lighting fixtures in place at the time of the survey. Appendix A contains a diagram of sample locations.

FIELD EQUIPMENT AND ANALYTICAL METHODS

The following tables summarize field instruments and the method of analysis used for the assessment:

Table 1. Field Instruments Used

Identification Number	Instrument	Calibration Date
39029249 / 202	Testo 545 – Light Meter	12/11/2014

SUMMATION OF RESULTS

The following Table 2 summarizes the footcandles measurement observed during the evaluation.

Table 2. Results

Sample Number	Sample Location	Illumination Level (Footcandles)
1	389 -824 (7)	0.0
2	2E	0.1
3	2F	0.0
4	2 and 3 E	0.0
5	2 and 3 F	0.0
6	2F	0.8
7	5E	1.4
8	6E	0.4
9	7E	0.3
10	8E	0.3
11	5F	3.0
12	South Shop Switch	2.3
13	PB03 (P506) South	1.6
14	P501 South	0.4
15	P502 South	1.2
16	P503 South	0.8
17	P504 South	0.2
18	P501 North	0.0
19	P502 North	0.0
20	P503 North	0.0
21	P504 North	0.2
22	P505 North	0.7
23	P506 North	1.4
24	P510 North	0.6
25	North Shop Switch	0.8
26	PF03	0.1
27	2F/3F	0.6
28	5F (PF05)	1.2
29	P263	1.4
30	PE00X0-1.7	0.5
31	PE01 North	0.3
32	PE02 North	2.9
33	PE03 North	0.9
34	PE04 North	1.2
35	PE05 North	0.2
36	PE06 North	0.1
37	PE07 North	0.1
38	PE08/09 North	0.1
39	PB01	0.2
40	PB02	0.0

Sample Number	Sample Location	Illumination Level (Footcandles)
41	520	0.7
42	PB01/PB14	2.2
43	P522/523	0.0
44	PD14	0.1
45	PD15	0.0
46	PF24 South	0.2
47	PF25 South	0.3
48	PA260/PF26 South	0.3
49	PA 42 North	0.2
50	PF 25 North	0.7
51	PF 26 North	1.4
52	PF 24 North	unavailable
53	PA260 North	0.3
54	PA55/PA51A	0.2
55	PA52	0.2
56	PA53	0.0
57	PA54	0.3
58	P261	0.2
59	P262X010	0.0
60	PA55	0.1
61	PD07/PD06	0.0
62	PD01	0.0
63	PD02	0.3
64	PD03	0.2
65	PD04	0.2
66	195 (PD05)	0.4
67	PD12	0.7
68	PD07	1.9
69	PA53	0.3
70	PA42	0.1
71	PA44	0.1
72	Cross Over Switch P262X010	1.2
73	No Number	0.3
74	No Number	0.0
75	No Number	0.5
76	No Number	0.6
77	No Number	0.2
78	Middle of Yard	0.0
79	Yard Office	3.1

SUMMARY

Arrowhead Consulting & Testing personnel conducted a lighting survey at the Two Harbors, Minnesota rail yard on February 2, 2015. The illumination at the switches ranged from 0.0 to 3.0 footcandles.

Thank you for the opportunity to assist you on this project. If you have any questions or comments regarding this report, please call me at (218) 729-0987 or (218) 590-5969.

Report Prepared By:

Arrowhead Consulting & Testing, Inc.

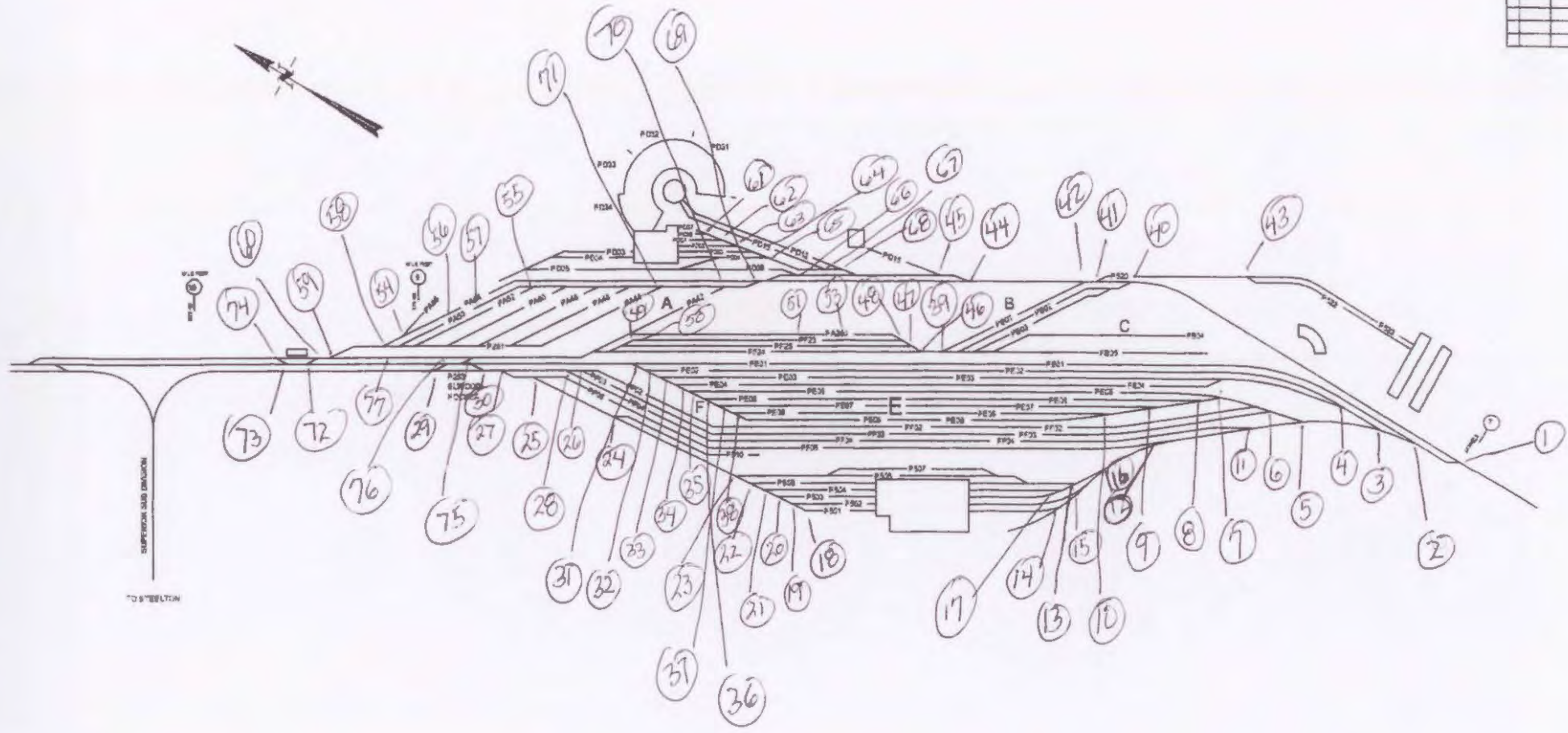
A handwritten signature in cursive script that reads "Linda K. Thiry".

Linda K. Thiry
President/Industrial Hygienist

APPENDIX A

Diagram – Sample Locations

REVISIONS		
#	BY	DATE
1	NEED	2/2/08
2	NEED	4/4
3	NEED	1/10/08
4	NEED	12/10
5	NEED	4/10
6	NEED	4/10



January 29, 2015
1935 hours

D.M.J.R. BY
MISSABE ELM DAVISON
TERRY CASHIN
PROCTOR VARD

APPENDIX B
Calibration Certificate

Lm009

Calibration certificate

We measure it.



L0140-14

Instrument description Testo 545 (0560 0545)

Manufacturer Testo

Type of instrument Light meter

Serial no. instrument 39029249 / 202

Type of probe n/a

Serial no. probe n/a

Customer Galson Laboratories

Address 6601 Kirkville Road

City, State Zip E, Syracuse, NY 13057

Customer ID no. 1225109

Order no. 7188245

Date of calibration (mo/day/yr) 12/11/2014

Re-calibration date 12/11/2015

Testo, Inc. calibration laboratory certifies that the described measuring system was calibrated in compliance with an accredited quality assurance system, which has been certified to **ISO 9001:2008**. The reference gases used for calibration are traceable to the national standards of the **National Institute of Standards and Technology (NIST)** or other national standards. Should no national standards exist, the measuring procedure corresponds with the technical regulations and norms valid at the time of the measurement. All measured data can be found on the following page(s) of this calibration certificate. The data and results documented in this certificate pertain only to the listed instrument and probe. The certificate applies to the span of points tested within the manufacturer's specified range of use.


This calibration certificate may not be reproduced other than in full except with the permission of the issuing laboratory. Calibration certificates without signature and seal are not valid.

Seal

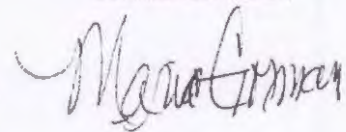
Supervisor

Service technician

12/18/2014



John DelPezzo



Maria Gorman

Maria Gorman

Calibration certificate

We measure it.



L0140-14

measuring equipment

Reference	NIST Traceable #	Cal Due Date	ID-no.
Led Light Reference Standard	1311041	11/4/2015	IPM-342

Ambient conditions

Temperature 23 °C

Humidity 30 %

Barometric Pressure 993mbar

measurement procedure

Comparison of the displayed reference value and the Unit Under Test (UUT) value.

measuring results

reference measurement (fc)	As found UUT measurement (fc)	Pass/Fail	As left UUT measurement (fc)	deviation as left (fc)	Allowed Deviation (\pm fc)	Pass/Fail
10.20	10.4	Pass	10.4	0.20	0.5	Pass
75.80	76.6	Pass	76.6	0.80	3.8	Pass
149.80	152.5	Pass	152.5	2.70	7.5	Pass
182.90	182.9	Pass	182.9	0.00	9.0	Pass

special remarks

Arrowhead Consulting & Testing, Inc.

5606 Miller Trunk Highway • Duluth, Minnesota 55811 • Phone: 218/729-0987 • Fax: 218/729-8297

February 2, 2015

Mr. Lyndle Burton
CN Railway
17641 South Ashland Avenue
Homewood, Illinois 60430

**RE: Project #7592-15
Yard Lighting Evaluation
Ranier, Minnesota**

INTRODUCTION

Arrowhead Consulting & Testing, Inc. (Arrowhead) has prepared this document to report results of a yard lighting evaluation conduct for CN at their rail yard located in Ranier, Minnesota (Site) on January 31, 2015. The assessment was to evaluate the lighting in the yard for illumination.

FIELD ACTIVITIES

Arrowhead personnel, Greg Heinecke, documented the illumination levels at the yard switches and other requested areas on January 31, 2015. The illumination levels were measured in footcandles. A CN representative escorted Arrowhead personnel during the evaluation. The time of the evaluation was after sunset at 1745 hours.

Measurement taken at the switches were at rail level and approximately five (5) feet from the track. Measurement taken by building were approximately four (4) feet from ground and approximately 10 feet from the building. All footcandle values were in the horizontal plane. No information was available on the type of lighting fixtures in place at the time of the survey.

FIELD EQUIPMENT AND ANALYTICAL METHODS

The following tables summarize field instruments and the method of analysis used for the assessment:

Table 1. Field Instruments Used

Identification Number	Instrument	Calibration Date
39029249 / 202	Testo 545 – Light Meter	12/11/2014

SUMMATION OF RESULTS

The following Table 2 summarizes the footcandles measurement observed during the evaluation.

Table 2. Results

Sample Number	Sample Location	Illumination Level (Footcandles)
1	1 st Switch – Main and #1 Extension	0.3
2	North Siding	0.0
3	North CU96 Switch	2.0
4	North CU95 Switch	0.1
5	South CU95 Switch	0.0
6	North Yard Lead	0.3
7	North CU92 Switch	0.5
8	North CU93 Switch	0.2
9	North CU94 Switch	0.1
10	Middle CU 94 Switch	4.7
11	South CU94 Switch	0.1
12	South CU93 Switch	4.3
13	South CU 92 Switch	0.1
14	South Yard Lead	0.7
15	North Leg	0.2
16	South North Siding	0.6
17	Outside Building	0.2

SUMMARY

Arrowhead Consulting & Testing personnel conducted a lighting survey at the Ranier, Minnesota rail yard on January 31, 2015. The illumination at the switches ranged from 0.0 to 4.7 footcandles.

Thank you for the opportunity to assist you on this project. If you have any questions or comments regarding this report, please call me at (218) 729-0987 or (218) 590-5969.

Report Prepared By:

Arrowhead Consulting & Testing, Inc.



Linda K. Thiry

President/Industrial Hygienist

APPENDIX A

Diagram – Sample Locations

Ranier track lengths in feet

Siding total: **12672**

Main and #1 extension total: **17424**

Spruce street to crossover Main and #1 extension: **8976**

Crossover Main and #1 extension to Van Lynn: **8448**

Spruce street to North yard switch: **4564**

Spruce street to South yard switch: **6864**

Spruce street to overhead bridge: **2640**

CU92: **2300**

CU93: **2150**

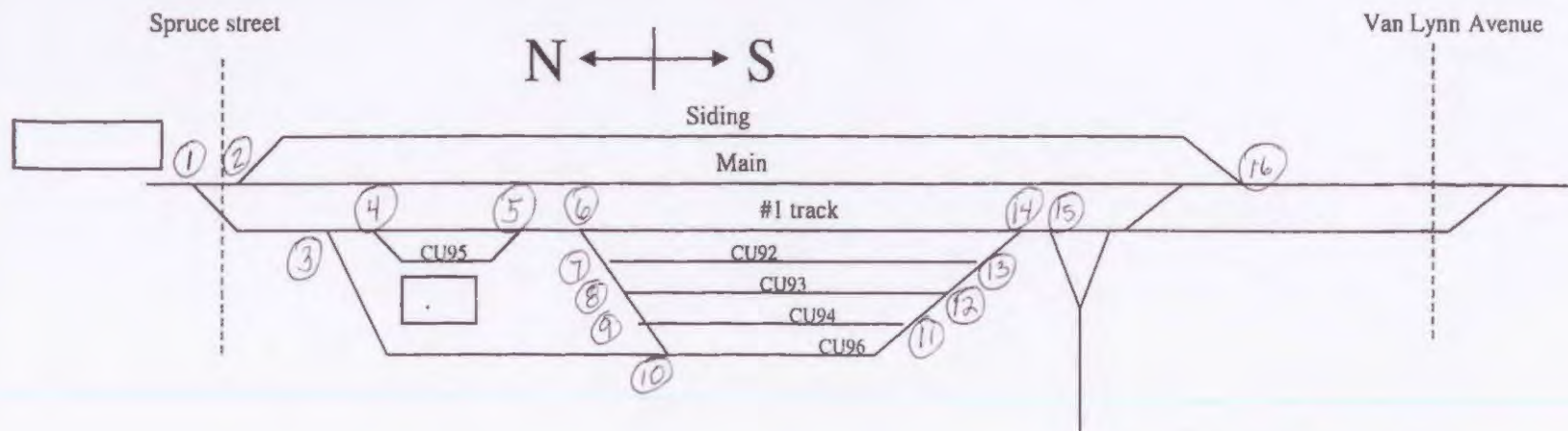
CU94: **1935**

CU95: **500**

CU96 total: **2950**

CU96 North lead switch to South lead switch: **1850**

CU96 North lead switch to North end of track: **1100**



By Chris Norman 5-2011

APPENDIX B
Calibration Certificate

Lm009

Calibration certificate

We measure it.



L0140-14

Instrument description Testo 545 (0560 0545)

Manufacturer Testo

Type of instrument Light meter

Serial no. instrument 39029249 / 202

Type of probe n/a

Serial no. probe n/a

Customer Galson Laboratories

Address 6601 Kirkville Road

City, State Zip E, Syracuse, NY 13057

Customer ID no. 1225109

Order no. 7188245

Date of calibration (mo/day/yr) 12/11/2014

Re-calibration date 12/11/2015

Testo, Inc. calibration laboratory certifies that the described measuring system was calibrated in compliance with an accredited quality assurance system, which has been certified to **ISO 9001:2008**. The reference gases used for calibration are traceable to the national standards of the **National Institute of Standards and Technology (NIST)** or other national standards. Should no national standards exist, the measuring procedure corresponds with the technical regulations and norms valid at the time of the measurement. All measured data can be found on the following page(s) of this calibration certificate. The data and results documented in this certificate pertain only to the listed instrument and probe. The certificate applies to the span of points tested within the manufacturer's specified range of use.


This calibration certificate may not be reproduced other than in full except with the permission of the issuing laboratory. Calibration certificates without signature and seal are not valid.

Seal

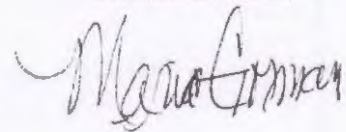
Supervisor

Service technician

12/18/2014



John DelPezzo



Maria Gorman

Testo Inc.
 40 White Lake Road
 Sparta, NJ, 07871
 Phone: (800) 227-0729

Calibration certificate

We measure it.



L0140-14

measuring equipment

Reference	NIST Traceable #	Cal Due Date	ID-no.
Led Light Reference Standard	1311041	11/4/2015	IPM-342

Ambient conditions

Temperature 23 °C

Humidity 30 %

Barometric Pressure 993mbar

measurement procedure

Comparison of the displayed reference value and the Unit Under Test (UUT) value.

measuring results

reference measurement (fc)	As found UUT measurement (fc)	Pass/Fail	As left UUT measurement (fc)	deviation as left (fc)	Allowed Deviation (\pm fc)	Pass/Fail
10.20	10.4	Pass	10.4	0.20	0.5	Pass
75.80	76.6	Pass	76.6	0.80	3.8	Pass
149.80	152.5	Pass	152.5	2.70	7.5	Pass
182.90	182.9	Pass	182.9	0.00	9.0	Pass

special remarks

Arrowhead Consulting & Testing, Inc.

5606 Miller Trunk Highway • Duluth, Minnesota 55811 • Phone: 218/729-0987 • Fax: 218/729-8297

February 2, 2015

Mr. Lyndle Burton
CN Railway
17641 South Ashland Avenue
Homewood, Illinois 60430

**RE: Project #7592-15
Yard Lighting Evaluation
Keenan, Minnesota**

INTRODUCTION

Arrowhead Consulting & Testing, Inc. (Arrowhead) has prepared this document to report results of a yard lighting evaluation conduct for CN at their rail yard located in Keenan, Minnesota (Site) on January 30, 2015. The assessment was to evaluate the lighting in the yard for illumination.

FIELD ACTIVITIES

Arrowhead personnel, Greg Heinecke, documented the illumination levels at the yard switches and other requested areas on January 30, 2015. The illumination levels were measured in footcandles. A CN representative escorted Arrowhead personnel during the evaluation. The time of the evaluation was after sunset at 1800 hours.

Measurement taken at the switches were at rail level and approximately five (5) feet from the track. Measurement taken by building were approximately four (4) feet from ground and approximately 10 feet from the building. All footcandle values were in the horizontal plane. No information was available on the type of lighting fixtures in place at the time of the survey. Appendix A contains a diagram of sample locations.

FIELD EQUIPMENT AND ANALYTICAL METHODS

The following tables summarize field instruments and the method of analysis used for the assessment:

Table 1. Field Instruments Used

Identification Number	Instrument	Calibration Date
39029249 / 202	Testo 545 – Light Meter	12/11/2014

SUMMATION OF RESULTS

The following Table 2 summarizes the footcandles measurement observed during the evaluation.

Table 2. Results

Sample Number	Sample Location	Illumination Level (Footcandles)
1	C016 - North	0.2
2	C001 - North	0.1
3	ML - North	0.0
4	C002 - North	0.2
5	C003- North	0.0
6	C510 - North	0.1
7	C004 – North	0.7
8	C005 – North	0.6
9	C006 – North	0.1
10	C-007 – North	0.0
11	C008 – North	0.1
12	C009 – North	0.1
13	C011 – North	0.1
14	C710 – North	0.3
15	C014 – North	0.4
16	C014 – North	3.0
17	C015 – North	3.3
18	C510 – North	3.2
19	C501 - North	0.0
20	ML (C105) – South	0.0
21	ML –South	0.0
22	C001 – South	0.5
23	C002 – South	0.7
24	C003 – South	0.3
25	C004 – South	0.2
26	C005 – South	0.1
27	C006 – South	0.1
28	C007 – South	0.0
29	C008 - South	0.1
30	C009 – South	0.2
31	C011 – South	0.5
32	C013 - South	0.3
33	C014 – South	0.1
34	C015 – South	0.2
35	RIP - South	0.1
36	C016 -South	0.3
37	C017 - South	2.3
38	Coo3/C004 - South	0.1
39	C020 - South	0.3

SUMMARY

Arrowhead Consulting & Testing personnel conducted a lighting survey at the Keenan, Minnesota rail yard on January 30, 2015. The illumination at the switches ranged from 0.0 to 3.3 footcandles.

Thank you for the opportunity to assist you on this project. If you have any questions or comments regarding this report, please call me at (218) 729-0987 or (218) 590-5969.

Report Prepared By:

Arrowhead Consulting & Testing, Inc.

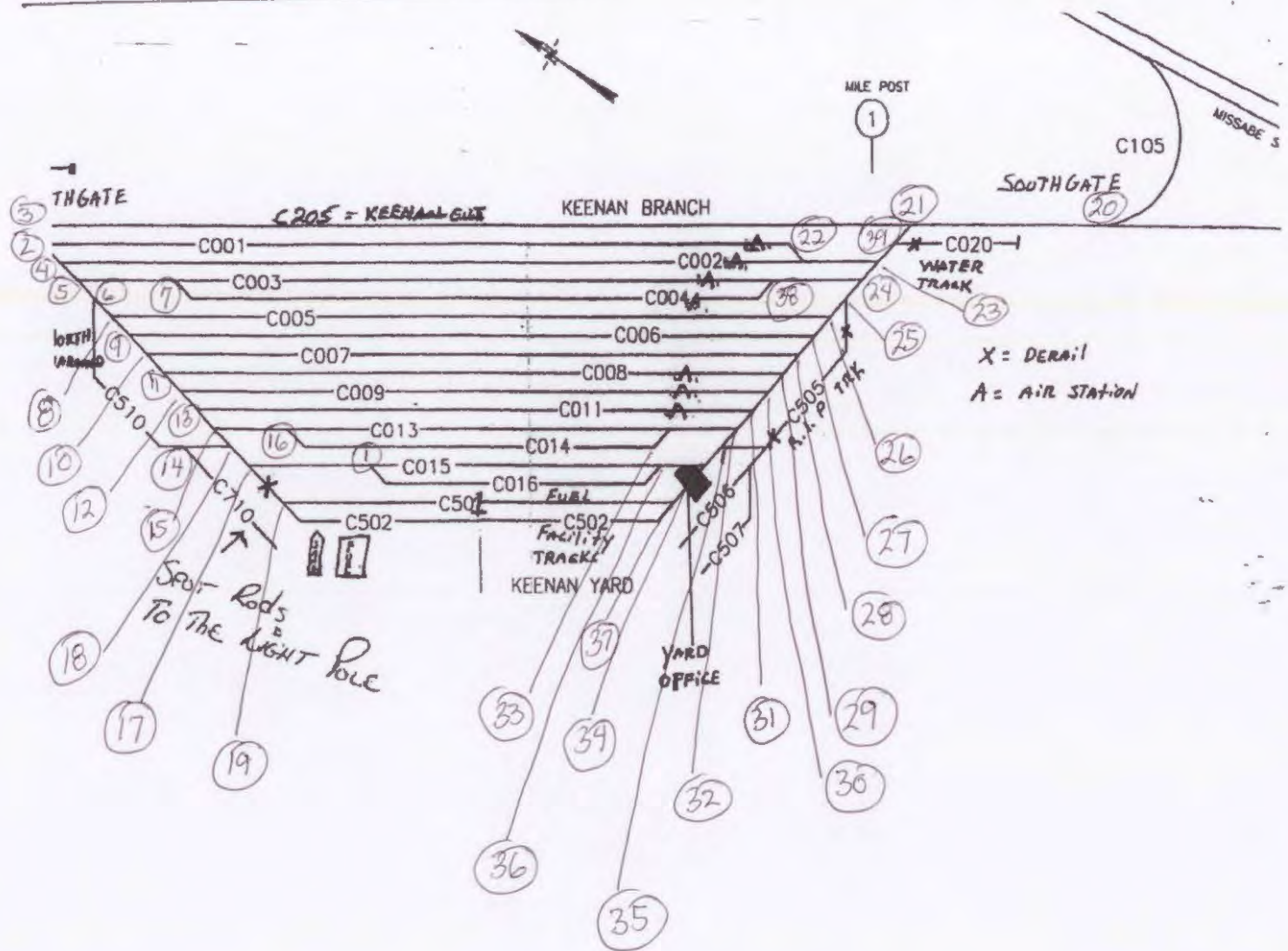


Linda K. Thiry

President/Industrial Hygienist

APPENDIX A

Diagram – Sample Locations



January 30, 2015
1800 hours

APPENDIX B
Calibration Certificate

Lm009

Calibration certificate

We measure it.



L0140-14

Instrument description Testo 545 (0560 0545)

Manufacturer Testo

Type of instrument Light meter

Serial no. instrument 39029249 / 202

Type of probe n/a

Serial no. probe n/a

Customer Galson Laboratories

Address 6601 Kirkville Road

City, State Zip E, Syracuse, NY 13057

Customer ID no. 1225109

Order no. 7188245

Date of calibration (mo/day/yr) 12/11/2014

Re-calibration date 12/11/2015

Testo, Inc. calibration laboratory certifies that the described measuring system was calibrated in compliance with an accredited quality assurance system, which has been certified to **ISO 9001:2008**. The reference gases used for calibration are traceable to the national standards of the **National Institute of Standards and Technology (NIST)** or other national standards. Should no national standards exist, the measuring procedure corresponds with the technical regulations and norms valid at the time of the measurement. All measured data can be found on the following page(s) of this calibration certificate. The data and results documented in this certificate pertain only to the listed instrument and probe. The certificate applies to the span of points tested within the manufacturer's specified range of use.


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Seal

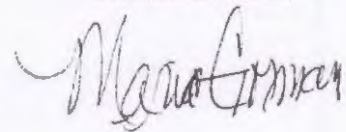
Supervisor

Service technician

12/18/2014



John DelPezzo



Maria Gorman

Testo Inc.
 40 White Lake Road
 Sparta, NJ, 07871
 Phone: (800) 227-0729

Calibration certificate

We measure it.



L0140-14

measuring equipment

Reference	NIST Traceable #	Cal Due Date	ID-no.
Led Light Reference Standard	1311041	11/4/2015	IPM-342

Ambient conditions

Temperature 23 °C

Humidity 30 %

Barometric Pressure 993mbar

measurement procedure

Comparison of the displayed reference value and the Unit Under Test (UUT) value.

measuring results

reference measurement (fc)	As found UUT measurement (fc)	Pass/Fail	As left UUT measurement (fc)	deviation as left (fc)	Allowed Deviation (\pm fc)	Pass/Fail
10.20	10.4	Pass	10.4	0.20	0.5	Pass
75.80	76.6	Pass	76.6	0.80	3.8	Pass
149.80	152.5	Pass	152.5	2.70	7.5	Pass
182.90	182.9	Pass	182.9	0.00	9.0	Pass

special remarks

Arrowhead Consulting & Testing, Inc.

5606 Miller Trunk Highway • Duluth, Minnesota 55811 • Phone: 218/729-0987 • Fax: 218/729-8297

February 2, 2015

Mr. Lyndle Burton
CN Railway
17641 South Ashland Avenue
Homewood, Illinois 60430

**RE: Project #7592-15
Yard Lighting Evaluation
Virginia, Minnesota**

INTRODUCTION

Arrowhead Consulting & Testing, Inc. (Arrowhead) has prepared this document to report results of a yard lighting evaluation conduct for CN at their rail yard located in Virginia, Minnesota (Site) on January 30, 2015. The assessment was to evaluate the lighting in the yard for illumination.

FIELD ACTIVITIES

Arrowhead personnel, Greg Heinecke, documented the illumination levels at the yard switches and other requested areas on January 30, 2015. The illumination levels were measured in footcandles. A CN representative escorted Arrowhead personnel during the evaluation. The time of the evaluation was after sunset at 1930 hours.

Measurement taken at the switches were at rail level and approximately five (5) feet from the track. Measurement taken by building were approximately four (4) feet from ground and approximately 10 feet from the building. All footcandle values were in the horizontal plane. No information was available on the type of lighting fixtures in place at the time of the survey. Appendix A contains a diagram of sample locations.

FIELD EQUIPMENT AND ANALYTICAL METHODS

The following tables summarize field instruments and the method of analysis used for the assessment:

Table 1. Field Instruments Used

Identification Number	Instrument	Calibration Date
39029249 / 202	Testo 545 – Light Meter	12/11/2014

SUMMATION OF RESULTS

The following Table 2 summarizes the footcandles measurement observed during the evaluation.

Table 2. Results

Sample Number	Sample Location	Illumination Level (Footcandles)
1	1/2 Switch	0.2
2	#2 Back Lead	0.0
3	#2/3 South Switch	0.0
4	Back Lead #13	0.0
5	Back Lead 4	0.0
6	Back Lead 3	0.0
7	Back Lead 2	0.0
8	Back Lead 1/2	0.0

SUMMARY

Arrowhead Consulting & Testing personnel conducted a lighting survey at the Virginia, Minnesota rail yard on January 30, 2015. The illumination at the switches ranged from 0.0 to 0.2 footcandles.

Thank you for the opportunity to assist you on this project. If you have any questions or comments regarding this report, please call me at (218) 729-0987 or (218) 590-5969.

Report Prepared By:

Arrowhead Consulting & Testing, Inc.



Linda K. Thiry

President/Industrial Hygienist

APPENDIX A

Diagram – Sample Locations

VIRGINIA YARD

TO NANIER

MAINTENANCE BUILDING



HUNTERD 8200'

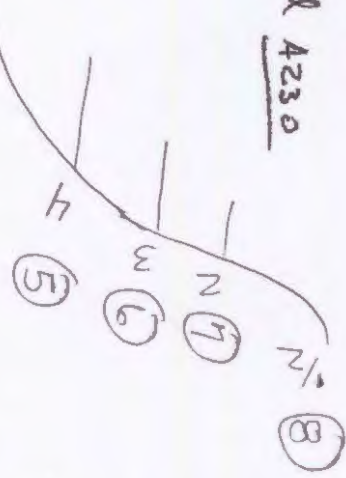
Back lead 4230

A20 4
A20 3
A20 2
A20 1
2-0178
2-4091
4-5120

MLL

January 30, 2015
1930 hours

current layout of switches



Hexion
TO GEORGIA PACIFIC



TO POKEGAMA

Shelton

Former DMIR


TBird
North

ADN
VAL. P.

APPENDIX B
Calibration Certificate

Lm009

Calibration certificate

We measure it. 

L0140-14

Instrument description Testo 545 (0560 0545)

Manufacturer Testo

Type of instrument Light meter

Serial no. instrument 39029249 / 202

Type of probe n/a

Serial no. probe n/a

Customer Galson Laboratories

Address 6601 Kirkville Road

City, State Zip E, Syracuse, NY 13057

Customer ID no. 1225109

Order no. 7188245

Date of calibration (mo/day/yr) 12/11/2014

Re-calibration date 12/11/2015

Testo, Inc. calibration laboratory certifies that the described measuring system was calibrated in compliance with an accredited quality assurance system, which has been certified to **ISO 9001:2008**. The reference gases used for calibration are traceable to the national standards of the **National Institute of Standards and Technology (NIST)** or other national standards. Should no national standards exist, the measuring procedure corresponds with the technical regulations and norms valid at the time of the measurement. All measured data can be found on the following page(s) of this calibration certificate. The data and results documented in this certificate pertain only to the listed instrument and probe. The certificate applies to the span of points tested within the manufacturer's specified range of use.

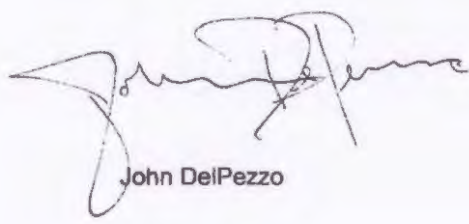
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Seal

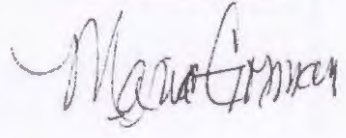
Supervisor

Service technician

12/18/2014



John DelPezzo



Maria Gorman

Maria Gorman

Testo Inc.
 40 White Lake Road
 Sparta, NJ, 07871
 Phone: (800) 227-0729

Calibration certificate

We measure it.



L0140-14

measuring equipment

Reference	NIST Traceable #	Cal Due Date	ID-no.
Led Light Reference Standard	1311041	11/4/2015	IPM-342

Ambient conditions

Temperature 23 °C

Humidity 30 %

Barometric Pressure 993mbar

measurement procedure

Comparison of the displayed reference value and the Unit Under Test (UUT) value.

measuring results

reference measurement (fc)	As found UUT measurement (fc)	Pass/Fail	As left UUT measurement (fc)	deviation as left (fc)	Allowed Deviation (\pm fc)	Pass/Fail
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75.80	76.6	Pass	76.6	0.80	3.8	Pass
149.80	152.5	Pass	152.5	2.70	7.5	Pass
182.90	182.9	Pass	182.9	0.00	9.0	Pass

special remarks



William M Tuttle
General Counsel - US

Suite 1000
120 South 6th Street
Minneapolis MN 55402
USA

T 612 904 5966
F 612 851 5647
bill_tuttle@cpr.ca

March 18, 2015

Via Certified Mail Return Receipt Requested and Email: william.gardner@state.mn.us

William Gardner, Director
Office of Freight and Commercial Vehicles
Minnesota Department of Transportation
395 John Ireland Boulevard
St. Paul, MN 55155-1899

Re: Minnesota Yard Lighting Statute

Dear Mr. Gardner:

Enclosed please find Canadian Pacific's report regarding lighting at its yards in Minnesota. Soo Line Railroad Company and Dakota Minnesota & Eastern Railroad Corporation are sister subsidiaries of Canadian Pacific Railway Company and both do business as Canadian Pacific ("CP"). This report covers both Soo (St. Paul, Glenwood, Thief River Falls, Shoreham (Minneapolis) and Humboldt (Minneapolis)) and DME (Austin, Wells, Tracy and Waseca) facilities. Thank you for your patience while we prepared our initial report.

CP believes a number of the requirements imposed by the Minnesota statutory provisions are likely preempted by federal laws. CP is presenting this report in the spirit of cooperation with the State of Minnesota. CP does not waive its right to assert that federal law preempts all or part of the Minnesota Yard Lighting Statute.

Should you have any questions about our report, please do not hesitate to contact me.

Yours very truly,

William M. Tuttle
General Counsel U.S.

Enclosure

cc: Patrick Mooney
Herb Jones

Canadian Pacific Yard Lighting Report--Minnesota

Yard	DME/SOO	Nature of Lighting	Placement of Lighting	Meets or Exceeds Arema Guidelines	Consistent with Energy Conservation	Glare Reduction	Minimization of light Pollution	Preservation of Natural Night Environment
Austin, MN	DME	Wood poles with roadway fixtures	Switch leads	yes	yes	yes	yes	yes
Wells, MN	DME	Wood poles with roadway fixtures	Switch leads	yes	yes	yes	yes	yes
Tracy, MN	DME	Wood poles with roadway fixtures	Switch leads	yes	yes	yes	yes	yes
Waseca, MN	DME	Wood poles with roadway fixtures	Switch leads	yes	yes	yes	yes	yes
St Paul, MN	SOO	Wood poles along with some high mast stadium style lighting	Throughout yard	yes	yes	yes	yes	yes
Glenwood, MN	SOO	Wood poles with one additional stadium style high pole/lighting	Switch leads	yes	yes	yes	yes	yes
Thief River Falls, MN	SOO	Wood poles with roadway fixtures	Switch leads	yes	yes	yes	yes	yes
Humboldt	SOO	Wood poles along with some high mast stadium style lighting	Throughout Yard	yes	yes	yes	yes	yes
Shoreham	SOO	Wood poles along with some high mast stadium style lighting	Throughout Yard	yes	yes	yes	yes	yes



Marie van Ultert
Legal Counsel – US

Suite 1000
120 South 6th Street
Minneapolis MN 55402
USA

T 612 851 5665
F 612 851 5647

marie_vanultert@cpr.ca

April 2, 2015

Via Certified Mail Return Receipt Requested and Email: william.gardner@state.mn.us

William Gardner, Director
Office of Freight and Commercial Vehicles
Minnesota Department of Transportation
395 John Ireland Boulevard
St. Paul, MN 55155-1899

Re: Minnesota Yard Lighting Statute

Dear Mr. Gardner:

I am writing in response to your follow-up request to Bill Tuttle for clarification of CP's lighting report.

1. There are some differences in the yards listed in your report and that from the workers' representative. In particular we need information as to the applicability of the statute for the following locations:
 - a. New Ulm
 - b. River Junction and River Junction South
 - c. Hastings
 - d. Dunn
 - e. Glenwood East
 - f. Noyes

Response:

CP prepared its report based on locations that are designated as "yards" in CP's timetable. The Minnesota Statute implicitly defines yard much more broadly (essentially locations where night time switch occurs "frequently" although "frequently" is not defined). With respect to Dunn and Glenwood East, CP considers Dunn to be part of our St. Paul Yard and Glenwood East to be part of our Glenwood Yard, both of which were addressed in our previous report.

With respect to New Ulm and River Junction (and River Junction South, which we consider to be part of River Junction), attached please find CP's supplemental report. With respect to Hastings, night time switching occurs on an irregular basis that we do not believe should be considered frequent. Nonetheless, CP has included Hastings on its supplemental report.

With respect to Noyes, CP does not believe that location constitutes a "yard" under any definition.

2. Please provide information on the method used or testing conducted to determine AREMA compliance.

Response:

As an initial matter, Minn. Stat. § 219.375, Subd. 1(3) only requires that the plan “state[] whether the lighting meets or exceeds guidelines for illumination established by” AREMA, it does not require that CP “provide information on the method used or testing conducted to determine AREMA compliance.” However, in the interest of cooperation, CP states that it periodically conducts light studies with a digital light meter at its yards to confirm AREMA compliance. Attached are reports from CP’s recent light studies at the Glenwood, St. Paul, and Shoreham yards which all indicate full compliance with AREMA. Additionally, as stated in our initial response, CP does not waive its right to assert that federal law preempts all or part of the Minnesota Yard Lighting Statute.

3. In the attached documentation provided by the workers’ representative, it appears that lighting issues have been reported for the Dunn, La Crescent and Hastings yards. Please review and comment on what the issues are with lighting at these yards and what your plan is to address them.

Response:

In 2014 and 2015, multiple lighting issues were brought forward to the Joint Health and Safety Committee for the Twin Cities Terminal. Most of the issues were specific to lights that were already in place and either had burnt out bulbs, insufficient wattage or intermittent operations. The locations of these issues varied. Each of these specifically identified locations was addressed and in most cases the lighting at that location was improved by either newer technology or in some cases new installs.

Following are a few of these items pulled from the Health and Safety Committees Minutes in the month which they were closed out:

- March – Light #26 in St. Paul was replaced and all lights in the Yard were renumbered to allow for easier identification going forward.
- May – Issue w/ lighting in the Roundhouse Pits. Lights were replaced and items were closed.
- Oct – Light at Homer West was working intermittently and was replaced with upgraded fixture.
- Feb – Lighting was installed for Windsock locations at St. Paul Yard and is being finalized on the River Subdivision.

As to the item of overall “Yard Lighting” at Dunn Yard and Hastings Yard, these were brought up in a much broader and more general manner to the Twin Cities Health and Safety Committee. The Twin Cities Committee decided that the issue would need to be advanced to the system wide Safety Advisory Board for further evaluation. This was to be done in February of this year and is being evaluated at that level.

William Gardner
April 2, 2015
Page 3

Should you have any further questions about our report or this update, please do not hesitate to contact me.

Yours very truly,

A handwritten signature in black ink, appearing to read "Marie van Uiter". The signature is fluid and cursive, with a long horizontal stroke at the end.

Marie van Uiter
Legal Counsel – US

Enclosure

cc: Patrick Mooney
Herb Jones
Bill Tuttle



Shoreham 1.16 on 2/2/15

Shoreham 1.34 on 2/2/15

Old Depot Building?
Roadmasters office

30th Ave NE

65

Northeast Minneapolis © 2015 Google

Shoreham Ya
Google earth

28th Ave NE

St Paul Bowl 2.27 on 2/2/15



51

Point Douglas Rd-S

St Paul Hump 4.09 on 2/2/15



St Paul Bowl 4.55 on 2/2/15



© 2015 Google

Google earth





St Paul OYO 2.81 on 2/2/15



St Paul OYO East 1.01 on 2/2/15



St Paul 14.21 on 2/2/15



Shop Rd

ng Area

St Paul 1.09 on 2/2/15

St Paul Mechanical 1.36 on 2/2/15

Childs Rd

Shop Rd
Pigs Eye Lake Rd

© 2015 Google

Google earth

Tour Guide

1991

Imagery Date: 10/11/2014 44°56'39.02" N 93°03'11.81" W elev 748 ft eye alt 3262 ft

9:24 AM

UNION PACIFIC RAILROAD
13181 Crossroads Parkway No.
Ste. 500
City of Industry, California 91746
www.up.com

Melissa B. Hagan Senior General Attorney–Environmental Law
& National Environmental Counsel

562.566.4409 (o)
713.907.6810 (c)
mbhagan@up.com

February 20, 2015

Via Certified Mail Return Receipt Requested and Email:

William Gardner, Director
Office of Freight and Commercial Vehicles
Minnesota Department of Transportation
395 John Ireland Blvd.
St. Paul, MN 55155-1899
william.gardner@state.mn.us

RE: Minnesota Yard Lighting Statute

Dear Mr. Gardner:

Please find enclosed Union Pacific Railroad Company's ("Union Pacific") report regarding lighting at its yards in Minnesota. Thank you for your patience while we prepared the inaugural report. A number of the requirements imposed by the Minnesota statutory provisions may be preempted by federal laws. Despite, this, Union Pacific is presenting this report in the spirit of cooperation with the State of Minnesota. This cooperative effort should not be viewed as a waiver of our right to assert applicable federal preemption at a later date.

If you have any questions about our report, please do not hesitate to contact me.

Regards,

UNION PACIFIC RAILROAD COMPANY



Melissa B. Hagan

attach

Union Pacific Yard Lighting Report

Yard	Nature of lighting	Placement of lighting	Meets or exceeds AREMA guidelines	Consistent with energy conservation	Glare reduction	Minimization of light pollution	Preservation of natural night environment
Albert Lea	Wood poles with roadway fixtures	Switch leads	Yes	Yes	Yes	Yes	Yes
East Minneapolis	Wood poles with roadway fixtures	Parking					
Elk Creek	Roadway fixtures on wood poles	Switch leads	Yes	Yes	Yes	Yes	Yes
Hazel Park	No Lighting		No				
Mankato	Roadway fixtures on wood poles	Switch leads	Yes	Yes	Yes	Yes	Yes
Merriam	No Lighting		No				
Roseport (Koch Refinery)	Lighting is being installed	Installation at Switch leads	No				
South St.Paul-Park	Roadway fixtures on wood poles	Switch leads	Yes	Yes	Yes	Yes	Yes
St. Paul Hoffman	Roadway fixtures on wood poles	Switch leads	Yes	Yes	Yes	Yes	Yes
St. Paul Western Ave	No Lighting		No				
Valley Park	Roadway fixtures on wood poles	Switch leads	Yes	Yes	Yes	Yes	Yes
Winona	Roadway fixtures on wood poles	Switch leads	Yes	Yes	Yes	Yes	Yes
Worthington	Roadway fixtures on wood poles	Switch leads	Yes	Yes	Yes	Yes	Yes

Minnesota Legislative Board Report to the Minnesota Department of Transportation

Railroad Yard Lighting in Minnesota

January 15, 2015

UTU-SMART Transportation Division
Minnesota State Legislative Board
Phillip Qualy, State Director



Phillip J. Qualy
Legislative Director,
Chairperson

Nicholas J. Katich
Assistant Director

Brian L. Hunstad
Secretary



Labor & Professional Centre
411 Main Street / Suite 212
St. Paul, MN 55102
651-222-7500 (a)
651-222-7828 (f)
UTUMNLEGBD@VISI.COM

Minnesota Legislative Board
A Division of SMART, Sheet metal, Air, Rail and Transit Union
Printed In House

January 15, 2015

Commissioner Charles Zelle ✓
Minnesota Department of Transportation
395 John Ireland Boulevard
St. Paul, MN 55155

Mr. William Gardner
Director, Freight, Rail, Waterways
Minnesota Department of Transportation
395 John Ireland Boulevard
St. Paul, MN 55155

RE: UTU-SMART-TD Minnesota, Minnesota Railroad Yard Lighting Report.

Dear Commissioner Zelle and Director Gardner,

Pursuant to Minnesota Statute 219.375, Railroad Yard Lighting, 2014, enclosed herewith please find our UTU-SMART-TD Minnesota Legislative Board report to the Minnesota Department of Transportation.

The United Transportation Union, Sheet metal, Air, Rail, and Transportation Union, (UTU-SMART-TD) is the exclusive representative of the conductor's, switch person, yardmaster's, and remote control locomotive operator's contracts nationwide. The UTU-SMART-TD Minnesota Legislative Board is vested with the responsibility to protect the safety, legislative, and governmental affairs of our membership within the state of Minnesota.

We hope this information is helpful toward improving railroad safety and public security in Minnesota. In advance, thank you for your review of this information.

With kindest regards,

Phillip Qualy
Minnesota Legislative Board
United Transportation Union-SMART-TD

enclosure

cc: Mr. John Previsich, UTU-SMART-TD President
Mr. John Risch, UTU-SMART-TD National Legislative Director
UTU-SMART-TD Minnesota Legislative Committee.
Minnesota Legislative Leadership.

**United Transportation Union
Transportation Division of the Merged Labor Organization**

**Sheet Metal, Air, Rail and Transportation Workers
(UTU-SMART-TD)
Minnesota Legislative Board**



Minnesota Railroad Yard Lighting Report

January 15, 2015

**For review by:
Minnesota Department of Transportation
MnDOT Office of the Commissioner
MnDOT Office of Freight, Rail and Waterways
General Public Release**

**Mr. Phillip Qualy
Minnesota Legislative Director
UTU-SMART-TD Minnesota Legislative Board
411 Main Street Suite 212
St. Paul, MN 55102
651-222-7500**

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Attached Report Exhibits

- 1) Exhibit 1: Minnesota Statute 219.375.
- 2) Exhibit 2: Legislative Testimony of UTU-SMART-TD, March 5, 2014.
- 3) Exhibit 3: Abstracted BNSF, CN, CP and UP safety complaints.
- 4) Exhibit 4: American Railway Engineering Maintenance of Way, C-10.2
- 5) Exhibit 5: Injury Claim Settlement Files, Causation, Lack of Yard Lighting.
- 6) Exhibit 6: UTU-SMART-TD Minnesota 2014 legislative session file.

Railroad Yard Photographs

- 1) BNSF Railway: Dayton's Bluff Yard, St. Paul, Minnesota - 2014
- 2) Union Pacific Railway: Western Avenue Yard, St. Paul, Minnesota -2015
- 3) CN Railway: Proctor Yard, Proctor, Minnesota - 2015

Minnesota Legislative Mandate and Report Overview.

The Eighty-Eighth Legislature of the state of Minnesota adjourned sine die on May 16th, 2014. Within the Legislature's final actions, House File 3172, the Omnibus Supplemental Appropriations bill, was passed by both chambers and presented to the Governor on May 17th. Governor Dayton subsequently signed this legislation into law.

House File 3172 included transportation policy language that was enacted into law. Article 11, Section 27, contained "Railroad Yard Lighting", Subdivisions One through Five, with the intent to improve railroad safety and public security. This new law was codified on August 1st, 2014, under Minnesota Statute 219.375.

The "Railroad Yard Lighting Law" is both permissive and prescriptive for railroad safety. The Legislature directs Class I and Class II railroad common carriers and the legal union representatives of railroad workers to submit reports annually to the Minnesota Commissioner of Transportation to improve specific yard lighting conditions. The American Railway Engineering and Maintenance of Way Association (AREMA) guideline for railroad yard illumination has been set as the minimum standard for rail yards in Minnesota. A maintenance requirement is established for existing yard lighting when defects are identified or reported. Railroad yard lighting is required to be installed and operative between sunset and sunrise at each railroad yard in Minnesota where locomotives, or rail cars carrying placarded hazardous materials, are frequently switched, repaired, or inspected, or, trains with more than 25 tanker rail cars carrying placarded hazardous materials are assembled or disassembled. (Enclosed herewith, please find Exhibit 1, Minnesota Statute 219.375).

House File 3172, Article 11, held other transportation policy and finance provisions that have been enacted to improve railroad safety during the movement of hazardous materials. The railroad workers who are members of the UTU-SMART-TD Minnesota Legislative Board are proud to have contributed to passage of legislation that will improve the safe transportation of crude oil, other hazardous materials, and will train and equip public emergency responders. (Enclosed herewith, please find Exhibit 2, Testimony of UTU-SMART-TD, March 5, 2014).

This report will serve to comply with the Legislature's mandate regarding the lighting conditions of Class I and Class II railroad yards in Minnesota. We have also included an independent and professional lighting study of three specific railroad yards from Barr Engineering, Minneapolis, Minnesota. While this information is beyond the scope of Legislatures mandate for rail labor's report, we provide additional railroad lighting information for yard locations that were the subject of legislative testimony. Barr's report is included as text later in this report.

We write this report from railroad labor's perspective, our decades of experience, and actual operation of Class One and Two railroads in Minnesota.

Legal Standing.

The United Transportation Union, Sheet Metal, Air, Rail, and Transportation Union, (UTU-SMART-TD) is the exclusive representative of the conductor's, switchperson, yardmaster's, and remote control locomotive operator's contracts nationwide. The UTU-SMART-TD Minnesota Legislative Board is vested with the responsibility to protect the safety, welfare, legislative, and governmental affairs of our membership within the state of Minnesota.

The UTU-SMART-TD Minnesota Legislative Board is comprised of nine Local Legislative Representatives who are elected by their Local co-workers and union members to represent safety and welfare issues on their respective properties. The Minnesota Legislative Board also represents worker safety for four additional Locals chartered to Wisconsin and the Dakotas totaling over 1,400 active railroad workers in Minnesota. All Locals have contributed to this report. UTU-SMART-TD Minnesota has representation responsibilities on:

- Amtrak.
- Northstar Commuter Rail Service.
- Burlington Northern Santa Fe Railway, (BNSF).
- Canadian National Railway, (CN).
- Canadian Pacific Railway, (CP).
- Union Pacific Railway, (UP) and,
- Short-line operators, MDW, RRV&W, and CTRR.

UTU-SMART-TD Minnesota Legislative Board

Mr. George Armstrong
UTU Local 650 (C&NW-UP)

Mr. Jack Wrich
UTU Local 911 (Soo-Milwaukee-CP)

Mr. Wayne Newton
UTU Local 1000 (GN-NP-CB&Q-BNSF)

Mr. Nick Katich
UTU Local 1067 (DW&P-CN)

Mr. Geoff Bowen
UTU Local 1175 (NP-GN-MDW/BNSF)

Mr. Brian Hunstad
UTU Local 1177 (GN-BNSF)

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UTU Local 1292 (DM&R-CN)

Mr. Mike Frederick
UTU Local 1614 (C&NW-UP)

Ms. Rachel Welsh
UTU Local 1976 (Yardmasters)

Mr. Robert Dickerson
UTU Local 64 (DM&E, CP)

Under the Railway Labor Act, 1926, as amended, organized railroad workers have the right to represent our safety exclusive and independently from any other entity.

Duty to Report, Tasks Set Forth, Minnesota Statute 219.375.

219.375 RAILROAD YARD LIGHTING.

Lighting Status Reports, Class One and Two Railroad Common Carriers:

§ Subdivision 1. Lighting status reports submitted by railroad common carriers. By January 15 of each year, each Class I and Class II railroad common carrier that operates one or more railroad yards in this state where, between sunset and sunrise, cars or locomotives are frequently switched, repaired, or inspected, or where trains are assembled and disassembled, shall submit to the commissioner of transportation a plan that:

- (1) identifies all railroad yards operated by the railroad where the described work is frequently accomplished between sunset and sunrise;***
- (2) describes the nature and placement of lighting equipment currently in use in the yard and the maintenance status and practices regarding this equipment;***
- (3) states whether the lighting meets or exceeds guidelines for illumination established by the American Railway Engineering and Maintenance-of-Way Association;***
- (4) describes whether existing lighting is installed and operated in a manner consistent with energy conservation, glare reduction, minimization of light pollution, and preservation of the natural night environment; and***
- (5) identifies plans and timelines to bring into compliance railroad yards that do not utilize and maintain lighting equipment that meets or exceeds the standards and guidelines under clauses (3) and (4), or states any reason why the standards and guidelines should not apply.***

Lighting Status Reports, Railroad Labor Representative:

Subd. 3. Lighting status reports submitted by worker representative. By January 15 of each year, the union representative of the workers at each railroad yard required to submit a report under subdivision 1 shall submit to the commissioner of transportation a report that:

- (1) describes the nature and placement of lighting equipment currently in use in the yard and maintenance status and practices regarding the equipment;***
- (2) describes the level of maintenance of lighting equipment and the carrier's promptness in responding to reports of lighting malfunction;***
- (3) states whether the available lighting is adequate to provide safe working conditions for crews working at night; and***
- (4) describes changes in the lighting equipment and its adequacy that have occurred since the last previous worker representative report.***

Commissioner of Transportation Response:

§ Subd. 4. Commissioner response. The commissioner shall review the reports

submitted under subdivisions 1 and 3. The commissioner shall investigate any discrepancies between lighting status reports submitted under subdivisions 1 and 3, and shall report findings to the affected yard's owner and worker representative. The commissioner shall annually advise the chairs and ranking minority members of the house of representatives and senate committees and divisions with jurisdiction over transportation budget and policy as to the content of the reports submitted, discrepancies investigated, the progress achieved by the railroad common carriers towards achieving the standards and guidelines under clauses (3) and (4), and any recommendations for legislation to achieve compliance with the standards and guidelines within a reasonable period of time.

Prescriptive Language, Required Railroad Yard Lighting:

Subd. 5. Required lighting. By December 31, 2015, a railroad common carrier shall establish lighting that meets the standards and guidelines under subdivision 1, clauses (3) and (4), at each railroad yard where:

(1) between sunset and sunrise:

(i) locomotives, or railcars carrying placarded hazardous materials, are frequently switched, repaired, or inspected; or

(ii) trains with more than 25 tanker railcars carrying placarded hazardous materials are assembled and disassembled; and

(2) the yard is located within two miles of a petroleum refinery having a crude oil production capacity of 150,000 or more barrels per day. History: 2014 c 312 art 11.

Executive Summary:

The Minnesota Railroad Yard Lighting law sets the AREMA standard for lighting in Class One and Class Two railroad yards. Currently, switching of cars, assembly and disassembly of trains, and mechanical inspection of cars and engines to be placed in trains are being performed in darkness at many rail yards in Minnesota.

Railroad workers have stated that specific rail yards in Minnesota are dark and lighting is needed to improve worker safety and the effective performance of switching, inspections, and other duties. Further, where lighting does exist, carrier maintenance to repair and replace non-functioning lighting is often not prioritized.

At this time, there is insufficient independent lighting status and maintenance data. We believe it is in the public interest for the Department to collect independent and verifiable lighting measurements with analysis at all yards. Application of the AREMA lighting standard, prioritization of yards for installation of lighting, and strengthened enforcement powers to assure the same, will improve railroad safety.

The Department of Transportation must endeavor to assure AREMA compliance at specific railroad yards as set forth in Subdivision Five by December 31, 2015. The Minnesota Legislature should review and consider amending current statute to include yards where non-hazardous material cars and locomotives are frequently switched, repaired or inspected, and trains not containing hazardous materials are assembled and disassembled frequently. It is in the public interest to assure safety.

Construction of Report Information:

UTU-SDMART-TD Minnesota will provide information requested in Minnesota Statute 219.375, Subdivision One (2)(3), and Three, (1)(2)(3) and (4), in the following sections:

- 1) Independent yard lighting status report from Barr Engineering regarding BNSF Dayton's Bluff Yard, CN Railway Proctor Yard, and UP Western Avenue Yards, December 2014 and January 2015.
- 2) Listing of Class I and II railroad yards that currently meet the statutory requirement for lighting installation by December 31, 2015.
- 3) Listing of Class I and II railroad yards that railroad labor prioritizes as locations where operations occur between sunset and sunrise frequently and where lighting to the AREMA standard is necessary.
- 4) Listing of Class I and II railroad yards by carrier property with all yards and lighting status listed.
- 5) Listing of Class I and II railroad yard lighting maintenance issues with carrier documents.
- 6) Comments regarding energy conservation, glare reduction, minimization of light pollution, and preservation of the natural night environment.

UTU-SMART-TD believes this format will satisfy the statutory request for safety information and will exceed data requirements set forth on railroad labor.

Section One: Barr Engineering, Independent Yard Lighting Report:

The UTU-SMART-TD Minnesota contracted with Barr Engineering for an independent lighting analysis of three Class I railroad yards with unique and immediate needs for lighting. Each yard is located in advance of track territories where hazardous materials travel along major rivers and through wet land areas. No residential areas or residentially zoned land is near-by or are impacted by yards.

- 1) BNSF Dayton's Bluff Yard, south east yard leads, were the subject of a significant level of legislative testimony. No yard lighting exists at this location. Please see the narrative report describing lighting levels at this safety sensitive area in St. Paul, Minnesota.
- 2) UP Western Avenue Yard, both yard leads. UP crews switch cars and service industries six nights per week. Please see the narrative report describing lighting levels at this safety sensitive area in St. Paul.
- 3) CN Proctor Yard is a location where locomotives, railcars carrying placarded hazardous materials, are frequently switched, repaired, and inspected. More than 25 tanker railcars carrying placarded hazardous materials are switched, assembled, disassembled, and inspected daily. Proctor Yard is subject to statutory compliance by December 31, 2015.

**Barr Engineering
Independent Lighting Reports**

BNSF Railway: Dayton's Bluff Yard, St. Paul, Minnesota

Union Pacific Railway: Western Avenue Yard, St. Paul, Minnesota

CN Railway: Proctor Yard, Proctor, Minnesota

Supplemental Pages 1-77

Section Two: Listing of Class I and II Minnesota railroad yards under statutory compliance for lighting installation by December 31, 2015.

Railroad yards listed in this section have been abstracted from the UTU-SMART-TD Legislative Board listing of yards reported to the Minnesota Legislature in 2014. The evaluation of specific general railroad system yards is presented based on our best knowledge, inspection, document review, and member statements. We define the statutory term “frequently” as five days or nights per calendar week (Mn.Stat. 219.501). This listing may omit Minnesota yard locations where traffic routing has changed or other yards where statutory compliance is, in fact, required.

- 1) **UP Railway: Roseport North and South Yards, in Dakota County.** These are classification, industry, and switching yards. The Roseport complex is used for industry switching and inspection of cars being placed in trains. These yards are in a rural industrial area that provides direct service to hazardous material facilities at Flint Hills Refinery, chemical processing plants, and eastern barge terminals. Road switchers from two Class I carriers operate around the clock and originate trains with placarded hazardous materials destined for movement through St. Paul and the greater Twin Cities. No UP railroad yard lighting exists at Roseport Yard. No residential area or residentially zoned land is near or impacted by yards.
- 2) **CN Railway: Proctor Yard, in St. Louis County.** Locomotives, rail cars carrying placarded hazardous materials, are frequently switched, repaired, and inspected. More than 25 tanker railcars carrying placarded hazardous materials are switched, assembled, disassembled, or inspected daily. CN originates trains from this yard. As an initial terminal and classification yard between CN Symington Yard at Winnipeg, Manitoba, and Chicago, Illinois, switching, air brake and mechanical inspections, and re-blocking of trains occurs at CN Proctor Yard around the clock. No residential area or residentially zoned land is near or impacted by the yards. (Please see the independent yard lighting report from Barr Engineering included prior).
- 3) **CP Railway: Glenwood Yard, East Leads, in Pope County.** Locomotives, rail cars carry placarded hazardous materials, are frequently switched, repaired, and inspected. More than 25 tanker railcars carrying placarded hazardous materials are switched, assembled, disassembled, or inspected daily. Glenwood East is approximately one mile east of the township. This yard departs over 300 cars per day toward the Twin Cities and to eastern, southern, destinations. No yard lighting exists at Glenwood Yard East. No residential area or residentially zoned land is near or impacted by the yard.
- 4) **CP Railway: Dunn Yard, in Ramsey County.** Locomotives, rail cars carry placarded hazardous materials, are frequently switched, repaired, and inspected. More than 25 tanker rail cars carrying placarded hazardous materials are switched, assembled, disassembled, or inspected daily. This is a major arrival and departure yard where cars are inspected and shoved for classification switching. No CP yard lighting exists at Dunn Yard. Due to carrier directives to increase speed of yard movements, placement of mechanical forces, curvature of existing track, and carrier redesign that

4 Continued) CP Dunn Yard, St. Paul, Minnesota:

has eliminated emergency access, UTU-SMART-TD considers Dunn Yard to be the most dangerous in the state. Dunn is south of CP St. Paul Yard and is bordered to the west by a lake and by the Federal highway 61 grade. A row of residential homes is east of the highway and are party to an environmental complaint against CP Railway under review at this time.

Other railroad yards in Minnesota may or may not meet the statutory criteria as set forth for compliance by December 31, 2015. While numerous yards have lighting that meet the traffic and task requirements prescribed under Mn. Stat. 219.375 Subdivision 5,(1)(i), we do not have lighting measurements to assess actual AREMA standard compliance at those yards. Henceforth, while UTU-SMART-TD holds this reporting is correct, we may omit other yards where hazmat is switched, existing lighting is not compliant, and are subject to compliance by December 31, 2015.

Section Three: Listing of Class I and II Minnesota railroad yards where operations occur between sunset and sunrise and installation of yard lighting to the AREMA standard is necessary.

- 1) **BNSF Railway: Dayton's Bluff Yard, St. Paul.** Southeast end yard leads are immediately adjacent to other rail yards. This yard is an arrival, departure yard with interchange with foreign railroads. Cars are held for reblocking, inspection, and departure. Please see the attached BNSF engineering documents with lighting cost estimates from \$14K for a pole with light, to a steel yard tower with multiple lights, \$171K. No residential area or residentially zoned land is near or impacted by this yard. (Please see Bar Engineering independent yard light report included prior).
- 2) **BNSF Railway: Union Yard, Minneapolis.** This yard was lighted until approximately eight years ago when a derailment occurred and lighting tower was knocked down and never replaced. This yard is immediately adjacent to rail, intermodal and elevator yards. Intermodal jobs from BNSF Midway facility set-out and pick up various intermodal cars, road trains and industry switchers work at this staging yard at various times between sunset and sunrise. Union yard is in a heavy industrial area.
- 3) **BNSF Railway: Rice Point Yard, Duluth.** This yard is used for switching, air brake and mechanical inspections of locomotives and rail cars carrying hazardous materials around the clock. Please see the attached BNSF Safety Information Resolution Process (SIRP) documents detailing safety complaints due to lack of lighting. No residential area or residentially zoned land is near or impacted by BNSF Rice Point yard.
- 4) **CP/DM&E Railway: New Ulm Yard, New Ulm.** This is a town industrial yard used for industry switching, assembly and disassembly, air brake and mechanical inspection of cars being placed in trains. This yard is the first yard in southern Minnesota where east and south bound cars from western states can be re-blocked and inspected. CP-DM&E New Ulm yard is in general disrepair with mud, worn cross-ties and broken rail. No lighting exists at this yard. CP-DM&E report for duty and work overnight

4 Continued) CP New Ulm Yard, New Ulm, Minnesota.

at this location. New Ulm Yard is at the center of a rural township industrial area. No residential area or residentially zoned land is near or impacted by the yard.

- 5) **CP Railway: River Junction, La Crescent.** At CP River Junction Yard, south end, interchange trains are assembled, disassembled, airbrake and mechanical inspections are performed overnight. Locomotives, cars carrying placarded hazardous materials are frequently switched, repaired, and inspected. This yard is north of town in a rural wooded area. Lighting at the north end of River Junction, where the same tasks are performed, also needs improvement. Beyond residences along a river road, no other residential area or residentially zoned land is near or impacted by the yard.
- 6) **CP Railway: Northfield Yard, Northfield.** At CP Northfield Yard, three railroads interchange blocks of cars around the clock. Class I trains are switched, assembled, disassembled, air brake and mechanical inspections are performed overnight. Current yard lighting is not focused properly and has a blinding effect into locomotive cab compartments. Northfield Yard is at the center of an industrial area; no residential area or residentially zoned land is nearby or impacted by the yard.
- 7) **CP Railway: Hastings Yard, Hastings.** At the CP Hastings Yard, trains are switched, assembled, disassembled, air brake and mechanical inspections are performed overnight. This occurs when trains pick-up local blocks and overflow tonnage is set out to relieve capacity constraints. This yard is also being used in conjunction with Black Bird siding for intermediate re-blocking and staging of road trains. A road-switcher job goes on-duty at this location and trains work around the clock. CP Hastings yard is east of the town in an isolated area. No residential area or residentially zoned land is near or impacted by the yard.
- 8) **CN Railway: Missabe Junction.** At CN Missabe Junction Yard, crews pick-up and set-out lime stone cars under the Duluth ore dock industrial area. Proctor road-switcher assignments work this yard around the clock, handle Ore, and are subject to interchange hazardous material from BNSF Yards.
- 9) **CN Railway: Keenen Yard, St. Louis County.** CN crews report delays and disregard to repair and improve yard lighting. Locomotives, railcars carry placarded hazardous materials, are frequently switched, assembled, disassembled, repaired and inspected. CN originates trains from Keenen Yard. No residential area or residentially zoned land is near or impacted by yard.
- 10) **CN Railway: Wilpen Yard, St. Louis County.** This yard is used for seasonal train set-outs and pick-ups. Loaded and empty ore cars are held at the yard for plant capacity staging and re-blocking, as traffic, motive power availability dictates. Rail cars with hazardous materials are moved within trains. This yard also services an explosives factory with hazardous materials including placard "Explosives A". Cars are switched and placed in train at this yard siding and adjacent and spur track. CN Wilpen Yard is at a rural and unpopulated area.

- 11) **CN Railway: Biwabek Yard, Biwabek.** This yard is used for seasonal train set-out, picked-up, reblocking and general commercial traffic switching. Loaded and empty ore cars are held at the yard for plant capacity staging and re-blocking, as traffic dictates. Rail cars with hazardous materials are also in trains. When Lake Superior is open for ten months of the year, traffic is heavy and CN-BFT-736 job works at night. Historically, an industrial road switcher goes on duty at CN Biwabek Yard. The yard is in an industrial area and no residential homes or residentially zoned land is near or impacted.
- 12) **CN Railway: Wales Yard, Rural Itasca County.** This yard is used for seasonal train set-outs and pick-ups. Loaded and empty ore cars are held at the yard for plant capacity staging and re-blocking, as traffic, motive power availability dictates. Trains are subject to handle hazardous materials at this yard. Wales Yard is at a rural and unpopulated area.
- 13) **UP Railway: Merriam Yard, Louisville.** Trains and locomotives are switched, assembled, disassembled, air brake and mechanical inspections are performed overnight. Rail cars with hazardous materials are handled during intermediate yard operations. This yard is also being used in conjunction with two sidings, (Belle Plain and LaSueur), for intermediate re-blocking and inspection of road trains. Additional rail car shipments are originating from this yard. With the exception of two rural farms, no residential area or residentially zoned land is impacted by the UP's Merriam yard.
- 14) **UP Railway: Western Avenue Yard, St. Paul.** UP crews switch cars and service industries six nights per week. Three rail carriers interchange blocks of cars. Trains are assembled, disassembled, air brake and mechanical inspections are performed overnight. Locomotives, cars carrying placarded hazardous materials are frequently switched and inspected. No homes or residential areas are in the immediate vicinity of Western Avenue Yard. (Please see Barr Engineering narrative report describing lighting at this yard).
- 15) **UP Railway: Hoffman Avenue Yard, St. Paul.** UP crews switch cars and service industries seven nights per week. Three rail carriers interchange blocks of cars at Hoffman Avenue. Trains are assembled, disassembled, air brake and mechanical inspections are performed overnight. Locomotives and cars carrying placarded hazardous materials are frequently switched and inspected. A general complaint stands due to yard construction on a curve and current lighting does not illuminate from yard-lead track area to mid-yard. No homes or residential areas are in the vicinity of Hoffman Avenue Yard.
- 16) **UP Railway: East Minneapolis Yard, Minneapolis.** UP crews switch cars, service industries, and interchange with foreign railroads around the clock. Trains are assembled, disassembled, air brake and mechanical inspections are performed overnight. Locomotives and cars carrying placarded hazardous materials are frequently switched and inspected. The yard is in an industrial area and no residential homes or residentially zoned land is near or impacted.
- 17) **UP Railway: Albert Lea Yard, Albert Lea.** The UP Albert Lea yard is used for industry switching and the UP-LTC-17 Road Switcher reports for duty at this

17 Continued), UP Albert Lea Yard.

yard. This yard is also being used for intermediate holding and re-blocking of road trains when traffic is at system capacity. In route locomotives, rail cars carrying placarded hazardous materials, are frequently switched, assembled, disassembled and inspected at this yard. The yard is in a town heavy industrial area and no residential homes or residentially zoned land is near or impacted.

Section Four: Listing of Class I and II railroad yards by carrier property with all yards listed, lighting reported, AREMA compliance.

Railroad yards listed in this section have been abstracted from the UTU-SMART-TD Legislative Board listing of general system yards reported to the Minnesota Legislature in 2014. The evaluation of these yards is presented based on our best knowledge, inspection, document review, and member statements.

UTU-SMART-TD Minnesota lists Class I and II carrier yards in a priority order. We have listed the highest traffic yards in color blue or black. Those of greatest safety concern are listed from top to bottom with the color blue. Under the category of "AREMA Compliant" we have listed "unknown" when we do not have an actual independent lighting measurement. However, based on comparison to yards on the same or similar property where independent yard light readings show non-compliance, we assert yards listed as "unknown" under "AREMA Compliant", and "yes" under "Applicable to Statute", may well not comply with AREMA standards.

1) Burlington Northern Santa Fe (BNSF) Railway:

<u>Yard:</u>	<u>Lighting Status</u>	<u>AREMA Compliant</u>	<u>Applicable to Statute</u>
Dayton's Bluff, East	No	No	Yes
Duluth Rice Point	Yes	Unknown	Yes
Minneapolis Union	No	No	No
Northtown	Yes	Unknown	Yes
Willmar	Yes	Unknown	Yes
Dilworth	Yes	Unknown	Yes
Midway Intermodal	Yes	Yes	No
East Grand Forks	Yes	Unknown	Yes
St. Cloud	Yes	Unknown	Unknown
Staples	Yes	Unknown	No
Grand Rapids	Yes	Unknown	No
Little Falls	No	No	No
Florence	No	No	No
Minneapolis Grove	No	No	No

CN Railway (CN):

<u>Yard:</u>	<u>Lighting Status</u>	<u>AREMA Compliant</u>	<u>Applicable to Statute</u>
Proctor	Yes	No	Yes
Rainier	Yes	Unknown	Yes
Keenan	Yes	Unknown	Yes

<u>Yard:</u>	<u>Lighting Status</u>	<u>AREMA Compliant</u>	<u>Applicable to Statute</u>
Missabe Junction	No	Unknown	No
Wilpen	No	No	Unknown
Two Harbors	Yes	Unknown	No
Biwabek	No	No	Seasonal
Virginia	Yes	Unknown	Unknown
Steelton Yard	Yes	Unknown	No
Allen Junction	No	No	No
Wales	No	No	No

2) Canadian Pacific (CP) Railway:

(Please note: No independent measurements are available from CP Yards. We have listed “unknown” under “AREMA Compliant”. Based from our experience working in CP Yards, many listed CP yards are non-complaint).

<u>Yard:</u>	<u>Lighting Status</u>	<u>AREMA Compliant</u>	<u>Applicable to Statute</u>
St. Paul	Yes	Unknown	Yes
Dunn	No	Unknown	Yes
Glenwood East	No	Unknown	Yes
New Ulm	No	Unknown	Yes
River Junction So.	No	Unknown	Yes
Northfield	Yes	Unknown	No
Hastings	No	Unknown	Yes
Thief River Falls	Yes	Unknown	Yes
Humboldt	Yes	Unknown	Yes
Shoreham	Yes	Unknown	No
Glenwood	Yes	Unknown	Yes
Waseca	Yes	Unknown	Unknown
River Junction	Yes	Unknown	Yes
Cottage Grove	Yes	Unknown	No
Winona	No	No	No
Wabasha	No	No	No
Cardigan Junction	No	No	No
Noyes	Yes	Unknown	Unknown

3) Union Pacific (UP) Railway:

<u>Yard:</u>	<u>Lighting Status</u>	<u>AREMA Compliant</u>	<u>Statute Applicable</u>
Roseport North	No	No	Yes
Roseport South	No	No	Yes
Western Avenue	No	No	Yes
Merriam	No	No	No
St. Paul Hoffman	Yes	Unknown	Yes
St. Paul New Yd.	No Data	Under Design	Yes
East Minneapolis	No	No	Yes
Albert Lea	No	No	No
So. St. Paul	Yes	Unknown	Yes

4) Union Pacific (UP) Railway:

<u>Yard:</u>	<u>Lighting Status</u>	<u>AREMA Compliant</u>	<u>Applicable to Statute</u>
Valley Park	Yes	Unknown	Yes
Mankato	Yes	Unknown	Yes
Mankato New Yd.	Yes	Unknown	Yes
Elk Creek	Yes	Unknown	No
Worthington	Yes	Unknown	Yes
Blue Earth	No	No	No
St. James	No	No	Unknown
New Prague	No	No	No
Winona	No	No	No

UTU-SMART-TD Minnesota wishes to clarify that the term “Applicable to Statute” references the requirements as set forth in Minnesota Statute 219.375, Subdivision Five, (1) or (2). We prioritize other yards listed earlier in this report that may not meet the same statute requirement. However, it is essential to railroad safety and public security for parties to accept that a significant number of non-hazardous material rail cars are being switched, inspected, and trains are being assembled and disassembled, at yards overnight where insufficient lighting exists. Mechanical inspection and operating failure can occur with standard commodity cars that may impact hazardous material cars instantly or later in route.

UTU-SMART-TD Minnesota and railroad labor wishes to recognize new railroad yard lighting installation. We acknowledge that Union Pacific Railway has built Elk Creek Yard and Mankato New Yard and yard lighting has been installed. While we commend that carrier constructing lighting at these yards, it is unknown whether that lighting meets or exceeds the AREMA standard. As the Union Pacific Railway is moving forward with a significant yard expansion at South St. Paul Yard, it remains unclear whether yard lighting to the AREMA standard will be installed.

UTU-SMART-TD Minnesota and railroad labor believes all parties must be aware and review rail yard lighting at private industry track facilities. Class I and II to railroad carriers now require new private industry customers to construct lighting when their new facilities connect to the general railroad system. The railroads hold -industry track agreements- with all shippers that act as contracts for common carrier rail service. We believe the carriers must be held to the same standard for railroad safety that they rightly require of new private industry facilities. By requiring railroads to construct and maintain yard lighting, our state affirms basic industrial safety principles.

Finally, UTU-SMART-TD Minnesota and railroad labor recommend the Minnesota Legislature and Department of Transportation consider amending current statute language to include yards where non-hazardous material cars and locomotives are frequently switched, repaired or inspected, and trains not containing hazardous materials are assembled and disassembled frequently, or subject to perform these yard tasks, between sunset and sunrise.

Section Five: Class I and II railroad yard lighting maintenance issues.

Enclosed herewith as Exhibit Four, please find abstracted copies of BNSF, CN, CP and UP safety complaints regarding yard lighting conditions. As reported, CN and CP Railways no longer provide hazardous condition reporting forms to operating employees. UTU-SMART-TD Minnesota has taken exception with those carriers.

From our experience, carrier safety reporting systems cannot be a sole indicator of physical plant investment. Many workers have grown to accept working out in dark conditions and are apathetic to affect positive change to gain commonly accepted industrial lighting standards. Further, carrier managers edit and release safety committee documents without accountability for specific reports. We believe these workplace safety processes are indicative of deficient safety cultures and may be identifiable precursors to derailment, serious injury and fatality.

As a general summary of yard lighting maintenance, UTU-SMART-TD Minnesota and railroad labor find carrier performance to replace light bulbs, repair defective lighting appliances and address lighting circuit defects to be inconsistent. With all carrier yards, to another yard on that property, satisfactory resolution of lighting complaints depends on the competence and performance of local area management teams. We see carrier maintenance crafts understaffed and those workers also face unrealistic work load expectations. Additional factors include the availability of lighting equipment and proximity of the yard with the lighting exception (minor maintenance or major damage) to that carrier's division headquarters and warehouse facility. We report carrier lighting maintenance is inconsistent at best.

Therefrom, our response to the Legislature's mandate to report on the maintenance status and practices regarding lighting equipment, level of maintenance of lighting equipment, and promptness in responding to reports of lighting malfunction, must be tempered. Several Class One and Two carriers have local staff that responds in a timely manner when lights go out. However, the same carrier will have another yard location 24.5 miles away where lighting failure will go uncorrected for months.

A distinction must also be made between routine industrial lighting maintenance and our membership's request for provision of yard lighting at specific locations. During the 2014 session, railroad labor demonstrated that despite years of requesting yard lighting at specific locations on all properties, local carrier management teams have not provided necessary budgeting and resources for safety.

Our UTU-SMART-TD Minnesota membership is expected to perform their duties to process yards and trains exposed to weather elements and under all working conditions. As reported, our greatest concern remains with carrier management teams that simply do not prioritize lighting maintenance, prioritize budget restriction by deferring maintenance, and whose own compensation may include financial bonuses that reward suppression of local area budget expenditures.

Section Six: Legislative mandate to report annual yard lighting status.

This report is respectfully submitted to the Department as the first UTU-SMART-TD Minnesota legislative report. Future annual reports will not contain the current reference attachments herein. Our future reports will contain pertinent attachment.

Section Seven: Energy conservation, glare reduction, minimization of light pollution, and preservation of the natural night environment.

The members of UTU-SMART-TD Minnesota are not only railroad workers, we are family members, neighbors, and active in our communities around the state of Minnesota. We respect the concerns of citizens regarding ambient light sources. Our members want to be good neighbors while employed in the discharge of duties.

During legislative testimony and engrossments of House File 2460 and Senate File 2290, Railroad Yard Lighting bills, UTU-SMART-TD Minnesota testified in support of energy efficient lighting (solar) and we remain sensitive to ambient lighting concerns. We have correctly identified that Class I carriers in Minnesota have used solar powered way-side track signals for over fifteen years. We have advocated for the most effective lighting designs that would minimize glare, minimize light pollution and preserve the natural night environment.

UTU-SMART-TD Minnesota has confidence that modern lighting products and environmental engineering standards are capable implementing lighting designs that will cause minimal impact on a night sky environment. We remind all parties that the Class I and II railroad yards that have been listed for Minnesota and prioritized herein exist at the center of industrially zoned districts or are located at remote rural locations. (Once again, please reference the independent lighting analysis from Barr Engineering prior in this report).

Within the broader environmental discussion, all parties must be aware of the environmental benefits from lighted railroad yards. Where train crews can see standing rail cars and tracks of cars, couplings are made at lower speeds and therefore do not create loud concussion noise. The risk of derailment, collision with the potential for puncture of rail cars with commodity release, is less where yard lighting exists. The fueling of locomotives is less likely to result in spilling of diesel fuel on the ground and air brake and mechanical inspections are improved. These considerations must be included as benefits with any analysis regarding yard lighting impact on the natural environment.

While we look forward to installation of environmentally sensitive lighting designs that are available today, UTU-SMART-TD and railroad labor will not accept attempts by any party to rally environmental opposition to yard lighting based from ulterior motives or falsehoods. We welcome discussions regarding environmental analysis and lighting design; however any concerted effort to delay improvement for worker safety will be unacceptable and the subject of discovery.

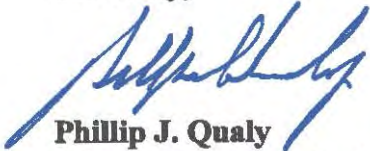
In support of this report, enclosed herewith please find Exhibits Four, Five and Six, American Railway Engineering Maintenance of Way Standards, C-10.2, recent carrier injury claim settlement files, causation, lack of yard lighting, and UTU SMART-TD Minnesota 2014 legislative session file.

UTU-SMART-TD Minnesota railroad workers risk cartilage, bone and blood to keep our economy moving. Railroad yard lighting is mutually beneficial to worker safety and public security and can be accomplished today. It is past the time to recognize modern industrial lighting standards and bring the railroad yards of Minnesota into the Twenty-First Century. (14)

For UTU-SMART-TD Minnesota, this report is provided in response to direction from the Minnesota Legislature. The information contained herein is correct from independent and objective measurement, worker statements, job assignment documents, and visual yard inspections. We do reserve the right to revise any statement represented herein. The listing of railroad yard lighting conditions may omit locations where traffic routing has changed, or other yards where statutory compliance is, in fact, required. We do not seek, nor do we accept, the Class I and II railroad common carrier's non-delegable duty to provide a safe railroad workplace.

Thank you for your review of this safety report from railroad labor.

Sincerely,



**Phillip J. Qualy
Minnesota Legislative Director
UTU-SMART-TD Minnesota**

**411 Main Street, Suite 212
St. Paul, MN 55102
651-222-7500
UTUMNLEGBD@VISI.COM.**

Thank You / Safety First



UTU-SMART Transportation Division
Minnesota State Legislative Board
Phillip Qualy, State Director



American Railway Engineering and Maintenance-of-Way Association

Part 10

Illumination

— 2005 —

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SECTION 10.1 ILLUMINATION

10.1.1 GENERAL (2005)

This section was edited to update recommended practices for the application of lighting and illumination in railway applications. It should be understood that lighting designs for railway applications should be performed by a qualified lighting professional.

The majority of the information contained in the earlier versions of SECTION 10 has been expanded, updated or reprinted in the Illumination Engineering Society of North America (IESNA), "Lighting Handbook" including the engineering and maintenance recommendations. This section covers items that may be specific to railway applications and generally not cover under these IESNA guidelines.

SECTION 10.2 LIGHTING OF FIXED PROPERTIES

10.2.1 OUTDOOR AREA LIGHTING – FLOODLIGHTING IN RAILROAD YARDS (2005)

10.2.1.1 General

- a. Adequate lighting of railroad yards, work tasks and areas, storage areas and platforms is essential to promote safety to personnel, expedite operations, and reduce pilferage and damage.
- b. The purpose of this section is to present recommended illumination levels applicable to the varied tasks encountered on railroad properties and to guide the lighting designer in the proper application of the lighting medium to assure satisfactory visibility to all concerned. Included are descriptions of the visual tasks encountered on railroad properties, design data, and graphic illustrations or select technical items.
- c. Recommended levels of illumination included herein were determined by scientific evaluation of the seeing tasks, and the Manual material presented is a joint effort of the Illuminating Engineering Society, Outdoor Productive Areas subcommittee of the Industrial Lighting Committee, together with personnel from the former AAR Lighting Committee and former AREMA Committee 18.
- d. Railroad properties can be divided into general areas which have different seeing tasks within them. By considering each type of property separately, and further breaking down each type into areas involving specialized seeing tasks, specific levels of illumination can be recommended that cover most variations among individual railroads. Refer to Table 33-10-1 for recommended illumination levels. Different levels may be required if closed circuit television is utilized to aid in operations.
- e. Railroad regulations should be observed with respect to the location of any lighting equipment above or adjacent to tracks.

Table 33-10-1. Levels of Illumination
(See Note 1)

Area to be Lighted	Recommended Illumination Level (Footcandles) (Note 2)	Location References (Figure 33-10-1)	Seeing Tasks— Operation Performed
I. Retarder Classification Yard			
1. Receiving Yard			
a. Switch points – incoming end	2.0	A	Walking between cars, bleeding air systems, opening journal box covers, inspecting air hoses and safety appliances, etc.
b. Body of yard	1.0	B	
c. Switch points – hump end	2.0	C	
2. Hump Area			
a. Entire side of car in view of scale operator and in view of hump conductor.	20.0	D	Scale operator checks car numbers and weights, hump conductor confirms car number and sends car to proper track; inspection of running gear while car is in motion; coupling must be easily seen so wedge can be applied with car in motion.
b. Underneath car and both sides of running gear from a point approximately 10 feet ahead of inspection pit to a point just past inspection pit.	20.0 vertical		
c. On side of car as it approaches car uncoupler (pin puller), from a point approximately 15 feet ahead of its position to approximately 5 feet past.	20.0 vertical		
d. On front of car as it approaches wedge inserter, from a point approximately 15 feet ahead of his position to approximately 5 feet past.	20.0 vertical		
3. Control Tower and Retarder Area			
In a vertical plane parallel to the tracks and at a point 6 feet above the center of hump and retarder tracks; if an illumination meter is used to check an installation it should be aimed in a direction perpendicular to the tracks and toward the tower side.	10.0 vertical	E	Check extent of track occupancy, gage speed of car coming from hump and manually set retardation; check car number against switching list and see that car goes to correct track at correct speed.
4. Head End			
Top of rails throughout head end on all “lead” tracks.	5.0	F	Operator must see car actually clear switch points so that following cars will not be impeded and take corrective action, if necessary.
5. Body			
Top of rails throughout body of classification yard.	1.0	G	Walking, determine extent of track occupancy; couple air hoses, place and remove track skates, etc.
6. Pull-Out End			

Table 33-10-1. Levels of Illumination (Continued)
(See Note 1)

Area to be Lighted	Recommended Illumination Level (Footcandles) (Note 2)	Location References (Figure 33-10-1)	Seeing Tasks-- Operation Performed
Top of rails along switch tracks.	2.0	H	Walking, determine switch positions and operate them, if necessary.
7. Dispatch or Forwarding Yard			
Top of rails.	1.0	I	Walking, couple air hoses, etc.
II. Hump and Car Rider Classification Yard			
1. Receiving Yard			
a. Switch points	2.0	—	Switchmen walk along lead tracks and throw switches. Car riders on rolling cars must see cars on tracks ahead of them so that they can apply brakes adequately to reduce impact and prevent damage. Car rider must see to get off car and walk back along yard tracks to hump.
b. Body of yard	1.0	—	
2. Hump Area			
a. Side of car	5.0 vertical	—	Yard clerk reads car numbers, uncouples cars, car rider must see grab irons and ladders to safely climb onto cars.
b. Entire area	5.0	—	
III. Flat Switching Yards			
a. Side of car when viewed by yard supervisor	5.0 vertical	—	Switchmen walking around in head-end and pull-out end of yard. Yard supervisor may also have to read car numbers at head-end of yard.
b. Switch points	2.0	—	
IV. Trailer-on-Flatcar Yards			
a. Horizontal surface of flat car	5.0	—	Tractor operator must accurately back up or drive along tops of flatcars, uncouple tractor, pull off; personnel must tie down trailers to flatcars which requires them to see beneath the trailers.
b. Hold-down points	5.0 vertical	—	
V. Container-on-Flatcar Yards			

*Table 33-10-1. Levels of Illumination (Continued)
(See Note 1)*

Area to be Lighted	Recommended Illumination Level (Footcandles) (Note 2)	Location References (Figure 33-10-1)	Seeing Tasks—Operation Performed
	5.0	—	Crane operators to pick up containers from: a. any part of the trailer parking yard and place them precisely on flatcars. b. flatcars to precise locations on trailers. Personnel tie down and release containers from all sides of vehicles.
VI. Mainline Interlockings			
a. Home Signal to Home Signal	2.0	—	Maintenance Personnel walking on right-of-way and maintaining interlocking equipment.
<p>Note 1: All footcandle values are assumed to be in the horizontal plane and measured at rail elevation unless otherwise specified.</p> <p>Note 2: These are general recommended levels. The direction of lighting or luminaire type may require different levels for specific installations.</p>			

10.2.1.2 Retarder Classification Yards

10.2.1.2.1 General

The large and often highly automated retarder classification yard, with its supporting yards and servicing facilities, presents a number of different seeing tasks that are considered under the following locations (See Figure 33-10-1).

10.2.1.2.2 Receiving Yard

- a. Inbound freight trains generally pull into a receiving yard where road locomotives and freight cars are uncoupled and moved to servicing or storage tracks. Air lines between cars may be disconnected, cars may be inspected, axles tested, etc. A locomotive then pushes the cars to the hump for classification.
- b. Seeing tasks throughout the area consist of walking between cars, bleeding air systems, and observing air hoses, safety appliances, etc.

10.2.1.2.3 Hump Area

- a. The hump area includes those facilities between the leaving end of the receiving yard and the entering end of the main retarder. Located in this area are the hump conductor, scale operator, and the car uncoupler. Special facilities in this area may include a car inspection pit, broken wheel flange detector, and a facility to insert disposable wedges into couplers to insure that they are held open for coupling to other cars in the yard. In some yards, a hump conductor operates remotely controlled power switches to route the car onto the proper track in the classification yard.
- b. Seeing tasks in the hump area are diversified. The scale operator is usually required to visually check each car number to insure that the weight is recorded against the proper car. The hump conductor also should confirm the car number

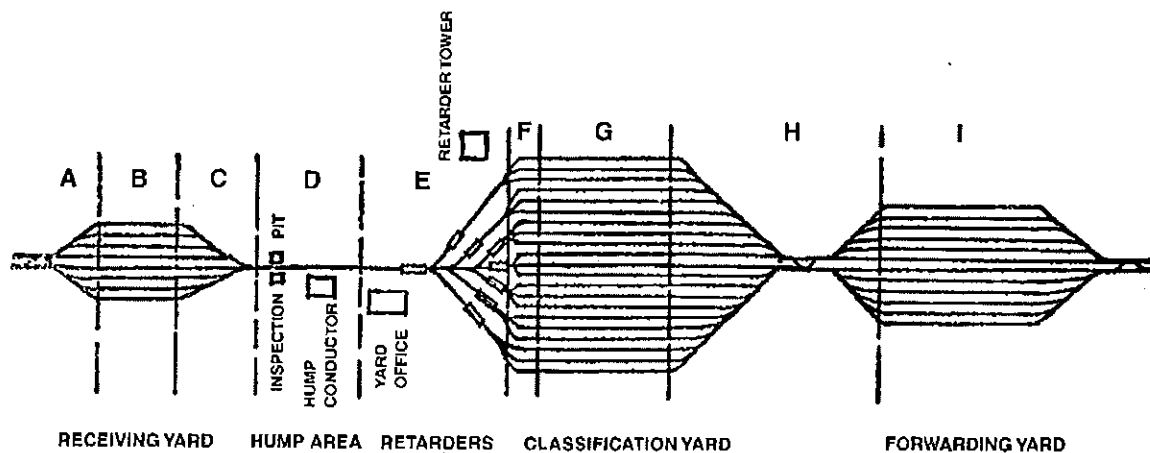


Figure 33-10-1. Retarder Classification Yard

against his list, to insure that the car is sent to the proper yard track. The car inspectors must have a high level of light on the underneath surfaces of the car and on the running gear to permit ready and precise inspection of a car that is in motion. The car uncoupler should be able to see the uncoupling mechanism in order to safely reach it while the car is in motion. The operator of the wedge inserter, if one is used, must be able to accurately see the coupler in order to apply the wedge, again with the car in motion.

- c. The hump conductor, car inspector, car uncoupler and wedge operator should have supplemental lighting, in addition to general lighting in the hump area as indicated in Table 33-10-1.

10.2.1.2.4 Control Tower and Retarder Area

- a. Many retarder classification yards are equipped with various methods for determining car speed, “rollability,” track occupancy, etc. These devices automatically set retarders to permit a car to roll from the hump to its proper position in the yard without action by the control tower operator. Other less automated yards may require the operator to visually check the extent of track occupancy in the yard, gauge the speed of the car coming from the hump and manually set the amount of retardation to be applied to the car. Even in the automated yard, the operator may also be required to do this manually in the event of failure of one or more of the automatic features. In many yards, the control tower operator is expected to check the car number against a switching list and see that the car goes to the correct track. Accordingly, it is essential that the operator quickly and accurately identify the moving car.
- b. Under clear atmospheric conditions, it is important that there be no direct light projected toward the operator, and this covers a considerable angle. However, under adverse atmospheric conditions of dense fog, for example, it is general practice to utilize auxiliary lighting equipment on the far side of the tracks opposite the retarder control tower which will reveal the outlines of cars in silhouette.

10.2.1.2.5 Head End of Classification Yard

After a car is classified and leaves the retarders, it rolls along one of several “lead” tracks with various switches branching off each lead track into the classification yard tracks. The operator should be able to see that the car actually clears switch points and clearance points so that following cars will not be impeded or perhaps damaged. If a car does not clear, a locomotive enters the yard to move the car, and if for some reason a car is sent down the wrong yard track, the locomotive must pull it back. Some highly automated yards have indicating systems to show locations of all cars and track occupancy conditions on the classification tracks. Again, if automated features fail, it is as important for the operator to be able to see yard conditions as accurately in the automated yard as in the less automated one.

10.2.1.2.6 Body of Classification Yard

A relatively large number of parallel tracks form the body of the classification yard. Cars having a common initial destination are sent from the hump to a given track in the classification yard. In many yards, the operator must be able to see the body of the yard sufficiently well to determine the extent of track occupancy. On some railroads, personnel are required to move along cars in the body of the classification yard to couple air hoses, etc. At the leaving end of the body of the classification yard, skatemen place track skates to stop moving cars at the desired location and remove the skates later for pullout. Some yards use automatic car stoppers instead of skates.

10.2.1.2.7 Pull-Out End of Classification Yard

- a. The pull-out end of the classification yard includes the area where yard tracks converge into one or more ladder tracks in leaving the yard. In this area, switchmen may walk along the track, ride standing on switcher step, cling to the end car to observe switch position, or step down while still in motion to throw switches as required.
- b. Two or more ladder tracks may converge into two pullout tracks connected crossovers and also connected to the lead tracks to the departure or local yards. Switches for crossovers and lead tracks are sometimes power-operated from an adjacent control point by the switchmen with consequent increased switching speeds. Switchmen must be able to see that the switches take the position directed by the controls.

10.2.1.2.8 Dispatch or Forwarding Yard

Some railroads pull strings of cars from classification tracks into a dispatch yard to make up a train. Here, air hoses are coupled, and perhaps other inspections are made. As in the receiving yard, the main seeing task in the dispatch yard consists of walking between tracks.

10.2.1.3 Hump and Car Rider Classification Yards

10.2.1.3.1 General

- a. In contrast to the often highly automated retarder classification yards, there are many yards that do not use retarders and tower operators for classification of cars. This type of yard, referred to as the "hump and car rider" classification yard, depends upon manpower for operation. An incoming freight train is pushed to the hump where it is uncoupled and a car rider climbs aboard each car, or "cut" of a few cars. The cars are allowed to roll from the hump toward the classification yard tracks, where switchmen, often directed by a loudspeaker from the hump, manually operate switches to permit the car to roll onto the proper track. As the car rolls along its classification track, the car rider gages the distance to other cars on the track and manually applies the car brakes, by turning the brake wheel, to slow the car so that the impact will not be severe. Upon stopping the car, the rider gets off and walks back to the hump to repeat the riding cycle.
- b. This type of classification yard may be supported by a receiving yard and a dispatch yard where the same seeing tasks are encountered as in their retarder yard counterparts.
- c. The seeing tasks in the classification yard, and around the hump, are considerably different in the rider-type yard than in the retarder yard. Around the hump area, a yard clerk should be able to read car numbers, cars must be uncoupled, and car riders must be able to see grab irons, ladders, etc., to safely climb onto the cars. Switchmen operating along the lead track must have safe seeing conditions to enable them to walk along the lead track and operate switches. Car riders on the cars rolling into the yard should be able to see cars on the track ahead so that they can brake adequately to reduce impact and prevent consequent damage to lading. The rider must then be able to see to get off the car and walk back along yard tracks to the hump.

10.2.1.4 Flat Switching Yards

10.2.1.4.1 General

- a. Nearly all railroads have many relatively small flat switching yards on their systems. Often a flat switching yard is located adjacent to an industrial area where cars are received from industries and at some period of the day, or night, these cars are moved to a larger classification yard for further forwarding. Empty cars may also be returned to the flat switching yard for distribution locally to industries for loading. Operations at the flat switching yard consist of a switchman at the head end operating one of perhaps a half dozen or so switches to permit a locomotive to push or pull cars onto a given track in the yard. The locomotive may then return for more cars and push or pull them onto another track, etc., until the cars are arranged in the desired order on the yard tracks, from which the cars are pulled out to move to some other location.
- b. The only seeing requirement in most yard areas of this type is for safe walking conditions for switchmen around the head end and pull-out end switches. A yard supervisor may also be required to read car numbers at the head end of the yard in order to assign cars to their proper tracks. A locomotive pushes cars into the body of the yard, and in most cases, the locomotive headlight furnishes sufficient light to provide adequate seeing for the locomotive engineer.
- c. General lighting is recommended over the entire yard to permit switchmen to see the location of standing cars. Additional light should be provided in the area of the switches at the head end and pull-out end of the yard.
- d. If a yardmaster or yard clerk must read car numbers, local lighting must be provided at his location.

10.2.1.5 Trailer-on-Flatcar Yards

10.2.1.5.1 General

- a. Hauling highway-type trailers loaded on special railroad flatcars has grown rapidly in recent years. There are several types of flatcars in use, and several methods of placing trailers on them. One of the most prevalent methods in use is to provide a ramp leading from the ground level up to the floor level of flatcars. The trailer is backed up the ramp by highway tractor, then backed or pushed from one flatcar to the next until it is on its prescribed car, working from the back car forward. Certain specialized methods are used in some places to lift and pivot the trailer onto flatcars from the side. Once the trailers are on the flatcars, most railroads use specialized tie-down equipment and methods to secure the trailers for shipment by rail.
- b. Seeing tasks involved require the tractor operator to be able to back up or drive along the floor of the flatcars, uncouple the tractor and pull off. Personnel must then tie down the trailers to the flatcars, requiring them to be able to see beneath the trailers.

10.2.1.6 Container-on-Flatcar Yards

10.2.1.6.1 General

- a. In container-on-flatcar yards, demountable load containers are detached from the trailer and loaded onto the railroad flatcars, or vice versa, by crane. Usually, the trailers are lined up parallel with the flatcars. A crane straddling both the trailers and flatcars picks up the demountable containers and places them on the cars.
- b. The seeking task involves the transfer of the container between the trailer wheel frame and the flat car, also locating, releasing, and tying down of the container.
- c. Other types of container-on-flatcar operations may employ different methods of loading and unloading, but the illumination required is similar.

10.2.1.7 Mainline Interlockings

10.2.1.7.1 General

- a. In mainline interlockings maintenance-of-way personnel are required to continuously inspect and maintain the operation of interlocking equipment including those for track, signals and communications and electric traction. This requires the movement of personnel in and about the tracks from home signal to home signal. These interlockings are of vital importance to the safe and effective performance of railroad operations.
- b. Specific seeing tasks include the inspection, maintenance and testing of switch points and switch machines, sectionalizing switches and section breaks, central instrument house and local control cases, snow melter facilities and miscellaneous conduit and cable installations to support C&S and ET facilities.
- c. Lighting for mainline interlockings should be designed with either automatic (photoelectric) controls or local lighting controls.

SECTION 10.3 FACTORS AFFECTING EFFICIENT LIGHTING

10.3.1 MAINTENANCE (2005)

10.3.1.1 General

- a. Proper maintenance will provide these features:
 - (1) Increased production.
 - (2) Fewer errors.
 - (3) Fewer accidents.
 - (4) Improved morale.
 - (5) Improved protection from vandalism.
- b. Protecting the return from investment in a lighting system requires a lighting maintenance program that periodically returns footcandle levels back as nearly as possible to the original design. Lighting levels fall off principally because dirt accumulates on lamps and reflecting surfaces; there is also the normal loss of light output from lamp aging.
- c. A good maintenance program, to provide the necessary protection, should include the periodic cleaning of lamps and fixtures, cleaning or repainting of room surfaces, such as walls and ceilings, replacing burnt-out lamps, and maintaining proper voltage levels.
- d. In many installations it will be found the light output is only 50% as high as it should be. Light output can be increased by repainting, cleaning fixtures, and by correcting the voltage to designed levels.
- e. Figure 33-10-2 and Figure 33-10-3 show how much light output decreases over a two-year period in various types of high-bay and low-bay areas.

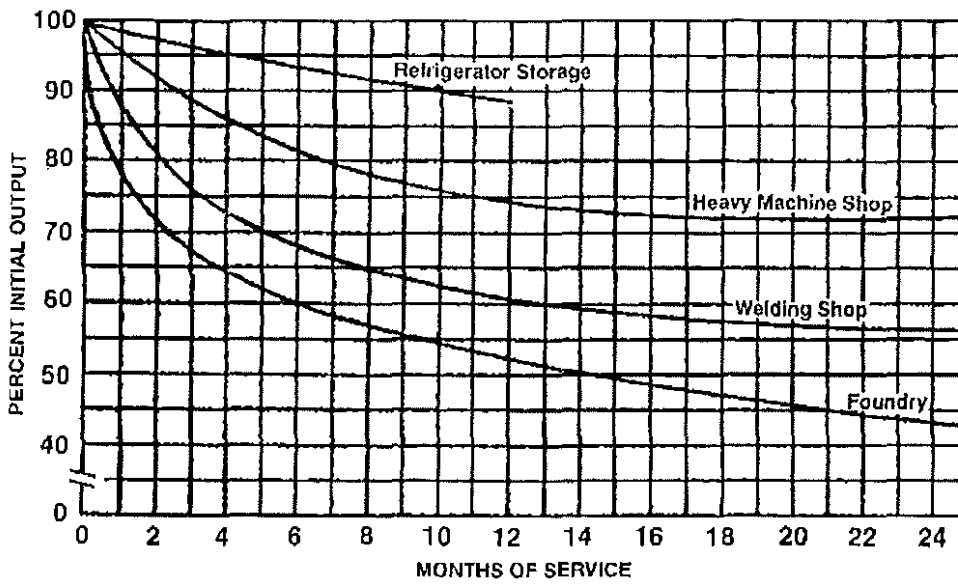


Figure 33-10-2. Decline in Light Output Due to Dirt, High-bay Areas

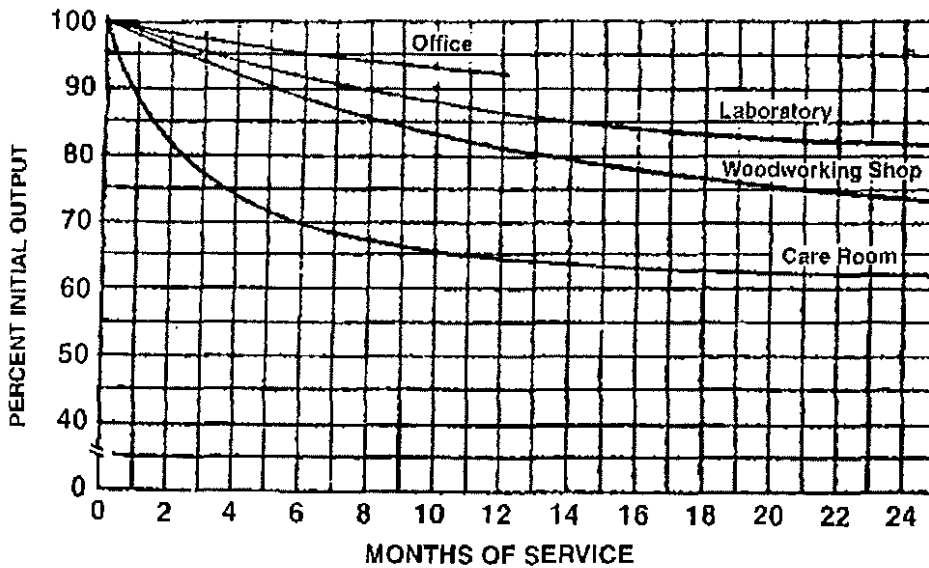


Figure 33-10-3. Decline in Light Output Due to Dirt, Low-bay Areas

10.3.1.2 Cleaning

10.3.1.2.1 Cleaning Schedule

The cleaning frequency required for a particular plant or office can best be determined by taking periodic light meter readings after the first cleaning. When footcandles have dropped 15% to 20% it is time to clean again. An alternate method would be to have an annual cleaning program scheduling each office area or shop to be cleaned at a definite date. This method permits one trained crew to do all the cleaning as they progress from one plant to the other. The scheduling can be planned taking into account dirt conditions, fixture ventilation, time required to clean each luminaire, and size of maintenance crew.

10.3.1.3 Relamping

10.3.1.3.1 Group Relamping

The labor costs saved by group relamping usually more than compensate for the value of the depreciated lamps that are thrown away before they burn out. Other advantages also accompany group relamping such as more light, fewer work interruptions, better appearance of the lighting system, and less maintenance of auxiliary equipment. Group relamping should be related to lamp life but may be varied slightly to fit into convenient schedules when there will be less interruption of work.

10.3.1.3.2 Spot Relamping

Some areas require spot replacement because of a hazardous location or to maintain appearances. In these areas and locations where specialized high-cost lamps are in use, spot relamping may prove to be the most economical method of replacement.

10.3.1.4 Voltages

- a. Light sources are designed to operate most economically when supplied with rated voltages. Voltages either too high or too low will affect the life, efficiency and economy of the lamps.
- b. The main types of lamps currently in use include Metal Halide, High Pressure Sodium, Low Pressure sodium and fluorescent. Standard fixtures are available in various voltages ratings including 120, 240, 277 and 480. Consultation with the fixture manufacturer is recommended to determine the best fixture for a specific application to include the affect of line voltage on fixture life and rated light output.

SECTION 10.4 LAMPS

10.4.1 ELECTRIC LAMP CHARACTERISTICS (2005)

- a. For more detailed information, it is suggested that the Illuminating Engineering Society Lighting Handbook, and the electric lamp manufacturers be consulted.
- b. Electric lamps may be divided into three major types, namely: incandescent-filament lamps, electric-discharge lamps and light emitting diodes.

SECTION 10.5 EVALUATION MEASUREMENTS AND TESTS

10.5.1 GENERAL (2005)

- a. Since the primary considerations in railway car lighting vary with the accommodations and the task as described, evaluation measurements should be based on tasks or functions normally found in the area of the railway under construction. When evaluating the lighting for any particular area the applicable combination of measurements will have to be employed.
- b. The following general factors apply to any tests:
 - (1) Extraneous light should be excluded where possible.

Electrical Energy Utilization

- (2) The voltage should be held constant at the switchboard or the voltage used for each reading and the reading corrected for any voltage deviation from normal.
- (3) Fluorescent lamps should be burned 100 hours before tests are made.
- (4) Fluorescent systems should be lighted for at least one-half hour before any readings are taken.
- (5) When photoelectric cell type instruments are used, the ambient temperature should be above 60 degrees F and such instruments should have their cells exposed to the approximate levels of illumination to be measured for at least 15 minutes prior to taking any readings.

c. Information should include the following:

- (1) Name and type of property.
- (2) Location when test is made.
- (3) Names of those conducting test.
- (4) Date.
- (5) Time of Day:
 - (a) Daylight with shades drawn.
 - (b) Night with shades drawn.
 - (c) Night with shades up.

NOTE: Unshaded windows at night are black surfaces with very low reflectance factors. Shades are usually of a much higher reflectance value.

- (6) Instruments used, date of last calibration, and whether equipped with color correction filter.
- (7) Identification of area tested.
- (8) Color and cleanliness of walls, ceiling, furniture and floors.
- (9) Type of lighting fixtures and record of which fixtures were lighted.
- (10) Conditions of fixtures:
 - (a) New or old.
 - (b) Type of reflector and condition.
 - (c) Cleanliness.
- (11) Wattage and rated voltage of lamps.
- (12) Color of lamps, if fluorescent.
- (13) Voltage at switchboard.
- (14) Location where readings were taken.

(15) Description of readings:

(a) Horizontal or vertical plane, or 45 degree plane.

(b) Distance above floor.

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***Engineering Study
Lighting Status Report
BNSF Dayton's Bluff Railroad Yard
St. Paul, Minnesota***

***Prepared for
The United Transportation Union – SMART - TD
Minnesota Legislative Board
St. Paul, Minnesota***


January 2015



4700 West 77th Street
Minneapolis, MN 55435-4803
Phone: (952) 832-2600
Fax: (952) 832-2601

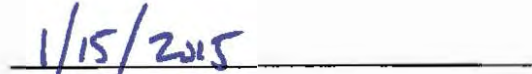
Certification
Engineer's Certification

I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.



Mark E. Ziemer, P.E.

License Number: 22509



Date

Engineering Study – Lighting Status Report BNSF Dayton’s Bluff Railroad Yard

January 2015

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Appendix B	Railroad Yard Map
Appendix C	Photographs

1. OVERVIEW

At the request of the United Transportation Union-SMART-TD Minnesota Legislative Board, Barr has evaluated three railroad yards in Minnesota, each outlined in its own report. Each yard location exhibits unique characteristics of need for yard lighting. While current statute prescribes lighting at yard locations where specific tasks or a certain number of rail cars containing hazardous material pass through, these yards have been chosen for evaluation as a specific reference. The selection of these yards has been abstracted from the UTU-SMART-TD Legislative Boards listing of yards reported to the Minnesota Legislature in 2014. The evaluation of these specific yards is not intended to create preference or ranking of analysis need for lighting in railroad yards across the state of Minnesota.

This report specifically applies to the to the Burlington Northern Santa Fe (BNSF) Dayton's Bluff railroad yard in St. Paul, Minnesota, the north end of which begins near Fish Hatchery Road (directly east across the Mississippi River from the St. Paul Downtown Airport). In it we outline observations and findings to address the requirements of Minnesota State Statute 219.375, Subdivision 3 of which states the following: *By January 15 or each year, the union representative of the workers at each railroad yard required to submit a report under subdivision 1 shall submit to the commissioner of transportation a report that:*

- (1) Describes the nature and placement of the lighting equipment currently in use in the yard and maintenance status and practices regarding the equipment;*
- (2) Describes the level of maintenance of lighting equipment and the carrier's promptness in responding to reports of lighting malfunction;*
- (3) States whether the available lighting is adequate to provide safe working conditions for crews working at night; and*
- (4) Describes changes in the lighting equipment and its adequacy that have occurred since the last previous worker representative report.*

A previously referenced portion of this statute, Subdivision 1, states that the lighting must "meet or exceed guidelines for illumination established by the American Railway Engineering and Maintenance-of-Way Association."

This yard is designed as a "flat" receiving, holding, and switching yard. While there is significant lighting on the north (or west) end of this yard, the south (or east) end has no yard lighting. BNSF Dayton's Bluff is a medium size yard with the Chicago/Seattle mainlines One and Two immediately next to the yard. BNSF Dayton's Bluff yard extends from Dayton's Bluff Interlocking to Oakland Interlocking with nine tracks that hold approximately 90 cars per track. Mainline trains are held, staged, switched for re-blocking, and inspected at this location. As many as 60 trains pass along Dayton's Bluff per day and are subject to take siding or have inspections at Dayton's Bluff Yard. This yard is the eastern BNSF yard in the Twin Cities Terminal and is the last mechanical inspection point before trains travel over 200 miles along the Mississippi River to Galesburg, Illinois.

Questions of a technical nature regarding this report may be addressed to Mark Ziemer, P.E. at Barr Engineering Company, located at 4700 West 77th Street, Edina, MN 55435. Phone number: 952-832-2973.

2. METHODOLOGY

In order to address Provision (3), Subdivision 3 of Minnesota Statute 219.375, field measurements of existing light levels were taken at the switch points and also near the mid-point of the yard. The yard was accessed in a motor vehicle on service roads with a representative of the union workers, Mr. Phillip J. Qualy, who had notified the carrier in writing in advance. A copy of the notification letter is attached to the report. (Appendix A) The measurements were taken on December 18, 2014 from approximately 5:15 PM to 5:35 PM CST.

The meter utilized consisted of a hand-held light meter which was used to measure in the levels in foot-candles; the instrument utilized was an Extech Model EA31. (Information about this meter may be found at www.extech.com) A total of five (5) measurements were taken; three (3) at the south end, one (1) in the interior of the yard, and one (1) at the north end.

A map of the yard is attached to this report, with the approximate locations of the light readings which were taken. (Appendix B)

Photos providing “screenshots” of the light readings are also attached to the report. (Appendix C)

Discussion of the light reading results follows in subsequent sections.

3. RESULTS AND OBSERVATIONS

Results and observations provided in order of the statute (MN 219.375) are as follows:

- (1) There is currently a high-mast installation with multiple metal halide lamped fixtures near the north end of the yard. All the lamps appeared to be operating; no burned out lamps were observed. This is the only significant lighting installation observed in this yard.
- (2) All lamps in the lighting installation on the north end appeared to be operating and in good condition.
- (3) Light readings were taken at ground level, as described under the previous section of this report. The approximate locations of the readings are indicated on the yard map attached in Appendix B. Light readings were as follows:
 - a. First reading at "two switch": 0.05 footcandles (fc)
 - b. Second reading at "four switch": 0.04 fc
 - c. Third reading at "six switch": 0.03 fc
 - d. Fourth reading near middle of yard: 0.03 fc
 - e. Fifth reading at north end of yard: 4.28 fc
- (4) The workers' representative has not provided a listing of CN workers complaints for the purpose of analysis in this report.

4. CONCLUSIONS

Conclusions provided in order of the statute (MN 219.375) are as follows:

- (1) There is currently a high-mast installation with multiple metal halide lamped fixtures near the north end of the yard. All the lamps appeared to be operating; no burned out lamps were observed. Its height is estimated to be at least 80 feet, such that the light is cast from high angles, minimizing the effects of shadowing. There are no other similar installations at the middle area or at the south end of the yard. Therefore light levels at those locations are very low, as discussed in paragraph (3) below.
- (2) All lamps in the lighting installation on the north end appeared to be operating and in good condition. There are no installations in the middle area or south end and so no maintenance status to report.
- (3) The *American Railway Engineering and Maintenance-of-Way Association (AREMA) – Manual for Railway Engineering*, Volume 3, Chapter 33 outlines illumination levels for railroad switching yards. As applied to Dayton's Bluff, a flat yard, the standard calls for *2.0 footcandles (fc)* at switch points and *1.0 fc* in the body of yard.

Beginning at the south end of the yard, light levels observed were very low and thus very inadequate as compared to the AREMA standard. As listed in Section 3 of this report the light levels at all points besides the north end were well under 1/10th fc, where the standard calls for 2.0 fc at switch points and 1.0 fc in the body of the yard. At the north end of the yard at north end switch points the light levels were more than adequate for those switch points.

- (4) The workers' representative has not provided a listing of CN workers complaints for the purpose of analysis in this report.

The conclusion we draw from the information provided above is that the AREMA standards for lighting of the Dayton's Bluff railroad yard are currently not being met, except at the north end of the yard. Additional poles with illumination similar to what is installed at the north end should be added throughout the yard to provide the requisite amount of light.

5. RECOMMENDATIONS

Barr recommends that a design solution involving installation of additional high mast poles similar to the one at the north end of the yard. A design utilizing metal halide lamping in freeway interchange style luminaire assembly which is lower-able on a winch could be employed for ease of maintenance. There are no residential areas adjacent to this rail yard; to west is the river and to the east is a large industrial parking area. Therefore light trespass into residences is not a concern for this yard, and luminaire poles should be as tall as practical. Given these parameters, it is estimated that approximately six to eight more poles of 100 feet tall, spaced between 400 and 500 feet apart could provide sufficient light levels to meet the recommended light levels. In review, these levels consist of 2.0 footcandles average for switching areas, and 1.0 footcandle average in the interior area of the yard.

It is anticipated that a quantity of four (4) 1,000 Watt metal halide luminaires at the top of each 100 foot pole would be required at the indicated spacing. In order to achieve the higher levels in switching areas, luminaires could be added, or poles could be spaced closer together. Poles could be oriented down the center axis of the yard, or alternatively could be placed along each edge of the yard. Positioning of the poles along the edges of the yard, with asymmetrical distributions aimed to the center axis of the yard would provide better performing light distribution, but would also require a greater number of poles to achieve the recommended levels. Positions of the poles would need to be coordinated to be accessible for maintenance. As with the existing pole and luminaires, maintenance would be facilitated by lower-able luminaire mounting assembly so that a boom truck would not be necessary for maintenance.

A light source option for consideration would be light-emitting diode (LED) which would significantly decrease maintenance and save energy. First cost of LED luminaires is somewhat higher than "conventional" luminaires. However life-span of LED is currently in the range of 100,000 hours by several major manufacturers. With approximately 4,000 night-time operating hours per year this translates to approximately 25 years of service life. Barr's recent experience indicates the payback for the up-front investment in LED is generally down to five years or less.

Appendices

Appendix A
Notification Letter

Phillip J. Qualy
Legislative Director,
Chairperson

Nicholas J. Katich
Assistant Director

Brian L. Hunstad
Secretary



Labor & Professional Centre
411 Main Street / Suite 212
St. Paul, MN 55102
651-222-7500 (o)
651-222-7828 (f)
UTUMNLEGBD@VISI.COM

Minnesota Legislative Board

A Division of SMART, Sheet metal, Air, Rail and Transit Union
Printed In House

December 17, 2014

Mr. Thomas Albanese
T.C. Division General Manager
BNSF Railway
80 44th Street N. E.
Minneapolis, MN 55421

RE: Minnesota Statute 219.375, Railroad Yard Lighting, Lighting Measurements.

Dear Mr. Albanese,

Pursuant to the recently enacted Minnesota Statute 219, 375, Subd. 1(3) and Subd. 3 (1)(3), and Minnesota Statute 609.85 Subd. 6, I intend to traverse service roads at Dayton's Bluff Yard later this month.

As an elected union official, please be informed that I do not intend to enter any track area and will be on property for less than one-half hour. Please advise as whether it will be necessary to contact you or your staff further.

As a courtesy and for your ready reference, please find a copy of State of Minnesota Statutes 219. 375, Railroad Yard Lighting, Railroad Employees, Property, 609.85.

The United Transportation Union, Sheet metal, Air, Rail, and Transit Union, (UTU-SMART-TD) is the exclusive representative of the Conductor's, Switchmen, Yardmaster's, and Remote Control Locomotive Operator's contracts nationwide. The UTU SMART-TD Minnesota Legislative Board is vested with the responsibility to protect the safety, legislative, and governmental affairs of our membership within the state of Minnesota. Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read "P. J. Qualy", is written over a faint, larger version of the same signature.

P. J. Qualy
Minnesota Legislative Director
United Transportation Union-SMART-TD

enclosure

cc: Mr. Joseph Nigro, UTU-SMART-TD International President
Mr. John Previsich, UTU-SMART-TD Transportation President
Mr. John Risch, UTU-SMART-TD National Legislative Director
Mr. Kevin Brodar, UTU-SMART-TD General Counsel
UTU-SMART-TD Legislative Representatives, Locals 1000, 1175, 1177, 1976.

Phillip J. Qualy
Legislative Director,
Chairperson

Vacant
Assistant Director

Brian L. Hunstad
Secretary



Labor & Professional Centre
411 Main Street / Suite 212
St. Paul, MN 55102
651-222-7500 (o)
651-222-7828 (f)
UTUMNLEGBD@VISI.COM

Minnesota Legislative Board

A Division of SMART, Sheet metal, Air, Rail and Transit Union
Printed in House

August 1, 2014

Mr. Thomas Albanese
T.C. Division General Manager
BNSF Railway
80 44th Street N. E.
Minneapolis, MN 55421

RE: Minnesota Statute 219.375, Railroad Yard Lighting Law.

Dear Mr. Albanese,

As a courtesy and for your ready reference, please find a copy of State of Minnesota Statute 219.375, Railroad Yard Lighting, which is effective immediately.

I trust your government affairs office has informed you of our newly enacted state statute requirements prior. Please be reminded that all Class One and Two carriers operating in Minnesota must comply with railroad yard lighting requirements.

On the Burlington Northern Santa Fe Railway property, extinguished or malfunctioning lighting must be repaired within forty eight hours after the malfunction has been reported to the carrier. It is the position of this State Committee that BNSF Dayton's Bluff east departure, Grove, and Union yards do not meet the standards set forth by the American Railway Engineering and Maintenance of Way Association.

The United Transportation Union, Sheet metal, Air, Rail, and Transit Union, (UTU-SMART-TD) is the exclusive representative of the Conductor's, Switchmen, Yardmaster's, and Remote Control Locomotive Operator's contracts nationwide. The UTU SMART-TD Minnesota Legislative Board is vested with the responsibility to protect the safety, legislative, and governmental affairs of our membership within the state of Minnesota. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "P. J. Qualy", is written over a horizontal line.

P. J. Qualy
Minnesota Legislative Director
United Transportation Union-SMART-TD

enclosure

136.1 Subdivision 1. Lighting status reports submitted by railroad common carriers.
136.2 By January 15 of each year, each Class I and Class II railroad common carrier that
136.3 operates one or more railroad yards in this state, where, between sunset and sunrise, cars or
136.4 locomotives are frequently switched, repaired, or inspected, or where trains are assembled
136.5 and disassembled, shall submit to the commissioner of transportation a plan that:

136.6 (1) identifies all railroad yards operated by the railroad where the described work
136.7 is frequently accomplished between sunset and sunrise;

136.8 (2) describes the nature and placement of lighting equipment currently in use in the
136.9 yard and the maintenance status and practices regarding this equipment;

136.10 (3) states whether the lighting meets or exceeds guidelines for illumination
136.11 established by the American Railway Engineering and Maintenance-of-Way Association;

136.12 (4) describes whether existing lighting is installed and operated in a manner
136.13 consistent with energy conservation, glare reduction, minimization of light pollution, and
136.14 preservation of the natural night environment; and

136.15 (5) identifies plans and timelines to bring into compliance railroad yards that do not
136.16 utilize and maintain lighting equipment that meets or exceeds the standards and guidelines
136.17 under clauses (3) and (4), or states any reason why the standards and guidelines should
136.18 not apply.

136.19 Subd. 2. Maintenance of lighting equipment. A railroad common carrier
136.20 that is required to file a report under subdivision 1 shall maintain all railroad yard
136.21 lighting equipment in good working order and shall repair or replace any malfunctioning
136.22 equipment within 48 hours after the malfunction has been reported to the carrier. Repairs
136.23 must be made in compliance with, or to exceed the standards in, the Minnesota Electrical
136.24 Code and chapter 326B.

136.25 Subd. 3. Lighting status reports submitted by worker representative. By
136.26 January 15 of each year, the union representative of the workers at each railroad yard
136.27 required to submit a report under subdivision 1 shall submit to the commissioner of
136.28 transportation a report that:

136.29 (1) describes the nature and placement of lighting equipment currently in use in the
136.30 yard and maintenance status and practices regarding the equipment;

136.31 (2) describes the level of maintenance of lighting equipment and the carrier's
136.32 promptness in responding to reports of lighting malfunction;

136.33 (3) states whether the available lighting is adequate to provide safe working
136.34 conditions for crews working at night; and

136.35 (4) describes changes in the lighting equipment and its adequacy that have occurred
136.36 since the last previous worker representative report.

137.1 Subd. 4. Commissioner response. The commissioner shall review the reports
137.2 submitted under subdivisions 1 and 3. The commissioner shall investigate any
137.3 discrepancies between lighting status reports submitted under subdivisions 1 and 3,
137.4 and shall report findings to the affected yard's owner and worker representative. The
137.5 commissioner shall annually advise the chairs and ranking minority members of the house
137.6 of representatives and senate committees and divisions with jurisdiction over transportation
137.7 budget and policy as to the content of the reports submitted, discrepancies investigated,
137.8 the progress achieved by the railroad common carriers towards achieving the standards
137.9 and guidelines under clauses (3) and (4), and any recommendations for legislation to
137.10 achieve compliance with the standards and guidelines within a reasonable period of time.

137.11 Subd. 5. Required lighting. By December 31, 2015, a railroad common carrier
137.12 shall establish lighting that meets the standards and guidelines under subdivision 1, clauses
137.13 (3) and (4), at each railroad yard where:

137.14 (1) between sunset and sunrise:

137.15 (i) locomotives, or railcars carrying placarded hazardous materials, are frequently
137.16 switched, repaired, or inspected; or

137.17 (ii) trains with more than 25 tanker railcars carrying placarded hazardous materials
137.18 are assembled and disassembled; and

137.19 (2) the yard is located within two miles of a petroleum refinery having a crude oil
137.20 production capacity of 150,000 or more barrels per day.

609.85 CRIMES AGAINST RAILROAD EMPLOYEES AND PROPERTY; PENALTY.

Subdivision 1. **Intent to cause derailment.** Whoever throws or deposits any type of debris, waste material, or other obstruction on any railroad track or whoever causes damage or causes another person to damage, tamper, change or destroy any railroad track, switch, bridge, trestle, tunnel, signal or moving equipment used in providing rail services, with intention to cause injury, accident or derailment, is guilty of a felony.

Subd. 2. **Foreseeable risk.** Whoever intentionally throws or deposits any type of debris, waste material, or other obstruction on any railroad track or whoever intentionally causes damage or causes another person to damage, tamper, change or destroy any railroad track, switch, bridge, trestle, tunnel, signal or moving equipment used in providing rail services, which creates a reasonably foreseeable risk of any injury, accident or derailment, is guilty of a gross misdemeanor.

Subd. 3. **Shooting at train.** Whoever intentionally shoots a firearm at any portion of a railroad train, car, caboose, engine or moving equipment so as to endanger the safety of another is guilty of a gross misdemeanor.

Subd. 4. **Throwing objects at train.** Whoever intentionally throws, shoots or propels any stone, brick or other missile at any railroad train, car, caboose, engine or moving equipment, so as to endanger the safety of another is guilty of a gross misdemeanor.

Subd. 5. **Placing obstruction on track.** Whoever places an obstruction on a railroad track is guilty of a misdemeanor.

Subd. 6. **Trespass; allowing animals on track; exception.** Whoever intentionally trespasses, or who permits animals under the person's control to trespass on a railroad track, yard, or bridge is guilty of a misdemeanor. This subdivision does not apply to an elected union official's access to those facilities when acting in an official capacity, to an employee acting within the scope of employment, or to a person with written permission from the railroad company to enter upon the railroad facility.

History: 1977 c 179 s 1; 1989 c 5 s 11; 2008 c 350 art 2 s 3

Appendix B

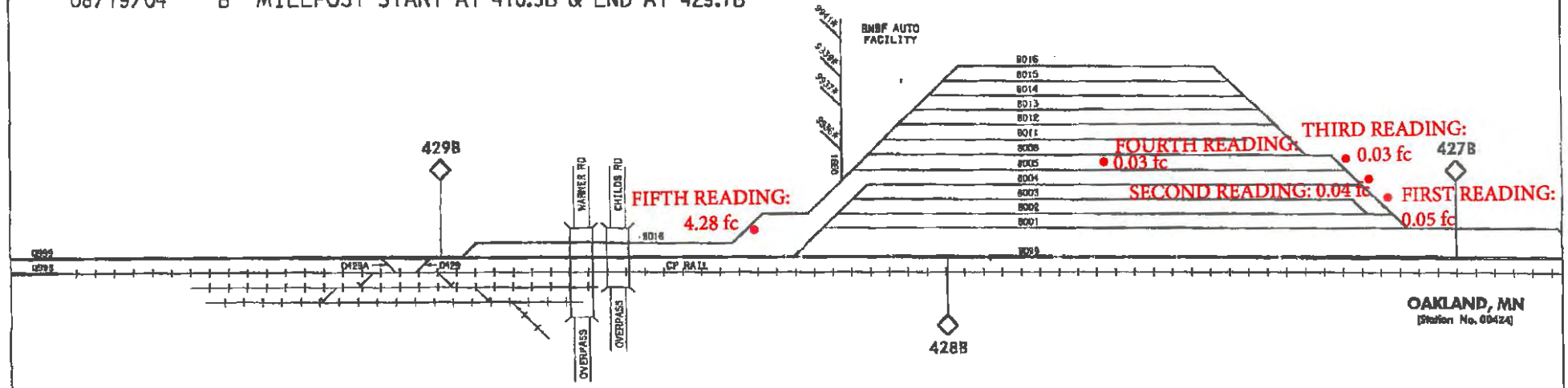
Light Reading Locations

Northtown, MN ←

Line Segment 3

St. Croix, MN →

08/19/04 - "B" MILEPOST START AT 410.5B & END AT 429.7B



OAKLAND, MN
[Station No. 00424]



UNKNOWN TRACK NUMBER

YARD SEGMENT: 546	REVISED: 02/14/2005
STATION ABBR: DAYBLU	TRK CHT: STP004B-T.DGN
FSAC: 00426	TEAM: DAYT80043.DGN
ZONE: 09, 80	

DAYTONS BLUFF, MN
St. Paul Subdivision

- BNSF OWNED & MAINT
- INDUSTRY OWNED & BNSF MAINT
- IND OWNED & MAINT
- LEASE
- TRACKAGE RIGHTS
- FOREIGN TRACK
- JOINT FACILITIES

Appendix C

Photographs





EXTRON Easy-Flow 21

0.04



SAVE



MAX

MIN

EXTRON Easy-Flow 21
Flowmeter
Serial No. 011 0





EXTECH Easy View 21
Moisture Meter

0.03

POWER RANGE

h/10 HOLD

EXTECH
MOISTURE METER





***Engineering Study
Lighting Status Report
UP Western Avenue Railroad Yard
St. Paul, Minnesota***

***Prepared for
The United Transportation Union – SMART - TD
Minnesota Legislative Board
St. Paul, Minnesota***

January 2015



4700 West 77th Street
Minneapolis, MN 55435-4803
Phone: (952) 832-2600
Fax: (952) 832-2601

**Certification
Engineer's Certification**

I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.



Mark E. Ziemer, P.E.

License Number: 22509



Date

Engineering Study – Lighting Status Report UP Western Avenue Railroad Yard

January 2015

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1. OVERVIEW

At the request of the United Transportation Union-SMART-TD Minnesota Legislative Board, Barr has evaluated three railroad yards in Minnesota, each outlined in its own report. Each yard location exhibits unique characteristics of need for yard lighting. While current statute prescribes lighting at yard locations where specific tasks or a certain number of rail cars containing hazardous material pass through, these yards have been chosen for evaluation as a specific reference. The selection of these yards has been abstracted from the UTU-SMART-TD Legislative Boards listing of yards reported to the Minnesota Legislature in 2014. The evaluation of these specific yards is not intended to create preference or ranking of analysis need for lighting in railroad yards across the state of Minnesota.

This report specifically applies to the Union Pacific (*UP*) *Western Avenue* railroad yard in St. Paul, Minnesota, the south end of which begins near the 400 block of James Avenue, and the north end of which is situated between Western Avenue to the north and Shepard Road to the south, with the Xcel Energy High Bridge Generating Station to the southeast. In it we outline observations and findings to address the requirements of Minnesota State Statute 219.375, Subdivision 3 of which states the following:

By January 15 or each year, the union representative of the workers at each railroad yard required to submit a report under subdivision 1 shall submit to the commissioner of transportation a report that:

- (1) Describes the nature and placement of the lighting equipment currently in use in the yard and maintenance status and practices regarding the equipment;*
- (2) Describes the level of maintenance of lighting equipment and the carrier's promptness in responding to reports of lighting malfunction;*
- (3) States whether the available lighting is adequate to provide safe working conditions for crews working at night; and*
- (4) Describes changes in the lighting equipment and its adequacy that have occurred since the last previous worker representative report.*

A previous portion of this statute, Subdivision 1, states that lighting must “meet or exceed guidelines for illumination established by the American Railway Engineering and Maintenance-of-Way Association.”

This yard is designed as a “flat” receiving and switching yard with no yard lighting on the property. UP-Western Avenue is a comparatively small yard with a mainline running from Chestnut Interlocking to Mississippi River Bridge Fifteen, a passing track which holds approximately 100 cars, and four shorter yard tracks, holding a maximum of 23, 19, and 15 cars respectively. Industry and classification switching occurs at this yard overnight during hours of darkness. At least eight mixed manifest road trains per day arrive and depart this yard operated by three separate railroad companies. Trains are subject to switching, re-blocking, air-brake and mechanical inspections, with movement of hazardous materials. UP Western Avenue Yard is the western-most yard in the UP Twin Cities Terminal and last location before trains depart into non-signaled track territory which crosses and parallels the Mississippi and Minnesota Rivers.

Questions of a technical nature regarding this report may be addressed to Mark Ziemer, P.E. at Barr Engineering Company, located at 4700 West 77th Street, Edina, MN 55435. Phone number: 952-832-2973.

2. METHODOLOGY

In order to address Provision (3), Subdivision 3 of Minnesota Statute 219.375, field measurements of existing light levels were taken at the switch points and also near the mid-point of the yard. The yard was accessed in a motor vehicle on service roads with a representative of the union workers, Mr. Phillip J. Qualy, who had notified the carrier in writing in advance. A copy of the notification letter is attached to the report. (Appendix A) The measurements were taken on December 18, 2014 from approximately 5:50 PM to 6:05 PM CST.

The meter utilized consisted of a hand-held light meter which was used to measure in the levels in foot-candles; the instrument utilized was an Extech Model EA31. (Information about this meter may be found at www.extech.com) A total of five (5) measurements were taken; two (2) at the north end, and three (3) at the south end.

A map of the yard is attached to this report, with the approximate locations of the light readings which were taken. (Appendix B)

Photos providing “screenshots” of the light readings are also attached to the report. (Appendix C)

Discussion of the light reading results follows in subsequent sections.

3. RESULTS AND OBSERVATIONS

Results and observations provided in order of the statute (MN 219.375) are as follows:

- (1) There are currently no lighting installations at any position of the yard. As such, ambient light levels are very low (as quantified below), mainly occurring from adjacent roadway lighting installations which are a significant distance away.
- (2) Since there are no existing lighting installations, there are no related maintenance observations to report.
- (3) Light readings were taken at ground level, as described under the previous section of this report. The approximate locations of the readings are indicated on the yard map attached in Appendix B. Light readings were as follows:
 - a. First reading at north "one switch": 0.06 footcandles (fc)
 - b. Second reading at north "three switch": 0.15 fc
 - c. Third reading at south "three switch": 0.06 fc
 - d. Fourth reading at south "two switch": 0.05 fc
 - e. Fifth reading at south "one switch": 0.08 fc
- (4) The workers' representative has not provided a listing of CN workers complaints for the purpose of analysis in this report.

4. CONCLUSIONS

Conclusions provided in order of the statute (MN 219.375) are as follows:

- (1) There are currently no lighting installations at any position of the yard. Therefore light levels at all points in the yard are very low, as further discussed in paragraph (3) below.
- (2) Since there are no existing lighting installations, there are no related maintenance observations to report.
- (3) The American Railway Engineering and Maintenance-of-Way Association (AREMA) – Manual for Railway Engineering, Volume 3, Chapter 33 outlines illumination levels for railroad switching yards. As applied to Western Avenue Yard, a flat yard, the standard calls for 2.0 footcandles (fc) at switch points and 1.0 fc in the body of yard.

In all areas of the yard, light levels observed were very low and thus very inadequate as compared to the AREMA standard. As listed in Section 3 of this report the light levels at all points where readings were taken were well under 1/10th fc, where the standard calls for 2.0 fc at switch points and 1.0 fc in the body of the yard.

- (4) The workers' representative has not provided a listing of CN workers complaints for the purpose of analysis in this report.

The conclusion we draw from the information provided above is that the AREMA standards for lighting of the Western Avenue railroad yard are currently not being met at any location in the yard. Pole-mounted luminaires (and wall-mounted lighting in the tunnel) should be added throughout the yard to provide the requisite amount of light.

5. RECOMMENDATIONS

Barr recommends that a design solution involving installation of new pole-mounted lighting in open areas as well as wall-mounted lighting in the tunnel area. A design utilizing metal halide lamping in freeway interchange style luminaire assembly which is lower-able on a winch could be employed for ease of maintenance. In the tunnel the luminaires would have glare shielding to minimize disabling glare into the locomotive cab. There are some residential areas adjacent to this rail yard to the northwest at the top of the adjoining bluff. Therefore light trespass into residences is a concern for this yard, and can be sufficiently mitigated by utilizing a lower luminaire mounting height than would otherwise be used. Both from on-site observations and consulting a topographical map of the area, it appears the height of the bluff above the rail yard is a minimum of 40 feet. Therefore a maximum pole height of 40 feet should be used with cutoff luminaires, and it is estimated that approximately ten such poles spaced approximately 230 feet apart could provide sufficient light levels to meet the recommended light levels. In review, these levels consist of 2.0 footcandles average for switching areas, and 1.0 footcandle average in the interior area of the yard.

It is anticipated that a quantity of two (2) 400 Watt metal halide luminaires at the top of each 40 foot pole would be required at the indicated spacing. In order to achieve the higher levels in switching areas, luminaires could be added, or poles could be spaced closer together. Poles could be oriented down the center axis of the yard, or alternatively could be placed along each edge of the yard. Positioning of the poles along the edges of the yard, with asymmetrical distributions aimed to the center axis of the yard would provide better performing light distribution, but would also require a greater number of poles to achieve the recommended levels. Positions of the poles would need to be coordinated to be accessible for maintenance. As with the existing pole and luminaires, maintenance would be facilitated by lower-able luminaire mounting assembly so that a boom truck would not be necessary for maintenance.

A light source option for consideration would be light-emitting diode (LED) which would significantly decrease maintenance and save energy. However first cost of LED luminaires is currently in the range of 100,000 hours by several major manufacturers. With approximately 4,000 night-time operating hours per year this translates to approximately 25 years of service life. Barr's recent experience indicates the payback for the up-front investment in LED is generally down to five years or less.

Appendices

Appendix A
Notification Letter

Phillip J. Qualy
Legislative Director,
Chairperson

Nicholas J. Katich
Assistant Director

Brian L. Hunstad
Secretary



Labor & Professional Centre
411 Main Street / Suite 212
St. Paul, MN 55102
651-222-7500 (o)
651-222-7828 (f)
UTUMNLEGBD@VISL.COM

Minnesota Legislative Board

A Division of SMART, Sheet metal, Air, Rail and Transit Union
Printed In House

December 17, 2014

Mr. Paul Hinton
TCSU Superintendent
Union Pacific Railway
206 Eaton Street
St. Paul, MN 55107-1603

RE: Minnesota Statute 219.375, Railroad Yard Lighting, Lighting Measurements.

Dear Mr. Hinton,

Pursuant to the recently enacted Minnesota Statute 219, 375, Subd. 1(3) and Subd. 3 (1)(3), and Minnesota Statute 609.85 Subd. 6, I intend to traverse service roads at Western Avenue and So. St. Paul Yards later this month.

As an elected union official, please be informed that I do not intend to enter any track area and will be on property for less than one-half hour. Please advise as whether it will be necessary to contact you or your staff further.

As a courtesy and for your ready reference, please find a copy of State of Minnesota Statutes 219. 375, Railroad Yard Lighting, Railroad Employees, Property, 609.85.

The United Transportation Union, Sheet metal, Air, Rail, and Transit Union, (UTU-SMART-TD) is the exclusive representative of the Conductor's, Switchmen, Yardmaster's, and Remote Control Locomotive Operator's contracts nationwide. The UTU SMART-TD Minnesota Legislative Board is vested with the responsibility to protect the safety, legislative, and governmental affairs of our membership within the state of Minnesota. Thank you.

Sincerely,

P. J. Qualy
Minnesota Legislative Director
United Transportation Union-SMART-TD

enclosure

cc: Mr. Joseph Nigro, UTU-SMART-TD International President
Mr. John Previsich, UTU-SMART-TD Transportation President
Mr. John Risch, UTU-SMART-TD National Legislative Director
Mr. Kevin Brodar, UTU-SMART-TD General Counsel
UTU-SMART-TD Legislative Representatives, Locals 650, 1293, 1614.

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August 1, 2014

Mr. Paul Hinton
TCSU Division Superintendent
Union Pacific Railway
206 Eaton Street
St. Paul, MN 55107

RE: Minnesota Statute 219.375, Railroad Yard Lighting Law.

Dear Mr. Hinton,

As a courtesy and for your ready reference, please find a copy of State of Minnesota Statute 219.375, Railroad Yard Lighting, which is effective immediately.

I trust your government affairs office has informed you of our newly enacted state statute requirements prior. Please be reminded that all Class One and Two carriers operating in Minnesota must comply with railroad yard lighting requirements.

On the Union Pacific Railway property, extinguished or malfunctioning lighting must be repaired within forty eight hours after the malfunction has been reported to the carrier. It is the position of this State Committee that the north and south yards at Roseport, and Western Avenue, East Minneapolis, Merrillam, and Albert Lea do not meet the standards set forth by the American Railway Engineering and Maintenance of Way Association.

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Minnesota Legislative Director
United Transportation Union-SMART-TD

enclosure

Mr. Paul Hinton
August 1, 2014
Page two

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Mr. John Previsich, UTU-SMART-TD Transportation President
Mr. James Stem, UTU-SMART-TD National Legislative Director
Mr. Mike Reedy, UTU-SMART-TD General Chairmen/UP-C&NW Lines
UTU-SMART-TD Legislative Representatives, Locals 650, 1293, 1614.

136.1 **Subdivision 1. Lighting status reports submitted by railroad common carriers.**
136.2 **By January 15 of each year, each Class I and Class II railroad common carrier that**
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136.10 **(3) states whether the lighting meets or exceeds guidelines for illumination**
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137.1 Subd. 4. Commissioner response. The commissioner shall review the reports
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137.7 budget and policy as to the content of the reports submitted, discrepancies investigated,
137.8 the progress achieved by the railroad common carriers towards achieving the standards
137.9 and guidelines under clauses (3) and (4), and any recommendations for legislation to
137.10 achieve compliance with the standards and guidelines within a reasonable period of time.

137.11 Subd. 5. Required lighting. By December 31, 2015, a railroad common carrier
137.12 shall establish lighting that meets the standards and guidelines under subdivision 1, clauses
137.13 (3) and (4), at each railroad yard where:

137.14 (1) between sunset and sunrise:

137.15 (i) locomotives, or railcars carrying placarded hazardous materials, are frequently
137.16 switched, repaired, or inspected; or

137.17 (ii) trains with more than 25 tanker railcars carrying placarded hazardous materials
137.18 are assembled and disassembled; and

137.19 (2) the yard is located within two miles of a petroleum refinery having a crude oil
137.20 production capacity of 150,000 or more barrels per day.

609.85 CRIMES AGAINST RAILROAD EMPLOYEES AND PROPERTY; PENALTY.

Subdivision 1. Intent to cause derailment. Whoever throws or deposits any type of debris, waste material, or other obstruction on any railroad track or whoever causes damage or causes another person to damage, tamper, change or destroy any railroad track, switch, bridge, trestle, tunnel, signal or moving equipment used in providing rail services, with intention to cause injury, accident or derailment, is guilty of a felony.

Subd. 2. Foreseeable risk. Whoever intentionally throws or deposits any type of debris, waste material, or other obstruction on any railroad track or whoever intentionally causes damage or causes another person to damage, tamper, change or destroy any railroad track, switch, bridge, trestle, tunnel, signal or moving equipment used in providing rail services, which creates a reasonably foreseeable risk of any injury, accident or derailment, is guilty of a gross misdemeanor.

Subd. 3. Shooting at train. Whoever intentionally shoots a firearm at any portion of a railroad train, car, caboose, engine or moving equipment so as to endanger the safety of another is guilty of a gross misdemeanor.

Subd. 4. Throwing objects at train. Whoever intentionally throws, shoots or propels any stone, brick or other missile at any railroad train, car, caboose, engine or moving equipment, so as to endanger the safety of another is guilty of a gross misdemeanor.

Subd. 5. Placing obstruction on track. Whoever places an obstruction on a railroad track is guilty of a misdemeanor.

Subd. 6. Trespass; allowing animals on track; exception. Whoever intentionally trespasses, or who permits animals under the person's control to trespass on a railroad track, yard, or bridge is guilty of a misdemeanor. This subdivision does not apply to an elected union official's access to those facilities when acting in an official capacity, to an employee acting within the scope of employment, or to a person with written permission from the railroad company to enter upon the railroad facility.

History: 1977 c 179 s 1; 1989 c 5 s 11; 2008 c 350 art 2 s 3

Appendix B

Light Reading Locations



WESTERN AVE.
YARD

TWIN CITIES AREA

DUKE ST.

CP RAIL

102

HILL TRK.

TUNNEL

101

001

002

003

004

FIFTH READING: 0.08 fc

FOURTH READING: 0.05 fc

THIRD READING: 0.06 fc

FIRST READING: 0.06 fc

SECOND READING: 0.15 fc

NEW SHEPHERD ROAD

N. S. P. COAL TRACK 711

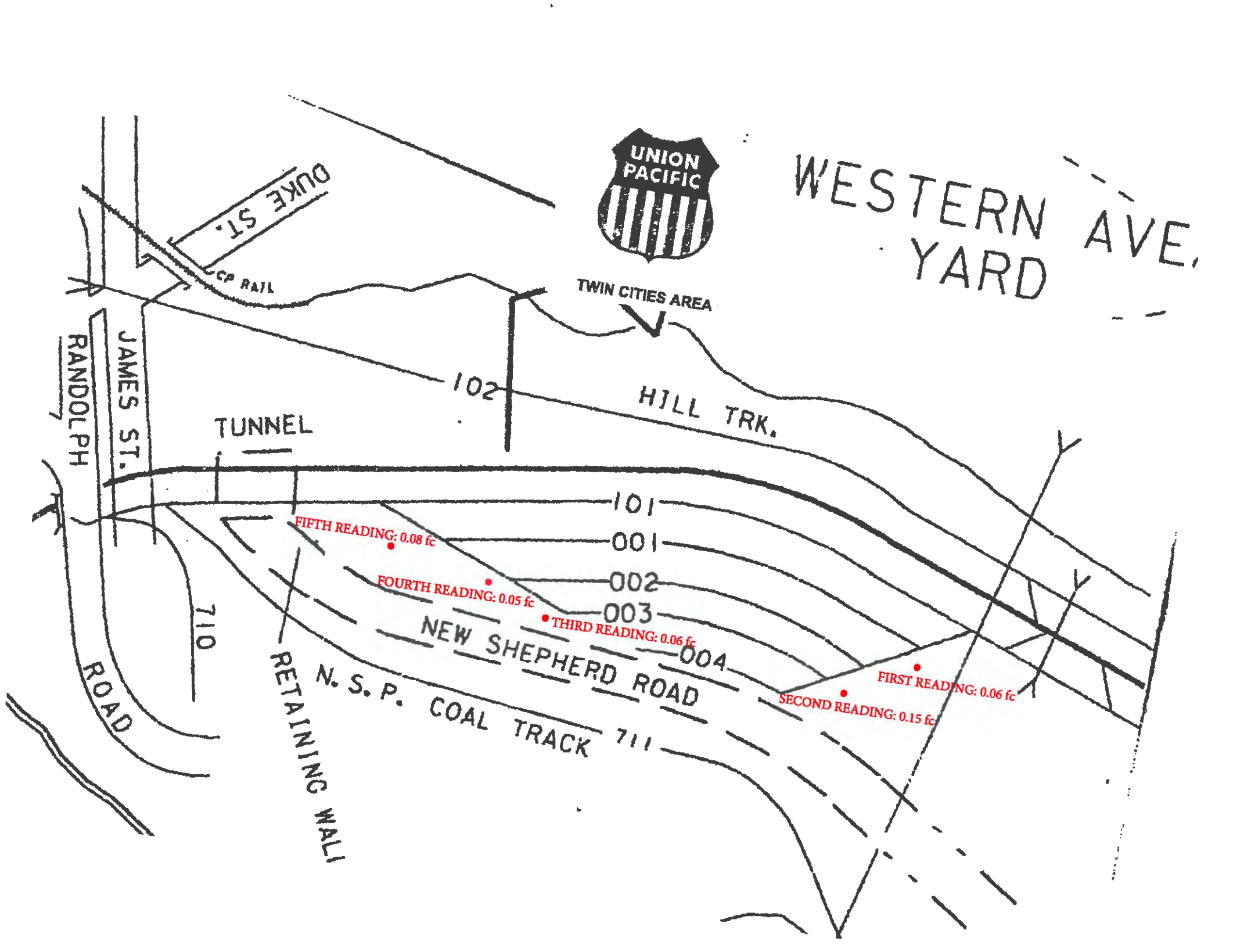
RETAINING WALL

710

ROAD

JAMES ST.

RANDOLPH



Appendix C

Photographs





EXTECH EasyView 21
Laser Moisture Meter

0.15

POWER HOLD MODE

HOLD HOLD

EXTECH Calibrated
Model: 21
Serial: 10000000000000000000
Date: 10/10/10
By: [Signature]
10000000000000000000



KATECH

0.06

KATECH
Model: M10
Serial: 0110

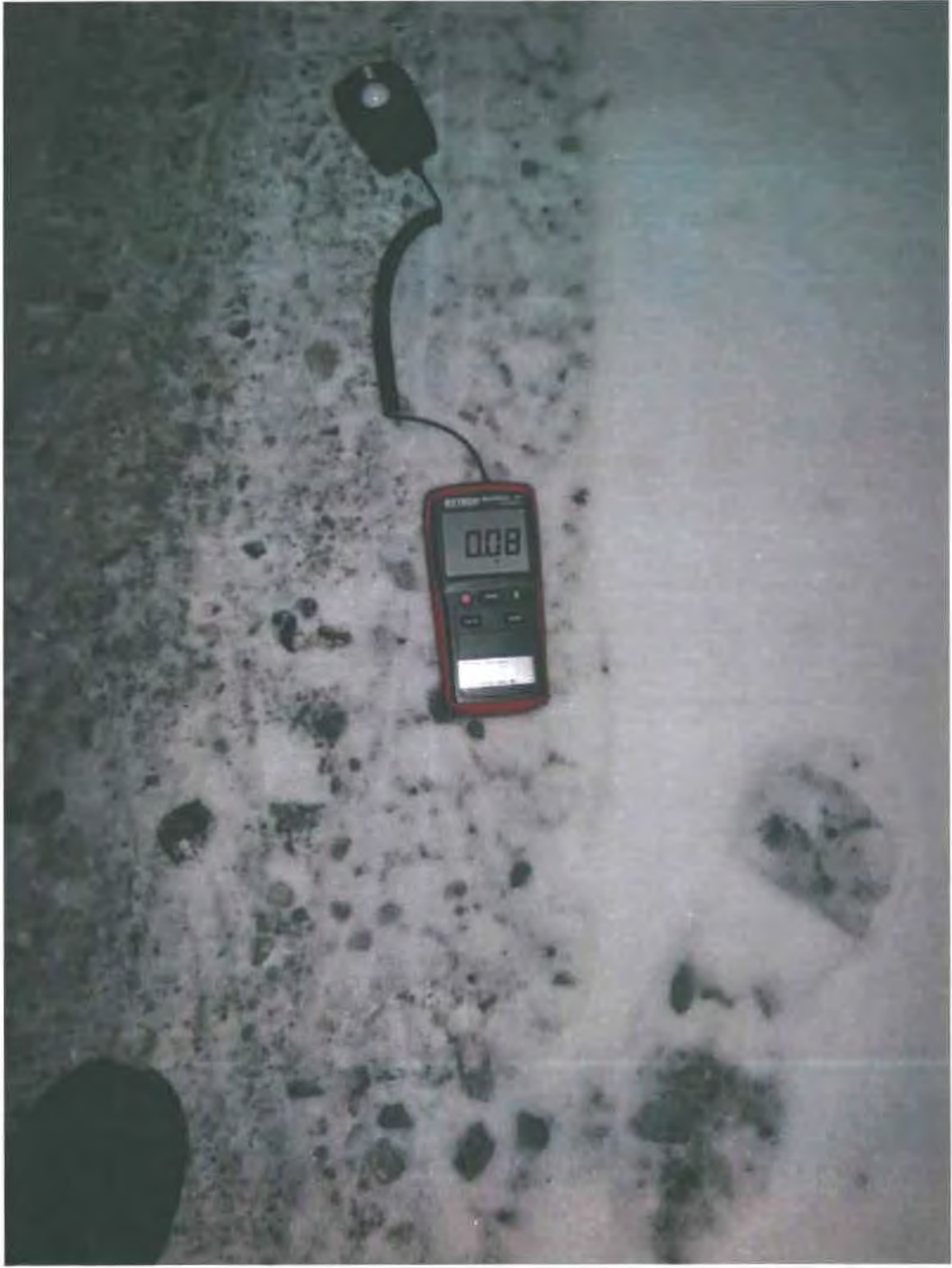


EXTECH EasyView[®] 31
Light Meter

0.05

⏻ RANGE ⏺
HOLD MAX/MIN

EXTECH Calibration
100 0 00 0100 1000 00





***Engineering Study
Lighting Status Report
CN Proctor Railroad Yard
Proctor, Minnesota***

***Prepared for
The United Transportation Union – SMART - TD
Minnesota Legislative Board
St. Paul, Minnesota***


January 2015



4700 West 77th Street
Minneapolis, MN 55435-4803
Phone: (952) 832-2600
Fax: (952) 832-2601

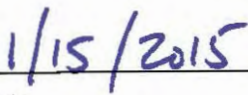
**Certification
Engineer's Certification**

I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.



Mark E. Ziemer, P.E.

License Number: 22509



Date

Engineering Study – Lighting Status Report CN Proctor Railroad Yard

January 2015

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1. OVERVIEW	1
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3. RESULTS AND OBSERVATIONS	4
4. CONCLUSIONS.....	5
5. RECOMMENDATIONS.....	6

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Appendix A	Notification Letter
Appendix B	Railroad Yard Map
Appendix C	Photographs

1. OVERVIEW

At the request of the United Transportation Union-SMART-TD Minnesota Legislative Board, Barr has evaluated three railroad yards in Minnesota, each outlined in its own report. Each yard location exhibits unique characteristics of need for yard lighting. While current statute prescribes lighting at yard locations where specific tasks or a certain number of rail cars containing hazardous material pass through, these yards have been chosen for evaluation as a specific reference. The selection of these yards has been abstracted from the UTU-SMART-TD Legislative Boards listing of yards reported to the Minnesota Legislature in 2014. The evaluation of these specific yards is not intended to create preference or ranking of analysis need for lighting in railroad yards across the state of Minnesota.

This report specifically applies to the Canadian National (CN) *Proctor* railroad yard in Proctor, Minnesota, the south end of which begins just north of Second Street, and the north end of which just south of County Road 19 bridge. It is oriented in a southeast to northwest orientation. In this report we outline observations and findings to address the requirements of Minnesota State Statute 219.375, Subdivision 3 of which states the following:

By January 15 or each year, the union representative of the workers at each railroad yard required to submit a report under subdivision 1 shall submit to the commissioner of transportation a report that:

- (1) Describes the nature and placement of the lighting equipment currently in use in the yard and maintenance status and practices regarding the equipment;*
- (2) Describes the level of maintenance of lighting equipment and the carrier's promptness in responding to reports of lighting malfunction;*
- (3) States whether the available lighting is adequate to provide safe working conditions for crews working at night; and*
- (4) Describes changes in the lighting equipment and its adequacy that have occurred since the last previous worker representative report.*

A previous portion of this statute, Subdivision 1, states that lighting must “meet or exceed guidelines for illumination established by the American Railway Engineering and Maintenance-of-Way Association.”

Proctor Yard is designed as a “flat” receiving and switching yard built on a steep grade. Lighting does exist at this yard, however after a significant redesign and reconstruction in 2009, the yard lighting was not integrated or upgraded to coincide with current safety sensitive switching areas within the yard. When CN redesigned the yard, one of five tall lighting towers near the “E” Lead area was removed to allow for more trackage, but never replaced. Of greatest concern, the “E” yard lead track is a key safety sensitive production area where the most concentrated classification switching occurs. As redesigned and now operating, rail cars stand on receiver and departure tracks that wrap around the “E” yard and lead track area. Light readings could not be taken from the “E” yard, however it is reasonable to conclude that light levels in that yard are less than where measured adjacent that yard from the opposite side of the receiver and departure yard tracks.

CN originates trains from Proctor Yard. As an initial terminal and classification yard between CN Symington Yard at Winnipeg, Canada, and Chicago, IL, switching, air brake and mechanical inspections,

and re-blocking of trains occurs at CN Proctor Yard around the clock. Over 25 hazardous tank cars are switched per day.

CN Proctor Yard was chosen for evaluation due to specific testimony before the Minnesota Legislature in 2014 and an immediate need, among other yards as prescribed in the legislation, to assure legislative compliance by December 31, 2015.

Questions of a technical nature regarding this report may be addressed to Mark Ziemer, P.E. at Barr Engineering Company, located at 4700 West 77th Street, Edina, MN 55435. Phone number: 952-832-2973.

2. METHODOLOGY

In order to address Provision (3), Subdivision 3 of Minnesota Statute 219.375, field measurements of existing light levels were taken near various switch points and also near the middle areas of the yard. The yard was accessed in a motor vehicle on service roads with a representative of the union workers, Mr. Phillip J. Qualy, who had notified the carrier in writing in advance. A copy of the notification letter is attached to the report. (Appendix A) The measurements were taken on January 13, 2015 from approximately 6:15 PM to 6:45 PM CST.

The meter utilized consisted of a hand-held light meter which was used to measure in the levels in foot-candles; the instrument utilized was an Extech Model EA31. (Information about this meter may be found at www.extech.com) A total of eight (8) measurements were taken.

A map of the yard is attached to this report, with the approximate locations of the light readings which were taken. (Appendix B)

Photos providing “screenshots” of the light readings are also attached to the report. (Appendix C)

Discussion of the light reading results follows in subsequent sections.

3. RESULTS AND OBSERVATIONS

Results and observations provided in order of the statute (MN 219.375) are as follows:

- (1) There are currently four high-mast lighting installations and several more low (approximately 30 feet tall) lighting installations in the yard. As such, ambient light levels at areas near the poles are fairly high. However due to the size of the yard in most areas the illumination levels (as quantified below) are too low since there are not enough poles to provide sufficient coverage. All of the readings taken were below the levels outlined in the AREMA standard.
- (2) In general the existing lighting installations appeared to be in working order, and no lamps appeared to be burned out.
- (3) Light readings were taken at ground level, as described under the previous section of this report. The approximate locations of the readings are indicated on the yard map attached in Appendix B. Light readings were as follows:
 - a. First reading: 0.36 footcandles (fc)
 - b. Second reading: 0.59 fc
 - c. Third reading: 0.04 fc
 - d. Fourth reading: 0.35 fc
 - e. Fifth reading: 0.03 fc
 - f. Sixth reading: 0.04 fc
 - g. Seventh reading: 0.02 fc
 - h. Eighth reading: 0.08 fc
- (4) The workers' representative has not provided a listing of CN workers complaints for the purpose of analysis in this report.

4. CONCLUSIONS

Conclusions provided in order of the statute (MN 219.375) are as follows:

- (1) There are currently four high-mast lighting installations and several more low (approximately 30 feet tall) lighting installations in the yard. However light levels at all points which were measured in the yard were below the recommended levels. Some levels measured were very low, as further discussed in paragraph (3) below.
- (2) In general the existing lighting installations appeared to be in working order, and no lamps appeared to be burned out.
- (3) The American Railway Engineering and Maintenance-of-Way Association (AREMA) – Manual for Railway Engineering, Volume 3, Chapter 33 outlines illumination levels for railroad switching yards. As applied to Proctor Yard, a flat yard, the standard calls for 2.0 footcandles (fc) at switch points and 1.0 fc in the body of yard.

In all areas of the yard, light levels observed were significantly lower than the referenced levels (see Paragraph 3 above). Some areas had very low levels and thus very inadequate illumination as compared to the AREMA standard. As listed in Section 3 of this report the light levels at some points where readings were taken were well under 1/10th fc, where the standard calls for 2.0 fc at switch points and 1.0 fc in the body of the yard.

- (4) The workers' representative has not provided a listing of CN workers complaints for the purpose of analysis in this report.

The conclusion we draw from the information provided above is that the AREMA standards for lighting of the Proctor Yard are currently not being met at any location in the yard. Pole-mounted luminaires should be added throughout the yard to provide the requisite amount of light.

5. RECOMMENDATIONS

Barr recommends that a design solution involving installation of additional high mast poles similar to the four currently in place. A design utilizing metal halide lamping in freeway interchange style luminaire assembly which is lower-able on a winch could be employed for ease of maintenance. There are some residences within a few hundred feet of the yard at limited locations (e.g. the south end), so new lighting installations at these locations would need scrutiny to limit light trespass. However most of the yard does not have residential areas near by. Given these parameters, it is estimated that approximately a dozen more poles of 100 feet tall, spaced between 400 and 500 feet apart could provide sufficient light levels to meet the recommended light levels. In review, these levels consist of 2.0 footcandles average for switching areas, and 1.0 footcandle average in the interior area of the yard.

It is anticipated that a quantity of four (4) 1,000 Watt metal halide luminaires at the top of each 100 foot pole would be required at the indicated spacing. In order to achieve the higher levels in switching areas, luminaires could be added, or poles could be spaced closer together. Poles should be strategically placed such that shadowing effects from rail cars and structures is not an issue. Positioning of the poles along the edges of the yard, with asymmetrical distributions aimed to the center axis of the yard could provide better performing light distribution, but would also require a greater number of poles to achieve the recommended levels. Positions of the poles would need to be coordinated to be accessible for maintenance. As with the existing pole and luminaires, maintenance would be facilitated by lower-able luminaire mounting assembly so that a boom truck would not be necessary for maintenance.

A light source option for consideration would be light-emitting diode (LED) which would significantly decrease maintenance and save energy. First cost of LED luminaires is somewhat higher than “conventional” luminaires. However life-span of LED is currently in the range of 100,000 hours by several major manufacturers. With approximately 4,000 night-time operating hours per year this translates to approximately 25 years of service life. Barr’s recent experience indicates the payback for the up-front investment in LED is generally down to five years or less.

Appendices

Appendix A
Notification Letter

Phillip J. Qualy
Legislative Director,
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January 2, 2015

Mr. Jeffery Liepelt ✓
CN - Senior Vice President
17641 South Ashland Avenue
Homewood, Illinois 60430-1339

Mr. Derek Taylor
General Manager, North Division
CN - Southern Region
Two Harrison Street
North Fond du Lac, WI 54937:

RE: Minnesota Statute 219.375, Railroad Yard Lighting, Lighting Measurements.

Dear Mr. Liepelt and Mr. Taylor,

Pursuant to the recently enacted Minnesota Statute 219, 375, Subd. 1(3) and Subd. 3 (1)(3), and Minnesota Statute 609.85 Subd. 6, I intend to traverse service roads at Proctor and Keenen Yards.

As an elected union official, please be informed that I do not intend to enter any track area and will be on property for less than one-half hour. Please advise as whether it will be necessary to contact you or your staff further.

As a courtesy and for your ready reference, please find a copy of State of Minnesota Statutes 219. 375, Railroad Yard Lighting, Railroad Employees, Property, 609.85.

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P. J. Qualy
Minnesota Legislative Director
United Transportation Union-SMART-TD

enclosure

Messengers Liepelt and Taylor
January 2, 2015
Page two.

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Mr. John Risch, UTU-SMART-TD National Legislative Director
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UTU-SMART-TD Legislative Representatives, Locals 1067, 1292

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August 1, 2014

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17641 South Ashland Avenue
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On the CN Railway property extinguished or malfunctioning lighting must be repaired within forty eight hours after the malfunction has been reported to the carrier. It is the position of this State Committee that CN Proctor (post 2009 reconstruction), Biwabek, Missabe, Wales, and Wilpen yards do not meet standards set forth by the American Railway Engineering & Maintenance of Way Association.

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**Mr. Liepelt
Mr. Taylor
August 1, 2014
Page two.**

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Mr. James Stem, UTU-SMART-TD National Legislative Director
Mr. Ken Flashberger, UTU-SMART-TD General Committee of Adjustment
Mr. Craig Peachy, UTU-SMART-TD Wisconsin Legislative Director
UTU-SMART-TD Legislative Representatives, Locals 582, 1067, 1292.**

135.33 **Sec. 27. [219.375] RAILROAD YARD LIGHTING.**

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137.7 budget and policy as to the content of the reports submitted, discrepancies investigated,
137.8 the progress achieved by the railroad common carriers towards achieving the standards
137.9 and guidelines under clauses (3) and (4), and any recommendations for legislation to
137.10 achieve compliance with the standards and guidelines within a reasonable period of time.

137.11 Subd. 5. Required lighting. By December 31, 2015, a railroad common carrier
137.12 shall establish lighting that meets the standards and guidelines under subdivision 1, clauses
137.13 (3) and (4), at each railroad yard where:

137.14 (1) between sunset and sunrise:

137.15 (i) locomotives, or railcars carrying placarded hazardous materials, are frequently
137.16 switched, repaired, or inspected; or

137.17 (ii) trains with more than 25 tanker railcars carrying placarded hazardous materials
137.18 are assembled and disassembled; and

137.19 (2) the yard is located within two miles of a petroleum refinery having a crude oil
137.20 production capacity of 150,000 or more barrels per day.

609.85 CRIMES AGAINST RAILROAD EMPLOYEES AND PROPERTY; PENALTY.

Subdivision 1. Intent to cause derailment. Whoever throws or deposits any type of debris, waste material, or other obstruction on any railroad track or whoever causes damage or causes another person to damage, tamper, change or destroy any railroad track, switch, bridge, trestle, tunnel, signal or moving equipment used in providing rail services, with intention to cause injury, accident or derailment, is guilty of a felony.

Subd. 2. Foreseeable risk. Whoever intentionally throws or deposits any type of debris, waste material, or other obstruction on any railroad track or whoever intentionally causes damage or causes another person to damage, tamper, change or destroy any railroad track, switch, bridge, trestle, tunnel, signal or moving equipment used in providing rail services, which creates a reasonably foreseeable risk of any injury, accident or derailment, is guilty of a gross misdemeanor.

Subd. 3. Shooting at train. Whoever intentionally shoots a firearm at any portion of a railroad train, car, caboose, engine or moving equipment so as to endanger the safety of another is guilty of a gross misdemeanor.

Subd. 4. Throwing objects at train. Whoever intentionally throws, shoots or propels any stone, brick or other missile at any railroad train, car, caboose, engine or moving equipment, so as to endanger the safety of another is guilty of a gross misdemeanor.

Subd. 5. Placing obstruction on track. Whoever places an obstruction on a railroad track is guilty of a misdemeanor.

Subd. 6. Trespass; allowing animals on track; exception. Whoever intentionally trespasses, or who permits animals under the person's control to trespass on a railroad track, yard, or bridge is guilty of a misdemeanor. This subdivision does not apply to an elected union official's access to those facilities when acting in an official capacity, to an employee acting within the scope of employment, or to a person with written permission from the railroad company to enter upon the railroad facility.

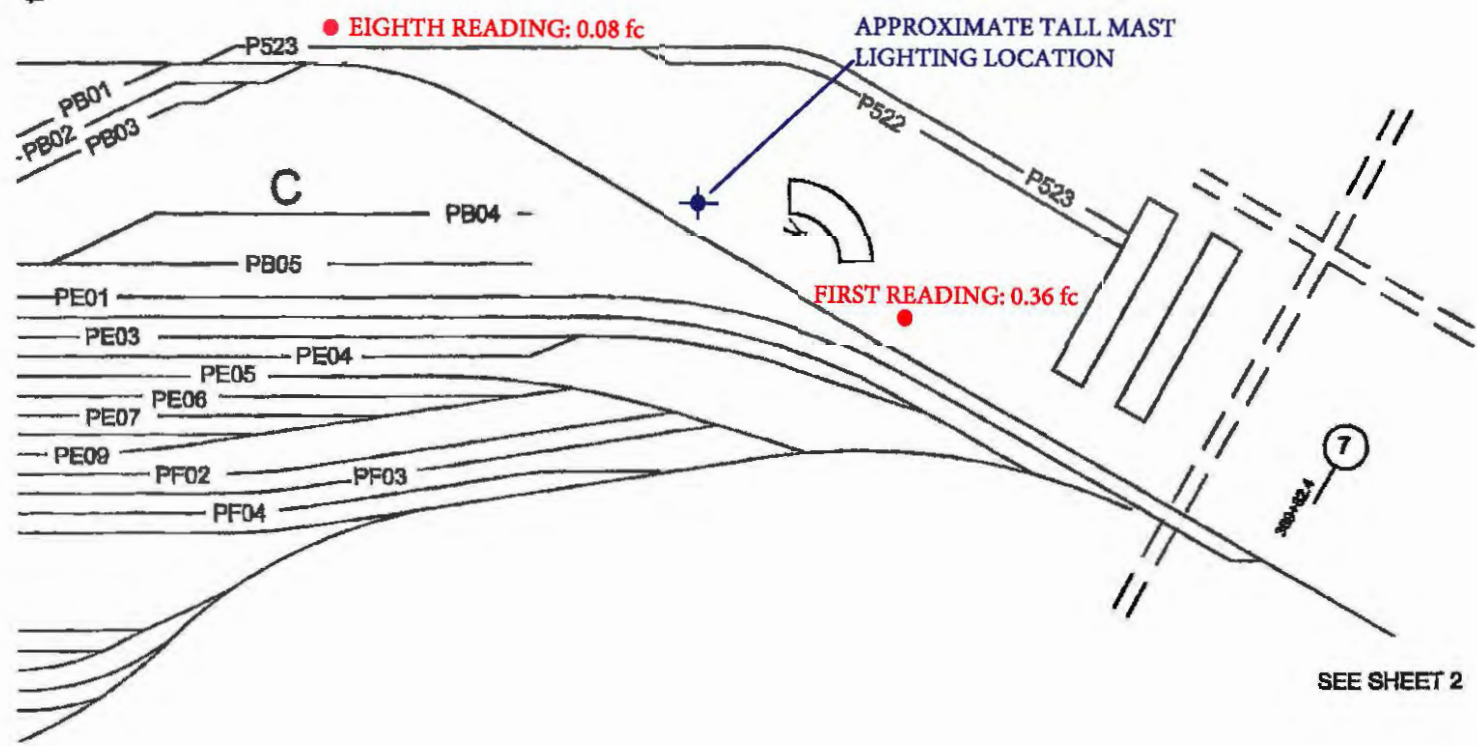
History: 1977 c 179 s 1; 1989 c 5 s 11; 2008 c 350 art 2 s 3

Appendix B

Light Reading Locations

REVISIONS		
#	BY	DATE
1	REED	REDRAWN 2-05
2	REED	11-08
3	REED	12-10
4	REED	1-11
5	REED	10-11
6	REED	11-11
7	REED	5-12

SEE SHEET 4

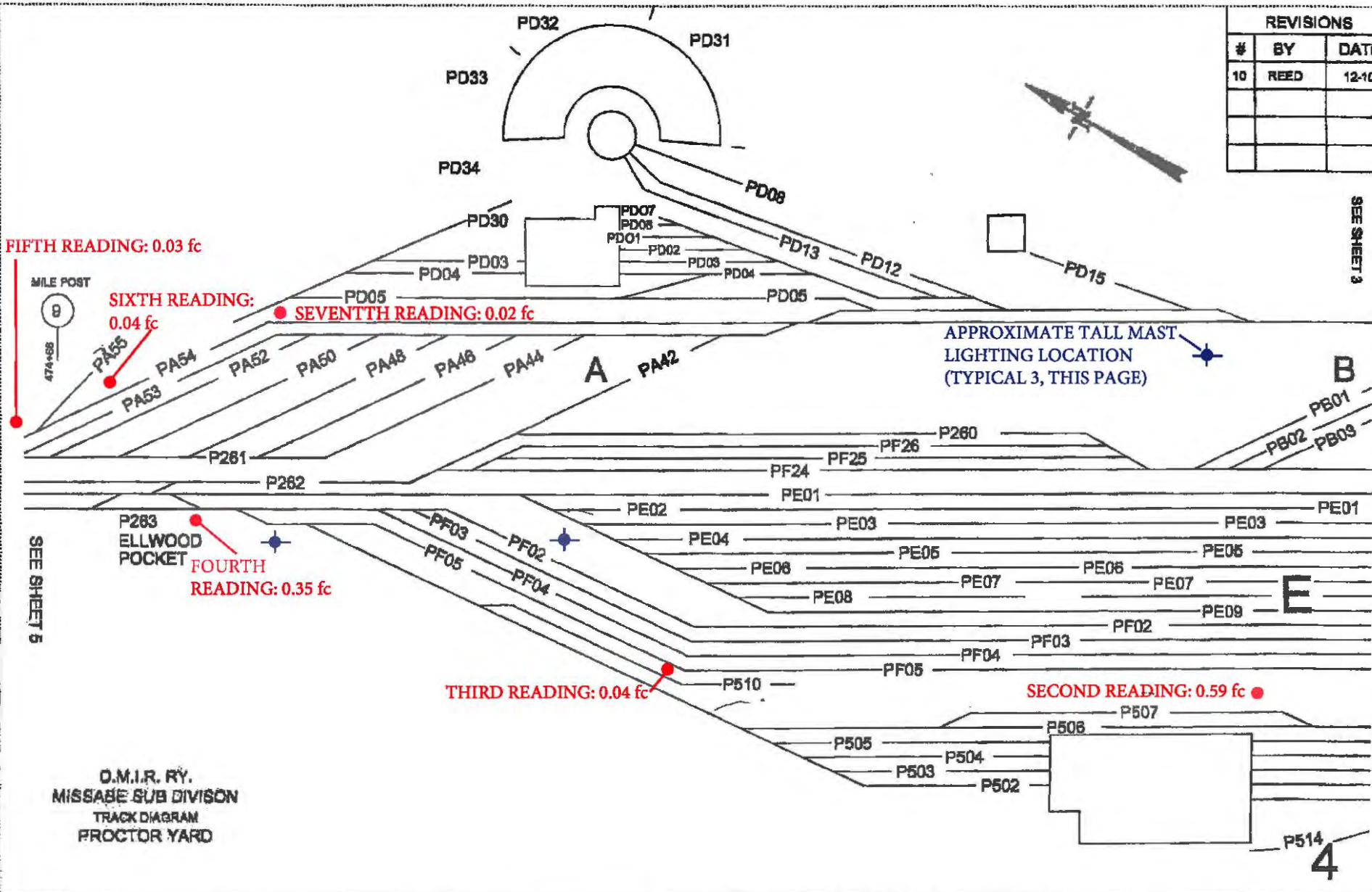


SEE SHEET 2

D.M.I.R. RY.
MISSABE SUB DIVISION
TRACK DIAGRAM
PROCTOR YARD

REVISIONS		
#	BY	DATE
10	REED	12-10

SEE SHEET 3



SEE SHEET 5

O.M.I.R. RY.
MISSABE SUB DIVISION
TRACK DIAGRAM
PROCTOR YARD

Appendix C

Photographs



EXTECH EasyView™ 31
Light Meter

0.36

POWER HOLD OFF ON/OFF HOLD

EXTECH Calibration
MARKET-BIT















EXTECH EasyView 31
Light Meter



RANGE



lux / fc

MAX/MIN

EXTECH Calibrated
Model 31
Date: 10/10/10
By: [illegible]
[illegible]
[illegible]

1 800 451 7273



Exhibit One

Minnesota Statute 219.375
History: 2014 c 312 art 11. S 27

219.375 RAILROAD YARD LIGHTING.

Subdivision 1. **Lighting status reports submitted by railroad common carriers.** By January 15 of each year, each Class I and Class II railroad common carrier that operates one or more railroad yards in this state where, between sunset and sunrise, cars or locomotives are frequently switched, repaired, or inspected, or where trains are assembled and disassembled, shall submit to the commissioner of transportation a plan that:

(1) identifies all railroad yards operated by the railroad where the described work is frequently accomplished between sunset and sunrise;

(2) describes the nature and placement of lighting equipment currently in use in the yard and the maintenance status and practices regarding this equipment;

(3) states whether the lighting meets or exceeds guidelines for illumination established by the American Railway Engineering and Maintenance-of-Way Association;

(4) describes whether existing lighting is installed and operated in a manner consistent with energy conservation, glare reduction, minimization of light pollution, and preservation of the natural night environment; and

(5) identifies plans and timelines to bring into compliance railroad yards that do not utilize and maintain lighting equipment that meets or exceeds the standards and guidelines under clauses (3) and (4), or states any reason why the standards and guidelines should not apply.

Subd. 2. **Maintenance of lighting equipment.** A railroad common carrier that is required to file a report under subdivision 1 shall maintain all railroad yard lighting equipment in good working order and shall repair or replace any malfunctioning equipment within 48 hours after the malfunction has been reported to the carrier. Repairs must be made in compliance with, or to exceed the standards in, the Minnesota Electrical Code and chapter 326B.

Subd. 3. **Lighting status reports submitted by worker representative.** By January 15 of each year, the union representative of the workers at each railroad yard required to submit a report under subdivision 1 shall submit to the commissioner of transportation a report that:

(1) describes the nature and placement of lighting equipment currently in use in the yard and maintenance status and practices regarding the equipment;

(2) describes the level of maintenance of lighting equipment and the carrier's promptness in responding to reports of lighting malfunction;

(3) states whether the available lighting is adequate to provide safe working conditions for crews working at night; and

(4) describes changes in the lighting equipment and its adequacy that have occurred since the last previous worker representative report.

Subd. 4. **Commissioner response.** The commissioner shall review the reports submitted under subdivisions 1 and 3. The commissioner shall investigate any discrepancies between lighting status reports submitted under subdivisions 1 and 3, and shall report findings to the affected yard's owner and worker representative. The commissioner shall annually advise the chairs and ranking minority members of the

house of representatives and senate committees and divisions with jurisdiction over transportation budget and policy as to the content of the reports submitted, discrepancies investigated, the progress achieved by the railroad common carriers towards achieving the standards and guidelines under clauses (3) and (4), and any recommendations for legislation to achieve compliance with the standards and guidelines within a reasonable period of time.

Subd. 5. **Required lighting.** By December 31, 2015, a railroad common carrier shall establish lighting that meets the standards and guidelines under subdivision 1, clauses (3) and (4), at each railroad yard where:

(1) between sunset and sunrise:

(i) locomotives, or railcars carrying placarded hazardous materials, are frequently switched, repaired, or inspected; or

(ii) trains with more than 25 tanker railcars carrying placarded hazardous materials are assembled and disassembled; and

(2) the yard is located within two miles of a petroleum refinery having a crude oil production capacity of 150,000 or more barrels per day.

History: 2014 c 312 art 11 s 27

Exhibit Two

**Legislative Testimony of
UTU-SMART-TD Minnesota
Minnesota House of Representatives
March 5, 2014**

MN House Legislative Hearing Testimony - March 5, 2014 10:AM

Good morning Mr. Chairman, Committee members.

I am Phillip Qualy, State Director for the United Transportation Union, representing the safety interests of 1400 railroad conductors, switch foremen, yardmasters and remote control locomotive engineers in Minnesota.

At the outset, I want to state clearly that oil and other hazmat materials have been moved safely on the railroad for many decades. Oil is being moved safely by our crews at this moment, and will by moving years from now by rail. However incidents of derailment do occur and we must be prepared.

UTU supports the intent of legislation to protect public safety. We welcome our state's interest in this safety area that has been in our charge, has been one of our grave concerns, for decades.

Today I would like to briefly explain our railroad authority, what a hazmat train derailment emergency procedure looks like, outline positive industry events that are occurring at the federal level, and comment on what else we can do at the state level to assure railroad safety and public security.

First, the conductor has the authority for the train. When a hazmat derailment occurs, our first charge is to get our train's paperwork to the emergency responders. Quite often, and by federal regulation, it is the conductor who has the most recently updated, fully accurate detailed train list of the train's cargo with hazmat placement. We have seen where railroad computer centers have not updated train lists while the train is enroute. So again, our first charge is to deliver hazmat documents to the first responder, assess the hazmat material, and instruct evacuation.

Before that happens, the conductor is the employee who will alight from the engine to the ground, move back along the standing train and assess the situation, detach the engines, or as many cars on the rail as possible with engines, and evacuate the derailment site with the engineer who is at the engine controls and manning the all-important locomotive radio base.

It is the conductor who will inform emergency responders as to status of the air brakes, the train's securement and assist to formulate an initial response plan with the responders.

Very quickly, I want to recognize the efforts of UTU conductor Geoff Anderson and his crew for their remarkable efforts during the BNSF Casselton Train derailment.

Our railroad companies provide minimal training and testing for hazmat events. For this reason, UTU Minnesota has sent our conductors to the National Labor College, Meany Center, Silver Springs Maryland, which is sponsored and funded by the U.S. DOT, and hosted hazmat emergency training sessions with the DOT at our office in St. Paul. We have been trained within week long sessions with hands on, full equipment simulation.

We want to be clear. Lac Magnatic, Casselton, Clara City Minnesota, 2007, Minot Train derailment, 2002, train derailments were not accidents. These were incidents with a cause from a track, operational, or mechanical failure.

Recently, BNSF Spokesperson Amy McBeth correctly stated that 99.998% of train shipments reach their destinations without incident. As train crews, our mission is 100% without exception. "Safety First" means -no incident-. So this is where we are coming from in this discussion and again, we thank the legislature for acting to assure our state is prepared.

To recent positive industry events and federal regulatory needs:

UTU believes the acknowledgement by AAR February 21 that railroads will take voluntary actions regarding oil unit trains is a good first step. (However, two areas from AAR's commitment list are already effectively in place with oil trains moving through Minnesota). (Telemetric EOT / 40 MPH / detectors not regulated).

Also, last Tuesday the DOT issued an Emergency Order requiring more stringent testing of crude oil before shipment. This may lead to hazmat classification from Class Three Combustible, to a Class Two or Class One Hazard, with the correct MSDS information traveling with oil train shipments.

Also, at the federal level:

UTU supports retirement or retrofitting of the DOT-111 tank car.

We are encouraged by BNSF's announcement that they will purchase 5000 DOT-1232 tank cars. By stenciling their own identification letters on the side of each car, this shows a clear commitment for improved tank car safety, an investment for the continued movement of oil by rail, and this is a positive step.

UTU strongly supports increased mechanical inspections of trains and increased track inspections, particularly those with inspectors immediately in advance of an oil train's movement.

UTU strongly supports a federal order or regulations requiring a five car buffer between the first loaded hazmat car and an occupied locomotive on all hazmat unit trains.

We also want to cite that within our industry, management must continue to work to improve fatigue issues for train crews with accurate, realistic, actively managed train line-ups from which our crews can plan rest before calls to duty. With this longstanding and very serious crew fatigue issue, passage of a federal legislation to provide for a ten hour call to duty is necessary.

We would also like to note that from the Rail Safety Improvement Act of 2008 and the mandate for every occupied locomotive cab to have emergency and portable IH respirators, we still do not have that safety equipment due to delays in federal rule making.

Finally from the federal level, UTU wants to cite the importance of passage of HR 3040, the Safe Freight Act, which will mandate two person train crews. With a certified conductor and engineer, train securement can be executed, crew resources management continues at current procedural levels, and public safety is assured.

To actions the State of Minnesota can take to assure rail safety.

We strongly support provisions that will bolster first responder preparedness with high pressure fire equipment, fire suppressant materials, protective body suits for cities and smaller towns alike where trains travel, and, (3)

assure an "all hazards approach" that includes civil emergency alert communication systems within all response plans.

There are two specific areas that UTU would like to advocate for within any state legislation.

First, regarding funding mechanisms within a bill, we want to note that funding for the MnDOT state rail inspector (49 CFR 212), is currently set forth in Min Statute 219.501. The four Class One carriers operating in the state are assessed equally for the cost associated to assure track and crossing railroad safety.

This area of statute was created by mutual agreement, has not been challenged in court, and we believe it is an appropriate manner to fund additional inspectors and improved emergency response.

Second, we request that conductors be named as participants within any emergency response planning committees that are assembled. We know that veteran conductors who work on rail corridors have specific knowledge to share about rail lines, public intersections, and post-incident rally points. This can improve the safety of first responders at the onset of a hazmat event. UTU will be happy to volunteer our knowledge to the state.

In closing, there are two additional actions the State can take to improve railroad safety. We want to respectfully remind the legislature that the MnDOT Commissioner has the authority under MN Statute 219.01, to apply for RSIA 2008 Federal track-safety technology grants, for track-switch point monitory devices in non-signaled track territory. Installation of these devices will improve the safety and security of our non-signaled mainlines.

The other action the legislature can take this year will be to pass HF 2460, the General Railroad Yard Lighting bill, that will improve worker safety and the quality of mechanical inspections of rail cars at yards before they move in trains on mainline track.

Whatever the public opinion regarding oil and hazardous materials, we will continue to move these commodities by rail. While we need to guard against needless alarmism, I respectfully submit that the Legislature move with urgency.

Mr. Chairman, Committee members, Thank you for hearing my testimony and I will be happy to answer any questions.

Exhibit Three

**Abstracted Lighting Complaints
BNSF, CN, CP and UP Properties**



SIRP
 Safety Issue Resolution Process
 Complete and discuss with
 Supervisor or Safety team member
 This process works best face to face



If you want to be notified fill in the following: *

DATE: 10-26-2014

*Employee Name: [REDACTED]

*Employee #: B167 [REDACTED]

*BNSF Outlook E-mail Address: _____ *Phone #: [REDACTED]

(outside emails are not compatible with SIRP database-you will get a letter acknowledgment)
 CRAFT: TY+E DIVISION: TWIN CITIES SUBDIVISION: SUP. W/LAKES

REPORT ALL UNSAFE CONDITIONS TO PROPER AUTHORITY FOR THE PROTECTION OF OTHERS

Safety Concern Issue: (Be specific - Milepost, Track Name, distance from identifiable point, Signal #, Locomotive #, etc...)
LIGHTS NEEDED ON THE EAST & WEST ENDS OF MIKES YARD IN DULUTH.

SOME CONDITIONS MAY REQUIRE IMMEDIATE PROTECTION (BARRIERS, RED TAGS, GTB etc)

Was immediate protection required? _____ How was the condition was protected? _____

Suggestions for Corrective Action: (How to protect and/or correct the problem?)
PUT LIGHTS ON BOTH THE EAST & WEST ENDS OF MIKES YARD. (SEE PICTURES)

The BNSF, in a joint effort with the UTU, BLET, BMWF, and BRS has implemented a computer-based system to track safety problems and better communicate the implementation and resolution of these issues to employees.
 This completed form should be delivered to your **Supervisor** or a **Safety site team member**. A letter through your BNSF e-mail will notify you when this form is entered into the computer data system. You will also be notified through BNSF E-Mail when the issue has been updated or resolved

This form was submitted to:

(1) Supervisor _____ (2) Safety Representative (3) Other: _____

Immediately reported to: _____ Date & Time _____

Sent to BNSF Officer _____ Date & Time _____

Safety Team Members at your location:

[REDACTED]

Matt Perrault - SIRP Coordinator

Safety Log Details for Issue TWI000015847

Reporting Details

Reporting Date 10/26/2014

Reporting Employee Details:

Employee Id 1650571
 Last Name PERRAULT First Name MATTHEW
 Phone 218-390-1381 E-Mail MATTHEW.PERRAULT@BNSF.COM
 Address 1432E 6TH STREET, SUPERIOR, WI, 548802843

Safety Log Details

Craft SWITCHMAN Reporting method SIRP Form
 Station Name SUPERIOR Sub Division LAKES
 Division TWI Location OTHER
 Responsible Area Division
 Estimated Issue Close Date 10/30/2015 Actual Issue Close Date
 Issue Category Description LIGHTING

Item:
 LIGHTS ARE NEEDED ON THE EAST AND WEST END OF MIKES YARD IN DULUTH

Interim Protection:
 MATTHEW PERRAULT - 10/26/2014 SIRPED PICTURES TAKEN

Corrective Action / Protection:
Division Safety Manager Comments: No comments available.

Notes:

Responsible Person Details

Last Name BALCER First Name SHELLEY
 Department SAFETY Issue Status Open
 Job Title EHS COMPLIANCE OFFICER

Safety Log Details for Issue TW000015332

Reporting Details

Reporting Date 02/20/2014

Reporting Employee Details:

Employee Id	1533132	First Name	NATHAN
Last Name	VOYNICH	E-Mail	NATHAN.VOYNICH@BNSF.COM
Phone	763-782-3146		
Address	8483 SOUTH COUNTY ROAD P, LAKE NEBAGAMON, WI, 54849		

Safety Log Details

Craft	SWITCHMAN	Reporting method	Verbal
Station Name	SUPERIOR	Sub Division	LAKES
Division	TWI	Location	DULUTH, MN
Responsible Area	Division		
Estimated Issue Close Date	12/31/2016	Actual Issue Close Date	
Issue Category	LIGHTING		
Description			

Item:

THE LIGHT ON THE WEST END OF THE YARD ARE NOT WORKING. THESE ARE THE LIGHTS FARTHEST AWAY FROM THE YARD OFFICE.

Interim Protection:

LAWRENCE MATTISON - 10/30/2014 BRIEFING CREWS
 LAWRENCE MATTISON - 02/26/2014 JOB SAFETY BRIEFING
 BERNARD OLSON - 02/20/2014 SIRP

Corrective Action / Protection:

LAWRENCE MATTISON- 10/30/2014 WILL BRING UP AT THE SAFETY SITE MEETING
 LAWRENCE MATTISON- 05/27/2014 SHOVE LIGHTS AVAILABLE TO ASSIST IN SHOVES
 LAWRENCE MATTISON- 02/26/2014 WILL JOB BRIEF CREWS

Division Safety Manager Comments: No comments available.

Notes:

Reason for Reopen:

SHOVE LIGHTS DISAPEARED AND THE YARD HAS AQUIRED MORE DEMAND IN SWITCHING OPERATIONS

Responsible Person Details

Last Name	MATTISON	First Name	LAWRENCE
Department	SUPERIOR TERMINAL	Issue Status	Reopen
Job Title	TRAINMASTER		

Safety Log Details for Issue TWI000014350

Reporting Details

Reporting Date 02/07/2013

Reporting Employee Details:

Employee Id 1160373

Last Name OLSON

First Name BERNARD

Phone 218-393-2323

E-Mail BERNARD.OLSON@BNSF.COM

Address 4910 E CONLEY ROAD, SUPERIOR, WI, 548801109

Safety Log Details

Craft SWITCHMAN

Reporting method SIRP Form

Station Name CASS LAKE

Sub Division LAKES

Division TWI

Location CASS LAKE

Responsible Area Division

Estimated Issue Close Date 02/12/2013

Actual Issue Close Date 02/19/2013

Issue Category Description ELECTRICAL

Item:

THE FLOOD LIGHTS AT CASS LAKE USED FOR ROLL-BY INSPECTIONS AT CASS LAKE ARE INOPERABLE. (BURNT OUT)

Interim Protection:

BERNARD OLSON - 02/07/2013 SIRP

Corrective Action / Protection:

MIKE MOHRFELD- 02/19/2013 LIGHTS REPLACED

Division Safety Manager Comments: No comments available.

Notes:

PLEASE FIX TO HELP ASSIST IN ROLL BY INSPECTIONS AFTER DARK.

Responsible Person Details

Last Name MOHRFELD

First Name MIKE

Department CONSTRUCTION - NORTHERN LINES

Issue Status Closed

Job Title STRUCTURES SUPERVISOR

Safety Log Details for Issue TWI000010396

Reporting Details

Reporting Date 03/11/2010

Reporting Employee Details:

Employee Id 1533132
 Last Name VOYNICH First Name NATHAN
 Phone 763-782-3146 E-Mail NATHAN.VOYNICH@BNSF.COM
 Address 8483 SOUTH COUNTY ROAD P, LAKE NEBAGAMON, WI, 54849

Safety Log Details

Craft SWITCHMAN Reporting method Verbal
 Station Name SUPERIOR Sub Division LAKES
 Division TWI Location RICE'S POINT YARD
 Responsible Area Division
 Estimated Issue Close Date 03/16/2010 Actual Issue Close Date 03/16/2010
 Issue Category YARD LIGHTS
 Description

Item:

COULD MORE LIGHTS, BETTER LIGHTS, OR REPLACING BURNT OUT LITES BE DONE TO THE LIGHT TOWER IN THE RICES POINT YARD CLOSEST TO THE SWITCHING LEAD. IT IS GETTING MORE DIFFICULT TO SEE. IT COULD BE BRIGHTER.

Interim Protection:

RYAN KAPPERUD - 03/11/2010 BROUGHT UP DURING SAFETY MEETING, FORWARDED TO SUPT, TERMINAL MANAGER, AND ELECTRICAL FORMAN

Corrective Action / Protection:

RICHARD BALCER- 03/16/2010 REPLACED 1000 WATT LITE BULBS
 RICHARD BALCER- 03/16/2010 REPLACED 1000 WATT LITE BULBS

Division Safety Manager Comments: No comments available.

Notes:

Responsible Person Details

Last Name BALCER First Name RICHARD
 Department ELECTRICAL Issue Status Closed
 Job Title ELECTRICAL WORKER (IBEW)

Safety Log Details for Issue TWI000011050

Reporting Details

Reporting Date 07/12/2010

Reporting Employee Details:

Employee Id 4394805
 Last Name OLSON First Name RICHARD
 Phone 715-394-1208 E-Mail RICHARD.OLSON4@BNSF.COM
 Address 3008 EAST 2ND STREET, DULUTH, MN, 55812

Safety Log Details

Craft ENGINEER Reporting method Email
 Station Name SUPERIOR Sub Division LAKES
 Division TWI Location MIKE'S YARD
 Responsible Area Division
 Estimated Issue Close Date 12/30/2011 Actual Issue Close Date 06/11/2011
 Issue Category LIGHTING
 Description

Item:

AT MIKE'S YARD - SWITCH CREWS REQUEST LIGHTING FOR THE SWITCHING LEAD. VERY DARK AT NIGHT.

Interim Protection:

S UJKA - 08/06/2010 SWITCH CREWS SHOULD HAVE FUNCTIONING LANTERNS FOR NIGHT SWITCHING OPERATIONS.

S UJKA - 07/19/2010 SWITCH CREWS SHOULD HAVE FUNCTIONING LANTERNS FOR NIGHT SWITCHING OPERATIONS.

RICHARD OLSON - 07/12/2010 SENT TO CARRIER OFFICER FRO RESOLVE. SUGGESTION FOR A LIGHT ON POLE NEAR SWITCHING LEAD

Corrective Action / Protection:

S UJKA- 06/11/2011 STILL HAVE NOT RECEIVED FEEDBACK AS REQUESTED FOR EXACTLY WHERE ADDITIONAL LIGHTING IS BEING REQUESTED SO WILL CLOSE THE SIRP.

S UJKA- 11/22/2010 WAITING ON FEEDBACK REGARDING WHERE LIGHTING IS BEING REQUESTED.

S UJKA- 09/28/2010 WAITING ON FEEDBACK AND A LIGHTING AUDIT.

S UJKA- 08/06/2010 WAITING ON FEEDBACK FROM RICK OLSON REGARDING THE LOCATION WHERE LIGHTING IS BEING REQUESTED.

S UJKA- 07/20/2010 RICK OLSON HAS BEEN CONTACTED TO CLARIFY THE EXACT LOCATION WHERE LIGHTING IS BEING REQUESTED.

S UJKA- 07/19/2010 WILL HAVE TO HAVE A LIGHTING ASSESSMENT DONE AND GET CAPITAL FUNDING FOR LIGHTING IMPROVEMENTS. SWITCH CREWS SHOULD HAVE FUNCTIONING LANTERNS FOR NIGHT SWITCHING OPERATIONS.

Division Safety Manager Comments: No comments available.

Notes:

Responsible Person Details

Last Name UJKA First Name S
 Department SUPERIOR Issue Status Closed
 Job Title TERMINAL MANAGER



united transportation union

August 1st, 2008

Richard A. Olson, Safety Coordinator (TWI DIV)
United Transportation Union
3144 Greysolon Place
Duluth, MN 55812-2303

Rick Hauser
United Transportation Union Local 311
2021 Loomis Street
La Crosse, WI 54603

Re: Lighting @ BNSF Dayton's Bluff, Union, Bridal Veil, and Midway Hub

Rick:

BNSF Northtown Terminal Superintendent Matt Burkart instructed the Northtown Site Safety Team to come up with specific areas where lighting is most needed at Midway, Union, Bridal Veil and Dayton's Bluff. Cassi Shelton, UTU Local 1000 Site Safety Rep. is one of the UTU members of the Northtown Site Safety Team. She has been assigned to collect the needed information to present to the carrier at Northtown's Site Safety Meeting, August 19th, 2008, 9 AM, 2nd Flr., Hump Tower. Enclosed is a map of Dayton's Bluff. Please indicate where the La Crosse crews feel the most need for lighting. If you have any further information to pass along regarding lighting in the Twin Cities Terminal Complex please submit to Cassi prior to Aug. 19th. Cassi's address is:

Cassandra Shelton
143 Lee Street
Big Lake, MN 55309
C: 612-386-0475
E-Mail: gramma2663@netzero.com

Fraternally yours,

Rick Olson, Safety Coordinator (TWI DIV)
United Transportation Union
218-391-6448
E-Mail: 1raoul@charter.net

Cc Mike Otzelberger, La Crosse Site Safety Member (BLET)
Cassandra Shelton, UTU Local 1000
Phil Qualy, MN UTU State Legislative Director

Phillip J. Qualy
Legislative Director,
Chairperson

Daniel M. Paradise
Assistant Director

Richard A. Olson
Secretary



Minnesota Legislative Board

Labor and Professional Centre
411 Main Street
St. Paul, MN 55102
Suite 212
651-222-7500(o) 651-222-7828(f)
E-MAIL:
UTUMNLEGBD@VISI.COM

July 10, 2008

Mr. Richard Ebel
General Manager
BNSF Twin Cities Division
BNSF Railway Company
80 - 44th Avenue N. E.
Minneapolis, MN 55421

RE: BNSF St. Paul Subdivision, Audit and Redesign of Safety Group Responsibilities

Dear Mr. Ebel,

I am very pleased to learn that the carrier is conducting an audit of operations at BNSF Midway Yard, St. Paul Minnesota. Clearly, BNSF operations structure and responsibility groupings directly impact the safety of our United Transportation Union(UTU) members.

With this letter and on behalf our membership in Minnesota, I respectfully request that the scope of the internal audit be broadened to include not only Midway Yard, but all operations between Minneapolis Junction, Dayton's Bluff and to Oakland Interlocking.

By way of history, your predecessor Mr. Bruce and I discussed the need for review and capacity improvements in this territory that encompasses three BNSF Yards. Mr. Bruce acknowledged that the tonnage has doubled in the territory since the management design and responsibility groupings were last designed and implemented. Unfortunately and for whatever reason, the carrier did not follow through to increase support for the operation.

Please allow me to share with you several of the safety concerns that have been reported to this UTU Committee office:

- 1) At Midway Yard, the observance of safety rules and lock-out rules while independent contractors are operating on adjacent tracks must be observed first over productivity schedules.
- 2) At Midway Yard, the independent vehicle crossing continues to present a challenge for operational safety.

Mr. Richard Ebel
July 10, 2008
Page two.

- 3) At Union Yard, existing tracks that have been stubbed and have remaining rail in place create a slip trip and fall hazard. As well, the Red Boards are not easily seen on track from a relatively short distance. Some sort of advance marker is needed for end of track(s).
- 4) At Dayton's Bluff Yard, yard lighting is badly needed and has been a long standing capital improvement safety request.
- 5) At Dayton's Bluff Yard, an in-plant independent switching operator is effectively running the Yard. The operator is seen out blocking yard tracks, is not in instant communication with Midway Mobile-80 Yard Master, and very often there is uncertainty as to status of track occupancy in the yard.

(As reported in years 2006, 2007 and early 2008, UTU-Canadian Pacific Yardmasters at CPR St. Paul Yard received frequent calls from BN East Hump inquiring as to how BNSF Dayton's Bluff Yard tracks actually stood).

As a reminder, other Class One carriers interchange at the Bluff.

- 6) The responsibility grouping work load and job assignment for Yard master Mobile-80 is significantly over capacity. It has been reported that while the BNSF Mobile-80 is responsible for and grants authority to trains to occupy yard tracks at Dayton's Bluff from his location at Midway Yard, (eight miles away), and is responsible for knowing the status, condition, occupancy of tracks consistent with general Yardmaster duties, Mobile-80 workers report that they have not actually visited or seen Dayton's Bluff Yard in months. Further, vehicle based yard radios have failed in the past further taxing the overall communication system between Midway and Dayton's Bluff Yards.

This is not an acceptable safety practice, particularly with interchange from foreign railroads. A major interlocking entering the Yard cannot sustain delays and trains heading into the Bluff must clear the interlocking plant. This can put trains in on tracks of which the actual status is not known.

- 7) Based on the information contained herein, UTU believes that an additional Yard master, road switcher or other jobs must be added to assure a safe work place at the respective BNSF Yards.

Mr. Richard Ebel
July 10, 2008
Page three

In summary, it is the view of this committee office that the safety margins at Midway and the adjoining Yards are simply stretched too thin. The UTU supports and encourages the Carrier's effort to audit railroad operations in St. Paul, Minnesota.

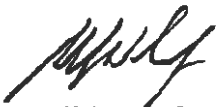
Unfortunately, we have not had the opportunity to meet and discuss our views on railroad safety. However, please allow me to assure you that it is not this committee office's intention to tell you how to run your railroad. Rather, I forward the aforementioned information so as to help the BNSF modify and build a safer operating plan.

The UTU-BNSF safety representatives have other valuable insights as well and represent a work force that has an exceptional work ethic and is dedicated to the BNSF. Please tap into their many talents as they are an invaluable asset toward building a better, safer, railroad.

On behalf of our United Transportation Union membership in Minnesota, I look forward to a positive and productive working relationship for safety on the BNSF Railway.

I hope this information is helpful to you

Sincerely,



Phillip Qualy
Minnesota Legislative Director
United Transportation Union

cc: Mr. Michael Futey, UTU International President.
Mr. James M. Brunkenhoefer, UTU National Legislative Director.
Mr. Gary Virgin, UTU / BNSF General Committee of Adjustment.
Mr. Jay Schollmeyer, UTU / BNSF General Committee of Adjustment.
Mr. David Craig Welsh, UTU / BNSF General Committee of Adjustment.
UTU Legislative Representatives, Locals 1000, 1175, 1177, and 1976.
UTU BNSF Safety Committee Coordinators.



Brian J. Sweeney
Legislative Counsel
Exec. Dir., Gov't Affairs

BNSF Railway Company

325 Cedar St.
Suite 620
St. Paul, MN 55101
Tel: (651) 298-2458
Fax: (651) 298-7352
brian.sweeney@bnsf.com

February 26, 2008

Mr. P.J. Qualy
Minnesota Legislative Director
United Transportation Union

Dear Mr. Qualy:

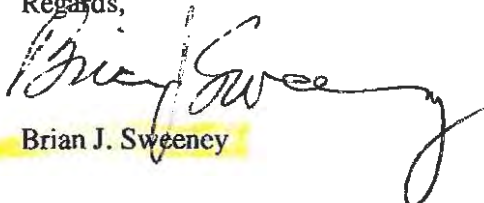
I received your letter of February 5 with attachments regarding walkway/safety conditions in Minnesota. I reviewed the materials with Mike Leonard, our manager of safety in Minneapolis. When I invited you to forward unresolved safety problems to me, I referred specifically to existing safety problems that have been reported but are not being dealt with. I don't see anything of that nature in the information you sent me a month after my last invitation.

The largest group of complaints relates to snow removal. I understand that those problems resulted from several heavy snows occurring in a relatively short period of time and were pretty much resolved before your letter was sent. The biggest problems occurred in Duluth/Superior following the snowfall of December 23. That situation involved the combination of a 10-inch snowfall and the railroad being shorthanded over Christmas. As is noted in the information you sent, fully half of the maintenance of way employees in and near Duluth Superior elected to take vacation at that time. Maintenance employees have been added at terminal locations.

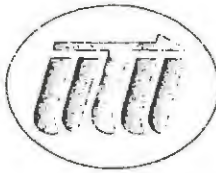
Another group of problems concerns the resolution process, rather than the problems themselves. For example, exception is taken to the lighting issue at Dayton's Bluff being marked "closed," although it seems BNSF dealt with the matter, just not in the manner that the UTU prefers. In another case the concern is that the issue was marked closed before the repair had actually occurred. That repair was made last year, so this is not what I would consider an unattended-to safety hazard. In fact, you include items that were reported and promptly repaired as far back as mid-2005. I am not at all clear as to why you sent those on to me.

Again, if there are safety problems on BNSF that have been reported and are not being addressed, please forward the information to me and I will try to help move the process along.

Regards,



Brian J. Sweeney



UNITED TRANSPORTATION UNION

November 30th, 2007

To: George Joyce, President/LC-GNY, UTU Local 1000
Tom Lyman, Legislative Representative, UTU Local 1000
Phil Qualy, MN UTU State Legislative Director

From: Rick Olson, UTU TWI DIV Safety Coordinator

Re: Northtown, Midway, Dayton's Bluff, and Union Yard Lighting Issues

Brothers:

I have searched through the BNSF Twin Cities Division SIRP (Safety Hotline) Log from November 1st, 2003 to November 30th 2007 and the following enclosed items is what I can find on the open and closed SIRP issue log.

Table with 5 columns: TWI ID, Date, Location, Issue Description, and Status/Action. Includes handwritten notes at the bottom regarding BNSF management actions.

This is one reason an active safety committee is needed to go over the SIRP's on a monthly basis to make sure each item is "Protected and Corrected". The committee's role is to determine as a group what are the B.S. answers and to not accept them, to re-open the SIRP's, and if that doesn't work, go up the ladder to the Safety Coordinators, then to the General Manager and then the General Chairmen step in. That is how it is suppose to work.

Fraternally yours,

R. A. Olson (handwritten signature)

R.A. Olson
UTU TWI Safety Coordinator
218-391-6448

Mr. Mark Bruce
October 15, 2007
Page two.

- 2) On July 23, 2007, the inappropriate conduct of BNSF Midway Yard Mgr. Poyer at Union Yard led to the perception of double-standard for observance of critical safety rules and duty of employment.
- 3) In August, a BNSF Terminal Superintendent attended the Safety Committee meeting and discussed the need, and then demanded, budget cuts from the Safety Committee participation levels.
- 4) The overall perception of slow and unsatisfactory responses to identifiable and reported SIRP'd physical plant items at Northtown Yard. It is reported that SIRP'd items are receiving carrier responses of "up to track standards" and then closed without repair or improvement. Members of UTU Local 1000 do not, and have not, considered this a credible or satisfactory answer from their employer.
- 5) In July, our UTU membership was told the maintenance budget was depleted for the remaining second half of 2007. As well, it is reported that there has been high rate of turnover of Roadmasters at Northtown and shortage of MOW manpower to repair the aging yard.
- 6) In August, the carrier took the mapping of close clearances compiled within the "BNSF Playbook" and ordered switchmen who were not familiar with track territories to work road jobs without pilots or familiarization trips.(As reported from Sioux City and Duluth). The "Playbooks" were a product of a good faith effort from the Safety Committee process that was then used by managers to usurp safety standards and long established mainline territory practices.
- 7) There are unresolved Safety Committee items that have been elevated to Superintendent or Division Level status that are not being resolved. By way of example and as reported, there are lighting program requests for Daytons Bluff Yard that are over eighteen months without action, comment, or status update from the carrier. This is not acceptable.
- 8) At Midway Yard, the subject of work load and remote management of other yards by Midway Mobile-80 has not been addressed despite the reported doubling of train movements since BNSF management designed the operating plan for yard force utilization.
- 9) Our members who work at Northtown Yard remain very concerned that the carrier has not conducted a comprehensive fire drill or hazmat evacuation exercise, (non-computer simulated) in recent memory.

Phillip J. Qualy
Legislative Director,
Chairperson

Robert J. Pearson
Assistant Director

Richard A. Olson
Secretary

united
transportation
union



Labor and Professional Centre
411 Main Street
St. Paul, MN 55102
Suite 212
651-222-7500(o) 651-222-7828(f)
E-MAIL:
UTUMNLEGBD@VISI.COM

Minnesota Legislative Board

November 15, 2006

Mr. Mark Bruce
General Manager
Twin Cities Division
Burlington Northern Santa Fe
80 44th Avenue Northeast
Minneapolis, MN 55421

VIA: U.S. Mail

RE: Request for Increase to BNSF Twin Cities Division 2007 Budget Submission.

Dear Mr. Bruce,

With the close of 2006, the BNSF Closed Loop Safety Process and Site Safety Inspection Teams continue to do well toward advancing the highest level of safety on your property. As record volumes of business are creating increased operating wear on your physical plant, our membership continues to report delayed safety repairs and maintenance.

With the 2007 planning and budget cycle submissions at hand for the Burlington Northern Santa Fe Railroad management, I respectfully request that you increase your total Maintenance of Way budget request by at least ten percent over the planned budget for the next year. Thank you.

Sincerely,

Phillip Qualy
Minnesota Legislative Director
United Transportation Union

cc: Mr. Paul C. Thompson, UTU International President.
Mr. James M. Brunkenhoefer, UTU National Legislative Director.
UTU / BNSF General Committees of Adjustment
UTU / BSNF Local Committees of Adjustment

→ BNSF SAFETY HOTLINE: COST ESTIMATE - LIGHT POLE.

Open Safety Items - April 14, 2014

Reported Location	Sub Divl	Item	Issue Category	Estimated Close Date	Open Beyond Retd Close Date (Days)	In Detection	Corrective Action / Protection	Notes
DAYTONS BLUFF	ST PAUL	EMPLOYEES ARE WONDERING IF A SMALL LIGHT POLE COULD BE INSTALLED NEAR THE SWITCH AND DERAIL ON THE WEST END OF DAYTONS BLUFF YARD, FOR THE YARD LEAD TRACKS NEAR HOFFMAN AVE. (WEST OF THE WARNER STREET BRIDGE) THIS AREA IS VERY DARK AT NIGHT AND IT IS HARD TO SEE SAFETY ANY HAZARDS.	LIGHTING	6/30/2014	0	(MICHAEL DODGE - 04/29/2013) USE HAND HELD PERSONAL LIGHTING (MICHAEL OTZELBERGER - 04/06/2013) SIRP ENTERED.	(MICHAEL DODGE - 04/30/2013) ISSUE STILL UNDER REVIEW. (MICHAEL DODGE - 04/29/2013) REVIEWED SITE WITH LOCAL ELECTRICAL CREW, WILL NEED TO INSTALL A SOLAR/BATTERY LED POLE MOUNTED LIGHT AS THERE IS NO ELECTRICAL POWER NEAR THE SITE. PRELIMINARY ESTIMATE IS FOR \$13,000 FOR MATERIALS AND \$1,000 FOR LABOR. THIS WILL REQUIRE AN AFE, REQUESTING USER DEPARTMENT WILL NEED TO SPONSOR THE AFE.	(MICHAEL OTZELBERGER - 04/06/2013) PLEASE INSTALL A SMALL LIGHT POLE NEAR THE SWITCH AND DERAIL AREA OF THE WEST END YARD LEAD AT DAYTONS BLUFF YARD, NEAR HOFFMAN AVE. (WEST OF THE WARNER STREET BRIDGE). THIS WILL HELP REDUCE THE RISK OF EMPLOYEES GETTING INJURED WHILE WALKING IN THIS AREA AT NIGHT.
LITTLE FALLS	STAPLES	A NORTHTOWN CONDUCTOR TURN IN THIS WALKWAY AT EAST END OF LITTLE FALLS SIDING, THE WATER COMES UP TO THE EDGE OF THE SIDING EAST OF BROADWAY CROSSING UP BY ABSOLUTE SIGNAL BY THE HOLDING POND AND DAM. IS IT POSSIBLE TO PUT IN SOME POST AND CABLE ALONG THIS AREA APPROX 40 TO 50 FEET TO PROTECT FALLING INTO RIVER. I WILL FORWARD PICS TO LANIER,	WALKING-WORKING SURFACES	5/30/2014	0	(DANIEL PETERSON - 02/20/2013)..	(MICHAEL ANDERSON - 01/10/2014) TALKED TO MARK GJEVRE IN ENGINEERING SERVICE, THIS ISSUE HAS TO GO ABOVE HIS HEAD, LOT OF PERMITTING AND MAY HAVE TO DRIVE SHEET PILING, CAN NOT GIVE A DATE (JAMES LANIER - 11/18/2013) 11/18/13 I TALKED WITH MARK GJEVRES IN ENGINEERING SERVICES PLAN AND PERMITS WILL NOT BE DONE BEFORE TOTAL FREEZE TIME FRAME HAS BEEN SET OUT TO MAY OF 2014. (JAMES LANIER - 10/02/2013)	



LAKES NORTH HEALTH & SAFETY COMMITTEE MEETING OF December 17th, 2014

	11/17/14	There is rail lying between #9 and #11 tracks at Pokegama. These need to be marked (coned) before they are completely buried by snow. Fellow employees are encouraged to report any such obstructions that require this same attention.	Katich Stavig	Pokegama, Everywhere	Engineering Everyone	12/17/14	
14.	11/19/14	The Middle of the E-yard is dark and needs more lighting. There is a tower light in the S&C Material yard at Proctor. We need to see if this light is available, and what the cost is of installing it.	Ward	Proctor			

LAKES NORTH - HEALTH & SAFETY COMMITTEE MEETING OF November 19th, 2014

5.	9/17/14	There are some lighting options available (with poles already in place) in Keenan that we would like to request. These are between South Gate and the Yard Office.	Katich	Keenan	Stavig	10/15	NOT OK
16.	4/23/14	The lights on the back lead in Pokey have a mysterious shut-off. The cause needs to be located and addressed. 5/18 - Awaiting equipment. Also reported by Katich that the following lights at Pokey are in need of attention: Lights out, 4, 6, 8, 9, 19, 21, 22, 23, 24, 25, 26 Lights that cycle on & off, 35, and 37. Also there are 4 lights out at the former Diesel House / Section Building. <i>Will check with Alan to make sure.</i>	Katich	Pokey		6/18/14	
11.	4/23/14	South light tower in Proctor Yard needs lamps to be replaced. Only 3 are working. 5/21 - Awaiting equipment.	Archambeau	Proctor	Blank	5/21/14 6/18/14	
4.	5/21/14	Light poles at Pokegama that are out: 4, 6, 8, 9, 19, 21, 22, 23, 24, 25, 26, 34, 36, 4 lights at former diesel house/section house. Lights at Pokegama that cycle (flicker): 35, 37.	Katich	Pokegama		6/18/14	
7.	10/15/14	Though the lighting has improved at the South end of the Car Shop, we would like to see the trees cut down between the Car Shop Yard and the PM (PF05) road.	Katich	Proctor			

Does wiring is NOT OK

OK

Safety & Health Committee Minutes

December 2014

April 9, 2014 Updated: December 9, 2014	Lighting in Dunn yard and at Hastings, no plan to install lights. Issue to SAB.	R. Newhouse to SAB C. Duffy	Ongoing
August 12, 2014 Updated December 9, 2014	Carmen blue lights between tracks at night, lights not being turned on after dark. New style blue lights in testing phase.	A. Krueger	Ongoing
September 16, 2014 Updated December 9, 2014	No red lights on the East end of 8-Spot. Mouland to decide if this is necessary.	T. Mouland	Ongoing
December 9, 2014	Unsafe condition reports to K. Gibbons for tracking. Trainmasters are not passing these on. Stenson to Hommerding.	P. Stenson	
December 9, 2014	Lighting for windsocks. They are not visible at night. 8 spot windsock has been identified.	West to Mouland	
December 9,	Lights at LaCresent.	Egglund to	

July 2014

February 12, 2014 Updated: July 15, 2014	Shove lights at Dunn Yard. R2 and R6.	C. Duffy	Ongoing
April 9, 2014 Updated: July 15, 2014	Lighting in Dunn yard and at Hastings	Duffy	Ongoing
July 15, 2014	Lighting guidelines from RailCity to TMs for compliance.	Hommerding	

June 2014

February 12, 2014 Updated: June 10, 2014	Shove lights at Dunn Yard. R2 and R6.	C. Duffy	Ongoing
February 12, 2014 Updated: June 10, 2014	Blocked Crossings. Distant signal for Hoffman is working. This is as good as it can be.	J. Hommerding	Complete
February 12, 2014 Updated: June 10, 2014	Combined YM. -Training and Evaluation	J. Hommerding	Complete
April 9, 2014 Updated: June 10, 2014	Lighting In Dunn yard and at Hastings	Duffy	Ongoing



united transportation union

Here are the minutes that I have. I do not have the April minutes which is when I brought up the inadequate lighting in Dunn and Hastings Yards. They are under old business and are simply put down as lighting in Dunn and Hastings.

I am no longer secretary for the committee but there was significant discussion about it and it was shot down by the carrier for the most part every time I bring it up.

The lighting issue would have been brought to SAB but it seems that committee is no longer functioning. We also now have a lighting issue at La Crescent Yard as well which you will see in the December minutes under new business.

Every time I would bring up the issue it would be updated with essentially no update. The carrier has made the safety and health committee so large we are just trying to get all the issues that we have (and there are a lot) written down.

Finally, in the December minutes the lighting issue is in the "on hold" section since we have come to an impasse.

Fraternally,

Rob Newhouse
LC-Y SMART-TD 911
Cell
(651)308-1074
Fax
(888)505-3886



**Summary :** Lighting Issues**Description :**

multiple over head lights burnt out in hoffman ave yard office. no replacement bulbs available.
2160 pigs eye lake road St paul mn 55106

07/11/2014 07:11 AM

Northern	Twin Cities (1)	Albert Lea Sub	07/11/2014	67308	DM004, SOUTH ST PAUL, MN	Fall, Slip or Trip Related	Closed
----------	-----------------	----------------	------------	-------	--------------------------	----------------------------	--------

Summary : Fall, Slip or Trip Related**Description :**

yard lighting by the 12/13 switch is not properly working. and has not been for some time. please fix issue. this makes this area dimly lit, and hard to see walking path.

Northern	Twin Cities (1)	Albert Lea Sub	07/09/2014	67218	DM004, SOUTH ST PAUL, MN	Fall, Slip or Trip Related	Closed
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Summary : Fall, Slip or Trip Related**Description :**

SOMETHING REALLY NNEDS TO BE DONE ABOUT THE SOUTH END OF THE PARK YARD IN SOUTH SAINT PAUL. THE LEAD IS UNEVEN. THE LIGHTS DONT WORK BY THE 11,12 AND 13 SWITCHES. ITS A SAFETY HAZERD WAITING TO BLOW UP. PLEASE MAKE SURE SOMETHING GETS DONE SOON, BEFORE SOMEONE GETS HURT.

Northern	Twin Cities (1)	Albert Lea Sub	01/27/2014	61706	DM004, SOUTH ST PAUL, MN	Lighting Issues	Closed
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Summary : Lighting Issues**Description :**

On the south end of the Park Yard lead, the 3rd light pole from the south end, between the three and four switch. The light the comes on when it gets dark does not stay on. It will turn on and just when its getting warmed up and bright it will go out and then start the process over and over again.

Northern	Twin Cities (1)	Albert Lea Sub	06/04/2014	65992	DM004, SOUTH ST PAUL, MN	Lighting Issues	Closed
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Summary : Lighting Issues**Description :**

light pole #16 north end of park light needs to be replaced works part time

Northern	Twin Cities (1)	Albert Lea Sub	07/03/2014	67017	DM004, SOUTH ST PAUL, MN	Lighting Issues	Closed
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Summary : Lighting Issues**Description :**

light poles south end park #10 and #11 lights not working, south end of hoffman pole #5 and #6 lights not working. please fix thank you

Northern	Twin Cities (1)	Albert Lea Sub	01/27/2014	61706	DM004, SOUTH ST PAUL, MN	Lighting Issues	Closed
----------	-----------------	----------------	------------	-------	--------------------------	-----------------	--------

Summary : Lighting Issues

Description :

On the south end of the Park Yard lead, the 3rd light pole from the south end, between the three and four switch. The light the comes on when it gets dark does not stay on. It will turn on and just when its getting warmed up and bright it will go out and then start the process over and over again.

Northern	Twin Cities (1)	Albert Lea Sub	06/04/2014	65992	DM004, SOUTH ST PAUL, MN	Lighting Issues	Closed
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Summary : Lighting Issues

Description :

light pole #16 north end of park light needs to be replaced works part time

Northern	Twin Cities (1)	Albert Lea Sub	12/11/2014	72349	DM004, SOUTH ST PAUL, MN	Lighting Issues	Open
----------	-----------------	----------------	------------	-------	--------------------------	-----------------	------

Summary : Lighting Issues

Description :

light at south end of hoffman pole #6 by the 28 switch goes on and off. needs to be replaced

thern	Twin Cities (1)	Albert Lea Sub	10/29/2014	71092	DM004, SOUTH ST PAUL, MN	Lighting Issues	Closed
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Summary : Lighting Issues

Description :

light pole #6 south end of park yard light still out needs to be replaced

Resolution :

*** Murphy,Ammie L *** : Message received 10/29/2014 and was forwarded to appropriate personnel for handling. Once response is received, SHL Issue will be updated with information. *** Comment Added at 10/29/14 02:44 PM *** *** Murphy,Ammie L *** : Per email received from Ron Frokjer - TM Elect Ldr Sys on 10/31/14 at 4:10 PM the llight has been repaired. *** Comment Added at 11/03/14 07:53 AM ***

thern	Twin Cities (1)	Albert Lea Sub	10/23/2014	70921	DM136, MASON CITY, IA	Lighting Issues	Closed
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Summary : Lighting Issues

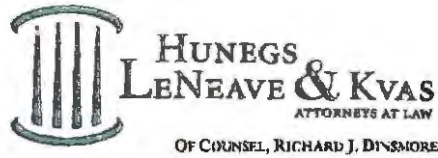
Description :

east end of upgrader light number 45 next to the derail is not working

Exhibit Four

**Abstracted Injury Law Suit Verdicts
Causation, Lack of Yard Lighting**

OMAHA OFFICE
6035 BINGEY STREET
OMAHA, NE
TELEPHONE: 402.341.2020
FAX: 402.341.1851



REPLY TO: MINNEAPOLIS OFFICE
1000 TWELVE OAKS CENTER DRIVE, SUITE 101
WAYZATA, MN 55391
TELEPHONE: 612.339.4511
FAX: 612.339.5150
www.hklaw.com

April 30, 2014

Mr. Phil Qualy
UTU Minnesota Legislative Board
Labor & Professional Centre
411 Main Street, Suite 212
St. Paul, MN 55102

RE: *Shan Martineau v. BNSF Railway Company*
UTU-SMART-TD

Dear Mr. Qualy:

I write in response to your request for information for your member. Tom Flaskamp obtained a \$250,000.00 verdict last week before Judge Dale Harris in Duluth on behalf our client, Shan Martineau.

The jury found the railroad to be 100% at fault. Mr. Martineau was working as a conductor/brakeman for the BNSF on September 13, 2008, in its Superior, Wisconsin yard at night.

Lighting was an important issue in trial. Judge Harris refused to allow the enclosed evidence to be introduced at trial, however poor yard lighting was a contributing factor. The BNSF argued the test and light recommendations described were only for new construction and not applicable to this case.

The BNSF recognizes lighting is an important issue for the safety of their employees. The BNSF certainly understands the lighting recommendations within the enclosed document is a guide line for their yards. However they have chose to ignore their own guide lines in many yards even though they understand the importance of safety.

If we can provide additional information, please feel free to contact our office. Thank you.

Sincerely,

Charlie Shatto
Investigator

CS:sm
Enclosures



REQUEST for WORK

Crew Superior	Division Twin Cities	Location/State Superior, WI.	Project Install high mast towers at 21 st & 24 th St.	Start Date	Priority
Joint Facility No	Line Seg. 0510	Beginning MP 5.4	Ending Mile Post 5.4	Location 852002	Cost \$171,272

Description

Replace the existing 100-foot four legged towers at 21st and 24th street with 100-foot high mast towers. Add a new 100-foot high mast tower east of the 21st street tower to cover the switching leads. All towers will need to have conduit bored in, control panels installed, and wire pulled to them. Each tower will have 1000-watt high-pressure sodium along with 1000-watt metal halide lamps.

Upgrade the existing 100-ampere services at 21st and 24th street. At 21st street upgrade to a 200-ampere service to feed a 50-ampere circuit to the replacement tower, 50-ampere circuit to the new tower, and a 50-ampere circuit to the existing scale house. All locations will be bored into and new wire pulled in. At 24th street upgrade to a new 100-ampere service feeding the replacement tower.

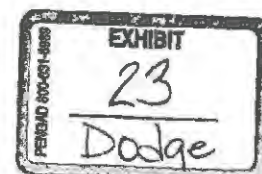
Describe Reason and Necessity of Project

The existing four-legged towers are 100-foot high, with three sections having ladders between the sections. These towers are not equipped with fall protection requiring the employee ascending and descending to use a double hook attachment on their fall protection belt. These hooks than would be attached to the rungs of the ladder while climbing which is a long tiresome process. By going to the high mast tower the lights can be lowered to the ground for the employees to replace.

BNSF requires at least two foot-candles of light at switch points and one foot-candle of light in the body of a classification yard. These lighting standards are from the Illuminating Engineering Society of North America's Handbook and adopted by the Engineering Department in November 1992.

By taking foot-candle readings of the yard, I found that we were below the standards for BNSF. At the 21st street tower I found the following readings at the switch points.

East	Base	.6fc	West	75 ft.	.4fc
	22 ft.	1.4fc			
	116 ft.	2fc			
	307 ft.	2.1fc			
	503 ft.	1.3fc			
	691 ft.	.6fc			
	973 ft.	.4fc			
	1150 ft.	.3fc			



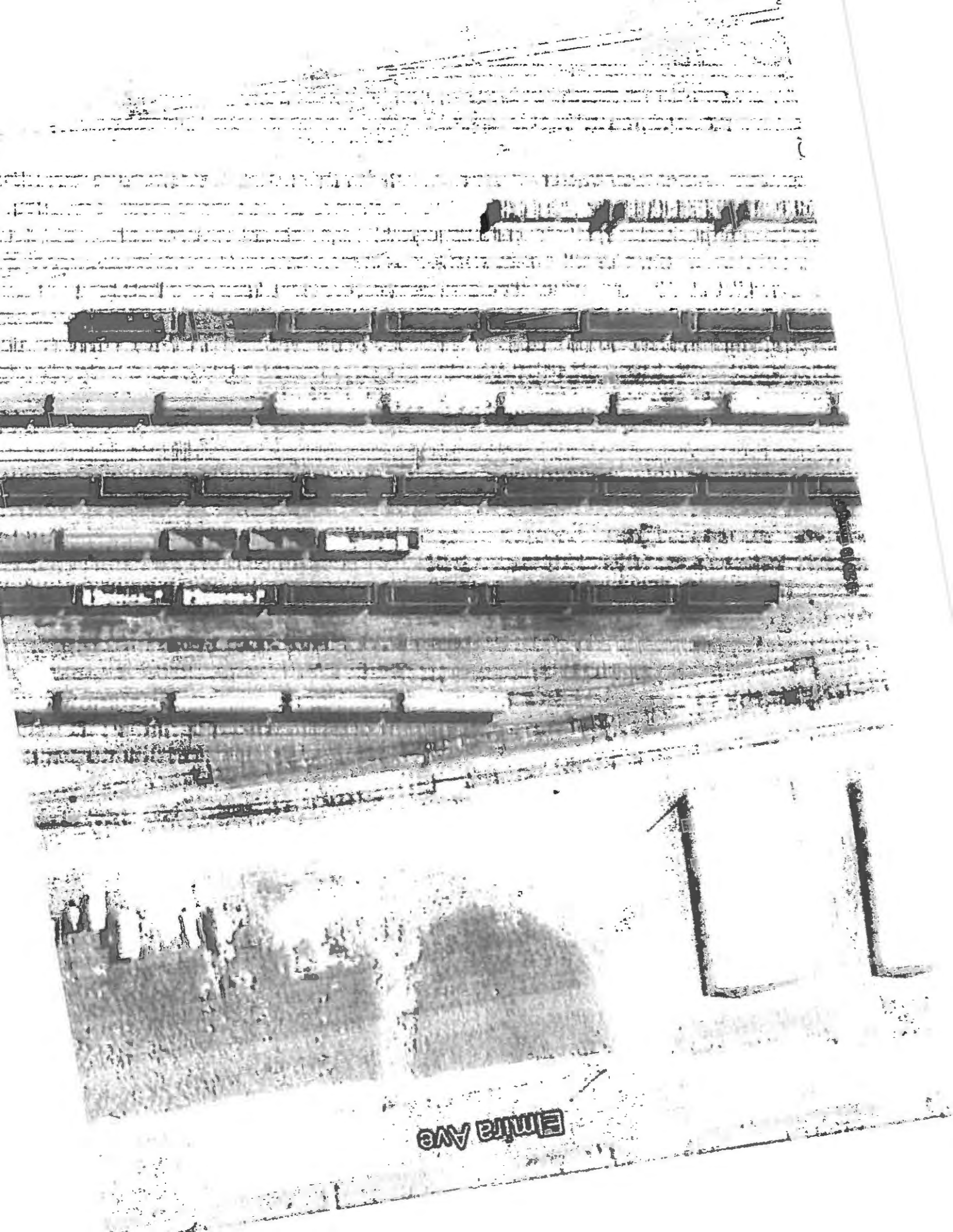
At the 24th street tower I found the following readings at the switch points.

East	Base	.6fc	West	147 ft.	1.3fc
	224 ft.	1fc		347 ft.	.8fc
	563 ft.	.5fc		518 ft.	.5fc
	694 ft.	.4fc			
	931ft.	.3fc			

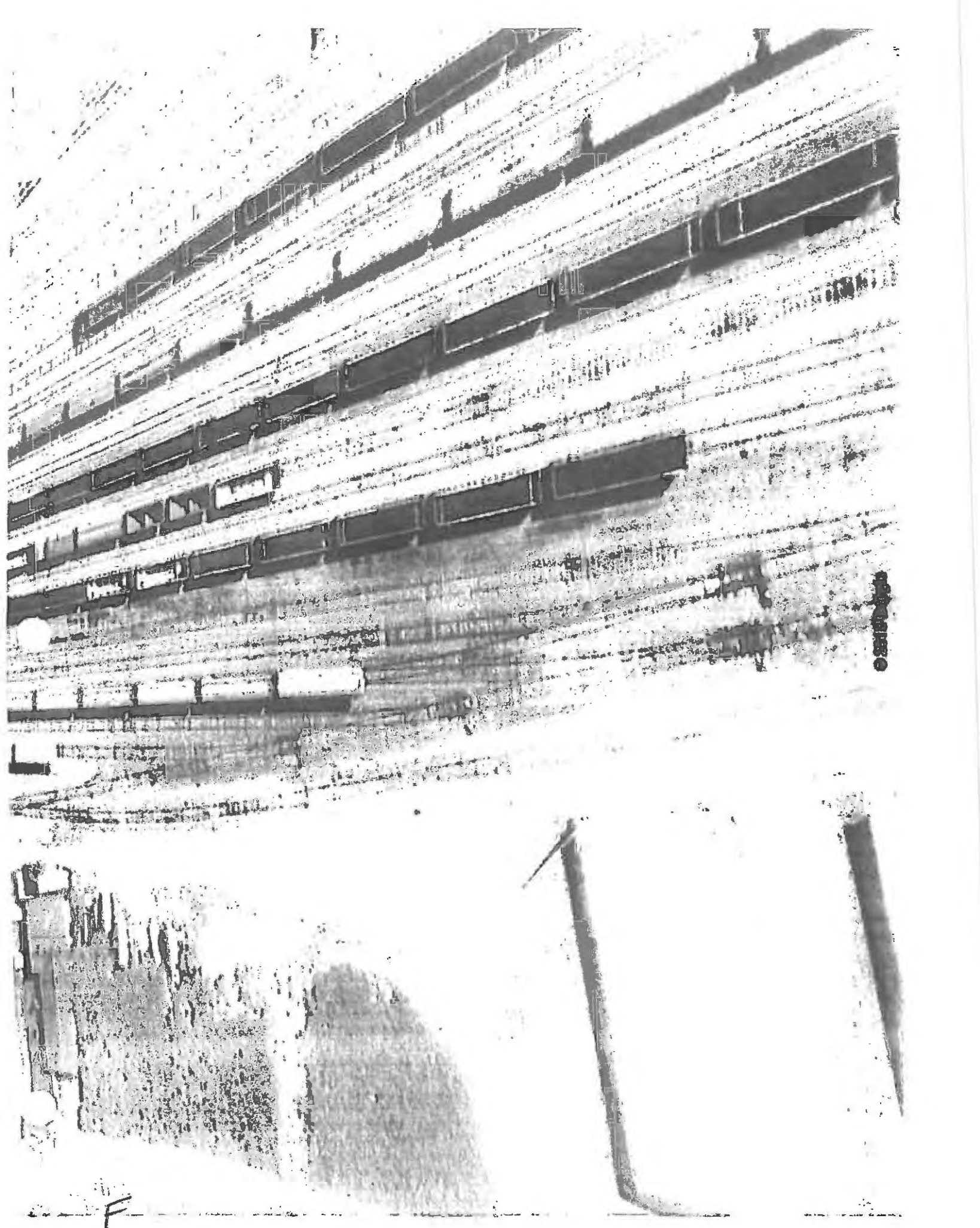
By installing new towers to replace the existing ones with more lights we can cover the far switch points between the 24th and 21st street towers and by adding a new tower to the east of the 21st street tower we can cover the far switch points that direction. As you can see by the readings we fall well below the foot-candle requirements at over ninety- percent of the switches.

Possible Alternative Courses of Action

By adding more light fixtures to the existing towers we could bring the foot-candles at most of the switches between the towers at 21st and 24th streets up to the proper levels This would still leave us with little or no light east of the 21st street tower. Also we will still have the old four-legged towers to contend with when lamps need to be changed.



Emira Ave



BREMSETH LAW FIRM

PROFESSIONAL CORPORATION

601 Carlson Parkway, Suite 995
Minnetonka, Minnesota 55305
952-475-2800 // Fax: 952-475-3879
800-545-3733
www.Bremseth.com
April 30, 2014

Dear Mr. Phillip Qualy,

As you requested, here is a summary of the *Kennedy vs. Canadian Pacific* case I worked on last year that went to a jury verdict.

At 1:00 a.m. on September 5, 2011, Sean Kennedy was as a conductor for CP and was assigned to train 276. The crew's job that day was to operate train 276, eastbound from Minnesota City, Minnesota to Portage, Wisconsin. Upon their arrival at the La Crosse yard in La Crosse, Wisconsin, Sean was directed by his supervisor to pull his train down the main line to the east end of the yard, where they were to spot 45 cars in track number 8 and pick up 6 cars in track 11.

While the west end of the La Crosse yard is adequately lit, CP chose to not light the east end of the yard. Sean did as he was instructed and pulled his train from the well-lit west end of the yard to the complete darkness of the east end to perform his switching as instructed. It was during this switching move, performed under cover of darkness, that Sean, who was simply following his supervisor's instruction, unknowingly left his train in the foul. The next move was a shove which cornered the train he just tied down.

CP admitted it knew the lighting in the east end of the yard did not meet the applicable standards, but it argued that it did not need to meet those standards because the east end was allegedly not a "switching end of the yard." This claim is obviously belied by the fact that CP fired Sean on a *failing to switch safely violation*.

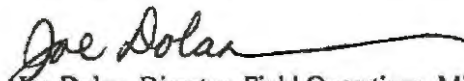
It is also important to note that we asked for all lighting complaints made on the east end of the La Crosse yard. The managers deposed responded they never received any complaints. That turned out not to be true when, we found almost a whole year of safety complaints directed at the lack lighting on the East End. The UTU member testified the response from the railroad was it was not in the budget.

What was apparently was in CP's budget, however, was to spend over \$70,000 on an expert to testify that Sean could see just fine that night in the pitch dark. Unfortunately, this accident would have been prevented if the east end was properly lit.

A Hennepin County Jury found that the railroad was negligent and awarded Sean Kennedy over \$3.6 million in damages.

Very truly yours,

Bremseth Law Firm P.C.



Joe Dolan, Director, Field Operations, Midwest Division



VISIBILITY ANALYSIS

NOVEMBER 13, 2012

SEAN KENNEDY V. CANADIAN PACIFIC RAIL

SEPTEMBER 5, 2011

CANADIAN PACIFIC RAIL'S LA CROSSE YARD

CITY OF LA CROSSE, COUNTY OF LA CROSSE, STATE OF WISCONSIN

INTRODUCTION

On October 29, 2012, Daniel Billington of the M-CRASH Group was asked to evaluate lighting and visibility considerations as they existed with regard to the incident in which Sean Kennedy was injured. Prior to this, the M-CRASH Group was involved to obtain evidentiary measurements of the area where this incident occurred. These measurements included obtaining light level readings in the east section of the Canadian Pacific's La Crosse rail yard.

The purpose of this analysis was to evaluate the available evidence from the incident which occurred at Canadian Pacific's La Crosse rail yard in the City of La Crosse, County of La Crosse, and State of Wisconsin on September 5, 2011 at approximately 01:00 hours. This review will determine and analyze what role any visibility factors played in the causation of this incident.





During my analysis, findings were based on the materials listed in this report. Any new information which may come to light will need to be evaluated as to its effect on the findings of the investigation thus far. As with any causal analysis, some factors can be determined to a reasonable degree of scientific certainty, while others may never be known.

It is our understanding that additional materials, including a lantern, will be made available to us at a later date. Because of this, we reserve the right to evaluate that evidence as mentioned in the previous paragraph, prior to any testimony is given in this case.

All directions relative to the location of objects will be with reference to the compass direction. When identifying the rail yard, the cardinal direction will be given as the description.

INVESTIGATION

To assist us in our analysis of this incident, we were provided with the following:

-  Photographs of the incident scene
-  Access to the Canadian Pacific (CP) rail yard in La Crosse, WI
-  Work order from Kish & Sons Electric, Inc. dated 08-31-2011
-  Sean Kennedy Deposition Exhibits #1 & #2

opportunity to inspect a similar lantern to that which was held by Mr. Kennedy, I reserve my right to modify or reinforce this opinion.

PERCEPTION AND REACTION TIME

I am aware that the investigator handling the collision aspect of this incident determined that the locomotive was pushing the cars at a speed of 6 mph (8.8 fps) when the collision occurred. In order to complete this analysis, I will need to be able to determine the illumination capability and distance of projected light from the lantern Mr. Kennedy was holding.

Upon completing our inspection of the lantern, we will be in a better position to properly address the perception and reaction time available to Mr. Kennedy as he approached the incident location.

SUMMARY AND CONCLUSIONS

The result of our visibility analysis which was conducted in the matter of Sean Kennedy v. Canadian Pacific makes it clear to us that a situation existed at the location of this incident which created a hazardous¹ situation for workers. The conditions which exist pose a danger to workers due to ineffective illumination.

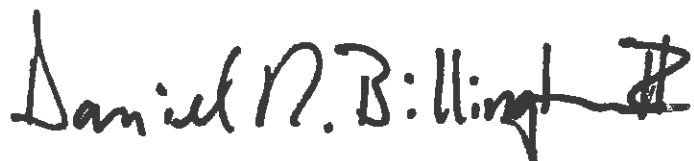
There was no measureable level of light which reached the clearance markers. Furthermore, those clearance markers were not created with reflective paint and without sufficient light falling on the painted surfaces, the painted marks could not be discerned. Reflective paint would have gone a long way to making the clearance points more visible.

AREMA standards were not met by the levels of illumination measured over the radius from light pole #3 toward the incident location. The FRA report on railroad worker safety simplifies the concerns over lighting. This report says plainly "provide adequate lighting". Looking at the totality of my analysis, it is clear that this point was not adhered to by the property owner of the CP rail yard.

¹ Miriam Webster's Dictionary definition of "hazardous" is involving or exposing one to risk

It is clear that the lack of visibility is a proximate cause in this incident. Had standards been followed, the outcome would have been different. The property owner has placed lights at the southwest end of this rail yard, near Kane Street that provide light levels which exceed the minimum standards set forth by AREMA. My conclusion is that had those lighting conditions existed on the east end of this yard, in the area of the incident, inadequate lighting would have been a moot issue.

Respectfully,

A handwritten signature in black ink that reads "Daniel R. Billington II". The signature is written in a cursive style with a large, stylized "D" and "B".

Daniel R. Billington II, ACTAR #1913

Senior Collision Reconstructionist – M-CRASH Group, LLC



4.0 ft-cdls

0.3 ft-cdls

0.0 ft-cdls



M-ERAS GROUP



Exhibit Five
**American Railway Engineering and
Maintenance of Way Association**
Lighting Standards
1997-2003



CHAPTER 14

YARDS AND TERMINALS¹

FOREWORD

This chapter deals with the engineering and economic problems of location, design, construction and operation of yards and terminals used in railway service. Such problems are substantially the same whether railway's ownership and use is to be individual or joint. The location and arrangement of the yard or terminal as a whole should permit the most convenient and economical access to it of the tributary lines of railway, and the location, design and capacity of the several facilities or components within said yard or terminal should be such as to handle the tributary traffic expeditiously and economically and to serve the public and customer conveniently.

In the design of new yards and terminals, the retention of existing railway routes and facilities may seem desirable from the standpoint of initial expenditure or first cost, but may prove to be extravagant from the standpoint of operating costs and efficiency. A true economic balance should be achieved, keeping in mind possible future trends and changes in traffic criteria, as to volume, intensity, direction and character.

Although this chapter contemplates the establishment of entirely new facilities, the recommendations therein will apply equally in the rearrangement, modernization, enlargement or consolidation of existing yards and terminals and related facilities. Part 1, Generalities through Part 4, Specialized Freight Terminals include formulate specific and detailed recommendations relative to the handling of freight, regardless of the type of commodity or merchandise, at the originating, intermediate and destination points. Part 5, Locomotive Facilities and Part 6, Passenger Facilities relate to locomotive and passenger facilities, respectively, and Part 7, Other Yard and Terminal Facilities covers miscellaneous items and facilities which may be found in yards and terminals, necessary for the general operation and function of railways.

¹ The material in this and other chapters in the AREMA Manual for Railway Engineering is published as recommended practice to railroads and others concerned with the engineering, design and construction of railroad fixed properties (except signal and communications) and allied services and facilities. For the purpose of this Manual, RECOMMENDED PRACTICE is defined as a material, device, design, plan, specification, principle or practice recommended to the railways for use as required, either *exactly* as presented or with such modifications as may be necessary or desirable to meet the needs of individual railways, but in either event, with a view to promoting efficiency and economy in the location, construction, operation or maintenance of railways. It is not intended to imply that other practices may not be equally acceptable.

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INTRODUCTION

The Chapters of the AREMA Manual are divided into numbered Parts, each comprised of related documents (specifications, recommended practices, plans, etc.). Individual Parts are divided into Sections by centered headings set in capital letters and identified by a Section number. These Sections are subdivided into Articles designated by numbered side headings.

Page Numbers – In the page numbering of the Manual (14-2-1, for example) the first numeral designates the Chapter number, the second denotes the Part number in the Chapter, and the third numeral designates the page number in the Part. Thus, 14-2-1 means Chapter 14, Part 2, page 1.

In the Glossary and Bibliography, the Chapter number is replaced by either a "G" for Glossary or "B" for Bibliography.

Document Dates – The bold type date (Document Date) at the beginning of each document (Part) applies to the document as a whole and designates the year in which revisions were last made somewhere in the document, unless an attached footnote indicates that the document was adopted, reapproved, or rewritten in that year.

Article Dates – Each Article shows the date (in parenthesis) of the last time that Article was modified.

Revision Marks – All current year revisions (changes and additions) which have been incorporated into the document are identified by a vertical line along the outside margin of the page, directly beside the modified information.

Proceeding® Footnote – The Proceedings footnote on the first page of each document gives references to all Association action with respect to the document.

Annual Updates® – New manuals, as well as revision sets, will be printed and issued yearly.

SECTION 2.1 INTRODUCTION

2.1.1 GENERAL (1982)

- a. To meet traffic requirements a yard or terminal should be able, even in peak periods, to receive trains promptly upon arrival, perform any auxiliary service (such as weighing, icing, feeding and watering stock, making running repairs, etc.), switch cars into their proper classification without appreciable delay, and dispatch these cars in their proper position in outgoing trains in minimum time.
- b. The number of yards should be as few as is consistent with the efficient handling of traffic.
- c. An additional yard is warranted only when it will result in greater economy than the enlargement or reconstruction of, or substitution of a new yard for, an existing yard or yards.
- d. Yard or terminal layouts should provide for future expansion so that the number and length of the tracks in them may be increased as required with minimum interference with operation or minimum relocation of existing trackage.
- e. An existing yard or terminal which is inadequate to handle the current or immediately anticipated traffic should be enlarged, or redesigned and rebuilt, or abandoned in favor of a yard or terminal in a different location, according to which of these alternatives will result in the greatest economy.
- f. Generally in computing car capacity use a minimum of 50 feet (15 m) per car for all freight car tracks other than repair tracks and tracks for special equipment.
- g. Yard lighting is desirable. The economical distribution of light over the area involved, so as to provide proper intensity of illumination, requires careful design. Recommendations of the AAR Engineering Division Committee on Electrical Facilities - Fixed Property, should be consulted.
- h. An adequate drainage system is essential.
- i. Signal and communication systems, such as teletype, pneumatic tube, intercom, talkback, paging, television, telephone, radio and ACl, and other facilities such as power switches, shovs signals and power derrils, should be considered to expedite yard and terminal operations.

SECTION 2.2 TRACK ARRANGEMENT

2.2.1 GENERAL (1982)

- a. Main tracks should bypass yards.
- b. Connections to the main track from the receiving, classification or departure tracks should be as direct as practicable.
- c. Crossovers should be provided as required to facilitate all normal and regular movements in the yard or between the yard and main track, and so located to result in minimum interference between simultaneous movements.
- d. In order to keep the distance to clearance to a minimum, the angle between a ladder track and the body tracks should be as large as possible.

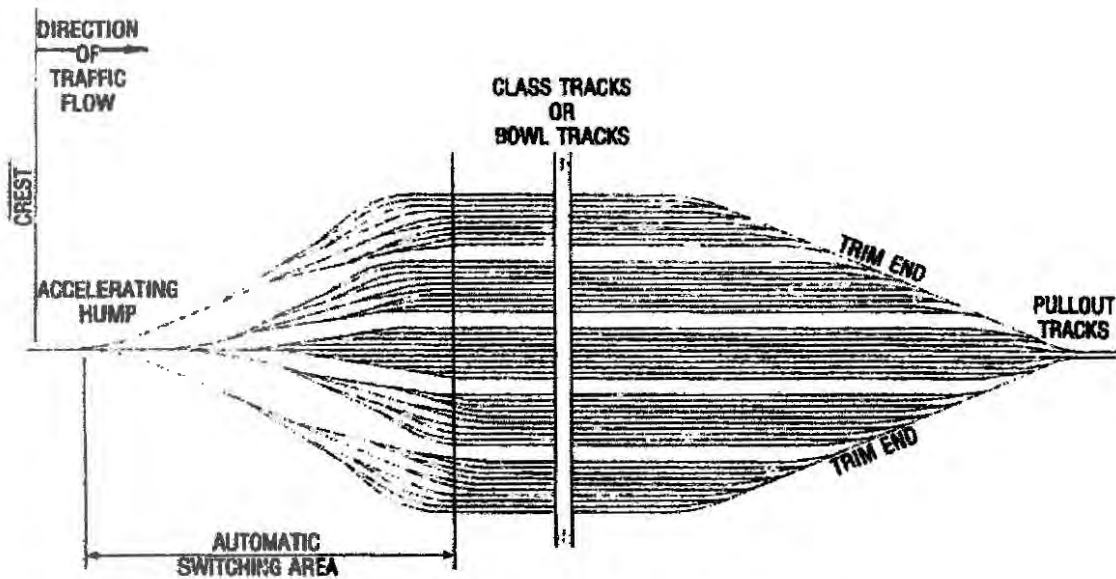


Figure 14-2-1. Typical Classification Track Layout

- g. A good walkway surface should be provided at the hump crest on both sides of the track for the pin-pullers. If only one pin-puller is to be used then the walkway can be on the right hand side, when moving toward the hump. (It is desirable that cars be uncoupled from the right hand side so that the forward knuckle will be open, as the impact of normal coupling will often close the rear knuckle.)
- h. Adequate lighting will be required throughout the yard.
- i. Access routes to switches, retarders and buildings within the yard may be needed for automobiles, trucks and maintenance vehicles.
- j. Two outer roadways running the length of the yard, and parallel with the tracks can be ideal to facilitate ease of vehicle movements from one end of the yard to the other.
- k. Tracks can be set with extra wide centers between adjacent groups to give access for maintenance vehicles to move into the body of the yard.
- l. The outer and inner roadways can be connected across the yard by constructing level grade road/rail crossings at the narrow ends of the track layout and where the minimum number of tracks need to be negotiated.
- m. For movement across the yard at the hump-end a tunnel may be constructed under the hump itself.
- n. Adequate car parking facilities for employee and company vehicles at the various office and workshop locations should be a consideration.
- o. If the identification numbers of incoming cars are to be read and recorded by a video camera system, then special purpose high density illumination should be provided at the camera location.

2.6.5 DESIGN FEATURES (1995) See Figure 14-2-11 and Figure 14-2-12.

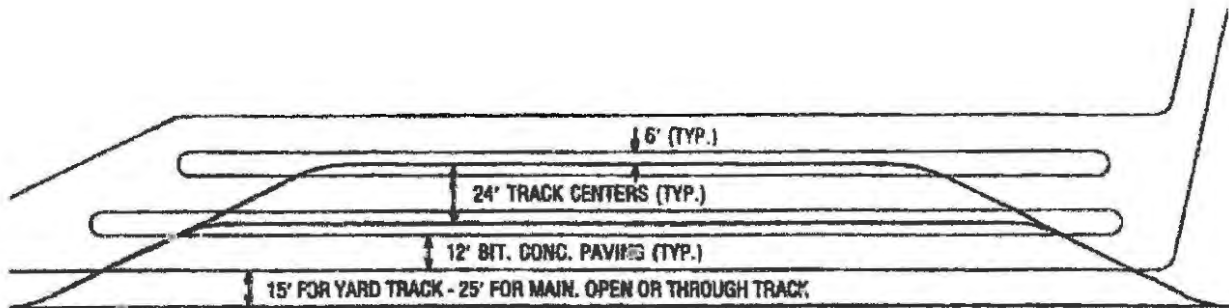


Figure 14-2-11. Through Train Track Layout

2.6.5.1 Bypass Yard and Siding Tracks

These tracks should be designed to handle the maximum train length. They should be accessed through standard lead ladders with turnouts sized to permit 25 to 30 MPH speeds. The rail in these tracks should be sized to permit these track speeds as well. Where expected train volume would warrant power or spring switches they should be considered.

2.6.5.2 Engine Tracks

Consideration should be given to providing trackage for temporary locomotive storage. This trackage could be utilized to stage locomotive changeouts or for fueling and servicing locomotives. It should be in close proximity to the bypass yard.

2.6.5.3 Fueling and Servicing

The requirements should be considered for run through train power. A fueling station on the engine track may be necessary to provide quick access to fuel and light engine service, including locomotive supplies. It may be feasible to fuel and service at the locomotive shop or by a mobile truck. For any of these options, ease of access, proper fueling equipment, environmental protection and protection of employees working on engines should be considered.

2.6.5.4 Yard Air

Yard air may be required on the bypass tracks for expediting train movement. A review should be made of the type of car set-outs and pickups and the duration these train blocks will be required to await movement.

2.6.5.5 Roadways

Roads should be built to provide access to crew change locations, inspection along bypass yard tracks and easy access to other terminal facilities. They should be preferably hard surfaced, low maintenance roads and include the necessary clearances and signage around crossings and adjacent to tracks for safe vehicle movement.

2.6.5.6 Lighting

Adequate lighting should be considered for bypass yard leads, crew change points, engine tracks or other locations where regular activity will occur.

**OUTDOOR SITE/AREA
RECOMMENDED ILLUMINANCE LEVELS**

Area/Activity	FC	Area/Activity	FC
GENERAL			
Airports			
Hangar apron	1	Log grading-water or land	5
Terminal building apron		Log bins(land)	2
Parking area	0.5	Lumber yards	1
Loading area	2	Piers	
Building (construction)		Freight	20
General construction	10	Passenger	20
Excavation work	2	Active shipping area surrounds	5
Building Exteriors		Railroad yards	
Entrances		Retarder classification yards	
Active(pedestrian and/or conveyance)	5	Receiving yards	
Inactive(normally locked, infrequently used)	1	Switch points	2
Vital locations or structures	5	Body of yard	1
Building surrounds	1	Hump area(vertical)	20
Building and monuments, floodlighted		Control tower and retarder area(vertical)	10
Bright surroundings		Head end	5
Light surfaces	15	Body	1
Medium light surfaces	20	Pull-out end	2
Medium dark surfaces	30	Dispatch or forwarding yard	1
Dark surfaces	50	Hump and rider classification yard	
Dark surroundings		Receiving yard	
Light surfaces	5	Switch points	2
Medium light surfaces	10	Body of yard	1
Medium dark surfaces	15	Hump area(vertical)	5
Dark surfaces	20	Flat switching yards	
Bulletin and poster boards		Side of cars(vertical)	5
Bright surroundings		Switch points	2
Light surfaces	50	Trailer-on-flatcars	
Dark surfaces	100	Horizontal surface of flatcar	5
Dark surroundings		Hold-down points(vertical)	5
Light surfaces	20	Container-on-flatcars	3
Dark surfaces	50	Service Station(at grade)	
Gardens		Dark surrounding	
General lighting	0.5	Approach	1.5
Path, steps, away from house	1	Driveway	1.5
Backgrounds-fences, walls		Pump island area	20
trees, shrubbery	2	Building faces(exclusive of glass)	10
Flower beds, rock gardens	5	Service areas	3
Trees, shrubbery when emphasized	5	Landscape highlights	2
Focal points, large	10	Light surrounding	
Focal points, small	20	Approach	3
Loading and unloading		Driveway	5
Platforms	20	Pump island area	30
Freight car interiors	10	Building faces(exclusive of glass)	30
Logging (see also Sawmills)		Service areas	7
Yarding	3	Landscape highlights	5
Log loading and unloading	5	Ship yards	
Log stowing(water)	0.5	General	5
Active log storage area(land)	0.5	Ways	10
Log booming area(water)- foot traffic	1	Fabrication areas	30
Active log handling area(water)	2	Storage yards	
		Active	20
		Inactive	1

Open Parking Facilities

Level of Activity	General Parking and Pedestrian Area		Vehicle Use Area	
	Footcandle (Minimum on Pavement)	Uniformity Ratio (Avg.:Min.)	Footcandle (Average on Pavement)	Uniformity Ratio (Avg.:Min.)
High	0.9	4:1	2	3:1
Medium	0.6	4:1	1	3:1
Low	0.2	4:1	0.5	4:1

Covered Parking Facilities

Areas	Day Footcandle (Average on Pavement)	Night Footcandle (Average on Pavement)	Uniformity Ratio (Avg.:Min.)
	General parking and Pedestrian areas	5	
Ramps and corners	10	5	4:1
Entrance areas	50	5	4:1



AMERICAN RAILWAY ENGINEERING ASSOCIATION

1997

Manual for Railway Engineering

Volume 3

Infrastructure and Passenger

- Chapter 6 Buildings and Support Facilities**
 - Chapter 12 Rail Transit**
 - Chapter 14 Yards and Terminals**
 - Chapter 17 Commuter, Passenger and High Speed Rail**
 - Chapter 18 Light Density and Short Line Railways**
 - Chapter 27 Maintenance-of-Way Work Equipment**
 - Chapter 33 Electrical Energy Utilization**
-

10.1.3.8 Daylighting Terms

- Altitude.
- Azimuth.
- Sun bearing.
- Light:
 - Sun.
 - Sky.
 - Ground.
- Sky:
 - Clear.
 - Partly cloudy.
 - Cloudy.
 - Overcast.
- Solar time.
- Clerestory.
- Fenestration.
- Orientation.
- Service period.

10.1.3.9 Street Lighting Terms

- Lighting unit.
- Street lighting luminaire.
- Bracket or mast arm.
- Lamp post.
- Pole.
- Mounting height.
- Spacing.
- Reference line.
- Width line.
- Lateral width of a light distribution.

SECTION 10.2 LIGHTING OF FIXED PROPERTIES

10.2.1 OUTDOOR AREA LIGHTING – FLOODLIGHTING IN RAILROAD YARDS (1978)

10.2.1.1 General

- a. Adequate lighting of railroad yards, work tasks and areas, storage areas and platforms is essential to promote safety to personnel, expedite operations, and reduce pilferage and damage.
- b. The purpose of this section is to present recommended illumination levels applicable to the varied tasks encountered on railroad properties and to guide the lighting designer in the proper application of the lighting medium to assure satisfactory visibility to all concerned. Included are descriptions of visual tasks encountered on railroad properties, design data, and pictorial illustrations of typical lighting installations.
- c. Recommended levels of illumination included herein were, in many cases, determined by scientific evaluation of the seeing tasks, and the Manual material presented is a joint effort of the Illumination Engineering Society, Outdoor Productive Areas subcommittee of the Industrial Lighting Committee together with personnel from the former AAR Lighting Committee and former AREA Committee.
- d. Railroad properties can be divided into general areas which have different seeing tasks within the property. By considering each type of property separately, and further breaking down each type into areas involving specialized seeing tasks, specific levels of illumination can be recommended that cover variations among individual railroads. Refer to Table 10-3 for recommended illumination levels. Different levels may be required if closed circuit television is utilized to aid in operations.
- e. Railroad regulations should be observed with respect to the location of any lighting equipment adjacent to tracks.

Table 10-3. Levels of Illumination
(See Note 1)

Area to be Lighted	Recommended Illumination Level (Footcandles) (Note 2)	Location References (Figure 10-2)	Seeing Tasks— Operation Performed
I. Retarder Classification Yard			
1. Receiving Yard			
a. Switch points – incoming end	2.0	A	Walking between cars, bleeding air systems, opening journal box covers, inspecting air hoses and safety appliances, etc.
b. Body of yard	1.0	B	
c. Switch points – hump end	2.0	C	
2. Hump Area			
a. Entire side of car in view of scale operator and in view of hump conductor.	20.0	D	Scale operator checks car numbers and weights, hump conductor confirms car number and sends car to proper track; inspection of running gear while car is in motion; inspector prevents automatic journal lubricator from operating if car has roller bearing; coupling must be easily seen so wedge can be applied with car in motion.
b. Underneath car and both sides of running gear from a point approximately 10 feet ahead of inspection pit to a point just past inspection pit.	20.0 vertical		
c. On side of car as it approaches car uncoupler (pin puller), from a point approximately 15 feet ahead of its position to approximately 5 feet past.	20.0 vertical		
d. On front of car as it approaches wedge inserter, from a point approximately 15 feet ahead of his position to approximately 5 feet past.	20.0 vertical		
3. Control Tower and Retarder Area			
In a vertical plane parallel to the tracks and at a point 6 feet above the center of hump and retarder tracks; if an illumination meter is used to check an installation it should be aimed in a direction perpendicular to the tracks and toward the tower side.	10.0 vertical	E	Check extent of track occupancy, gage speed of car coming from hump and manually set retardation; check car number against switching list and see that car goes to correct track at correct speed.
4. Head End			
Top of rails throughout head end on all "lead" tracks.	5.0	F	Operator must see car actually clear switch points so that following cars will not be impeded and take corrective action, if necessary.

Table 10-3. Levels of Illumination (Continued)
(See Note 1)

Area to be Lighted	Recommended Illumination Level (Footcandles) (Note 2)	Location References (Figure 10-2)	Seeing Tasks— Operation Performed
5. Body			
Top of rails throughout body of classification yard.	1.0	G	Walking, determine extent of track occupancy; couple air hoses, pack journal boxes, close journal box covers, place and remove track skates, etc.
6. Pull-Out End			
Top of rails along switch tracks.	2.0	H	Walking, determine switch positions and operate them, if necessary.
7. Dispatch or Forwarding Yard			
Top of rails.	1.0	I	Walking, couple air hoses, journal boxes inspected, close journal box cover, etc.
II. Hump and Car Rider Classification Yard			
1. Receiving Yard			
a. Switch points	2.0	—	Switchmen walk along lead tracks and throw switches. Car riders on rolling cars must see cars on tracks ahead of them that they can apply brakes adequately to reduce impact and prevent damage. Car rider must see to get off car and walk back along yard tracks to hump.
b. Body of yard	1.0	—	
2. Hump Area			
a. Side of car	5.0 vertical	—	Yard clerk reads car numbers, uncouples cars, car rider must see grab irons and ladders and safely climb onto cars.
b. Entire area	5.0	—	
III. Flat Switching Yards			
a. Side of car when viewed by yard supervisor	5.0 vertical	—	Switchmen walking around head-end and pull-out end of yard. Yard supervisor must have to read car numbers at head-end of yard.
b. Switch points	2.0	—	

Table 10-3. Levels of Illumination (Continued)
(See Note 1)

Area to be Lighted	Recommended Illumination Level (Footcandles) (Note 2)	Location References (Figure 10-2)	Seeing Tasks—Operation Performed
IV. Trailer-on-Flatcar Yards			
Horizontal surface of flat car	5.0	—	Tractor operator must accurately back up or drive along tops of flatcars, uncouple tractor, pull off; men must tie down trailers to flatcars which requires them to see beneath the trailers.
Hold-down points	5.0 vertical	—	
V. Container-on-Flatcar Yards			
	5.0	—	Crane operators to pick up containers from: a. any part of the trailer parking yard and place them precisely on flatcars. b. flatcars to precise locations on trailers. Men tie down and release containers from all sides of vehicles.
<p>Note 1: All footcandle values are assumed to be in the horizontal plane and measured at rail elevation unless otherwise specified.</p> <p>Note 2: These are general recommended levels. The direction of lighting or luminaire type may require different levels for specific installations.</p>			

10.2.1.2 Retarder Classification Yards

10.2.1.2.1 General

The large and often highly automated retarder classification yard, with its supporting yards and servicing facilities, presents a number of different seeing tasks that are considered under the following locations (See Figure 10-2).

10.2.1.2.2 Receiving Yard

- a. Inbound freight trains generally pull into a receiving yard where road locomotives and cabin cars are uncoupled and moved to servicing or storage tracks. Air lines between cars may be disconnected, cars may be inspected, journals lubricated, axles tested, etc. A locomotive then pushes the cars to the hump for classification.
- b. Seeing tasks throughout the area consist of walking between cars, bleeding air systems, opening journal box covers, and observing air hoses, safety appliances, etc.

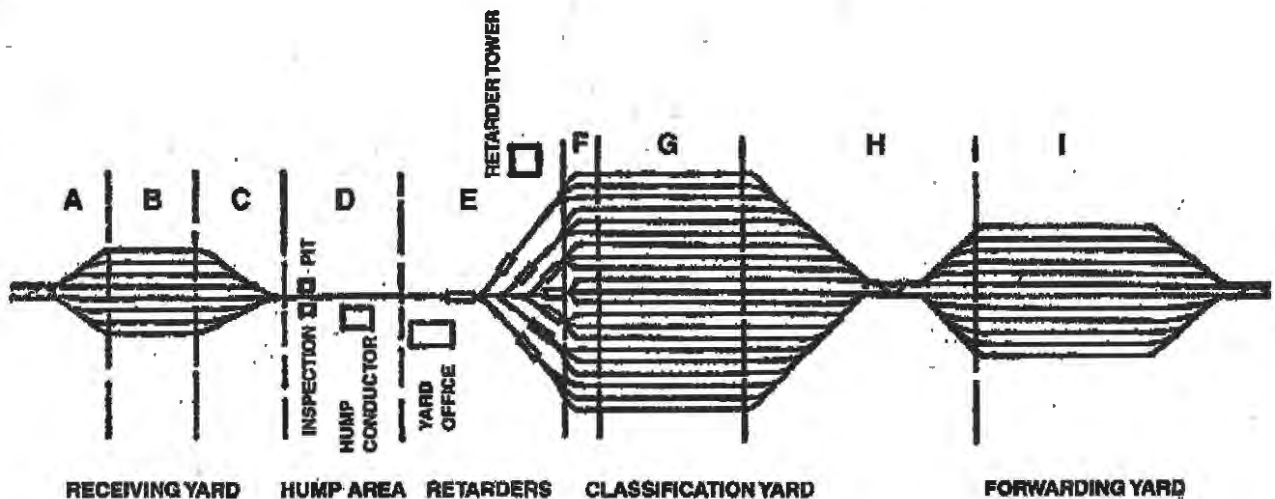


Figure 10-2. Retarder Classification Yard

10.2.1.2.3 Hump Area

- a. The hump area includes those facilities between the leaving end of the receiving yard and the entering end of the main retarder. Located in this area are the hump conductor, scale operator, and the car uncoupler. Special facilities in this area may include a car inspection pit, broken wheel flange detector, automatic journal lubricator and a facility to insert disposable wedges into couplers to insure that they are held open for coupling to other cars in the yard. In some yards, a hump conductor operates remotely controlled power switches to route the car onto the proper track in the classification yard.
- b. Seeing tasks in the hump area are diversified. The scale operator is usually required to visually check each car number to insure that the weight is recorded against the proper car. The hump conductor should confirm the car number against his list, to insure that the car is sent to the proper yard track. The car inspectors must have a high level of light on the underneath surfaces of the car and on the running gear to permit ready and precise inspection of a car that is in motion. The inspector also determines whether the car has a roller bearing journal and pushes a by-pass arrangement to prevent waste of oil by the automatic journal lubricator, if used. The car uncoupler should be able to see the uncoupling mechanism in order to safely reach it while the car is in motion. The operator of the wedge inserter, if one is used, must be able to accurately see the coupler in order to apply the wedge, again with the car in motion.
- c. The hump conductor, car inspector, car uncoupler and wedge operator should have supplemental lighting, in addition to general lighting in the hump area as indicated in Table 10-3.

10.2.1.2.4 Control Tower and Retarder Area

- a. Many retarder classification yards are equipped with various methods for determining car speed, "rollability," track occupancy, etc. These devices automatically set retarders to permit a car to roll from the hump to its proper position in the yard without action by the control tower operator. Other automated yards may require the operator to visually check the extent of track occupancy in the yard, gauge the speed of the car coming from the hump and manually set the amount of retardation to be applied to the car. Even in the automated yard, the operator may also be required to do this manually in the event of failure of one or more of the automatic features. In many yards, the control tower operator is expected to check the car number against a switching list and see that the car goes to the correct track. Accordingly, it is essential that the operator quickly and accurately identify the car.

- b. Under clear atmospheric conditions, it is important that there be no direct light projected toward the operator, and this covers a considerable angle. However, under adverse atmospheric conditions of dense fog, for example, it is general practice to utilize auxiliary lighting equipment on the far side of the tracks opposite the retarder control tower which will reveal the outlines of cars in silhouette.

10.2.1.2.5 Head End of Classification Yard

After a car is classified and leaves the retarders, it rolls along one of several "lead" tracks with various switches branching off each lead track into the classification yard tracks. The operator should be able to see that the car actually clears switch points and clearance points so that following cars will not be impeded or perhaps damaged. If a car does not clear, a locomotive enters the yard to move the car, and if for some reason a car is sent down the wrong yard track, the locomotive must pull it back. Some highly automated yards have indicating systems to show locations of all cars and track occupancy conditions on the classification tracks. Again, if automated features fail, it is as important for the operator to be able to see yard conditions as accurately in the automated yard as in the less automated one.

10.2.1.2.6 Body of Classification Yard

A relatively large number of parallel tracks form the body of the classification yard. Cars having a common initial destination are sent from the hump to a given track in the classification yard. In many yards, the operator must be able to see the body of the yard sufficiently well to determine the extent of track occupancy. On some railroads, men are required to move along cars in the body of the classification yard to couple air hoses, pack journal boxes, close journal box covers, etc. At the leaving end of the body of the classification yard, skatemen place track skates to stop moving cars at the desired location and remove the skates later for pullout. Some yards use automatic car stoppers instead of skates.

10.2.1.2.7 Pull-Out End of Classification Yard

- a. The pull-out end of the classification yard includes the area where yard tracks converge into one or more ladder tracks in leaving the yard. In this area, switchmen may walk along the track, ride standing on switcher step, cling to the end car to observe switch position, or step down while still in motion to throw switches as required.
- b. Two or more ladder tracks may converge into two pullout tracks connected crossovers and also connected to the lead tracks to the departure or local yards. Switches for crossovers and lead tracks are sometimes power-operated from an adjacent control point by the switchmen with consequent increased switching speeds. Switchmen must be able to see that the switches take the position directed by the controls.

10.2.1.2.8 Dispatch or Forwarding Yard

Some railroads pull strings of cars from classification tracks into a dispatch yard to make up a train. Here, air hoses are coupled, journal boxes are inspected, their covers closed, and perhaps other inspections are made. As in the receiving yard, the main seeing task in the dispatch yard consists of walking between tracks.

10.2.1.3 Hump and Car Rider Classification Yards

10.2.1.3.1 General

- a. In contrast to the often highly automated retarder classification yards, there are many yards that do not use retarders and tower operators for classification of cars. This type of yard, referred to as the "hump and car rider" classification yard, depends upon manpower for operation. An incoming freight train is pushed to the hump where it is uncoupled and a car rider climbs aboard each car, or "cut" of a few cars. The cars are allowed to roll from the hump toward the classification yard tracks, where

switchmen, often directed by a loudspeaker from the hump, manually operate switches to permit the car to roll onto the proper track. As the car rolls along its classification track, the car rider gages the distance to other cars on the track and manually applies the car brakes, by turning the brake wheel, to slow the car so that the impact will not be severe. Upon stopping the car, the rider gets off and walks back to the hump to repeat the riding cycle.

- b. This type of classification yard may be supported by a receiving yard and a dispatch yard where the same seeing tasks are encountered as in their retarder yard counterparts.
- c. The seeing tasks in the classification yard, and around the hump, are considerably different in the rider-type yard than in the retarder yard. Around the hump area, a yard clerk should be able to read car numbers, cars must be uncoupled, and car riders must be able to see grab irons, ladders, etc., to safely climb onto the cars. Switchmen operating along the lead track must have safe seeing conditions to enable them to walk along the lead track and operate switches. Car riders on the cars rolling into the yard should be able to see cars on the track ahead so that they can brake adequately to reduce impact and prevent consequent damage to lading. The rider must then be able to see to get off the car and walk back along yard tracks to the hump.

10.2.1.4 Flat Switching Yards

10.2.1.4.1 General

- a. Nearly all railroads have many relatively small flat switching yards on their systems. Often a flat switching yard is located adjacent to an industrial area where cars are received from industries and at some period of the day, or night, these cars are moved to a larger classification yard for further forwarding. Empty cars may also be returned to the flat switching yard for distribution locally to industries for loading. Operations at the flat switching yard consist of a switchman at the head end operating one of perhaps a half dozen or so switches to permit a locomotive to push or pull cars onto a given track in the yard. The locomotive may then return for more cars and push or pull them onto another track, etc., until the cars are arranged in the desired order on the yard tracks, from which the cars are pulled out to move to some other location.
- b. The only seeing requirement in most yard areas of this type is for safe walking conditions for switchmen around the head end and pull-out end switches. A yard supervisor may also be required to read car numbers at the head end of the yard in order to assign cars to their proper tracks. A locomotive pushes cars into the body of the yard, and in most cases, the locomotive headlight furnishes sufficient light to provide adequate seeing for the locomotive engineer.
- c. General lighting is recommended over the entire yard to permit switchmen to see the location of standing cars. Additional light should be provided in the area of the switches at the head end and pull-out end of the yard.
- d. If a yardmaster or yard clerk must read car numbers, local lighting must be provided at his location.

10.2.1.5 Trailer-on-Flatcar Yards

10.2.1.5.1 General

- a. Hauling highway-type trailers loaded on special railroad flatcars has grown rapidly in recent years. There are several types of flatcars in use, and several methods of placing trailers on them. One of the most prevalent methods in use is to provide a ramp leading from the ground level up to the floor level of flatcars. The trailer is backed up the ramp by highway tractor, then backed or pushed from one flatcar to the next until it is on its prescribed car, working from the back car forward. Certain specialized methods are used in some places to lift and pivot the trailer onto flatcars from the side. Once the

trailers are on the flatcars, most railroads use specialized tie-down equipment and methods to secure the trailers for shipment by rail.

- b. Seeing tasks involved require the tractor operator to be able to back up or drive along the floor of the flatcars, uncouple the tractor and pull off. Men must then tie down the trailers to the flatcars, requiring them to be able to see beneath the trailers.

10.2.1.6 Container-on-Flatcar Yards

10.2.1.6.1 General

- a. In container-on-flatcar yards, demountable load containers are detached from the trailer and loaded onto the railroad flatcars, or vice versa, by crane. Usually, the trailers are lined up parallel with the flatcars. A crane straddling both the trailers and flatcars picks up the demountable containers and places them on the cars.
- b. The seeking task involves the transfer of the container between the trailer wheel frame and the flat car, also locating, releasing, and tying down of the container.
- c. Other types of container-on-flatcar operations may employ different methods of loading and unloading, but the illumination required is similar.

SECTION 10.3 FACTORS AFFECTING EFFICIENT LIGHTING

10.3.1 MAINTENANCE (1978)

10.3.1.1 General

- a. Proper maintenance will provide these features:
 - (1) Increased production.
 - (2) Fewer errors.
 - (3) Fewer accidents.
 - (4) Improved morale.
 - (5) Improved protection from vandalism.
- b. Protecting the return from investment in a lighting system requires a lighting maintenance program that periodically returns footcandle levels back as nearly as possible to the original design. Lighting levels fall off principally because dirt accumulates on lamps and reflecting surfaces; there is also the normal loss of light output from lamp aging.
- c. A good maintenance program, to provide the necessary protection, should include the periodic cleaning of lamps and fixtures, cleaning or repainting of room surfaces such as walls and ceilings, replacing burnt-out lamps, and maintaining proper voltage levels.
- d. In many installations it will be found the light output is only 50% as high as it should be. Light output can be increased by repainting, cleaning fixtures, and by correcting the voltage to designed levels.
- e. Figure 10-3 and Figure 10-4 show how much light output decreases over a two-year period in various types of high-bay and low-bay areas.

Appendix A

All foot-candle, (fc), levels indicated are average maintained foot-candles.

All foot-candles are horizontal unless otherwise stated without shadowing or inclement weather considerations.

The max. to min. ratio should not exceed 2.5 - 1.0.

Light Sources: HPS = High Pressure Sodium
 MH = Metal Halide
 M = Mercury
 LPS = Low Pressure Sodium
 Fluor = Fluorescent -Electronic Ballast, T8/ALTO Lamp
 Inc = Incandescent

Abbreviations: HMST = 100 tubular tower w/lowering ring
 FXPL = Fixtures on poles

AREA/ACTIVITY	fc	RECOMMENDED LIGHT SOURCE	COMMENTS
I. Classification Yards:			
A. Hump & Flat Yards			
1. Receiving Yard			
a. Switch Location	2	HPS	HMST
b. Body of Yard	1	HPS	HMST
2. Hump Area of classification point in flat yard	5	MH	FXPL
3. Pullout Yard			
a. Switch Points	2	HPS	HMST
b. Body of Yard	1	HPS	HMST
II. Hub Facilities			
A. TOFC/COFC			
1. Body of Yard	2-3	HPS	HMST
2. Load/Unload Area	5	HPS	HMST

AREA/ACTIVITY	fc	RECOMMENDED LIGHT SOURCE	COMMENTS
3. Inspection Area	10-20	HPS	FXPL or Under Canopy
4. Driveway	1	HPS	FXPL
III. Automotive Facilities			
A. Rec/Dep Tracks			
1. Tracks	1	MH	HMST or FXPL
2. Switch Leads	2	MH	HMST or FXPL
B. Load/unloading area			
1. Rail load/unload	3-5	MH	HMST or FXPL
2. Semi load/unload	5	MH	HMST or FXPL
C. Body of yard			
D. Inspection Area	10	MH	FXPL or Under Canopy
E. Driveway	1	MH	FXPL
IV. Passenger Stations			
A. Platform Area	10	HPS	FXPL
B. Shelters	20	Fluor or HPS	On structure
C. Depot			
1. Office (see offices)		FLUOR	On structure
2. Lounge	20	FLUOR	On structure
3. Restrooms	20	FLUOR	On structure
V. Fueling Facilities			
A. Platform Area	10	HPS	FXPL
B. Unloading Areas	3-5	HPS	FXPL
C. Tank Area	0.5-1	HPS	FXPL
D. Pumphouse			
1. Inside	20	FLUOR	Surface Mtg on Ceiling
2. Entrance	3-5	HPS	On Building
3. Security	0.5-1	HPS	On Building
VI. Caboose Facility			
(see Fueling Facilities)			
VII. Shop Facilities			
A. Shop Areas			
1. Machine Shops			
a. Rough Work	20-50	HPS/MH/FLUOR	from structure
b. Medium Work	50-100	HPS/MH/FLUOR	from structure

AREA/ACTIVITY	fc	RECOMMENDED LIGHT SOURCE	COMMENTS
c. Fine Work	100-150	HPS/MH/FLUOR	from structure
2. General Shop Area	50	HPS/MH/FLUOR	from structure
B. Offices (see office areas)			
C. Restrooms	20	FLUOR	Recessed
D. Entrances	3-5	HPS	wall-mounted
E. Security	0.2-.5	HPS	FXPL
F. Parking (open)	0.6-.9	HPS	FXPL
VII. Office Areas			
A. General office area	70	FLUOR	recessed
B. Private offices	70-90	FLUOR	recessed
C. Lunch rooms	30	FLUOR	recessed
D. Locker rooms	30	FLUOR	from structure
E. Corridors	20	FLUOR	recessed
F. Conference Rooms	50	FLUOR	recessed

Recommended Luminaires

Exterior Applications

General Area Lighting: Holophane Predator (small or medium)

Holophane Mongoose

Fuel Platforms: Holophane Refractopack

Highmast: Holophane HMST

Holophane Prismbeam

Wallmount: Holophane Wallpackette

Interior Fluorescent Applications

Private Offices/ Conference Rooms: Lithonia Deep Cell Parabolic, T8 Lamps, Electronic Ballast

General Office Areas: Lithonia Acrylic Paracube Lense, T8 Lamps, Electronic Ballast

Shop Areas: Lithonia Acrylic Wrap, T8 Lamps, Electronic Ballast

Other Interior Applications

Highbay: Holophane Primalume

Holophane Prismpack

Lowbay: Holophane Enduralume

Holophane Bantam

Emergency/ Exit Lithonia Quantum Series

Exhibit Six

**UTU-SMART-TD Minnesota
2014 Legislative Session File Documents
Minnesota Railroad Yard Lighting Bill
H.F. 2460/S.F. 2290**



TO: State of Minnesota Legislature
House of Representative Chief Author: Representative Jason Metza
Senate Chief Author: Carlson, Dibble, Tomassoni.

FROM: Phillip Qualy, UTU-SMART Minnesota Legislative Director

DATE: February 28, 2014

RE: H.F. 2460 Minnesota Railroad Yard Lighting Legislation / Bill Introduction and Briefing

S.F. 2290

This memo will serve as a quick overview for the United Transportation Union, Transportation Division of the Sheet metal Air Rail and Transit Union, UTU-SMART, proposed legislation to set forth a requirement for railroad carriers to provide lighting in railroad yards.

There is a need for this legislation. Train crews need lighting when switching cars, doubling tracks to assemble and disassemble trains, inspect, maintain and repair cars and locomotives. Railroads operate around the clock each day of the year in Minnesota regardless of weather conditions. Half of the year during the winter season, darkness falls during the time yard switching and mechanical inspection occurs.

This subject area for railroad safety is not federally preempted. Other states with railroad operations in have state laws or regulations setting minimum railroad yard lighting requirements.

Minnesota has no yard lighting regulation at this time. At recent inventory, Minnesota has at least twenty-seven rail yards and eighteen have yard lights. UTU Minnesota has sent lighting requests to Class One carriers in prior years only to have our requests ignored, delayed, or disregarded.

Sadly, the last two railroad worker fatalities that occurred in the upper Midwest happened at rail yards that had insufficient lighting, CP Kenmar Yard, North Dakota, and UP Mason City Yard, in 2012.

Enclosed herewith, please find our proposed Lighting Bill, HF 2460 and informational circular with industry information, American Railway Engineering and Maintenance of Way Association (AREMA), with past introductions of state law lighting legislation in Minnesota. None of these bills received a hearing due to other legislative priorities during those sessions.

Our proposed legislation is well crafted to implement lighting as capital improvements to railroad yards. We give a generous lead-time to November 1, 2016, follow AREMA standards, grand-father in existing yards, incentivize solar and LED lighting sources and fixtures, with waiver and emergency processes. Our language is written with uniformity from the text of Minnesota Walkway Law, 2008, MN Stat. 219.501.

At a time that Class One railroads in Minnesota are earning record profits and our line haul origination of minerals, milled goods, forest and agriculture products remain very strong, now is the time to pass our railroad lighting legislation into state law. UTU is committed to working with the railroad carriers.

We ask for your esteemed co-authorship and support for improved rail safety in Minnesota. Thank you.





American Railway Engineering and
Maintenance-of-Way Association

CHAPTER 14

YARDS AND TERMINALS¹

FOREWORD

This chapter deals with the engineering and economic problems of location, design, construction and operation of yards and terminals used in railway service. Such problems are substantially the same whether railway's ownership and use is to be individual or joint. The location and arrangement of the yard or terminal as a whole should permit the most convenient and economical access to it of the tributary lines of railway, and the location, design and capacity of the several facilities or components within said yard or terminal should be such as to handle the tributary traffic expeditiously and economically and to serve the public and customer conveniently.

In the design of new yards and terminals, the retention of existing railway routes and facilities may seem desirable from the standpoint of initial expenditure or first cost, but may prove to be extravagant from the standpoint of operating cost and efficiency. A true economic balance should be achieved, keeping in mind possible future trends and changes in traffic criteria, as to volume, intensity, direction and character.

Although this chapter contemplates the establishment of entirely new facilities, the recommendations therein will apply equally in the rearrangement, modernization, enlargement or consolidation of existing yards and terminals and related facilities. Part 1, Generalities through Part 4, Specialized Freight Terminals include formulae specific and detailed recommendations relative to the handling of freight, regardless of the type of commodity or merchandise, at the originating, intermediate and destination points. Part 5, Locomotive Facilities and Part 6, Passenger Facilities relate to locomotive and passenger facilities, respectively, and Part 7, Other Yard and Terminal Facilities cover miscellaneous items and facilities which may be found in yards and terminals, necessary for the general operation and function of railways.

¹ The material in this and other chapters in the AREMA Manual for Railway Engineering is published as recommended practice to railroads and others concerned with the engineering, design and construction of railroad fixed properties (except signals and communications) and allied services and facilities. For the purpose of this Manual, RECOMMENDED PRACTICE is defined as a material, device, design, plan, specification, principle or practice recommended to the railways for use as required, either exactly as presented or with such modifications as may be necessary or desirable to meet the needs of individual railways, but in either event, with a view to promoting efficiency and economy in the location, construction, operation or maintenance of railways. It is not intended to imply that other practices may not be equally acceptable.

Phillip J. Qualy
Legislative Director,
Chairperson

Daniel M. Paradise
Assistant Director

Brian L. Hunstad
Secretary



Labor and Professional Centre
411 Main Street
St. Paul, MN 55102
Suite 212
651-222-7500(o) 651-222-7828(f)
E-MAIL:
UTUMNLEGBD@VISI.COM

Minnesota Legislative Board
A Division of the Sheet metal, Air, Rail and Transportation Union

March 18, 2014

The Honorable
Chairman Ron Erhardt
House Transportation Policy Committee
State of Minnesota
543 State Office Building
St. Paul, MN 55155

RE: H.F. 2460: The General Railroad Yard Lighting Bill.

Dear Mr. Chairman Erhardt and Representatives,

On behalf of our 1400 railroad workers of the United Transportation Union in Minnesota, thank you for hearing House File 2460, the General Railroad Yard Lighting bill.

H. F. 2460 proposes to mandate and set a standard for lighting in Class One and Class Two railroad yards. With companion Senate File 2290, this legislation applies to general system yards where cars or locomotives are switched at least five days per week, excludes private industries, and is not federally preempted.

Currently, yard switching and mechanical inspection of cars scheduled to be placed in trains are being performed in darkness at many yards. We believe that with passage of H.F. 2460 into law, railroad worker and public safety will be improved.

Our legislation sets forth that railroad yards with lighting currently are grandfathered as compliant on the day of enactment. Railroad carriers have until November 1, 2016, to bring all yards into state law compliance. The "Made in Minnesota" solar component also provides power source alternatives for the carriers with yards at remote locations.

On behalf of rail labor in Minnesota, I request your support for this common sense policy improvement. I look forward to any questions the Committee may have. Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read "Phillip J. Qualy".

P. J. Qualy
Minnesota Legislative Director
United Transportation Union-SMART-TD

Phillip J. Qualy
Legislative Director,
Chairperson

Daniel M. Paradise
Assistant Director

Brian L. Hunstad
Secretary



Minnesota Legislative Board

A Division of the Sheet metal, Air, Rail and Transportation Union

Labor and Professional Centre
411 Main Street
St. Paul, MN 55102
Suite 212
651-222-7500(o) 651-222-7828(f)
E-MAIL:
UTUMNLEGBD@VISI.COM

March 19, 2014

The Honorable
Chairman Scott Dibble
Senate Transportation Committee
State of Minnesota
111 State Office Building
St. Paul, MN 55155

RE: S.F. 2290: The General Railroad Yard Lighting Bill.

Dear Chairman Dibble and Committee members,

On behalf of our 1400 railroad workers of the United Transportation Union in Minnesota, thank you for hearing Senate File 2290, the General Railroad Yard Lighting bill.

S.F. 2290 proposes to mandate and set a standard for lighting in Class One and Class Two railroad yards. This legislation applies to general system yards where cars or locomotives are switched and inspected at least five days per week, excludes private industries, and is not federally preempted.

Currently, yard switching and mechanical inspection of cars to be placed in trains are being performed in darkness at many yards. We believe that with passage of S.F. 2290 into law, railroad worker and public safety will be improved.

Our legislation sets forth that railroad yards with lighting currently are grandfathered as compliant on the day of enactment. Railroad carriers have until November 1, 2016, to bring all yards into state law compliance. The "Made in Minnesota" solar component also provides power source alternatives for the carriers with yards at remote locations.

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P. J. Qualy
Minnesota Legislative Director
United Transportation Union-SMART-TD



American Railway Engineering and
Maintenance-of-Way Association

CHAPTER 14

YARDS AND TERMINALS¹

FOREWORD

This chapter deals with the engineering and economic problems of location, design, construction and operation of yards and terminals used in railway service. Such problems are substantially the same whether railway's ownership and use is to be individual or joint. The location and arrangement of the yard or terminal as a whole should permit the most convenient and economical access to it of the tributary lines of railway, and the location, design and capacity of the several facilities or components within said yard or terminal should be such as to handle the tributary traffic expeditiously and economically and to serve the public and customer conveniently.

In the design of new yards and terminals, the retention of existing railway routes and facilities may seem desirable from the standpoint of initial expenditure or first cost, but may prove to be extravagant from the standpoint of operating costs and efficiency. A true economic balance should be achieved, keeping in mind possible future trends and changes in traffic criteria, as to volume, intensity, direction and character.

Although this chapter contemplates the establishment of entirely new facilities, the recommendations therein will apply equally in the rearrangement, modernization, enlargement or consolidation of existing yards and terminals and related facilities. Part 1, Generalities through Part 4, Specialized Freight Terminals include formulate specific and detailed recommendations relative to the handling of freight, regardless of the type of commodity or merchandise, at the originating, intermediate and destination points. Part 5, Locomotive Facilities and Part 6, Passenger Facilities relate to locomotive and passenger facilities, respectively, and Part 7, Other Yard and Terminal Facilities covers miscellaneous items and facilities which may be found in yards and terminals, necessary for the general operation and function of railways.

¹ The material in this and other chapters in the AREMA Manual for Railway Engineering is published as recommended practice to railroads and others concerned with the engineering, design and construction of railroad fixed properties (except signals and communications) and allied services and facilities. For the purpose of this Manual, RECOMMENDED PRACTICE is defined as a material, device, design, plan, specification, principle or practice recommended to the railways for use as required, either exactly as presented or with such modifications as may be necessary or desirable to meet the needs of individual railways, but in either event, with a view to promoting efficiency and economy in the location, construction, operation or maintenance of railways. It is not intended to imply that other practices may not be equally acceptable.

OUTDOOR SITE/AREA RECOMMENDED ILLUMINANCE LEVELS

Area/Activity	FC	Area/Activity	FC
GENERAL			
Airports			
Hangar apron	1	Log grading-water or land	5
Terminal building apron		Log bins(land)	2
Parking area	0.5	Lumber yards	1
Loading area	2	Plaza	
Building (construction)		Freight	20
General construction	10	Passenger	20
Excavation work	2	Active shipping area surrounds	5
Building Exterior		Railroad yards	
Entrances		Retarder classification yards	
Active(pedestrian and/or conveyance)	5	Receiving yards	
Inactive(normally locked, infrequently used)	1	Switch points	2
Vital locations or structures	5	Body of yard	1
Building surrounds	1	Hump area(vertical)	20
Building and monuments, floodlighted		Control tower and retarder area(vertical)	10
Bright surroundings		Head end	5
Light surfaces	15	Body	1
Medium light surfaces	20	Pull-out end	2
Medium dark surfaces	30	Dispatch or forwarding yard	1
Dark surfaces	50	Hump and rider classification yard	
Dark surroundings		Receiving yard	
Light surfaces	6	Switch points	2
Medium light surfaces	10	Body of yard	1
Medium dark surfaces	15	Hump area(vertical)	5
Dark surfaces	20	Flat switching yards	
Bulletin and poster boards		Side of cars(vertical)	5
Bright surroundings		Switch points	2
Light surfaces	50	Trailer-on-flatcars	
Dark surfaces	100	Horizontal surface of flatcar	5
Dark surroundings		Hold-down points(vertical)	5
Light surfaces	20	Container-on-flatcars	3
Dark surfaces	50	Service Station(at grade)	
Gardens		Dark surrounding	
General lighting	0.5	Approach	1.5
Path, steps, away from house	1	Driveway	1.5
Backgrounds-fences, wells		Pump island area	20
trees, shrubbery	2	Building faces(exclusive of glass)	10
Flower beds, rock gardens	5	Service areas	3
Trees, shrubbery when emphasized	5	Landscape highlights	2
Focal points, large	10	Light surrounding	
Focal points, small	20	Approach	3
Loading and unloading		Driveway	5
Platforms	20	Pump island area	30
Freight car interiors	10	Building faces(exclusive of glass)	30
Logging (see also Sawmills)		Service areas	7
Yarding	3	Landscape highlights	5
Log loading and unloading	5	Ship yards	
Log stowing(water)	0.5	General	5
Active log storage area(land)	0.5	Ways	10
Log booming area(water)-		Fabrication areas	30
foot traffic	1	Storage yards	
Active log handling area(water)	2	Active	20
		Inactive	1

Open Parking Facilities

Level of Activity	General Parking and Pedestrian Areas		Vehicle Use Area	
	Footcandle (Minimum on Pavement)	Uniformity Ratio (Avg. Min.)	Footcandle (Average on Pavement)	Uniformity Ratio (Avg. Min.)
High	0.9	4:1	2	3:1
Medium	0.6	4:1	1	3:1
Low	0.2	4:1	0.5	4:1

Covered Parking Facilities

Areas	Day Footcandle (Average on Pavement)	Night Footcandle (Average on Pavement)	Uniformity Ratio (Avg. Min.)
	General parking and Pedestrian areas	5	
Ramps and corners	10	5	4:1
Entrance areas	50	5	4:1

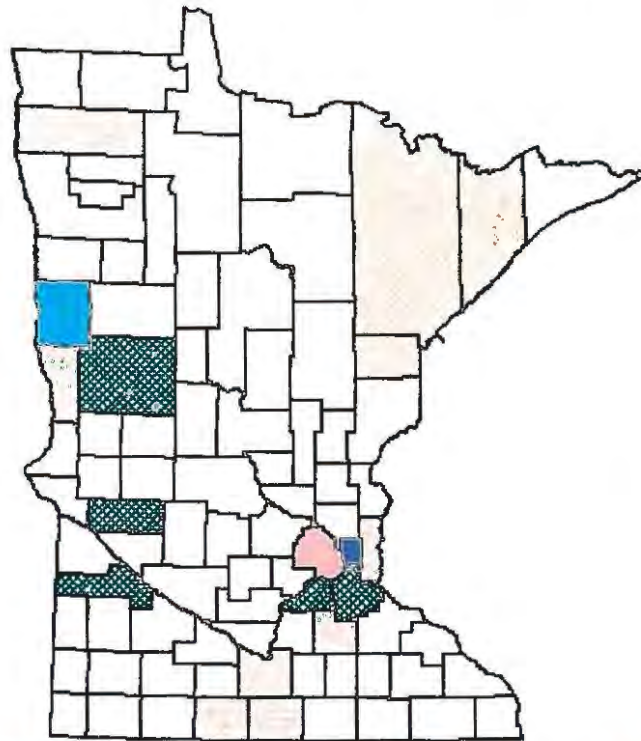


3.08 - Accident Map with Table

[Back to Query Page](#) [Print Version](#)

TRAIN ACCIDENTS FOR MINNESOTA, January 2013 TO December 2013

RAILROAD: ALL TYPE OF TRACK: All



Nbr 1 2-3 4-5 6-10 11-25

Excludes Highway Rail Incidents

MINNESOTA, By County

County	Totals			Type of Accident			Causes					
	Acc	Kid	Inj	Coll	Der	Othr	Eqp	Hmn	Othr	Sig	Trk	
BLUE EARTH	3	0	0	201,022	-	1	-	-	-	-	-	1
CARLTON	3	0	0	203,817	-	1	-	-	-	-	-	1
CLAY	5	0	0	276,456	-	5	-	-	1	1	-	2
DAKOTA	3	0	0	388,534	1	1	1	-	2	-	-	1
FARIBAULT	1	0	0	713,396	-	1	-	-	-	-	-	1
HENNEPIN	20	0	0	1,075,563	-	13	7	4	5	5	3	4
LAKE	1	0	3	7,011,432	-	1	-	-	-	-	1	-
MARSHALL	1	0	0	14,600	-	1	-	-	-	-	-	1
MARTIN	1	0	0	86,678	-	-	1	-	1	-	-	-
OTTER TAIL	3	0	0	2,711,475	-	3	-	1	-	-	-	2
RAMSEY	6	0	0	888,823	2	5	1	2	2	1	-	3
RICE	1	0	0	23,951	-	1	-	-	-	-	-	1
SCOTT	2	0	0	183,332	-	2	-	-	-	-	-	2
ST LOUIS	1	0	0	13,415	-	1	-	-	-	1	-	-
SWIFT	2	0	0	140,216	-	2	-	-	-	1	1	-
WASHINGTON	1	0	0	26,700	-	1	-	-	1	-	-	-
WILKIN	1	0	0	63,778	1	-	-	-	-	1	-	-
YELLOW MEDIC	2	0	0	167,805	-	2	-	1	-	-	-	-

Causes: Eqp=Equipment Defect Hmn=Human factor Sig=Signal Defect Trk=Track Defect Othr=Other
Excludes Highway Rail Incidents

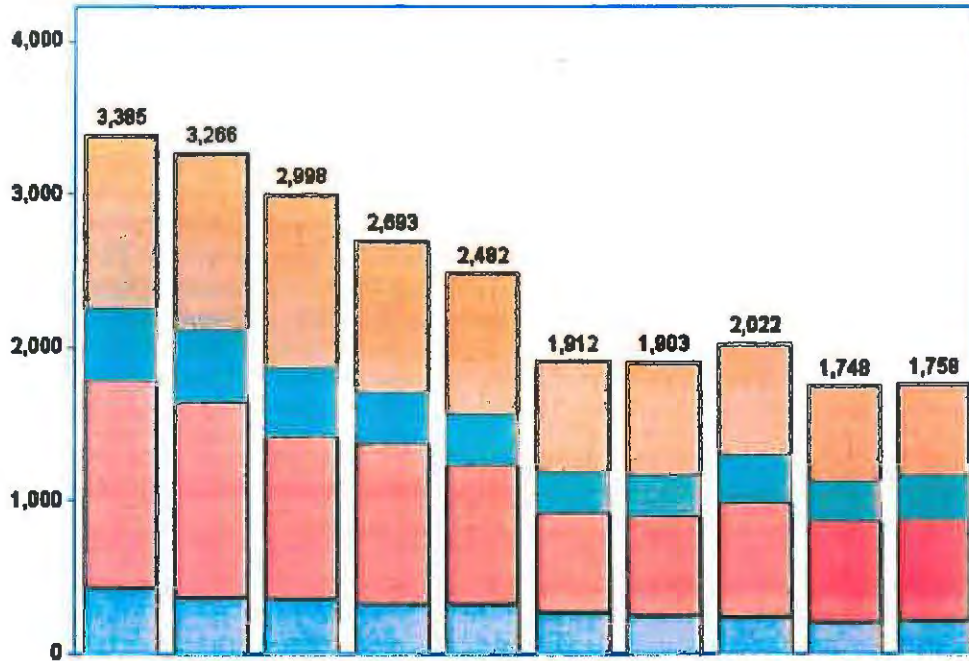


**Federal Railroad Administration
Office of Safety Analysis**

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8 - TRAIN ACCIDENTS BY PRIMARY CAUSE, JAN - DEC (2013 preliminary)



MINNESOTA: EQUIPMENT/MISCELLANEOUS (40) (61) (43) (55)

Equip ✓ Hmn Factor Misc. Trk&Sig

Date of run: Fri, Feb 28, 2014



P.O. Box 682
Creston, Iowa 50801
O: 641-278-0699
C: 641-340-1851
utuislb@hotmail.com
www.smart-utu-iowa.com

Jim M. Garrett
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Vice Chairman

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TRANSPORTATION DIVISION

IOWA State Legislative Board

March 7, 2014

Mr. Phil Qualy
Minnesota State Director
SMART-Transportation Division
411 Main St., Ste 212
St. Paul, MN 55102

Re: Yard Lighting in Mason City

Dear Brother Phil,

This is in reply to your inquiry concerning yard lighting in Union Pacific's "West Yard" in Mason City, Iowa.

This switching yard does have lighting at both the north end and south end leads. However, these lights are what you may normally refer to as security or barn lights. While they do prevent working in total darkness, they are woefully inadequate at providing the level of illumination necessary to view errant rolling equipment, close clearance conditions or walking hazards. This yard was built at a location and in such a manner as to allow cars to roll back in the direction of the lead during switching operations. In 2012, while a switch crew was working the north lead, a cut of cars did in fact roll back into the switching operation causing a fatality. It will never be known if proper lighting could have averted this tragedy.

I hope this information is helpful and I thank you for your concern and efforts in preventing further employee injuries in yard switching operations.

In Respect and Fraternity,

Jim M. Garrett
Iowa State Legislative Director



united transportation union

March 15, 2014

P.J. Qualy
UTU Smart-TD-SLD Minnesota
411 Main Street Suite 212
St Paul, MN 55102

Dear Brother Qualy,

I would like to share with you per your request the tragic loss of our Brother Robert Glasgow who lost his life account of a train accident in Kenmare, North Dakota on May 28, 2012

Mr. Glasgow was making a simple set out in the Kenmare Yard that holds approximately 150 cars. Unfortunately the car Mr. Glasgow ran into was a black tank car that was left to foul the track that Mr. Glasgow intended to set out on in the am hours after midnight.

Through years and years of the local Safety and Health team trying to improve the lighting in the Kenmare Yard they were finally successful in having them installed before Mr. Glasgow's accident.

After Mr. Glasgow's accident the Safety and Health team was persistent on having more lights installed in the busy switching yard of Kenmare account they were apparently not properly installed before.

Again the Safety and Health team was successful in having more lights installed in the Kenmare Yard to hopefully prevent any future tragedies from ever happening again.

I have been a member of the Harvey, North Dakota Safety and Health team for the past 10 years. I have always have been an advocate for proper lighting in yards that have heavy switching operations.

Although this has been a goal to have proper lighting in all yards that are used, it has been a challenge. We have multimillion dollar facilities

being built in the Dakotas account of being in the middle of an oil boom and it's like pulling teeth to have proper lighting installed when they are being built.

I have even been told by my superintendent "they don't want to make waves with the new facilities and that is why they issue us lanterns" in a local Safety and Health meeting. So we have a challenge on our hands but we will not give up.

Fraternaly,

A handwritten signature in black ink that reads "Tim Baird". The signature is written in a cursive, flowing style.

Tim Baird
P.O. Box 392
Harvey, ND 58301
UTU/LC 887
1st Vice Chairman GO-261

Title 49: Transportation

PART 215—RAILROAD FREIGHT CAR SAFETY STANDARDS

Subpart D—Stenciling

Appendix D to Part 215—Pre-departure Inspection Procedure

At each location where a freight car is placed in a train and a person designated under §215.11 is not on duty for the purpose of inspecting freight cars, the freight car shall, as a minimum, be inspected for the imminently hazardous conditions listed below that are likely to cause an accident or casualty before the train arrives at its destination. These conditions are readily discoverable by a train crew member in the course of a customary inspection.

1. Car body:

- (a) Leaning or listing to side.
- (b) Sagging downward.
- (c) Positioned improperly on truck.
- (d) Object dragging below.
- (e) Object extending from side.
- (f) Door insecurely attached.
- (g) Broken or missing safety appliance.
- (h) Lading leaking from a placarded hazardous material car.

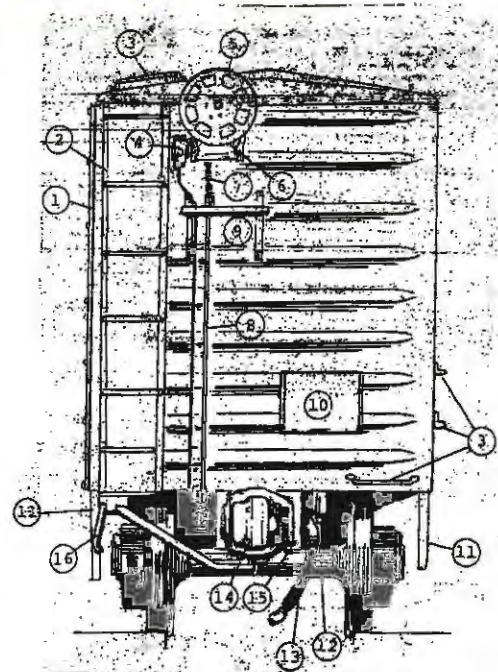
2. Insecure coupling.

3. Overheated wheel or journal.

4. Broken or extensively cracked wheel.

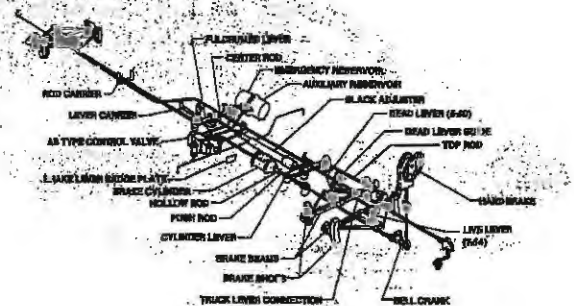
5. Brake that fails to release.

6. Any other apparent safety hazard likely to cause an accident or casualty before the train arrives at its destination.



- | | |
|-------------------|---------------------|
| 1. Side Ladder | 9. Brake Platform |
| 2. End Ladder | 10. Placard Board |
| 3. Grab Irons | 11. Stirrups |
| 4. Retainer Valve | 12. Angle Cock |
| 5. Brake Wheel | 13. Air Hose |
| 6. Brake Housing | 14. Coupler |
| 7. Brake Chain | 15. Coupler Housing |
| 8. Brake Rod | 16. Lift lever |

[45 FR 26711, Apr. 21, 1980, as amended at 73 FR 79701, Dec. 30,





united transportation union

**Railroad Yard Lighting Inventory, State of Minnesota
March 2014.**

(Switching and inspection occurs, or is subject to occur, 5 days per week).

<u>Class One Carriers</u>	<u>Total Yards - Yards Without Lights</u>	
Burlington Northern Santa Fe:	11	5
Canadian Pacific/DM&E Railway:	17	8
Canadian National Railway:	11	5
Union Pacific Railway:	14	9
Totals:	53	27

General Code of Operating Rules: Definition of Main Track, Yard:

Main Track: A track, extending through yards and between stations that must not be occupied without authority, protection.

Yard: A system or tracks, other than main tracks and sidings, used for making up of trains, storing cars, or other purposes.

Class One Railroad Yards in Minnesota/Lighting Status.
March 2014

<u>Carrier</u>	<u>Location</u>	<u>Lighting</u>
Burlington Northern Santa Fe:	Northtown	Yes
	Dilworth	Yes
	St. Cloud	Yes
	Staples	Yes
	Willmar	Yes
	East Grand Forks	Yes
	Grand Rapids	Yes
	Little Falls	No
	Minneapolis Grove	No
	Minneapolis Union	No
	St. Paul Dayton's Bluff	No
	Duluth Rice Point	No
Union Pacific	So. St. Paul	Yes
	St. Paul Hoffman	Yes
	Valley Park	Yes
	Mankato	Yes
	Elk Creek	Yes
	Worthington	Yes
	Albert Lea	No
	Blue Earth	No
	St. Paul Western Avenue	No
	Roseport (Koch Refinery)	No
	Roseport South	No
	Merriam	No
	New Prague	No
Winona	No	
Canadian National	Proctor	Yes
	Rainier	Yes
	Virginia	Yes
	Keenan	Yes
	Two Harbors	Yes
	Steelton Yard	No
	Missabe Junction	No
	Biwabek	No
	Allen Junction	No
	Wales	No
	Wilpen	No

Class One Railroad Yards in Minnesota/Lighting Status. March 2014

<u>Carrier</u>	<u>Location</u>	<u>Lighting</u>
Canadian Pacific:	St. Paul	Yes
	Humboldt	Yes
	Shoreham	Yes
	Glenwood	Yes
	Thief River Falls	Yes
	Noyes	Yes
	Waseca	Yes
	La Crescent	Yes
	Cottage Grove	Yes
	Winona	No
	Wabasha	No
	Lake City	No
	Red Wing	No
	Hastings	No
	Cardigan Junction	No
Northfield	No	
New Ulm	No	

Close.



KEY: ~~stricken~~ = removed, old language. underscored = added, new language.

[Authors and Status](#)

[List versions](#)



H.F. No. 1466, as introduced - 86th Legislative Session (2009-2010) Posted on Mar 09, 2009

- 1.1 A bill for an act
- 1.2 relating to railroads; requiring lighting in switching yards;proposing coding for
- 1.3 new law in Minnesota Statutes, chapter 219.
- 1.4 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

- 1.5 Section 1. [219.502] RAILROAD SWITCHING YARD LIGHTING
- 1.6 REQUIREMENTS.

- 1.7 All class one and class two rail carriers, as classified by the Federal Railroad
- 1.8 Administration, their officers, and their agents operating in the state are required to
- 1.9 illuminate and maintain lights between sunset and sunrise on all lead tracks in switching
- 1.10 yards where cars or locomotives are switched, set out, picked up, inspected, or repaired.
- 1.11 Suspension fixtures with a lighting source must consist of not less than three-fourths of the
- 1.12 total number of track switches on the same switching lead or must comply with no less
- 1.13 than the minimum recommended illuminance levels set forth by the American Railway
- 1.14 Engineering and Maintenance of Way Association (AREMA). Class one and class two rail
- 1.15 carriers, their officers, and their agents operating a railroad in this state shall comply with
- 1.16 switching yard lead track lighting provisions no later than December 31, 2012. Class one
- 1.17 and class two rail carriers, their officers, and their agents operating a railroad in this state
- 1.18 are required to illuminate and maintain lights between sunset and sunrise from midyard
- 1.19 locations focused in direction of yard leads or must comply with no less than the minimum
- 1.20 illuminance levels recommended by AREMA at midyard. Class one and class two rail
- 1.21 carriers, their officers, and their agents operating a railroad in this state shall comply with
- 1.22 midyard lighting provisions no later than December 31, 2014. Class one and class two
- 1.23 rail carriers may appeal to the commissioner for a waiver of compliance from a midyard
- 1.24 requirement with reasonable cause. Demonstration of reasonable cause must include an
- 2.1 on-site inspection between sunset and sunrise with all parties affected by the waiver
- 2.2 application at the specific yard where the waiver is to be applied.

Please direct all comments concerning issues or legislation to your [House Member](#) or [State Senator](#).

For Legislative Staff or for directions to the Capitol, visit the [Contact Us](#) page.

[General questions or comments.](#)

last updated: 02/27/2009

KEY: ~~stricken~~ = removed, old language. underscored = added, new language.

Authors and Status List versions



H.F. No. 2549, as-Introduced - 85th Legislative Session (2007-2008) Posted on May 21, 2007

- 1.2 relating to railroads; enacting General Railroad Safety Act; amending Minnesota
- 1.3 Statutes 2006, section 609.85, subdivision 2; proposing coding for new law in
- 1.4 Minnesota Statutes, chapter 219.
- 1.5 **BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:**

1.6 **Section 1. ~~[219.015]~~ CERTAIN RAILROAD-RELATED EDUCATIONAL**
 1.7 **PROGRAMS PROHIBITED.**

- 1.8 (a) A public or private entity, school, or higher educational institution:
- 1.9 (1) is prohibited from training, instructing, offering Internet information, or
- 1.10 educating an individual or group of individuals, regarding the subject matter of how to
- 1.11 operate railroad track, signals, rolling stock, or motive power equipment of any kind,
- 1.12 or teach the railroad general code of operating rules, or other railroad industry-specific
- 1.13 information, without first assuring an active employment status in the discipline of study
- 1.14 upon completion of the instruction with a Class I or II common carrier; and
- 1.15 (2) is required to confirm employment placement during the training program until
- 1.16 course completion. The commissioner of transportation shall monitor program compliance
- 1.17 and employment status of persons being trained in such railroad system information.
- 1.18 (b) "Class I or II common carrier" has the meaning given those categories in Code of
- 1.19 Federal Regulations, title 49, part 1201, general instruction 1-1.

1.20 **Sec. 2. ~~[219.192]~~ TRACK AND BALLAST WARNING INDICATORS.**

- 1.21 The commissioner of transportation may order the installation of trackside ballast
- 1.22 surface warning devices at any location on railroad track and right-of-way in the state that
- 1.23 (1) is prone to seasonal high-water or flooding or (2) does not comply with bridge, culvert,
- 2.1 or other drainage or inspection standards. The commissioner may issue an expedited
- 2.2 review and administrative order to a common carrier,

2.3 **Sec. 3. ~~[219.387]~~ INDUSTRIAL LIGHTING STANDARDS; RAIL YARD,**
 2.4 **JUNCTIONS.**

- 2.5 At railroad yard lead track areas, at junctions of industry lead track, and at industries,
- 2.6 or where switching movements are made regularly or more than twice in a seven-day
- 2.7 period, a common carrier shall provide permanent and outdoor electrical lighting
- 2.8 appliances that are consistent with Minnesota Occupational Safety and Health Standards
- 2.9 (MNOSHA) or American Railway Engineering and Maintenance of Way Association
- 2.10 (AREMA) industry yard standards.

2.11 **Sec. 4. ~~[219.48]~~ RULES; BEST PRACTICE CLEARANCE STANDARDS.**

- 2.12 The commissioner shall assess and adopt rules for best practice clearance standards
- 2.13 for passenger rail platforms to require (1) concrete passenger platforms with five feet four
- 2.14 inches of clearance from the centerline of the track at eight inches above the top of the
- 2.15 rail, "Mini High Platforms," approved under the Americans with Disabilities Act, codified
- 2.16 in United States Code, title 42, section 12101 et seq., and federal regulations adopted

Class I railroads release 4th quarter earnings

Posted By amy On January 31, 2014 @ 3:00 pm In [News.Recent Updates](#) | [Comments Disabled](#)



Union Pacific announced their full-year earnings for 2013 as well as their fourth quarter earnings. The company stated that the fourth quarter of 2013 was their best quarter yet with records set.

The railroad reported a net income of \$1.2 billion or \$2.55 per diluted share for the fourth quarter, a 16 percent increase over last year. Last year's results for the same quarter were only \$1 billion or \$2.19 per diluted share.

Operating revenue saw an increase of seven percent to more than \$5.6 billion. The same quarter last year only saw an operating revenue of \$5.25 billion. Operating income was up 14 percent, totaling \$1.97 billion. UP's operating ratio was a fourth quarter record at 65.0 percent.

"For the first time in six quarters, we reported overall volume growth, despite significantly weaker coal shipments," said CEO Jack Koraleski. "The fourth quarter wrapped up another tremendous year for Union Pacific, with our overall financial performances exceeding all previous milestones."

For 2013, UP reported a net income of \$4.4 billion or \$9.42 diluted share, up from 2012's reported net income of \$3.9 billion or \$8.27 per diluted share. Operating revenue saw a record \$21.96 billion for the railroad in 2013. Operating income also saw an increase of 10 percent, coming in at more than \$7.4 billion. The 2013 operating ratio for the railroad was also a new record, coming in at 66.1 percent.

"As we look at 2014, we see signs that the economy is slowly strengthening. We're well-positioned for economic growth and are confident in our ability to deliver on our customer's growing transportation needs," Koraleski said. "We'll continue our unrelenting focus on both safety and service to our customers. We strongly believe in the power and potential of the Union Pacific franchise to drive even greater financial performance and shareholder returns in the years to come."

CANADIAN PACIFIC RAILWAY

Canadian Pacific Railway, Canada's second-largest railroad, said fourth-quarter profit more than quintupled. Net income surged to C\$82 million (\$74 million), or 47 cents a share, from C\$15 million, or 8 cents, a year earlier, and earnings per share for 2014 will rise 30 percent or more from last year, CP said.

Since taking over in June 2012, Harrison has cut jobs and shut rail yards to bolster profit and close the operations gap with larger rival Canadian National Railway, his former employer. CP reported record operating ratio, a costs-to-revenue measure of efficiency, for the last quarter and said it expects more improvement this year. The railroad's operating ratio improved to a record 65.9 percent in the quarter from 74.8 percent a year earlier, and the company said it's targeting 65 percent or lower this year.

"This was a solid quarter, with decent operating numbers," Jason Seidl, a Cowen & Co. analyst in New York who rates the shares market perform, said in a telephone interview. "The guidance is for a minimum of 30 percent growth. This year they did much better than their original guidance, so if they do that again this year, they will be well above the consensus."

Canadian Pacific stock shares jumped 4.3 percent to C\$165 at the close in Toronto, the biggest single-day increase since Oct. 23. The stock has gained 2.7 percent this year.

The 69-year-old Harrison, who came out of retirement to become Canadian Pacific's CEO, insisted he still plans to lead the company for another two years before handing the reins to Chief Operating Officer Keith Creel.

BNSF drove up revenue and income, drove down operating ratio in 4Q

BNSF Railway Co. in fourth-quarter 2013 increased revenue 6 percent to \$6.8 billion and reduced its operating ratio 2.7 points to 66.6 compared with fourth-quarter 2012 figures, according to a quarterly performance summary report released by the Class I yesterday.

In addition, operating income climbed 15 percent to \$1.9 billion, net income jumped 20 percent to \$1.1 billion and volume rose 6 percent to 2.6 million units. Operating expenses ratcheted up 2 percent to \$3.9 billion, primarily due to higher compensation and benefits costs.

The performance summary shows the following revenue outcomes by business sector: consumer products, up 7 percent to \$1.8 billion; industrial products, up 11 percent to \$1.5 billion; coal, flat at \$1.2 billion; and agricultural products, up 3 percent to \$1 billion.

The positive financial results reflect continued strength in the railroad's crude oil and domestic intermodal businesses, BNSF officials said in the summary, adding that the gains helped offset weak export grain business that was impacted by the U.S. drought and stiffer global competition.

For the full year, BNSF's revenue rose 6 percent to \$22 billion, operating income climbed 11 percent to \$6.7 billion, net income jumped 12 percent to \$3.8 billion, volume increased 4 percent to 10.1 million units and operating ratio improved 1.6 points to 69.1 compared with 2012 figures. Operating expenses increased 4 percent to \$15.3 billion.

In terms of 2013 revenue by business sector, consumer products rose 6 percent to \$7 billion, industrial products climbed 14 percent to \$5.7 billion, coal increased 3 percent to \$5 billion and agricultural products fell 4 percent to \$3.6 billion.

Consumer products business benefited from additional highway conversions, new carrier conversions and higher export demand; industrial products business was boosted by increased petroleum products volume — especially crude unit-train loadings; and coal business was positively impacted by higher natural gas prices and reduced utility stockpiles, BNSF officials said.

BNSF budgets an all-time-high \$5 billion for capex in 2014

BNSF Railway Co. yesterday announced it has budgeted a single-year record \$5 billion for capital expenditures in 2014, up about \$1 billion compared with the 2013 capital spend.

Last year, the Class I budgeted \$4.3 billion for capex, but about \$300 million will actually be spent in 2014, reducing the 2013 capital spend to about \$4 billion, said BNSF spokesperson Amy Casas in an email.

The largest component of the 2014 budget is \$2.3 billion allocated for the core network and related assets. BNSF also plans to spend about \$1.6 billion to acquire locomotives, freight cars and other equipment; \$900 million on terminal, line and intermodal expansion/efficiency projects; and about \$200 million to continue installing positive train control.

Much of this year's capacity expansion involves Northern Corridor upgrades to position the Class I to meet all customer service expectations, including Amtrak, BNSF officials said in a press release.

Expansion and efficiency projects primarily will be focused on line capacity improvements to accommodate growth in agricultural products, intermodal, automotive and industrial products related to crude-oil production, and other terminal improvements to enhance productivity and velocity, they said.

"Our capital plan continues to focus on improving our ability to meet our customers' service expectations, increasing our capacity where there is growth and strengthening our railroad to help ensure it remains the safest means of ground transportation for freight," said BNSF President and Chief Executive Officer Carl Ice.



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- United Transportation Union - <http://utu.org> -

Railroads to invest \$25B, hire thousands in '13

Posted On February 8, 2013 @ 2:46 pm In [News.Recent Updates](#) |

WASHINGTON – The Association of American Railroads (AAR) announced the nation's major freight railroads plan to invest an estimated \$24.5 billion in 2013 to build, maintain and upgrade America's rail network to ensure freight railroads can continue to deliver for the nation's economy.

With approximately 22 percent of the industry's workforce eligible to retire in the next five years, railroads are dedicated to recruiting highly skilled people interested in making railroading a career, according to an AAR release.

Freight railroads also estimate they will hire more than 11,000 employees this year, primarily in response to retirements and attrition for positions that can be found across the U.S.

"We are looking for employees who want a true potential life-long career and will want to help make the railroads safer and more reliable than they have ever been," said AAR President and CEO Edward R. Hamberger. "The success of our industry – from our importance to the economy to our continually improving safety record – can be attributed to the hard working men and women who make their careers with the railroads."

Rail employee compensation, including benefits, averages roughly \$107,000 per year, according to the AAR, with jobs ranging from engineers and dispatchers, to law enforcement, to information technology and industrial development.

In the first five months of the year, railroads are participating in more than 70 career fairs across the country. For more information visit www.aar.org/jobs.

"While most other transportation modes rely on government funds, America's freight railroads operate on infrastructure they own, maintain and upgrade to serve their customers and power our economy," said Hamberger. "This year, freight railroads plan to continue to focus on investments that maintain and enhance our physical infrastructure and safety systems, including cutting edge technology that ensures we are ready to deliver for the future."

With hundreds of transportation infrastructure projects underway nationwide, railroads are investing in projects such as intermodal terminals that facilitate truck to train freight transport; new track; bridges and tunnels; modernized safety equipment; new locomotives and rail cars, and other components that ensure the U.S. freight rail network remains the most reliable and efficient in the world.

Article printed from United Transportation Union: <http://utu.org>

URL to article: <http://utu.org/2013/02/08/railroads-to-invest-25b-hire-thousands-in-13/>

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- United Transportation Union - <http://utu.org> -

Szabo: Rail investment spurs manufacturers

Posted On February 20, 2013 @ 2:14 pm In [Amtrak/Commuter News, News, Recent Updates, Washington](#) |

The following message was sent to the UTU National Legislative Office from Federal Railroad Administrator Joe Szabo:

In his State of the Union Address last week, President Obama spoke about the importance of investing in our infrastructure as a path to create new jobs and lay a foundation for America's economic success.



Joe Szabo

In the last three years, American businesses have added 6 million new jobs, including a half-million in manufacturing. But there's more to be done. And while construction jobs are often the most visible, our investments can continue remaking America as a magnet for manufacturing.

In a new report, the [Environmental Law and Policy Center](#) highlights the scope of the railway supply industry in the Midwest.

The report found 122 suppliers in Ohio, 99 in Indiana, 49 in Michigan, 84 in Illinois, 73 in Wisconsin, 26 in Minnesota and seven in Iowa. The Midwest is not alone. Railway suppliers are located in 49 out of 50 states and employ 94,000 people.

Manufacturers like Cleveland Track Material in Ohio are benefiting from the \$12 billion the U.S. DOT has invested in passenger rail over the last four years. Started by Vietnam Veteran Bill Willoughby in 1984 in an impoverished section of Cleveland, the company was one of 53 across 20 states that received an order from Maine's Downeaster service expansion project. Last year, Cleveland Track invested over \$5 million in new production equipment at their plant. The company employs 300 people in Ohio, Tennessee and Pennsylvania.

Manufacturers are opening new plants in the United States. Recently, the state of California awarded the newly-opened Nippon Sharyo plant in Illinois with a contract to build 130 rail cars that will run on the state's existing corridors.

Amtrak and California High Speed Rail Authority have answered our call to work together to explore a bundled procurement for the next generation of high-speed rail equipment – equipment designed to reach up to 220 mph. Combining orders will provide incentives to high-speed rail manufacturers to build factories domestically, creating new high-quality jobs and tremendous opportunities for suppliers.

Investments in freight rail will also mean new jobs at suppliers. Last week, the Association of American Railroads announced the industry would invest more than \$24 billion this year in its network.

President Obama also recently signed into law the Shortline and Regional Railroad 45G Tax Credit. The Railway Tie Association estimates that when the 45G credit is in effect, between 500,000 and 1,500,000 additional railroad ties will be installed each year.

Phillip J. Qualy
Legislative Director,
Chairperson

Daniel M. Paradise
Assistant Director

Brian L. Hunstad
Secretary



Labor and Professional Centre
411 Main Street
St. Paul, MN 55102
Suite 212
651-222-7500(o) 651-222-7828(f)
E-MAIL:
UTUMNLEGBD@VISI.COM

Minnesota Legislative Board
A Division of the Sheet metal, Air, Rail and Transportation Union

April 3, 2014

The Honorable
Speaker Paul Thissen
Minnesota House of Representatives
State of Minnesota
463 State Office Building
St. Paul, MN 55155

RE: H.F. 3172: Sections 14, 15, Advocacy, The General Railroad Yard Lighting Bill.

Dear Speaker Thissen,

On behalf of our 1400 railroad workers of the United Transportation Union in Minnesota, thank you for hearing House File 3172 in the Minnesota House of Representatives.

H.F. 3172 Sections 14, 15, propose to mandate and set a standard for lighting in Class One and Class Two railroad yards. This legislation applies to general system yards where cars or locomotives are switched and inspected at least five days per week, excludes private industries, and is not federally preempted.

Our legislation sets forth that railroad yards with lighting currently are grandfathered as compliant on the day of enactment. Railroad carriers have until November 1, 2016, to bring yards into state law compliance. The "Made in Minnesota" solar component also provides power source alternatives for the carriers with yards at remote locations.

On behalf of rail labor in Minnesota, I respectfully request support for this common sense improvement for railroad safety and public security. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "P. J. Qualy".

P. J. Qualy
Minnesota Legislative Director
United Transportation Union-SMART-TD

Michael J. Reedy
General Chairman

Jerry L. Kalbfell
Vice General Chairman



307 W. Layton Avenue
Milwaukee, WI 53207
414-489-3700
FAX 414-489-3705

Transportation Division

General Committee of Adjustment
Union Pacific Railroad Company
(Former C&NW Railway Co.)

April 17, 2014
(M- 22-14)

The Honorable
Majority Leader Thomas Bakk
State of Minnesota
226 State Capitol
75 Dr. Martin Luther King Jr. Boulevard
St. Paul, MN 55155

The Honorable
Speaker of the House Paul Thissen
State of Minnesota
463 State Office Building
100 Dr. Martin Luther King Jr. Boulevard
St. Paul, MN 55155

Reference: S.F. 3172, Section 16, 90.12, Railroad Yard Lighting,
Conference Committee

Dear Majority Leader Bakk and Speaker of the House Thissen:

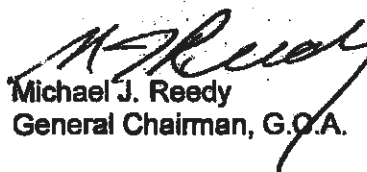
I am the General Chairman of General Committee of Adjustment GO-225 for the International Association of Sheet Metal, Air, Rail and Transportation Workers Union - Transportation Division (SMART-TD), formerly known as the United Transportation Union (UTU). My committee members include Conductors, Brakemen, Yard Switchmen, and Engineers employed by the Union Pacific Railroad Company in Minnesota.

As General Chairman, I am responsible for representing members in contract matters under the Railway Labor Act (RLA). My duties include the negotiation and interpretation of Collective Bargaining Agreements with the railroad management.

In regards to HF-2460-SF-2290-General Railroad Yard Lighting Bill, I have been informed that railroad employed lobbyists are asserting that safety is a collective bargaining issue. While it would be accurate to state that safety is a consideration in the formulation of any labor contract, it cannot be said that the legislation of public laws or regulatory statutes occurs under a collective bargaining process governed by the Railway Labor Act.

I am aware of no conflict between the Collective Bargaining Agreement in effect with Union Pacific Railroad, and the progression of Railroad Yard Lighting legislation within the State of Minnesota. This Office supports measures intended to improve the safety of the members I represent.

Sincerely,



Michael J. Reedy
General Chairman, G.O.A.

MJR:jg

J. L. SCHOLLMEYER

General Chairman

**GENERAL COMMITTEE of
ADJUSTMENT GO-386**



The Academy, Suite 217
400 East Evergreen Blvd
Vancouver, WA 98660

Telephone: (360) 694-7491

Fax: (360) 694-2049

E-mail: jay@smartunion386.org

Representing:

BNSF Railway Company (BNSF)

Montana Western Railroad (MWR)

Portland and Puget Sound Railroad (PSAP)

Transportation Division

April 14, 2014

The Honorable
Majority Leader Thomas Bakk
State of Minnesota
226 State Capitol
75 Dr. Martin Luther King Jr. Boulevard
St. Paul, MN 55155

The Honorable
Speaker of the House Paul Thissen
State of Minnesota
463 State Office Building
100 Dr. Martin Luther King Jr. Boulevard
St. Paul, MN 55155

Re: S.F. 3172, Section 16, 90.12, Railroad Yard
Lighting, Conference Committee

Dear Majority Leader Bakk and Speaker of the House Thissen:

I am the General Chairman of General Committee of Adjustment GO-386 for the International Association of Sheet Metal, Air, Rail and Transportation Workers Union - Transportation Division (SMART-TD), formerly known as the United Transportation Union (UTU). My committee members include trainmen who work for the BNSF Railway Company in Minnesota.

As General Chairman, I am responsible for representing members in "minor dispute" matters under the Railway Labor Act (RLA) within the Committee's geographical area. Minor disputes under the RLA involve claims and disagreements between a member and the Railroad Carrier's Management about the application and interpretation of the Collective Bargaining Agreements with respect to a particular incident, circumstance or claim.

In regards to HF-2460-SF-2290-General Railroad Yard Lighting Bill, I am getting reports that Carrier lobbyists are telling legislators at the Minnesota capitol that safety is a collective bargaining issue. This is not the case, safety issues have always been relegated to the Legislative Branch of the Organization.

Furthermore, this office fully supports the intent of safety legislation in Minnesota.

Yours truly,

J.L. Schollmeyer
General Chairman

SMART-Transportation Division

General Committee of Adjustment GO-261

CP / SOO Line

J. H. Nelson Chairman

139 W. Cook Street
Portage, WI 53901
Office: (608) 745-1700
Fax: (608) 742-1708
E-Mail: go261@frontier.com



Executive Committee

T. H. Baird, Vice Chair
G. A. Wallace, Vice Chair
G. N. Lindahl, Vice Chair
R. W. Newhouse, Secretary

April 21, 2014

The Honorable
Majority Leader Thomas Bakk
State of Minnesota
226 State Capitol
75 Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155

The Honorable
Speaker of the House Paul Thissen
State of Minnesota
463 State Office Building
100 Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155

Re: S.F. 3172, Section 16, 90.12, Railroad Yard Lighting, Conference Committee

Dear Majority Leader Bakk and Speaker of the House Thissen,

I hold the elected position of General Chairman of General Committee of Adjustment GO-261 for the International Association of Sheet Metal, Air, Rail and Transportation Workers Union - Transportation Division (SMART-TD), formerly known as the United Transportation Union (UTU). My committee members include Conductors, Brakemen, Yard Switchmen, and Engineers employed by the Canadian Pacific Railroad Company in Minnesota.

As General Chairman, I am responsible for representing members in contract matters under the Railway Labor Act (RLA). My duties include the negotiation and interpretation of Collective Bargaining Agreements with the railroad management.

Regarding the proposed General Yard Lighting Bill for Minnesota, I am hearing that Railroad lobbyists assert that safety is an exclusive collective bargaining issue and need not be legislated. This is not the case. In 1968, the railroad industry tried to convince Congress that worker safety was a collective bargaining area. Congress rejected the American Association of Railroad's argument when considering passage of the Federal Railroad Safety Act.

This Committee of Adjustment supports the Minnesota Railroad Lighting legislation.

Sincerely,

James Nelson
General Chairman, G.C.A.

KENNETH J. FLASHBERGER
General Chairman

SCOTT A. SIGGERMAN
Vice General Chairman

KENNETH D. JACKSON
Secretary



General Committee of Adjustment #987
1221 Delongrade Street
Kaukauna, Wisconsin 54130
Phone: (920) 759-9010
Fax: (920) 759-9014

Transportation Division

WISCONSIN CENTRAL LTD.
(Former DWP, DM&IR and EJ&E)

April 17, 2014

The Honorable
Majority Leader Thomas Bakk
State of Minnesota
226 State Capitol
75 Dr. Martin Luther King Jr. Boulevard
St. Paul, MN 55155

The Honorable
Speaker of the House Paul Thissen
State of Minnesota
463 State Office Building
100 Dr. Martin Luther King Jr. Boulevard
St. Paul, MN 55155

Reference: Minnesota S.F. 3172, Section 16, 90.12, Railroad Yard Lighting, Conference Committee

Dear Majority Leader Bakk and Speaker of the House Thissen,

I am the General Chairman of General Committee of Adjustment GO-987 for the International Association of Sheet Metal, Air, Rail and Transportation Workers Union – Transportation Division (SMART – TD), formerly known as the United Transportation Union (UTU). My Committee Members include Trainmen who work for the CN/Wisconsin Central Ltd. (former DWP, DM&IR and EJ&E) in Minnesota, Wisconsin, Michigan, Illinois and Indiana. As General Chairman I am responsible to make, maintain and interpret the Agreement for my 600+ Members falling under my jurisdiction

In regards to HF-2460-SF-2290-General Railroad Yard Lighting Bill, I am getting reports that Carrier lobbyists are telling legislators at the Minnesota capitol that safety is a Collective Bargaining issue. Historically and traditionally on-property safety issues and the handling thereof have always been relegated to the Legislative branch of the Organization and are not handled through the Collective Bargaining process.

In conclusion, safety is not a Collective Bargaining issue. Additionally, this office fully supports the intents of safety legislation in Minnesota.

With best personal regards, I remain

Yours truly,

K. J. Flashberger
General Chairman, G. C. A. GO-987

cc: P. J. Qualy, SMART – TD SLD Minnesota

Phillip J. Qualy
Legislative Director,
Chairperson

Daniel M. Paradise
Assistant Director

Brian L. Hunstad
Secretary



Labor and Professional Centre
411 Main Street
St. Paul, MN 55102
Suite 212
651-222-7500(o) 651-222-7828(f)
E-MAIL:
UTUMNLEGBD@VISL.COM

Minnesota Legislative Board
A Division SMART, Sheet Metal, Air Rail and Transit Union

April 17, 2014

Senator John Pederson
State of Minnesota
27 State Office Building
100 Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155

RE: S.F. 3172: Railroad Yard Lighting Provision, A-75 Amendment, Clarification.

Dear Senator Pederson,

Regarding S.F. 3172 and belated, I want to thank you for your concerns expressed within the A-75 Amendment on April 8th, 2014. On that day, I was on assignment to the Federal Railroad Administration Switching Operation Fatality Analysis Working Group in Washington D.C. and regret that I was not available to you.

The intent of this letter is to respectfully clarify several areas of concern relating to railroad safety and alleged potential local environmental impacts.

From your floor comments in support of the A-75 Amendment, if S.F. 3172 is passed into law, railroad yard lighting that parallels Concord Boulevard in South St. Paul is grandfathered as compliant on day of enactment. The City of St. Paul Dayton's Bluff neighborhood will not be affected in any manner by our proposed railroad lighting legislation. Finally, current railroad yard lighting levels at Willmar and St. Cloud Yards are grandfathered as compliant on the day of legislative enactment.

Our rail yards are located at the core of locally zoned industrial areas. The railroad lighting provisions in S.F. 3172 provide for "dark sky" provisions. It is our intent that railroad yard lighting comply with the American Railroad Engineering and Maintenance-of-Way Association standards, sets forth that all yard lighting be focused on track immediately above switches with cover hoods, and provides that all parties have a process for input with any potential railroad lighting issues. Our legislation remains sensitive to local environmental concerns.

As railroad workers, we know that lighted yards will benefit the public. When we see where we walk and cars rolling down yard tracks in the dark, injuries will be avoided. When rail car coupling points can be seen, yard operations will be more efficient. When we can see the rail cars that we are certified to inspect before those cars

Senator John Pederson

April 17, 2014

Page two.

move at high speeds in trains, derailments can be avoided and public security will be significantly improved.

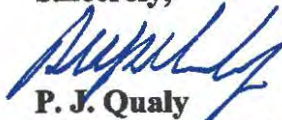
As a railroad industry advocate, I assure you that our membership considers railroad safety as our first priority. We do not choose legislative remedy lightly. After years of requesting improved yard lighting internally with rail carriers, legislation is necessary to protect railroad safety and public security. Respectfully, we appeal for acceptance and support for a vitally important, if not obscure, public security issue.

Again, for our 1400 railroad workers in Minnesota, I respect and share your concerns. Moving forward, we look forward to working with all parties for improved railroad operations.

I hope this information is helpful to you and your constituents. Please consider this State Committee office as a resource for railroad safety. Please do not hesitate to contact us if we can answer any further questions or concerns.

Thank you and,

Sincerely,



P. J. Qualy

Minnesota Legislative Director

United Transportation Union-SMART-TD

**cc: Mr. John Previsich, UTU-SMART-TD Transportation President
Mr. James M. Stem, UTU-SMART-TD National Legislative Director
UTU-SMART-TD Designated Counsel
UTU-SMART-TD General Committees of Adjustment
Governor Mark Dayton
Senate Majority Leader Thomas Bakk
Senate Finance Chairman Richard Cohen
Senate Transportation Committee Chairman Scott Dibble
Senator David Senjem
Senator Bev Scalze
Senator Jim Metzen
Senator Fong Hawj
Senator Lyle Koenen**

Phillip J. Qualy
Legislative Director,
Chairperson

Daniel M. Paradise
Assistant Director

Brian L. Hunstad
Secretary



Labor and Professional Centre
411 Main Street
St. Paul, MN 55102
Suite 212
651-222-7500(o) 651-222-7828(f)
E-MAIL:
UTUMNLEGBD@VISL.COM

Minnesota Legislative Board
A Division SMART, Sheet Metal, Air Rail and Transit Union

April 17, 2014

Senator Jim Metzen
State of Minnesota
322 State Capitol
75 Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155

RE: S.F. 3172: Railroad Yard Lighting Provision, A-75 Amendment, Clarification.

Dear Senator Metzen,

Enclosed herewith, please find a copy of our responsive letter to Senator Pederson, St. Cloud, regarding his S.F 3172, Floor Amendment on April 8th, 2014. The A-75 Floor Amendment failed by a wide margin after considerable debate.

If S.F. 3172 is passed into law, current railroad yard lighting that parallels Concord Boulevard in South St. Paul will be grandfathered as compliant upon enactment.

Our lighting provisions provide for "dark sky" provisions. It is our intent that railroad yard lighting comply with the American Railroad Engineering and Maintenance-of-Way Association standards, sets forth that all yard lighting be focused on track immediately above switches with cover hoods, and provides all parties with an actual process for public input for any potential railroad lighting issues. Our safety legislation remains sensitive to local environmental concerns.

I hope this information is helpful to you and your constituents. Please consider this State Committee office as a resource for railroad safety. Please do not hesitate to contact us if we can answer any further questions or concerns. Thank you.

Sincerely,


P. J. Qualy
Minnesota Legislative Director
United Transportation Union-SMART-TD

enclosure

cc: Mr. John Previsich, UTU-SMART-TD Transportation President
The Honorable Mayor Elizabeth Baumann, City of South St. Paul

Phillip J. Qualy
Legislative Director,
Chairperson

Daniel M. Paradise
Assistant Director

Brian L. Hunstad
Secretary

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Labor and Professional Centre
411 Main Street
St. Paul, MN 55102
Suite 212
651-222-7500(o) 651-222-7828(f)
E-MAIL:
UTUMNLEGBD@VISI.COM

Minnesota Legislative Board
A Division SMART, Sheet Metal, Air Rail and Transit Union

April 17, 2014

Senator Foug Hawj
State of Minnesota
G-24 State Capitol
Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155

RE: S.F. 3172: Railroad Yard Lighting Provision, A-75 Amendment, Clarification.

Dear Senator Hawj,

Enclosed herewith, please find a copy of our responsive letter to Senator Pederson, St. Cloud, regarding his S.F 3172, Floor Amendment on April 8th, 2014. The A-75 Floor Amendment failed by a wide margin after considerable debate.

So as to be clear, if this legislation is passed into law, railroad yards that have lighting currently under Dayton's Bluff will be grandfathered as compliant. Our legislation will provide for a process for any interested parties to pursue if any lighting issues should exist. Our safety legislation remains sensitive to local environmental concerns.

I hope this information is helpful to you. Please do not hesitate to contact us if we can answer any further questions or concerns. I want to thank you for your leadership on this importance railroad safety and public security issue.

Wishing you, your staff and families a good Holiday weekend. Thank you.

Sincerely,

P. J. Qualy
Minnesota Legislative Director
United Transportation Union-SMART-TD

enclosure

cc: Mr. John Previsich, UTU-SMART-TD Transportation President
Mr. James Stem, UTU-SMART-TD National Legislative Director

Phillip J. Qualy
Legislative Director,
Chairperson

Daniel M. Paradise
Assistant Director

Brian L. Hunstad
Secretary



Labor and Professional Centre
411 Main Street
St. Paul, MN 55102
Suite 212
651-222-7500(e) 651-222-7828(f)
E-MAIL:
UTUMNLEGBD@VISI.COM

Minnesota Legislative Board
A Division SMART, Sheet Metal, Air Rail and Transit Union

April 17, 2014

Senator Lyle Koenen
State of Minnesota
124 State Capitol
Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155

RE: S.F. 3172: Railroad Yard Lighting Provision, A-75 Amendment, Clarification.

Dear Senator Koenen,

Enclosed herewith, please find a copy of our responsive letter to Senator Pederson, St. Cloud, regarding his S.F 3172, Floor Amendment on April 8th 2014.

The A-75 Floor Amendment failed by a wide margin after considerable debate. Our safety legislation remains sensitive to local environmental concerns.

So as to be clear, if this legislation is passed into law, the railroad yard in Willmar Minnesota will be grandfathered as compliant. Our legislation will provided for a process for any interested parties to pursue if any lighting issues exist.

I hope this information is helpful to you. Please do not hesitate to contact us if we can answer any further questions or concerns. I want to thank you for your leadership on this importance railroad safety and public security issue.

Wishing you, your staff and families a good Eeaster Holiday weekend. Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read "P. J. Qualy", is written over a horizontal line.

P. J. Qualy
Minnesota Legislative Director
United Transportation Union-SMART-TD

enclosure

cc: Mr. John Previsich, UTU-SMART-TD Transportation President
Mr. James Stem, UTU-SMART-TD National Legislative Director

Phillip J. Qualy
Legislative Director,
Chairperson

Daniel M. Paradise
Assistant Director

Brian L. Hunstad
Secretary

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Labor and Professional Centre
411 Main Street
St. Paul, MN 55102
Suite 212
651-222-7500(o) 651-222-7828(f)
E-MAIL:
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Minnesota Legislative Board
A Division SMART, Sheet Metal, Air Rail and Transit Union

April 17, 2014

Senator Scott Dibble
Transportation Chairman
111 State Capitol
75 Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155

RE: S.F. 3172: Railroad Yard Lighting Provision, A-75 Amendment, Clarification.

Dear Senator Dibble,

Enclosed herewith, please find a copy of our responsive letter to Senator Pederson, St. Cloud, regarding his S.F 3172, Floor Amendment on April 8th 2014.

The A-75 Floor Amendment failed by a wide margin after considerable debate. Our safety legislation remains sensitive to local environmental concerns.

I hope this information is helpful to you. Please do not hesitate to contact us if we can answer any further questions or concerns. I want to thank you for your leadership on this importance railroad safety and public security issue.

Wishing you, your staff and families a good Holiday weekend. Thank you.

Sincerely,

P. J. Qualy
Minnesota Legislative Director
United Transportation Union-SMART-TD

enclosure

cc: Mr. John Previsich, UTU-SMART-TD Transportation President
Mr. James Stem, UTU-SMART-TD National Legislative Director

Phillip J. Qualy
Legislative Director,
Chairperson

Daniel M. Paradise
Assistant Director

Brian L. Hunstad
Secretary

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Labor and Professional Centre
411 Main Street
St. Paul, MN 55102
Suite 212
651-222-7500(o) 651-222-7828(f)
E-MAIL:
UTUMNLEGBD@VISI.COM

Minnesota Legislative Board
A Division SMART, Sheet Metal, Air Rail and Transit Union

April 17, 2014

Senator Jim Carlson
State of Minnesota
111 State Capitol
75 Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155

RE: S.F. 3172: Railroad Yard Lighting Provision, A-75 Amendment, Clarification.

Dear Senator Carlson,

Enclosed herewith, please find a copy of our responsive letter to Senator Pederson, St. Cloud, regarding his S.F 3172, Floor Amendment on April 8th 2014.

The A-75 Floor Amendment failed by a wide margin after considerable debate. Our safety legislation remains sensitive to local environmental concerns.

I hope this information is helpful to you. Please do not hesitate to contact us if we can answer any further questions or concerns. I want to thank you for your leadership on this importance railroad safety and public security issue.

Wishing you, your staff and families a good Holiday weekend. Thank you.

Sincerely,

P. J. Qualy
Minnesota Legislative Director
United Transportation Union-SMART-TD

enclosure

cc: Mr. John Previsich, UTU-SMART-TD Transportation President
Mr. James Stem, UTU-SMART-TD National Legislative Director

Phillip J. Qualy
Legislative Director,
Chairperson

Daniel M. Paradise
Assistant Director

Brian L. Hunstad
Secretary



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Minnesota Legislative Board
A Division SMART, Sheet Metal, Air Rail and Transit Union

April 17, 2014

Senator Scott Dibble
Transportation Chairman
111 State Capitol
75 Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155

RE: S.F. 3172: Railroad Yard Lighting Provision, A-75 Amendment, Clarification.

Dear Senator Dibble,

Enclosed herewith, please find a copy of our responsive letter to Senator Pederson, St. Cloud, regarding his S.F 3172, Floor Amendment on April 8th 2014.

The A-75 Floor Amendment failed by a wide margin after considerable debate. Our safety legislation remains sensitive to local environmental concerns.

I hope this information is helpful to you. Please do not hesitate to contact us if we can answer any further questions or concerns. I want to thank you for your leadership on this importance railroad safety and public security issue.

Wishing you, your staff and families a good Holiday weekend. Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read "P. J. Qualy". The signature is written in a cursive style with a long, sweeping underline that extends to the right.

P. J. Qualy
Minnesota Legislative Director
United Transportation Union-SMART-TD

enclosure

cc: Mr. John Previsich, UTU-SMART-TD Transportation President
Mr. James Stem, UTU-SMART-TD National Legislative Director

Phillip J. Qualy
Legislative Director,
Chairperson

Daniel M. Paradise
Assistant Director

Brian L. Hunstad
Secretary



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Minnesota Legislative Board
A Division SMART, Sheet Metal, Air Rail and Transit Union

April 17, 2014

Senator Jim Carlson
State of Minnesota
111 State Capitol
75 Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155

RE: S.F. 3172: Railroad Yard Lighting Provision, A-75 Amendment, Clarification.

Dear Senator Carlson,

Enclosed herewith, please find a copy of our responsive letter to Senator Pederson, St. Cloud, regarding his S.F 3172, Floor Amendment on April 8th 2014.

The A-75 Floor Amendment failed by a wide margin after considerable debate. Our safety legislation remains sensitive to local environmental concerns.

I hope this information is helpful to you. Please do not hesitate to contact us if we can answer any further questions or concerns. I want to thank you for your leadership on this importance railroad safety and public security issue.

Wishing you, your staff and families a good Holiday weekend. Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read "P. J. Qualy".

P. J. Qualy
Minnesota Legislative Director
United Transportation Union-SMART-TD

enclosure

cc: Mr. John Previsich, UTU-SMART-TD Transportation President
Mr. James Stem, UTU-SMART-TD National Legislative Director

Phillip J. Qualy
Legislative Director,
Chairperson

Daniel M. Paradise
Assistant Director

Brian L. Hunstad
Secretary



Minnesota Legislative Board
A Division of SMART, Sheet Metal, Air, Rail, Transit Union

Labor and Professional Centre
411 Main Street
St. Paul, MN 55102
Suite 212
651-222-7500(o) 651-222-7828(f)
E-MAIL:
UTUMNLEGBD@VISI.COM

April 23, 2014

Mr. Brian Sweeney
Government Affairs Counsel,
BNSF Railway
325 Cedar Street Ste. 620
South St. Paul, MN 55101

RE: H.F. 3172: BNSF Senate Testimony in Opposition to Railroad Lighting Legislation.

Dear Mr. Sweeney,

Please reference your public testimony before the Minnesota Senate Transportation Committee on March 31st, 2014. Specifically, the subject of estimated cost for railroad yard lighting and the current status of yard lighting at BNSF Dayton's Bluff Yard.

Enclosed, please find a BNSF Safety Information Resolution Process (SIRP) page from April of 2013, requesting lighting at BNSF Dayton's Bluff Yard. Contrary to previous testimony, you will see that the BNSF engineering department has estimated one lighted pole to cost approximately \$14,000. This information was added to the SIRP last August.

Also enclosed please find photos taken today, April 23, 2014, at BNSF Dayton's Bluff Yard*. You will see that one light-tower exists at the north end of the yard. This is the only BNSF lighting on this yard at this time. From additional photos you will see that at the east or south end of the same yard, there is no temporary or permanent yard lighting.

At the close of your testimony before the Senate, you responded to significant concerns regarding worker safety and mechanical inspections for departing trains on that yard lead. You responded stating that BNSF has placed temporary lighting at Dayton's Bluff and "lighting has been there since in 2007". Our BNSF train crews confirm that a temporary generator with light pole was removed from the east and south end of Dayton's Bluff years ago. No yard lighting is currently being installed despite an eleven month old SIRP. I am concerned that your testimony was incomplete, if not clearly misleading.

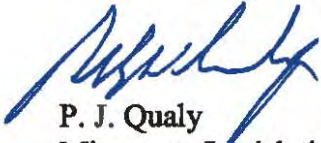
What is more concerning for railroad and public safety is that despite reintroduction of this legislation, subsequent hearings that served as specific notice referencing this unsafe yard condition, nearly thirty days have passed and BNSF has still not placed any permanent or temporary yard lighting that you stated the carrier is capable of providing.

This unsafe yard condition is why S.F.2290, the Railroad Yard Lighting bill, is necessary. Please be advised of this legislative report that impacts the safety of our membership and public alike. I look forward to your response and any report of progress from the BNSF.

Mr. Brian Sweeney
April 23, 2014
Page two.

Thank you.

Sincerely,



P. J. Qualy
Minnesota Legislative Director,
United Transportation Union-SMART-TD

*These photos do not show the actual Dayton's Bluff east or south end lead track with switches for tracks one through six. This area is not visible. The east end lead track and tracks seven through fifteen are portrayed in photographs.

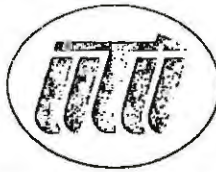
enclosure

cc: Mr. John Previsich, UTU-SMART-TD President
Mr. James Stem, UTU-SMART-TD National Legislative Director
Mr. Kevin Brodar, UTU-SMART-TD General Counsel
UTU-SMART-TD General Committees of Adjustment
UTU-SMART-TD Local Officers, Locals 1000, 1138, 1175, 1177, and 1976.
Office of the Governor Dayton
Minnesota Senate and House Leadership.

→ BNSF SAFETY HOTLINE: COST ESTIMATE - LIGHT POLE:

Open Safety Items - April 14, 2014

Reported Location	Sub Divl	Item	Issue Category	Estimated Close Date	Open Beyond Estd Close Date (Days)	In Protection	Corrective Action / Protection	Notes
DAYTONS BLUFF	ST PAUL	EMPLOYEES ARE WONDERING IF A SMALL LIGHT POLE COULD BE INSTALLED NEAR THE SWITCH AND DERAIL ON THE WEST END OF DAYTONS BLUFF YARD, FOR THE YARD LEAD TRACKS NEAR HOFFMAN AVE. (WEST OF THE WARNER STREET BRIDGE) THIS AREA IS VERY DARK AT NIGHT AND IT IS HARD TO SEE SAFETY ANY HAZARDS.	LIGHTING	6/30/2014	0	(MICHAEL DODGE - 04/29/2013) USE HAND HELD PERSONAL LIGHTING (MICHAEL OTZELBERGER - 04/06/2013) SIRP ENTERED.	(MICHAEL DODGE - 04/30/2013) ISSUE STILL UNDER REVIEW. (MICHAEL DODGE - 04/29/2013) REVIEWED SITE WITH LOCAL ELECTRICAL CREW, WILL NEED TO INSTALL A SOLAR/BATTERY LED POLE MOUNTED LIGHT AS THERE IS NO ELECTRICAL POWER NEAR THE SITE. PRELIMINARY ESTIMATE IS FOR \$13,000 FOR MATERIALS AND \$1,000 FOR LABOR. THIS WILL REQUIRE AN AFE, REQUESTING/USER DEPARTMENT WILL NEED TO SPONSOR THE AFE.	(MICHAEL OTZELBERGER - 04/06/2013) PLEASE INSTALL A SMALL LIGHT POLE NEAR THE SWITCH AND DERAIL AREA OF THE WEST END YARD LEAD AT DAYTONS BLUFF YARD, NEAR HOFFMAN AVE. (WEST OF THE WARNER STREET BRIDGE). THIS WILL HELP REDUCE THE RISK OF EMPLOYEES GETTING INURED WHILE WALKING IN THIS AREA AT NIGHT.
LITTLE FALLS	STAPLES	A NORTHTOWN CONDUCTOR TURN IN THIS WALKWAY AT EAST END OF LITTLE FALLS SIDING, THE WATER COMES UP TO THE EDGE OF THE SIDING EAST OF BROADWAY CROSSING UP BY ABSOLUTE SIGNAL BY THE HOLDING POND AND DAM. IS IT POSSIBLE TO PUT IN SOME POST AND CABLE ALONG THIS AREA APPROX 40 TO 50 FEET TO PROTECT FALLING INTO RIVER. I WILL FORWARD PICS TO LANIER,	WALKING-WORKING SURFACES	5/30/2014	0	(DANIEL PETERSON - 02/20/2013)..	(MICHAEL ANDERSON - 01/30/2014) TALKED TO MARK GJEVRE IN ENGINEERING SERICE, THIS ISSUE HAS TO GO ABOVE HIS HEAD, LOT OF PERMITTING AND MAY HAVE TO DRIVE SHEET PILING, CAN NOT GIVE A DATE (JAMES LANIER - 11/18/2013) 11/18/13 I TALKED WITH MARK GJEVRES IN ENGINEERING SERVICES PLAN AND PERMITS WILL NOT BE DONE BEFORE TOTAL FREEZE TIME FRAME HAS BEEN SET OUT TO MAY OF 2014. (JAMES LANIER - 10/02/2013)	



United Transportation Union

November 30th, 2007

To: George Joyce, President/LC-GNY, UTU Local 1000
Tom Lyman, Legislative Representative, UTU Local 1000
Phil Qualy, MN UTU State Legislative Director

From: Rick Olson, UTU TWI DIV Safety Coordinator

Re: Northtown, Midway, Dayton's Bluff, and Union Yard Lighting Issues

Brothers:

I have searched through the BNSF Twin Cities Division SIRP (Safety Hotline) Log from November 1st, 2003 to November 30th 2007 and the following enclosed items is what I can find on the open and closed SIRP issue log.

TWI 1952	-	7/22/05	Union Yard	-Lights out/Lights repaired
TWI 2004	-	8/03/05	Northtown	-Tower # 10 Lights out/repared
TWI 2006	-	8/04/05	Northtown	-West End Bowl Lights out/repared
TWI 2363	-	11/16/05	Northtown	-Carmen's Shanty Restroom Lights out/repared
TWI 2516	-	01/21/06	Northtown	-Hump Crest Lights out/repared
TWI 3912	-	09/13/06	Northtown	-Need light under 44 th Bridge (painted but no light)
TWI 4234	-	10/24/06	Northtown	-Shanty Lighting out/repared
TWI 4254	-	11/01/06	Northtown	-Diesel Pit Lights out/repared
TWI 4255	-	11/01/06	Northtown	-Hump Crest Lights out/repared
TWI 4256	-	11/01/06	Northtown	-Cab Track Lights out/replaced
* TWI 2646	-	01/27/06	Dayton's Bluff	-Request Lighting Closed (This should of stayed opened) I will request it be reopened.
TWI 5913	-	08/30/07	Dayton's Bluff	-Need Lighting/Closed. (This also should of stayed Open.) I will re-open.
TWI 3863	-	09/11/06	Midway	-Need Lighting/Closed. Another that should stay open.
TWI 6105	-	09/25/07	Union Yard	-Need Lighting and adjusted. Closed/Lights adjusted
TWI 6365	-	11/10/07	Midway	-Lights out/to be repaired. This should not of been closed until the actual repair is completed. I will re-open.

** BNSF Management Unilaterally Added Unimot (Consent or Correction of Unimot Issues); This was Against Safety Agreement, Branch CL & TRK*

This is one reason an active safety committee is needed to go over the SIRP's on a monthly basis to make sure each item is "Protected and Corrected". The committee's role is to determine as a group what are the B.S. answers and to not accept them, to re-open the SIRP's, and if that doesn't work, go up the ladder to the Safety Coordinators, then to the General Manager and then the General Chairmen step in. That is how it is suppose to work.

Fraternally yours,

R.A. Olson
R.A. Olson
UTU TWI Safety Coordinator
218-391-6448

Phillip J. Qualy
Legislative Director,
Chairperson

Daniel M. Paradise
Assistant Director

Brian L. Hunstad
Secretary



Minnesota Legislative Board
A Division of the Sheet metal, Air, Rail and Transportation Union

Labor and Professional Centre
411 Main Street
St. Paul, MN 55102
Suite 212
651-222-7500(o) 651-222-7828(f)
E-MAIL:
UTUMNLEGBD@VISI.COM

April 22, 2014

The Honorable
Majority Leader Thomas Bakk
State of Minnesota
226 State Capitol Building
St. Paul, MN 55155

RE: H.F 3172: Conference Committee, Article 4, Section 26, Railroad Yard Lighting.

Dear Majority Leader Bakk,

On behalf of our 1400 railroad workers of the United Transportation Union in Minnesota, I respectfully request your support for H.F. 3172, Article 4, Section 26, Railroad Yard Lighting provisions. This section holds a \$14,000 fiscal note that will improve rail safety.

Enclosed herewith, please find our very brief computer flash-drive with video images of railroad yard operations in lighted and unlighted yards. Simply insert, click on your viewer program, click through our overview, and then click on the black video screens.

I have also enclosed a BNSF Railway document which estimates the cost of a yard light and carbon copies of correspondence you should have now received that responds to inaccurate information opponents of this legislation have originated.

On behalf of rail labor in Minnesota, I want to thank you for your consideration of this common sense rail safety and public security improvement. I look forward to any questions or concerns that leadership may have. Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read "P. J. Qualy".

P. J. Qualy
Minnesota Legislative Director
United Transportation Union-SMART-TD

enclosure

cc: Mr. John Previsich, UTU-SMART-Transportation Division President
Mr. James Stem, UTU-SMART-TD National Legislative Director
UTU-SMART-TD Minnesota Safety Representatives

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Minnesota Legislative Board
A Division of the Sheet metal, Air, Rail and Transportation Union

April 22, 2014

The Honorable
Governor Mark Dayton
State of Minnesota
130 State Capitol Building
St. Paul, MN 55155

RE: H.F 3172: Conference Committee, Article 4, Section 26, Railroad Yard Lighting.

Dear Governor Dayton,

On behalf of our 1400 railroad workers of the United Transportation Union in Minnesota, I respectfully request your consideration of H.F. 3172, Article 4, Section 26, Railroad Yard Lighting provisions. This section holds a \$14,000 fiscal note that will improve railroad safety and public security.

Enclosed herewith, please find our very brief computer flash-drive with video images of railroad yard operations in lighted and unlighted yards. Simply insert, click on your viewer program, click through our overview, and then click on the black video screens.

I have also enclosed a BNSF Railway document which estimates the cost of a yard light and copies of UTU-SMART-TD correspondence to Legislative leadership that responds to inaccurate information that opponents of this legislation have originated.

On behalf of rail labor in Minnesota, I want to thank you for your consideration of this common sense legislation that will improve rail safety and public security. I look forward to any questions or concerns that you or your staff may have. Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read "P. J. Qualy".

P. J. Qualy
Minnesota Legislative Director
United Transportation Union-SMART-TD

enclosure

cc: Mr. John Previsich, UTU-SMART-Transportation Division President
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Minnesota Railroad Yards that Need Lighting for Safety.

<u>Class One Railroad</u>	<u>Yard Name</u>	<u>Location</u>	<u>Estimate of Poles</u>
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BNSF Railway	Dayton's Bluff	Industrial Zone	Eight.
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Memo: Southeast end yard leads of BNSF Dayton's Bluff is immediately adjacent to other rail yards. Has a county park to the east one quarter mile and is closed at night. This yard is an arrival, departure, has interchange with foreign railroads, and holds cars for re-blocking, inspection and pick-ups.

BNSF Railway	Union Yard	Heavy Industrial Zone	Eight.
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Memo: Union Yard was lighted until approximately six years ago when a derailment occurred and the lighting tower (Great Northern design) was knocked down and never replaced. This yard is centered and immediately adjacent between other railroad and elevator yards. The intermodal jobs from the Snelling Avenue facility yard set-out and pick up various cars, road trains set out, and industry road-switchers work at this staging yard throughout the week.

BNSF Comment: BNSF local management has told our UTU-SMART-TD membership that the Dayton's Bluff and Union Yards are scheduled to be remodeled in 2015-2016 to increase track capacity. Please see attached BNSF engineering department documents with lighting cost estimates from \$14K for a pole with light, to a steel yard tower with multiple lights, \$171K.

CN Railway:	Biwabek	Town Industrial Zone	Six.
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Memo: This yard is used for set-outs, pick-ups, and general commercial traffic switching. Cars are switched, inspected, and placed in trains. Loaded and empty ore cars are held at yard for plant capacity staging and re-blocking, as traffic dictates. When Lake Superior is open or ten months of year, traffic is heavy and CN-BFT-736 job works at night. Historically and in 2013, an industrial road switcher goes on duty at this Biwabek Yard.

<u>Class One Railroad</u>	<u>Yard Name</u>	<u>Location</u>	<u>Estimate of Poles</u>
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CN Railway	Wales	Isolated Rural	Eight.
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Memo: This yard is used for set-outs, pick-ups; loaded and empty ore cars are held at yard for plant capacity staging and re-blocking, as traffic, motive power availability dictates. Wales Yard is at a rural and unpopulated area.

CN Railway	Missabe Junction	Heavy Industrial	Four.
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Memo: This yard is used to pick up and set out lime stone cars under the Duluth ore dock industrial area. Proctor road-switcher assignments work this yard around the clock that also handles loaded and empty ore cars.

CN Railway	Wilpen	Isolated Rural	Four.
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Memo: This yard is used for set-outs, pick-ups; loaded and empty ore cars are held at yard for plant capacity staging and re-blocking, as traffic, motive power availability dictates. This yard also services an explosives factory and hazardous materials, including placard "Explosives A". Cars are switched and placed in train at this siding and spur track. Wilpen is at a rural and unpopulated area.

CN Railway Comment: In northeastern Minnesota, Proctor and Keenen Yard are primary yards where crews switch around the clock. These yards continue to need maintenance repair and redesign of existing lighting after years of disrepair and carrier inaction.

Canadian Pacific Railway:	Glenwood East	Rural/Industrial	Six.
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Memo: This yard is used for set-outs, pickups, re-blocking, switching, and inspection of cars and trains. Glenwood East is in the country approximately one mile east of the town. This yard departs over 300 cars per day toward the Twin Cities and eastern, southern, destinations.

Canadian Pacific Railway:	Dunn Yard	Industrial/Residential	Twelve.
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Memo: This is a major arrival and departure yard where cars are inspected and shoved for classification switching. Dunn Yard is south of CP St. Paul Yard and is bordered to the west by a lake and east by Federal Highway 61 and a row of residential homes. Due to carrier directives to increase speed of yard movements, placement of mechanical forces, with existing curvature of track, and carrier redesign that has eliminated emergency access road, UTU-SMART-TD considers Dunn Yard to be the most dangerous in state.

Class One Railroad Yard Name Location Estimate of Poles

Canadian Pacific Railway: New Ulm Yard Town Industrial Six.

Memo: This yard is used for industry switching, set-out, pick-ups, re-blocking and inspection of cars being placed in trains. New Ulm Yard is at the industrial area with no residential homes adjacent. This yard is the first yard in Minnesota where east and south bound cars from states the west can be re-blocked and inspected. New Ulm yard is in general disrepair with mud and broken rail. CP-DM&E crews go on duty and work over-night at this yard.

Canadian Pacific Railway: Hastings Rural Isolated Six.

Memo: This yard is used for industry switching, set-out, pick-ups, re-blocking and inspection of cars being placed in trains. Hastings yard is east of the town in a isolated area. This yard is also being used in conjunction with two sidings, (Vermillion and Black Bird), for intermediate re-blocking and staging of road trains. A road-switcher job goes on-duty at this location and yards work around the clock in yards and referenced sidings.

Canadian Pacific Railway: La Crescent Town Industrial Four.

Memo: At CP River Junction Yard, south end, trains departing for destinations south and east are set out, picked up, re-blocked and inspected. This yard is north of town in rural wooded area. Lighting at the north end of River Junction, where similar tasks are performed, needs improvement. Trains arrive and depart around the clock at this yard.

Canadian Pacific Railway: Northfield Town Industrial Four.

Memo: This yard is used for industry switching, set-out, pick-ups, re-blocking and inspection of cars being placed in trains. Northfield Yard is at the industrial area with no residential homes adjacent. Three carriers enter and depart this yard and road crews work around the clock.

Union Pacific Railway: Roseport/Old Yard Heavy Industrial Twelve.

Memo: This yard is used for industry switching, set-out, pick-ups, re-blocking and inspection of cars being placed in trains. Roseport Old or North Yard is at heavy industrial area that provides direct service to Flint Hills Refinery. Two carriers switchers and road crews work around the clock and handle a very high level of placarded hazardous materials. This unlit switching yard poses the greatest public safety concern in the state.

Class One Railroad Yard Name Location Estimate of Poles

Union Pacific Railway: Roseport/New Yard Heavy Industrial twelve.

Memo: This yard is used for industry switching and inspection of cars being placed in trains. Roseport New or South Yard is at rural industrial area that provides direct service to hazardous material facilities and barge terminals east of Flint Hills Refinery. A night road switcher and road crews work around the clock and handle placarded hazardous materials.

Union Pacific Railway: Merriam Yard Rural Industrial eight.

Memo: This yard is used for industry switching, set-out, pick-ups, re-blocking and inspection of cars being placed in trains. Merriam yard is at rural industrial area. This yard is also being used in conjunction with two sidings, (Belle Plain and LaSeuer), for intermediate re-blocking and inspection of road trains.

Union Pacific Railway: Western Avenue Yard Industrial six.

Memo: This yard is used for industry switching, set-outs, pick-ups, re-blocking and inspection of cars being placed in trains. Western Avenue is at an industrial area with no residential adjacent and provides direct service auto and industrial facilities. Three carriers move through this yard including a night yard-switch job.

Union Pacific Railway: Albert Lea Yard Town Industrial six.

Memo: Albert Lea yard is used for industry switching, set-out, pick-ups, re-blocking and inspection of cars being placed in trains. The yard is at an industrial area with no residential area nearby. This yard is also being used for intermediate holding and re-blocking of road trains when traffic is at system capacity . A road-switcher job goes on-duty at this location.

Union Pacific Railway: East Minneapolis Yard Heavy Industrial six.

Memo: This yard is used for industry switching, set-outs, pick-ups, re-blocking and inspection of cars being placed in trains. East Minneapolis is also a transfer yard in a heavy industrial area. Two carriers move through this yard around the clock.

CLOSE: Please see the attached BNSF Railway documents that estimate costs of yard lighting from a single pole to a steel tower with multiple fixtures. Please also review two recent jury verdict awards of \$3.6 million and \$250,000, where injuries occurred and lack of yard lighting was a contributing factor. Thank you for your review of this safety memorandum.

Phillip J. Qualy
Legislative Director,
Chairperson

Daniel M. Paradise
Assistant Director

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411 Main Street
St. Paul, MN 55102
Suite 212
651-222-7500(o) 651-222-7828(f)
E-MAIL:
UTUMNLEGBD@VISI.COM

April 24, 2014

Dear Senators and Representatives,

Today UTU-SMART-TD Minnesota has learned that the Short-line railroads, who are representing Class One carriers, are distributing a legal brief from Fletcher and Sippel, a Short-line Consortium law firm, claiming that a Minnesota Railroad Lighting law would be federally preempted.

The railroad's claim is simply not correct. The railroads are not correct in law on this issue. There is no federal regulation on railroad yard lighting in FRA or OSHA regulations of any kind. The Short-line's legal brief makes not mention nor makes any reference to legislative testimony at the Minnesota Legislature.

A Minnesota railroad yard lighting law will not be federally preempted. Please see our attached UTU-SMART-TD legal brief dated March 17, 2014. We stand correct from language drafting, hearing testimony and direction from our legal counsel.

Please also recall that UTU-SMART-TD identified this potential issue area during each Senate and House hearing stating in testimony that this area of state safety legislation is not, and would not be, federally preempted. At no time during the four hearings on SF-2290 and HF-2460, Railroad Yard Lighting, did the Class One and Short-line representatives contest our legal position or standing in law.

At this very busy time of year and as HF-3172 moves today in Conference Committee, I ask that you please review and share this legal brief in support of our state's right to legislative for safety with your colleagues.

Thank you.

Phillip Qualy
UTU-SMART-TD SLD Minnesota
651-222-7500
612-239-4414

cc: Mr. Lawrence Mann, UTU-SMART-TD Counsel
Mr. Kevin Brodar, UTU-SMART-TD General Counsel

LAWRENCE M. MANN

Member, D.C. Bar
Federal Practice

THE LAW OFFICES OF
ALPER & MANN, P.C.

9205 REDWOOD AVENUE
BETHESDA, MARYLAND 20817
(202)298-9191
1-800-747-6266
FAX (301) 489-8986
E-MAIL: LM.MANN@VERIZON.NET



March 17, 2014

TO WHOM IT MAY CONCERN:

I am an attorney and have been licensed to practice law since 1967. I am admitted to practice in Washington, D.C. I have handled numerous cases in state and federal courts relating to preemption of State laws and regulations covering railroad safety. I was a principal draftsman of the Federal Railroad Safety Act of 1970, which has been codified into Title 49 of the U.S. Code. The purpose of the FRSA was and is to promote safety in every area of railroad operations and to reduce railroad-related occurrences. 49 U.S.C. § 20101. I participated in drafting the preemption provision contained in that law.

Attached is my memorandum regarding the law as it relates to state preemption under the federal railroad safety laws and OSHA. It is my opinion that the State of Minnesota has the authority to enact a law covering illumination in railroad yards. Lighting in railroad yards clearly covers railroad operations.

Sincerely,


Lawrence M. Mann

I. Preemption of State Law Generally

With respect to preemption, the Supreme Court has observed that:

Preemption fundamentally is a question of Congressional intent and when Congress has made its intent known through explicit statutory language, the courts' task is an easy one.

English v. General Elec. Co., 496 U.S. 72, 78-79 (1990).

Preemption occurs in three ways: (1) Congress may pass a statute that by its express terms preempts state law; (2) Congress, though not expressly stating, may imply that it is preempting state law by occupation of an entire field of regulation, so that no room is left for supplementary state regulation. *Crosby v National Foreign Trade Council*, 530 U.S. 363, 372(2000); (3) Congress may speak neither expressly nor impliedly of preemption, nonetheless state law is preempted to the extent it actually conflicts with federal law; such a conflict occurs when (a) compliance with both state and federal law is impossible. *Florida Lime & Avocado Growers, Inc. v. Paul*, 373.S. 132, 142-143(1963); or (b) when state law stands as an impediment to a federal purpose. *Hines v. Davidowitz*, 312 U.S. 52, 67(1941). *See also, Wyeth v. Levine*, 552U.S.1161(2008); *Michigan Canners and Freezers Assoc. v. Agricultural Mktg. and Bargaining Bd.*, 467 U.S. 461, 469 (1984) for a general analysis of preemption.

As one court stated:

Perhaps Congress can preempt a field simply by invalidating all state and local laws without replacing them with federal laws, but [the act creating the FRSA express preemption statute] discloses no such intent. Directing the Secretary of Transportation to preempt a field is not the same as

preempting the field; here, Congress has done only the former.

Civil City of South Bend, md. v. Consolidated Rail Corp., 880 F. Supp. 595, 600 (N.D. Ind. 1995).

III. Railroad Safety and Preemption

Congress clearly provided a continuing role for state regulation of railroad safety to avoid the creation of regulatory gaps. In *Cipollone v. Liggett Group, Inc.*, 505 U.S. 504, 517 (1992), the Court stated:

When Congress has considered the issue of preemption and has included in the enacted legislation a provision explicitly addressing that issue, and when that provision provides a "reliable indicium of congressional intent with respect to state authority, " *Malone v. White Motor Corp.*, 435 U.S. at 505, "there is no need to infer congressional intent to pre-empt state laws from the substantive provisions" of the legislation.

In a subsequent Supreme Court case, *Freightliner v. Myrick*, 514 U.S. 280, 288-89(1995), it said there is an inference that an express pre-emption clause forecloses implied pre-emption. Given the FRSA contains an express preemption provision, courts must look to it to determine the Act's preemptive scope. In light of the express preemption provision, courts are generally precluded from applying an implied preemption analysis to determine the scope of preemption. It is a fundamental principle that there is a presumption against preemption.

Wyeth v. Levine *supra*; *CSX Transportation, Inc. v. Easterwood, supra*, 507 U.S. at 668. There must be "persuasive reasons" to apply implied preemption, particularly where states have traditionally regulated, such as health and safety.

In *Easterwood*, the Supreme Court interpreted for the first time the preemptive scope of 49 U.S.C. § 20106, defining the circumstances under which the Secretary is deemed to have issued regulations "covering the subject matter" of state regulations, and thus preempting the state regulation of the said subject matter. The Court began its preemption analysis citing the long held notion that, "in the interest of avoiding unintended encroachment on the authority of the States, ... a court interpreting a federal statute ... will be reluctant to find preemption." *Id.*, 507 U.S. at 663-64 (underlining added). Similarly, the Court observed that preemption of state law under the FRSA is subject to a "relatively stringent standard," and a "presumption against preemption." *Id.* at 668 (underlining added). The *Easterwood* decision has been interpreted to mean that "a presumption against preemption is the appropriate point from which to begin [a preemption] analysis." *In re Miamisburg Train Derailment Litigation*, 626 N.E.2d 85, 90 (Ohio 1994); *Southern Pacific Transportation, Co. v. Public Utility Comm'n of Oregon*, 9 F.3d 807, 810 (9th Cir. 1993) (stating "In evaluating a federal law's preemptive effect, however, we proceed from the presumption that the historic police powers of the state are not to be superseded

by a federal act 'unless that [is] the clear and manifest purpose of Congress").

The Court, in *Easterwood*, held that a subject matter is not preempted when the Secretary has issued regulations which merely "touch upon" or "relate to" that subject matter. *Id.*, 507 U.S. at 664. The Court stated that Congress' use of the word "covering" in § 20106 "indicates that **preemption will lie only if the federal regulations substantially subsume the subject matter of the relevant state law.**" *Id.*, (Emphasis added). The Court recognized the state interest and right to regulate railroad safety, noting that "[t]he term 'covering' is employed within a provision that displays considerable solicitude for state law in that its express preemption clause is both prefaced and succeeded by express savings clauses." *Id.* at 665.

The Supreme Court's "substantially subsumes" language has been read to mean that, if a federal regulation does not "specifically address" the subject matter of the challenged state law, it does not "substantially subsume" and thus preempt it. *Miamisburg, supra*, 626 N.E.2d at 93.

Similarly, in *Southern Pacific Transportation Co. v. Public Utilities Comm'n of Oregon, supra*, the court noted that:

To prevail on the claim that the regulations have preemptive effect, petitioner must establish more than that they 'touch upon' or 'relate to' that subject matter, for 'covering' is a more restrictive term which indicates that preemption will lie only if the

federal regulations substantially subsume the subject matter of the relevant state law.

9 F.3d at 812.

The court continued

. . . in light of the restrictive term "cover" and the express savings clauses in the FRSA, FRSA preemption is even more disfavored than preemption generally.

Id., at 813.

II., OSHA and Preemption of State Railroad Safety Laws

States have authority to adopt railroad safety laws pursuant to 49 U.S.C.

20106. As relevant here, it provides:

....A State may adopt or continue in force a law, regulation, or order related to railroad safety until the Secretary of Transportation prescribes a regulation or issues an order covering the subject matter of the State requirement....

Clearly, the proposed lighting in railroad yards relates to railroad safety. And, there is no applicable OSHA standard "substantially subsuming" the subject matter of lighting in railroad yards.

The OSHA provision relied upon by the railroads provides:

Nothing in this chapter shall apply to working conditions of employees with respect to which other Federal agencies....exercise statutory authority to prescribe or enforce standards or regulations affecting occupational safety or health.

29 U.S.C. § 653

Moreover, there exists a Policy Statement adopted March 14, 1978 between OSHA and the Federal Railroad Administration. It is attached from the Federal Register hereto as Exhibit 1. Of significance is the intent of each agency's jurisdiction, and therefore, the states rail safety authority. At pp. 10585-86 it

states:

...It is essential that the safety of railroad operations be the responsibility of a single agency....

...Within the area of railroad operations, it is FRA[and states] which must decide what regulations are necessary and feasible. (Emphasis added).

The Policy Statement also states:

OSHA regulations would not apply to ladders, platforms, and other surfaces on signal masts, catenary systems, railroad bridges, turntables, and similar structures or to walkways beside the tracks in yards or along the right-of way. These are areas which are so much a part of the operating environment that they must be regulated by the agency with primary responsibility for railroad safety.

43 Fed. Reg. 10,583

FRA's statement clearly asserting its authority over this area is even more reason that lighting in yards is a part of the operating environment. *See, e.g., Ass'n of Am. R.Rs. v. Dep't of Transp.*, 38 F.3d 582, 587 (D.C. Cir. 1994) (1978 policy statement was sufficient to remove OSHA jurisdiction over specifically-listed areas);

Velasquez v. Southern Pacific Transp. Co., 734 F.2d 216, 218 (5th Cir. 1984)

("It is not necessary that the FRA implement specific regulations for these areas; an assertion of authority in a policy statement is sufficient to displace OSHA regulations."). There have been a few other lawsuits regarding the jurisdiction between OSHA and FRA. In *Southern Pacific v. California Public Utilities Commission, supra*, the court held that the State of California had authority to issue and enforce regulations covering walkways. The railroad in that litigation argued that a FRA/ OSHA policy statement covering each agency's jurisdiction over

railroads preempted the state's walkway regulations. The court rejected that argument. In accord, *Grimes v. Norfolk Southern Ry. Co.*, 116 F. Supp, 2d 995, 1002-1003(N.D. Ind. 2000); *Illinois Central Gulf R.R. v. Tennessee Public Service Commission*, 736 S.W. 2d 112, 116(Tenn. Ct. App. 1987).

Nothing is more important to the safe operations of a railroad than the detailed inspections of mechanical equipment, power brakes, and safety appliances. Without proper lighting in the yards, proper inspections are difficult to attain.

In conclusion, it is clear that lighting in railroad yards is connected to railroad operations, and states have authority to regulate that subject matter pursuant to the federal railroad safety laws.

HF 2460 and SF 2290, Minnesota Railroad Yard Lighting Bill

- Proposes to set a standard and assure lighting in rail yards where cars are switched, set out, picked up, and inspected by train crews five days per week.
- Will improve railroad worker and public safety.
- Will improve quality of mechanical inspections of railroad cars when placed in trains.

HF 2460 and SF 2290: Minnesota Railroad Yard Lighting Bill

- Crafted from the “Minnesota Railroad Walkway Law” provisions (2008) and language construction.
- Necessary due to railroad inaction following formal requests to improve yard lighting.
- Other States have Railroad Lighting laws.
- Not preempted by federal law or other regulation.

HF 2460 and SF 2290: Minnesota Railroad Yard Lighting Bill

Legislation Highlights

- Applicable only in Class One and Class Two railroad yards where cars are switched five days a week. Private industry yards exempted.
- Sets American Railway Engineering and Manufacturing Association (AREMA) standard for minimum yard lighting requirement.
- Grandfathers existing railroad yards with lead track lighting on day of enactment.

HF 2460 and SF 2290: Minnesota Railroad Yard Lighting Bill

Legislation Highlights

- Two years to bring all railroad yards into lighting law compliance. (November 1, 2016)
- Sets minimum maintenance requirements except during periods of derailment, severe weather, or maintenance activity.
- Alternative process to file for exemption from compliance, or additional lighting, that will assure railroad worker and public safety with MnDOT Office of Rail Safety, Commercial Freight.
- Yard lighting must be focused on rail yard (dark sky provision).
- Solar “Made in Minnesota” purchasing mandate. Railroad has the right to opt out of Section Two HF 2460 / SF 2290.

HF 2460 and SF 2290: Minnesota Railroad Yard Lighting Bill

How does Minnesota have the jurisdiction to assure railroad worker and public safety?

- Like the Minnesota Railroad Walkway Statute (2008) and Railroad Close-Clearance Statute (1945), Minnesota set a requirement that obstruction on track, slipping/crushing hazard, be removed to assure safety.
- The Minnesota Railroad Yard Lighting bill (2014) sets a requirement that obstruction on track, darkness and visibility hazard on track area, be removed to assure safety.

**HF 2460 and SF 2290: Minnesota Railroad
Yard Lighting Bill**

***What do Minnesota Railroad
Yards look like to work, switch,
and inspect rail cars?***

(Click on screen to advance video/audio)

Railroad Yard with Lighting



Photo: March 2014

Railroad Yard with Lighting



Photo: March 2014

Railroad Yard without Lighting



Photo: March 2014

Railroad Yard without Lighting



Photo: March 2014

Railroad Yard – Fouled Walkway



Thank You / Safety First



UTU-SMART Transportation Division
Minnesota State Legislative Board
Phillip Qualy, State Director

Phillip J. Qualy
Legislative Director,
Chairperson

Nicholas J. Katich
Assistant Director

Brian L. Hunstad
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Labor & Professional Centre
411 Main Street / Suite 212
St. Paul, MN 55102
651-222-7500 (o)
651-222-7828 (f)
UTUMNLEGBD@VISI.COM

Minnesota Legislative Board

A Division of SMART, Sheet metal, Air, Rail and Transit Union
Printed In House

March 25, 2015

**Mr. William Gardner
Director, Freight, Rail, Waterways
Minnesota Department of Transportation
395 John Ireland Boulevard
St. Paul, MN 55155**

RE: UTU-SMART-TD Minnesota, Minnesota Railroad Yard Lighting Report.

Dear Director Gardner,

This letter will serve to respond to your MnDOT memo dated March 16th, 2015, regarding “UTU Minnesota Railroad Yard Lighting Report”. (Received by U.S. mail today). I apologize our information has not been presented in a clear manner.

Regarding the importance of the 2014 railroad yard lighting law, I want to reiterate while yard lighting will improve worker safety and efficiencies, yard lighting is essential to effectively perform 40 CFR 215.13, Appendix “D” mechanical inspection on rail cars being placed in trains before departure. It is in the public interest to assure railroad cars moving in trains have received effective mechanical inspection.

Also regarding the importance of railroad yard lighting, attached please find abstracted page from the Federal Railroad Administration (FRA) Office of Research and Development, “An Examination of Railroad Yard Worker Safety” Final Report, July, 2001. (Exhibit One). From the chapter 8.1, Key Findings, 8.2 “Best Practices” page 137, the FRA sets forth:

“Provide adequate lighting for night work. A train’s headlamp and handheld lantern or flashlight are insufficient.”

Our Minnesota Railroad Yard Lighting Report lists all Class I and II carrier yards in Minnesota. (One exception: TC&W Glencoe Yard). To clarify our report color code and category definitions, please review the terms:

- 1) The highest traffic and yards of greatest safety concern list from top to bottom.**
- 2) We have listed yards with highest traffic and greatest concern in the color blue.**
- 3) By category, we list “Lighting Status”. If a yard has “yes” listed, that yard does have some level yard lighting. If a yard has “no” listed, there is no yard lighting at that yard.**
- 4) By category, we list “AREMA Compliant”. If a yard has “no” listed, the yard lighting does not meet the AREMA standard. If the yard has “unknown” listed,**

Mr. Bill Gardner

March 25, 2015

Page two.

the yard has lighting, however we have no independent factual light measurements. (It is important to note that yards that have comparatively good yard lighting systems in place, we list “unknown” due to lack of light measurement).

- 5) By category, we list “Applicable to Statute”. If a yard is listed with “yes”, that yard meets the requirement of Minnesota Statute 219.375, Subd. 5:**

Required Railroad Yard Lighting:

Subd. 5.Required lighting. By December 31, 2015, a railroad common carrier shall establish lighting that meets the standards and guidelines under subdivision 1, clauses (3) and (4), at each railroad yard where:

(1) between sunset and sunrise:

(i) locomotives, or railcars carrying placarded hazardous materials, are frequently switched, repaired, or inspected; or

By the category “Applicable to Statute”, if a yard is listed with “no” or “unknown”, that yard does not have a sufficient level of listed activities under Mn Stat 219-375 Subdivision 5, (1)(i) or other, to meet criteria.

We list all yards later in this responsive letter. We will proceed to answer MnDOT requests information and clarification.

I. MnDOT request for clarification, 1 Subdivision Three:

Lighting Status Reports, Railroad Labor Representative:

Subd. 3 (1) Describe the nature and placement of lighting equipment currently in use in the yard and maintenance status and practices regarding the equipment;

UTU-SMART-TD Minnesota does not have access to railroad carrier electrical lighting design, specifications, nor maintenance records to satisfy this request. We do not have a proprietary right of access to MnDOT’s requested data. Only the railroad carriers can provide specific records detailing lighting design, specifications, and maintenance records. Please reference our report “Section Five: Class I and II railroad yard lighting maintenance issues” report page 13.

To this request for additional information, please review our report, “Section Four: Listing of Class I and II railroad yards by carrier property with all yards listed, lighting reported, AREMA compliance” In in an attempt to satisfy MnDOT’s request, please see the abbreviated and color coded listing of carrier railroad yards where conditions set forth in Subd. 1 (3)(4) and Subd. 5, (1)(i) exist:

Attached please find photographs of standard yard lead poles with spot-lights and steel canopy as an illustration and for your ready reference. (Exhibit Two-A-C)

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A) Burlington Northern Santa Fe (BNSF) Railway:

Yard: Lighting Status - AREMA Compliant - Applicable to Statute

Dayton's Bluff, East **No** **No** **Yes**
 (No lighting at south east end of yard whatsoever on BNSF property).

Duluth Rice Point **Yes** **Unknown** **Yes**
 (Tower light installations: BNSF safety hotline complaints submitted).

Northtown: **Yes** **Unknown** **Yes.**
 (Tower light installation and poles holding spot lights under steel canopy.
 BNSF Northtown is considered to be a well list yard; however we do not
 have independent light measurements).

Willmar: **Yes** **Unknown** **Yes.**
 (Tower light installation and poles holding spot lights under steel canopy.
 BNSF Willmar Yard is considered to be a well list yard; however we do not
 have independent light measurements).

Dilworth: **Yes** **Unknown** **Yes.**
 (Tower light installation and poles holding spot lights under steel canopy.
 BNSF Dilworth Yard is considered to be a well list yard; however we do not
 have independent light measurements).

East Grand Forks: **Yes** **Unknown** **Yes**
 (Yard lead light poles holding spot lights under steel canopy),

Minneapolis Union: **No** **No** **No**
 (Tower light installation collapsed after collision with cars and never replaced.
 BNSF Union yard does not have locomotives, or railcars carrying placarded
 hazardous materials, are frequently switched, repaired, or inspected at this
 time. This yard currently being redesigned and constructed for intermodal).

Midway Intermodal: **Yes** **Yes** **No.**
 (Tower light installation and poles holding spot lights under steel canopy.
 BNSF Midway Yard is considered to be a well list yard; however it is not
 applicable to statute because locomotives, or railcars carrying placarded
 hazardous materials, are frequently switched, repaired, or inspected.)

St. Cloud: **Yes** **Unknown** **Unknown**
Staples: **Yes** **Unknown** **Unknown**
Grand Rapids: **Yes** **Unknown** **No**
Little Falls: **No** **No** **No**
Florence: **No** **No** **No**
Minneapolis Grove: **No** **No** **No**

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B) CN Railway (CN):

Yard: Lighting Status - AREMA Compliant - Applicable to Statute

Proctor: Yes No Yes

(Please see attached Barr Engineering report. Tower light installation and poles holding spot lights under steel canopy. The track lay-out of this yard was redesigned and light towers were removed. Existing light towers were not re-focused onto safety sensitive yard leads. Light pole line illumination onto safety sensitive areas is obstructed by standing rail cars).

Keenan: Yes Unknown Yes

(40 ft. poles holding spot lights under steel canopy along yard leads).

Two Harbors: Yes Unknown Yes

(Tower light installation and poles holding spot lights under steel canopy).

Missabe Junction: No Unknown Yes

(There is no lighting at this location; hazmat cars are handled on a seasonal basis).

Rainier: Yes Unknown Yes

(40 ft. poles holding spot lights under steel canopy along yard leads).

Wilpen	No	No	Unknown
Biwabek	No	No	Seasonal
Virginia	Yes	Unknown	Unknown
Steelton Yard	Yes	Unknown	No
Allen Junction	No	No	No
Wales	No	No	No

C) Canadian Pacific (CP) Railway:

Yard: Lighting Status - AREMA Compliant - Applicable to Statute

St. Paul Dunn No Unknown Yes

(There is not lighting at Dunn Yard despite years of request. Again, this yard meets requirement for locomotives, hazmat cars, frequently switched, inspected).

Glenwood East No Unknown Yes

(At Glenwood Yard, east leads, there are no yard lights. The mid-yard has tower light installations with pole lighting along yard leads near the depot).

New Ulm No Unknown Yes

(Single pole spot-lighting with steel canopy exists near depot and toward yard area).

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Page five.

C) Canadian Pacific (CP) Railway (continued):

Yard: Lighting Status - AREMA Compliant - Applicable to Statute

River Junction South. No Unknown Yes

(Single pole spot-lighting with steel canopy exists on north end; no lighting on south end of yard. Please see CP safety committee meeting minutes with lighting report.)

Hastings No Unknown Yes

(No lights.Switching around the clock at this industry yard, re-block of road trains).

St. Paul Yes Unknown Yes

(Tower light installation and poles holding spot lights under steel canopy. CP St. Paul Yard is considered to be a well list yard; however we do not have independent light measurements).

Thief River Falls	Yes	Unknown	Yes
Humboldt	Yes	Unknown	Yes
Glenwood	Yes	Unknown	Yes
Waseca	Yes	Unknown	Unknown
Winona	No	No	Yes
Cottage Grove	Yes	Unknown	No
Northfield	Yes	Unknown	No
Shoreham	Yes	Unknown	No
Wabasha	No	No	No
Cardigan Junction	No	No	Unknown
Noyes	Yes	Unknown	Unknown

D) Union Pacific (UP) Railway:

Yard: Lighting Status - AREMA Compliant - Statute Applicable

Roseport North No No Yes

(UP Roseport North Yard is listed as one of four yards that must be lit by December 31, 2015. No railroad yard lighting exists in the yard whatsoever).

Roseport South No No Yes

(UP Roseport South Yard is listed as one of four yards that must be lit by December 31, 2015. No railroad yard lighting exists in the yard whatsoever).

Western Avenue No No Yes

(No yard lighting exists; UP switch engine works yard and industries at night Please reference Barr Engineering, independent chapter, yard lighting report).

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Page six.

D) Union Pacific (UP) Railway (continued):

Yard: Lighting Status - AREMA Compliant - Statute Applicable

St. Paul Hoffman Yes Unknown Yes

(Single pole spot lighting with steel canopy exists on yard leads. Mid yard is very dark, has no lighting, with track curvature).

East Minneapolis No No Yes

(Single pole spot lighting with steel canopy exists on the east lead. There is no other lighting in yard).

Merriam No No Unknown

(There is no lighting at this yard. An increased level of switching occurs around the clock at this yard with blocking, reblocking of trains. It is unknown how much switching and inspection occurs with hazardous material cars at this time).

So. St. Paul Yes Unknown Yes

Valley Park Yes Unknown Yes

Mankato Yes Unknown Yes

Mankato New Yd. Yes Unknown Yes

Elk Creek Yes Unknown Yes

Worthington Yes Unknown Yes

Albert Lea No No No

Blue Earth No No No

St. James No No Unknown

New Prague No No No

Winona No No No

II) MnDOT Request for Clarification: UP “New” Yard Locations and Status:

a) Union Pacific “St. Paul New Yard” references the planned yard expansion proposed for South St. Paul Yard. (Immediately east of Concord Boulevard and north of No yard tracks have been built at this time). However, based on current traffic and commodity patterns, UTU-SMART-TD Minnesota asserts the proposed “UP St. Paul New Yard” will have locomotives, or railcars carrying placarded hazardous materials frequently switched, repaired, or inspected between sunset and sunrise.

b) Union Pacific “Mankato New Yard” references the existing classification Yard that parallels Minnesota Highway 22 between Federal Highway 14 and Industrial Boulevard. This yard has been referenced as the “New Yard” since it was built in the 1950’s. Locomotives, or railcars carrying placarded hazardous materials frequently switched, repaired, or inspected between sunset, sunrise. Single-pole spot lighting exists on north and south yard leads.

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Once again, referencing the prior listed carrier yards, we have color coded the highest yard lighting priorities in blue. The remaining yards listed in black are also yards where locomotives, or railcars carrying placarded hazardous materials may be frequently switched, repaired, or inspected between sunset and sunrise.

III) MnDOT Request for Clarification: Section Two, Page 6:

With Minnesota Yard Lighting Report Section Two, we have listed four yards that certainly meet the statutory requirement to meet the AREMA Standard by December 31, 2015. These yards must have yard lighting installed to the AREMA Standard by December 31, 2015. This assertion is based on the strict writing of Minnesota Statute 219.375, Subdivision Five. The yards are:

- a) Union Pacific Railway: Roseport North/South Yards, Dakota County,
- b) CN Railway: Proctor Yard, St. Louis County, (Barr Engineering Report).
- c) CP Glenwood Yard, east yard leads, Pope County, and,
- d) CP Dunn Yard, St. Paul, Minnesota.

IV) MnDOT Request for Clarification: Section Three, Pages 7 -10:

With Minnesota Yard Lighting Report Section Three, we have listed seventeen additional yards that may meet the statutory requirement for yard lighting to meet the AREMA standard by December 31, 2015. However, from the level of switching with locomotives, general railcars, or rail cars carrying placarded hazardous materials frequently switched, repaired, or inspected between sunset and sunrise, we assert railroad yard lighting to the AREMA standard is necessary.

V) MnDOT Request for Clarification: Section Four, Pages 10-12:

Please reference the blue and black color coded property listings contained in this letter prior.

VI) MnDOT Request for Clarification: Response, promptness to lighting malfunction:

Please reference our Minnesota Railroad Yard Lighting Report, Section 5, Page 13. We believe the abstracted carrier documentation that has been provided is sufficient to meet the statutory requirement. Our narrative accurately illustrates lighting maintenance practices. From the respective documents, interested parties can conclude that reported lighting issues have not been repaired within 48 hours as the statute requires at certain times and locations.

Please see additional carrier lighting reports from Canadian Pacific and Union Pacific Railways (Exhibit Three a-g). From these reports, it is clear that carriers have not repaired specifically reported lighting problems within 48 hours.

No formal yard complaints due to carrier non-compliance of lighting statutes were filed by this organization between August 1st and December 31st 2014. No carrier correspondence was received from respective carriers during this same period.

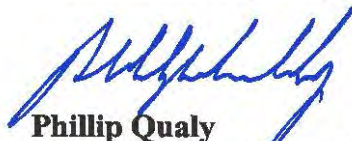
Mr. Bill Gardner
March 25, 2015
Page eight.

In closing, we hope to meet with MnDOT before a lighting report is issued to the Legislature. It is our sincere hope the MnDOT legislative report:

- 1) Will not weaken the existing statute 219.375 in any manner. It is essential for railroad safety that the AREMA standard be maintained.**
- 2) Will assert or apply for clear authority to gain objective, independent lighting or illumination measurements at all rail yards in Minnesota.**
- 3) Will assert or apply for clear definition of duties for state rail inspectors to include inspection and resolution of lighting issues that are not repaired within 48 hours from time of first report.**
- 3) Will focus on verification of need at seventeen listed yards where a significant level of switching and inspections are occurring at night.**
- 4) Will recommend legislation in each area listed prior and gain clear enforcement powers with force of financial penalty for carrier non-compliance.**

We hope this information is helpful toward improving railroad safety and public security in Minnesota. In advance, thank you for your review of this information.

With kindest regards,



Phillip Qualy
Minnesota Legislative Board
United Transportation Union-SMART-TD

enclosure

cc: Mr. John Previsich, UTU-SMART-TD President
Mr. John Risch, UTU-SMART-TD National Legislative Director
UTU-SMART-TD Minnesota Legislative Committee.
Minnesota Legislative Leadership.

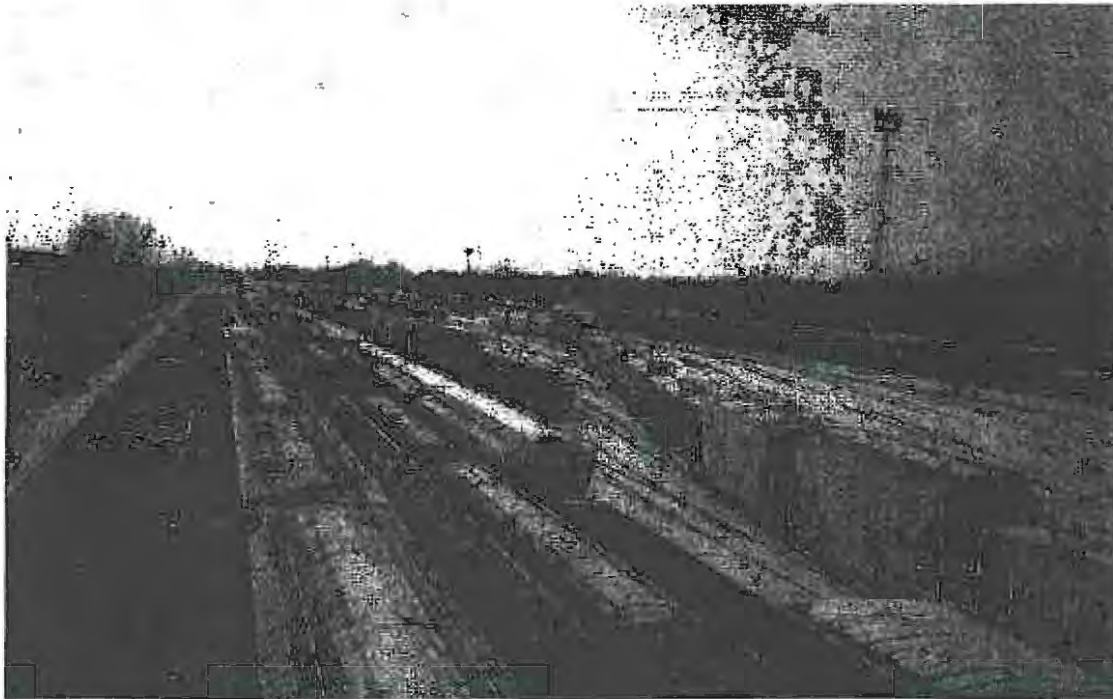


U.S. Department
of Transportation

Federal Railroad
Administration

An Examination of Railroad Yard Worker Safety

Office of Research
and Development
Washington, DC 20590



DOT/FRA/ORD-01-20

Final Report
July 2001

This document is available to the U.S.
public through the National Technical
Information Service, Springfield, VA 22161

Exhibit 1

8.2 Best Practices for Fostering a Positive Safety Climate and Reducing Injuries

Discussions with railroad officials during the site visits and focus group interviews with representatives of yard crafts highlighted aspects of individual railroad practices that fostered a positive safety climate and reduced the risk of worker injuries. The experiences of both groups also suggested additional practices that would be enhancements to the safety climate and would likely prevent injuries. The following suggested best practices, based on the information gathered during the present study, are organized around major themes.

Equipment and Property

- Provide adequate lighting for night work. A train's headlamp and a handheld lantern or flashlight are insufficient.
- Remove trash, debris, and other slip and trip hazards from the yard on a regular and frequent basis.
- Keep equipment such as locomotives well-maintained.
- Install ergonomic switch stands when replacing older manual switches. Railroads that have installed them reported reduced back injuries.
- Use "walking" (i.e., 3/4 in.) stone on switch leads and tow paths.

Training

- Select OJT mentors who are interested in training new hires and are effective trainers. Compensate mentors appropriately.
- Combine classroom and hands-on practice during initial training. For procedural training it is easier to learn the procedure if demonstration and supervised practice immediately follow the classroom session on the topic.
- Formally structure OJT using a checklist or other training aid.
- If using CBT for rules training, provide a forum for employees to share information and experiences.
- If in-house training resources are limited, explore training programs offered by local community colleges.

Problem Identification and Resolution

- Offer several methods for reporting an unsafe condition. Some individuals will take the time to fill out a written report, some prefer to have their union representative do the reporting for them while others may find a telephone message suitable.

Railroad Yard with Lighting

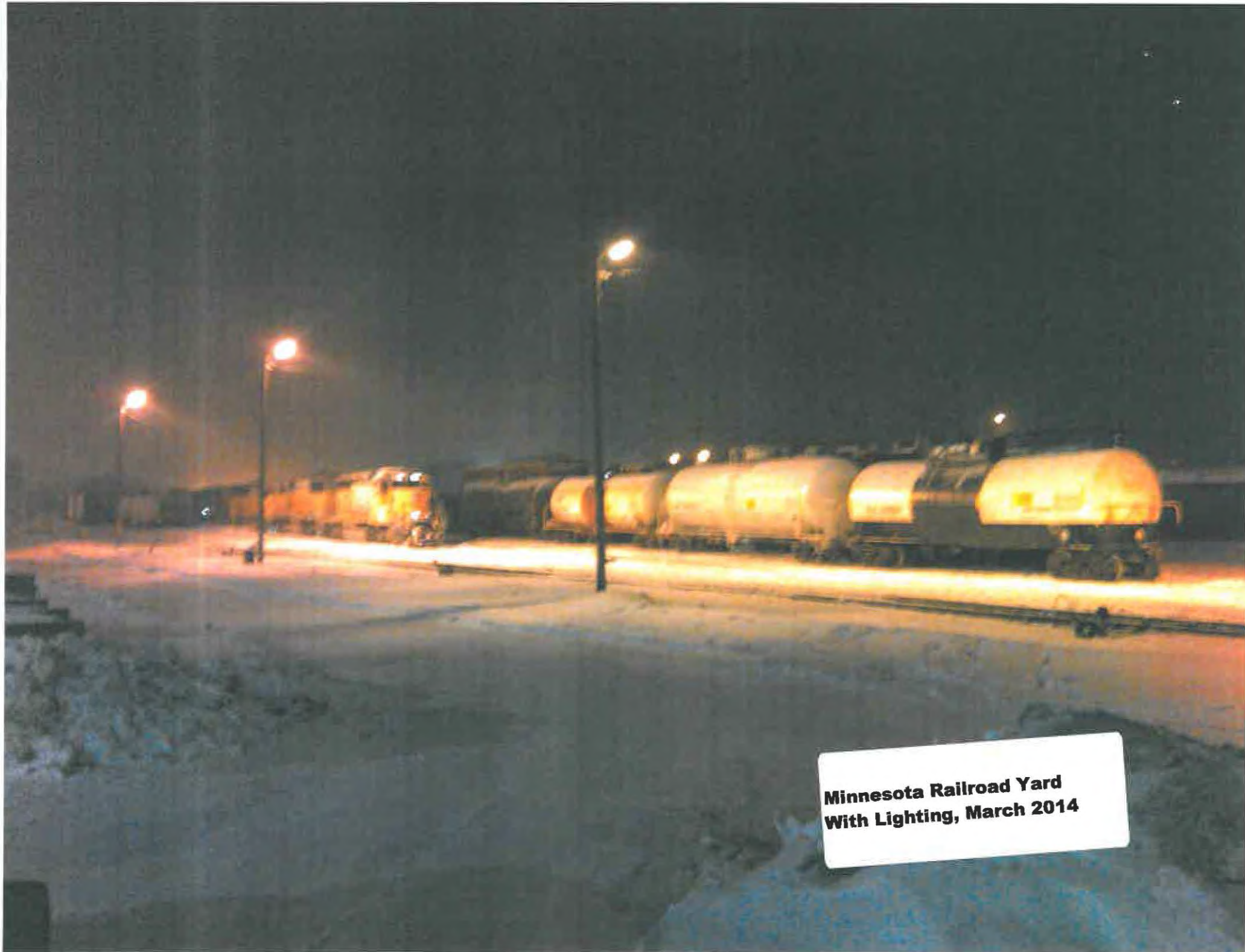


Exhibit 2-A-F

Photo: March 2014



**Minnesota Railroad Yard
With Lighting, March 2014**



**Minnesota Railroad Yard
With Lighting, March 2014**

A dark, grainy night photograph of a railroad yard. The scene is mostly black, with a few bright, out-of-focus lights visible in the distance on the right side. The lights appear to be from a train or yard equipment. The overall atmosphere is very dark and low-contrast.

**Minnesota Railroad Yard
Without Lighting, 2014**

Title 49: Transportation

PART 215—RAILROAD FREIGHT CAR SAFETY STANDARDS

Subpart D—Stenciling

Appendix D to Part 215—Pre-departure Inspection Procedure

At each location where a freight car is placed in a train and a person designated under §215.11 is not on duty for the purpose of inspecting freight cars, the freight car shall, as a minimum, be inspected for the imminently hazardous conditions listed below that are likely to cause an accident or casualty before the train arrives at its destination. These conditions are readily discoverable by a train crew member in the course of a customary inspection.

1. Car body:

- (a) Leaning or listing to side.
- (b) Sagging downward.
- (c) Positioned improperly on truck.
- (d) Object dragging below.
- (e) Object extending from side.
- (f) Door insecurely attached.
- (g) Broken or missing safety appliance.
- (h) Lading leaking from a placarded hazardous material car.

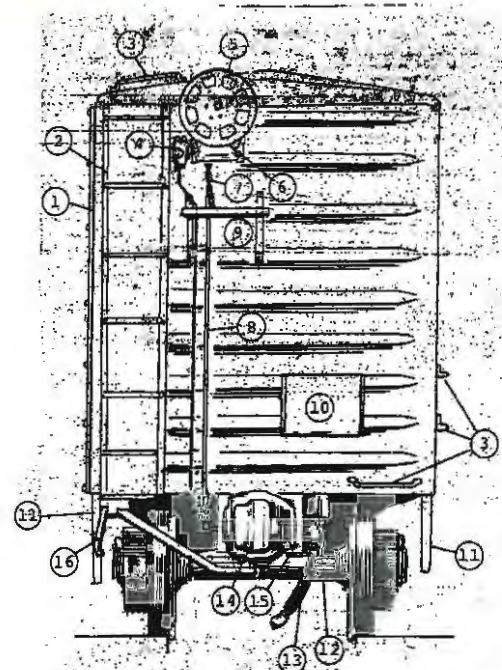
2. Insecure coupling.

3. Overheated wheel or journal.

4. Broken or extensively cracked wheel.

5. Brake that fails to release.

6. Any other apparent safety hazard likely to cause an accident or casualty before the train arrives at its destination.



- | | |
|-------------------|---------------------|
| 1. Side Ladder | 9. Brake Platform |
| 2. End Ladder | 10. Placard Board |
| 3. Grab Irons | 11. Stirrups |
| 4. Retainer Valve | 12. Angle Cock |
| 5. Brake Wheel | 13. Air Hose |
| 6. Brake Housing | 14. Coupler |
| 7. Brake Chain | 15. Coupler Housing |
| 8. Brake Rod | 16. Lift lever |

[45 FR 26711, Apr. 21, 1980, as amended at 73 FR 79701, Dec. 30,

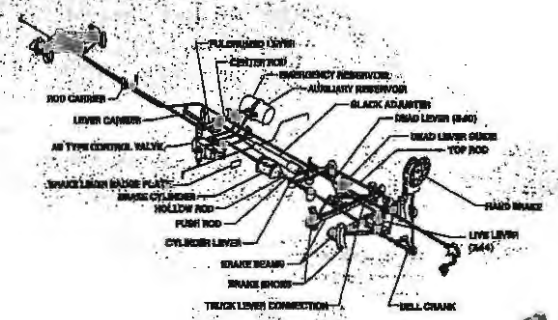


Exhibit 2-E

OUTDOOR SITE/AREA RECOMMENDED ILLUMINANCE LEVELS

Area/Activity	FC	Area/Activity	FC
GENERAL			
Airports			
Hangar apron		Log grading-water or land	5
Terminal building apron	1	Log bins(land)	2
Parking area		Lumber yards	1
Loading area	0.5	Piers	
Building (construction)	2	Freight	20
General construction		Passenger	20
Excavation work	10	Active shipping area surrounds	5
Building Exteriors	2	Railroad yards	
Entrances		Retarder classification yards	
Active(pedestrian and/or conveyance)	6	Receiving yards	
Inactive(normally locked, infrequently used)	1	Switch points	2
Vital locations or structures	5	Body of yard	1
Building surrounds	1	Hump area(vertical)	20
Building and monuments, floodlighted		Control tower and retarder area(vertical)	10
Bright surroundings		Head end	5
Light surfaces	15	Body	1
Medium light surfaces	20	Put-out end	2
Medium dark surfaces	30	Dispatch or forwarding yard	1
Dark surfaces	50	Hump and rider classification yard	
Dark surroundings		Receiving yard	
Light surfaces	5	Switch points	2
Medium light surfaces	10	Body of yard	1
Medium dark surfaces	15	Hump area(vertical)	5
Dark surfaces	20	Hai switching yards	
Bulletin and poster boards		Side of cars(vertical)	5
Bright surroundings		Switch points	2
Light surfaces	50	Trailer-on-flatcars	
Dark surfaces	100	Horizontal surfaces of freight	5
Dark surroundings		Hold-down points(vertical)	5
Light surfaces	20	Containers-on-flatcars	3
Dark surfaces	50	Service Stations(at grade)	
Gardens		Dark surrounding	
General lighting	0.5	Approach	1.5
Path, steps, away from house	1	Driveway	1.5
Backgrounds-fences, walls		Pump island area	20
trees, shrubbery	2	Building faces(exclusive of glass)	10
Flower beds, rock gardens	5	Service areas	3
Trees, shrubbery when emphasized	5	Landscape highlights	2
Focal points, large	10	Light surrounding	
Focal points, small	20	Approach	3
Loading and unloading		Driveway	6
Platforms		Pump island area	30
Freight car interiors	10	Building faces(exclusive of glass)	30
Logging (See also Sawmills)		Service areas	7
Yarding		Landscape highlights	6
Log loading and unloading	3	Ship yards	
Log stowing(water)	6	General	5
Active log storage area(land)	0.5	Ways	10
Log booming area(water)- foot traffic	0.5	Fabrication areas	30
Active log handling area(water)	1	Storage yards	
	2	Active	20
		Inactive	1

Open Parking Facilities

Local of Activity	General Parking and Pedestrian Area		Vehicle Use Area	
	Footcandle (Average on Pavement)	Uniformity Ratio (Avg. Min.)	Footcandle (Average on Pavement)	Uniformity Ratio (Avg. Min.)
High	0.8	4:1	2	3:1
Medium	0.6	4:1	1	3:1
Low	0.2	4:1	0.5	4:1

Covered Parking Facilities

Areas	Day Footcandle (Average on Pavement)	Night Footcandle (Average on Pavement)	Uniformity Ratio (Avg. Min.)
	General parking and Pedestrian areas	5	5
Ramps and corners	10	5	4:1
Entrance areas	50	5	4:1

Safety & Health Committee Minutes

December 2014



201

**CANADIAN
PACIFIC**

TCT Road & Yard Cross Functional Health and Safety Committee

OLD BUSINESS:

December 9, 2014	being properly familiarized. Peer review for final markup? Training for conductor coaches?	Newhouse	
April 9, 2014 Updated: December 9, 2014	Lighting in Dunn yard and at Hastings, no plan to install lights. Issue to SAB.	R. Newhouse to SAB C. Duffy	Ongoing
April 9, 2014 Updated: December 9, 2014	Switch numbers update for proper reporting, numbers bought and are being installed. May be	C. Duffy	Ongoing

Date Identified	New Business Description	Responsible Person(s)	Due Date
December 9, 2014	Unsafe condition reports to K. Gibbons for tracking. Trainmasters are not passing these on. Stenson to Hommerding.	P. Stenson	
December 9, 2014	Lighting for windsocks. They are not visible at night. 8 spot windsock has been identified.	West to Moulard	
December 9, 2014	Lights at LaCrescent.	Egglund to Mooney	
December 9, 2014	Crew driven by trainmaster whom had been working/awake 30+ hours. Stenson to Hommerding.	FOP Manager	
December 9, 2014	Safety and Health minutes are not being posted to bulletin boards. Stenson to Hommerding.	FOP Manager	
December 9, 2014	Tripping hazard on CT25. Section was in place to clean, and was not allowed by Trainmaster.	Stenson	
December 9, 2014	Blocks not given to Carmen requesting them. Working on/under equipment without proper protection.	D. Farrer	

Subject: SAB Escalation Issues from TCT Safety and Health Committee

Mr. Bartz,

I am sending you this email to inform you that the TCT Safety and Health Committee has a few issues that have we have elected to escalate to SAB. Please bring the following up in your meeting.

1. The training for new hire conductors has been shortened to an alarming 2 or 3 weeks in some cases for people who worked at a railroad a some point earlier in their career. This is unsafe on so many levels. Conductors at St. Paul cannot possibly be familiar with the work or any of the processes in one of the most complex yards on our system. They are not getting the training that they deserve and the training that we are responsible for giving them. The other employees are also not safe when these men/women are working. This is not a slight on them but they can't possibly be safe with only 2 weeks of training. We request that the SAB mandate that no new hire no matter where they come from gets the proper amount of familiarization and training that all new hires receive.
2. The lighting at Dunn Yard and Hastings Yard is inadequate. We are forcing men and women to work in total darkness. This is unsafe and someone may get hurt because a hand lantern is simply not enough of a light source to ensure safe walking and safe operations. This committee would like to see better lighting at St. Paul Yard, Dunn Yard and Hastings Yard.

Rob Newhouse
 LC-Y SMART-TD 911
 Cell
 (651)308-1074
 Fax
 (888)505-3886

Exhibit 3-B

Safety Hotline Report

U.P.

Issues

Region	Service Unit	Subdivision	Initiated on Date	Defect ID	Location	Category	Status
Northern	Twin Cities (1)	Albert Lea Sub	01/27/2015	73721	DM004, SOUTH ST PAUL, MN	Lighting Issues	Closed
<p>Summary : Lighting Issues</p> <p>Description :</p> <p>Two lights out north end of Hoffman yard, near 22 and 23 switches</p> <p>Resolution :</p> <p>*** Murphy,Ammie L *** : Message received 01/28/2015 and was forwarded to appropriate personnel for handling. Once response is received, SHL Issue will be updated with information. *** Comment Added at 01/28/15 06:49 AM *** *** Murphy,Ammie L *** : Per email received from Ron Frokjer - TM Elect Ldr Sys on 01/29/15 at 11:28 am SHL #'s 73487, 73721 & 73690 were all for the same 2 lights. They have been repaired. You can close all three tickets. *** Comment Added at 01/29/15 11:41 AM ***</p>							
Northern	Twin Cities (1)	Albert Lea Sub	01/27/2015	73690	DM004, SOUTH ST PAUL, MN	Lighting Issues	Closed
<p>Summary : Lighting Issues</p> <p>Description :</p> <p>light pole 10 and 11 on the north end of hoffman lights are out and need to be fixed</p> <p>Resolution :</p> <p>*** Murphy,Ammie L *** : Message received 01/27/2015 and was forwarded to appropriate personnel for handling. Once response is received, SHL Issue will be updated with information. *** Comment Added at 01/27/15 07:36 AM *** *** Murphy,Ammie L *** : Per email received from Ron Frokjer - TM Elect Ldr Sys on 01/29/15 at 11:28 am SHL #'s 73487, 73721 & 73690 were all for the same 2 lights. They have been repaired. You can close all three tickets. *** Comment Added at 01/29/15 11:41 AM ***</p>							
Northern	Twin Cities (1)	Albert Lea Sub	01/20/2015	73487	DM004, SOUTH ST PAUL, MN	Lighting Issues	Closed
<p>Initiated By : Michael J Frederick</p> <p>Summary : Lighting Issues</p> <p>Description :</p> <p>north end of hoffman yard two lights are not working the ones between the 22 to 24 switch stands</p> <p>Resolution :</p> <p>*** Murphy,Ammie L *** : Message received 01/21/2015 and was forwarded to appropriate personnel for handling. Once response is received, SHL Issue will be updated with information. *** Comment Added at 01/21/15 12:43 PM *** *** Murphy,Ammie L *** : Per email received from Ron Frokjer - TM Elect Ldr Sys on 01/29/15 at 11:28 am SHL #'s 73487, 73721 & 73690 were all for the same 2 lights. They have been repaired. You can close all three tickets. *** Comment Added at 01/29/15 11:40 AM ***</p>							

Exhibit 3-C

Safety Hotline Report

Issues

Region	Service Unit	Subdivision	Initiated on Date	Defect ID	Location	Category	Status
Northern	Twin Cities (1)	Mankato Sub	02/13/2015	74271	SX020, VALLEY PARK, MN	Lighting Issues	Closed

Summary : Lighting Issues

Description :

Overhead light over the 1-2 switch North end of Valley park Yard Burnt out Exterior door lights on both main doors of the depot burnt out as well

Resolution :

*** Murphy, Ammie L *** : Message received 02/13/2015 and was forwarded to appropriate personnel for handling. Once response is received, SHL Issue will be updated with information.
 *** Comment Added at 02/23/15 08:13 AM ***
 *** Murphy, Ammie L *** : Per voicemail received from Eric Christopherson on 02/18/15 at 11:02 am Light issue at Valley Park is completed now. *** Comment Added at 02/24/15 12:18 PM ***

Exhibit 3-D

Phillip J. Qualy
Legislative Director,
Chairperson

Nicholas J. Katich
Assistant Director

Brian L. Hunstad
Secretary



Labor & Professional Centre
411 Main Street / Suite 212
St. Paul, MN 55102
651-222-7500 (o)
651-222-7828 (f)
UTUMNLEGBD@VISI.COM

Minnesota Legislative Board

A Division of SMART, Sheet metal, Air, Rail and Transit Union
Printed In House

April 16, 2015

Mr. William Gardner
Director, Freight, Rail, Waterways
Minnesota Department of Transportation
395 John Ireland Boulevard
St. Paul, MN 55155

RE: Minnesota Railroad Yard Lighting Report, Deposition, Biegler v. CP-Soo Line.

Dear Director Gardner,

Please accept this letter as an addendum to our "UTU Minnesota Railroad Yard Lighting Report" January 15th, with responsive letter dated March 25th, 2015.

Enclosed herewith, please find copies of two abstracted depositions taken in the matter of "Biegler versus Soo Line Railroad Company...d/b/a Canadian Pacific". Mr. Biegler was seriously injured on a winter night at CP's Dunn Yard. CP could not get him to emergency rescue for nearly two hours due to removal of an emergency access road for placement of a new yard track. (Exhibits One and Two).

From these depositions, I want to direct your attention to information that accentuates the importance and need for railroad yard lighting where we switch and inspect locomotives and railroad cars being placed in trains.

In brief summary, two CP mechanical department managers set forth that CP production schedules only permit one minute to perform 49 CFR 215.13, Appendix "D" mechanical inspection per rail car before placement in train. The CP managers confirm that inspection can take no longer than thirty seconds per car side and undercarriage. The CP managers also confirm their own belief that it takes at least two to three minutes to inspect a rail car (which is an industry norm). Further, CP's time limit directives were issued from "upper management" and they made no attempt to counter their CP Calgary or "upper management" directives.

While yard lighting will improve worker safety and efficiencies, yard lighting is essential to effectively perform 49 CFR 215.13, Appendix "D" mechanical inspection on rail cars being placed in trains before departure. It is in the public interest to assure railroad cars moving in trains have received effective mechanical inspection.

In closing, it is our sincere hope the MnDOT rail yard lighting legislative report:

- 1) Will not weaken the existing statute 219.375 in any manner. It is essential for railroad safety that the AREMA standard be maintained.

Mr. William Gardner
April 16, 2015
Page two

- 2) Will assert or apply for clear authority to gain objective, independent lighting or illumination measurements at all rail yards in Minnesota.**
- 3) Will assert or apply for clear definition of duties for state rail inspectors to include inspection and resolution of lighting issues that are not repaired within 48 hours from time of first report.**
- 3) Will focus on verification of need at seventeen listed yards where a significant level of switching and inspections are occurring at night.**
- 4) Will recommend legislation in each area listed prior and gain clear enforcement powers with force of financial penalty for carrier non-compliance.**

We hope this information is helpful toward improving railroad safety and public security in Minnesota. In advance, thank you for your review of this information.

With kindest regards,



Phillip Qualy
Minnesota Legislative Board
United Transportation Union-SMART-TD

enclosure

cc: Office of Governor Mark Dayton
State Senator Scott Dibble
State Representative Frank Hornstein
Mr. John Previsich, UTU-SMART-TD President
Mr. John Risch, UTU-SMART-TD National Legislative Director
UTU-SMART-TD Minnesota Legislative Committee.
Minnesota Legislative Leadership.

1 STATE OF MINNESOTA DISTRICT COURT
2 COUNTY OF HENNEPIN FOURTH JUDICIAL DISTRICT
3 PERSONAL INJURY

4 Bradley R. Biegler,

5 Plaintiff,

6 vs.

Court File No.
27-CV-14-2020

7 Soo Line Railroad Company, a
8 corporation, d/b/a Canadian Pacific,

9 Defendant.

10
11 DEPOSITION OF MIKE VANDENOVER, taken under the
12 Rules of Civil Procedures for the District Courts of
13 the State of Minnesota, on the 16th of December,
14 2014, commencing at 9:00 a.m., at SWEENEY &
15 MASTERSON, P.A., 600 Degree of Honor Building, 325
16 Cedar Street, St. Paul, Minnesota, before Michele M.
17 McGovern, a notary public in and for the State of
18 Minnesota, County of Anoka.

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APPEARANCES

ON BEHALF OF THE PLAINTIFF:

WILLIAM KVAS, Attorney at Law
HUNEGS, LeNEAVE & KVAS, P.A.
1000 Twelve Oaks Center Drive
Suite 101
Wayzata, Minnesota 55391

ON BEHALF OF THE DEFENDANT:

SCOTT RAUSER, Attorney at Law
SWEENEY & MASTERSON, P.A.
600 Degree of Honor Building
325 Cedar Street
St. Paul, Minnesota 55101

ERIC E. HOLMAN, Attorney at Law
SWEENEY & MASTERSON, P.A.
600 Degree of Honor Building
325 Cedar Street
St. Paul, Minnesota 55101

ALSO PRESENT: Mark Acosta

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WITNESS

Mike VanDenover

EXAMINATION

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1 MIKE VANDENOVER,
2 a witness in the above-entitled matter, being first
3 duly sworn by the notary public to tell the truth,
4 the whole truth and nothing but the truth, testifies
5 on his oath as follows:

6 EXAMINATION

7 BY MR. KVAS:

8 Q. Can you give us your full name, sir?

9 A. Michael Dale VanDenover.

10 Q. And how do you spell your last name?

11 A. V-A-N capital D-E-N-O-V-E-R.

12 Q. I ask that because I've seen it spelled so many
13 different ways at what I've looked at, I wasn't sure.

14 Have you ever had your deposition taken before?

15 A. Yes, I think I did.

16 Q. All right. Well, if at any time I ask you a question
17 you don't understand, please feel free to ask me to
18 rephrase or repeat the question, and I'll be happy to
19 do so. If you don't do that, I'll assume you've
20 heard and understood my question; is that fair?

21 A. That's fair.

22 Q. Can you tell me where you live?

23 A. 4713 106th Lane Northeast, Circle Pines, 55014.

24 Q. Any plans to move in the next six to 12 months?

25 A. No.

- 1 Q. Presently employed by CP Rail?
- 2 A. Nope, I'm retired.
- 3 Q. And when did you retire?
- 4 A. Last day I was there was November 5th, 2013.
- 5 Q. Enjoying retirement?
- 6 A. Immensely.
- 7 Q. Tell me about your work with the railroad, when did
8 you begin?
- 9 A. I think I started in 1978.
- 10 Q. And with what railroad?
- 11 A. Soo Line.
- 12 Q. And when you were hired, what job did you hire in to?
- 13 A. Hired on as an electrician, but I worked as a laborer
14 for -- until they decided if they were going to keep
15 you, it was about two weeks. And then I was set up
16 as an electrician.
- 17 Q. And how long did you work as an electrician,
18 approximately?
- 19 A. About 20 years.
- 20 Q. And then what position did you obtain?
- 21 A. From there I went to -- we called it a planner back --
22 at that time it was like an entry-level manager, then
23 to a foreman, and then to a -- from there to a
24 process manager, and then retired as a mechanical
25 manager.

- 1 Q. You said foreman and process what?
- 2 A. I think we just called them process coordinators at
3 the time.
- 4 Q. And then your final position was?
- 5 A. Manager mechanical.
- 6 Q. And when did you obtain that position?
- 7 A. You're going to make me think hard.
- 8 Q. Well, it will get tougher as we go along.
- 9 A. Probably about 2008.
- 10 Q. And has all of your work for the railroad been in the
11 Twin Cities?
- 12 A. Yes.
- 13 Q. And were you the manager of mechanical then at the
14 time of this incident in January of 2013 -- or '14,
15 excuse me?
- 16 A. No, I retired in 2013.
- 17 Q. It would have been a couple months before this then?
- 18 A. I retired in November '13, so --
- 19 Q. What were your duties as the manager of mechanical?
- 20 A. I was responsible for car repair and train servicing
21 at St. Paul yard.
- 22 Q. When you refer to "Train servicing," what are you
23 talking about?
- 24 A. Basically the servicing of the trains -- the carmen
25 in the train yard.

- 1 Q. And what was the purpose for using ATVs for inbound
2 inspections?
- 3 A. Just so the carmen had access -- speed up
4 inspections, of course, but they had access to all
5 the tracks then without walking them.
- 6 Q. And for -- while performing an inbound inspection
7 then were carmen expected to use an ATV to do that?
- 8 A. At the time I retired the expectation was that the
9 carmen inspect every car, and if it was such that we
10 didn't have enough ATVs to go around, then they would
11 walk them.
- 12 Q. And the ATVs would facilitate inspecting the train
13 more quickly?
- 14 A. Yes.
- 15 Q. And do you know approximately what year the ATVs were
16 first used for the inbound inspections?
- 17 A. Probably 2013.
- 18 Q. What had they been used for prior to that time?
- 19 A. Outbound inspection.
- 20 Q. And were carmen allotted a certain amount of time to
21 inspect each car?
- 22 A. Yes, there was a standard.
- 23 Q. And what was the standard?
- 24 A. Our standard was two minutes a car.
- 25 Q. And when did that standard exist, or what time

- 1 period?
- 2 A. When I went to the car side it was the standard.
- 3 Q. And that would have been approximately what year?
- 4 A. I think 2008 I went to the car side.
- 5 Q. And then was that time reduced at some point?
- 6 A. The time for what?
- 7 Q. Inspection?
- 8 A. Yes. They wanted us to get down -- "Us," being the
9 management -- upper management -- to get down to one
10 minute per car.
- 11 Q. Was there ever a time where the expectation was 30
12 seconds per car?
- 13 A. No, not when I was there.
- 14 Q. At the time -- when was this -- when did the push
15 come to get the inspection down to one minute per
16 car?
- 17 A. When they started making St. Paul yard the premier
18 yard for Canadian Pacific.
- 19 Q. When you say, "Premier yard," what do you mean by
20 that, in terms of volume?
- 21 A. We were going to be the only hump yard left.
- 22 Q. And did you have concerns about reducing the time for
23 inspection by essentially 50 percent?
- 24 A. I had concerns about it, but we never forced it upon
25 the carmen.

- 1 Q. What concerns did you raise?
- 2 A. It's not enough time to inspect a car. One minute
3 per car would be 30 seconds a side, when conceivably
4 it could take 30 seconds to bleed the car off. I
5 just didn't think it was a realistic amount of time
6 to do a good inspection.
- 7 Q. And who did you raise that concern with?
- 8 A. Probably my boss at the time would have been Bill
9 Partridge, probably, when that was all happening.
- 10 Q. And what was his job title?
- 11 A. Director mechanical, I believe.
- 12 Q. And where was his office located?
- 13 A. 1010 Battle Creek Building, whatever.
- 14 Q. At the yard?
- 15 A. Yeah. The new yard office -- the new, new yard
16 office.
- 17 Q. And what response did you get when you spoke with Mr.
18 Partridge about it?
- 19 A. Our concern was that we continued to do good
20 inspections.
- 21 Q. And what was his response?
- 22 A. That we continue to do good inspections.
- 23 Q. That's what he told you?
- 24 A. Yes.
- 25 Q. Did he suggest any change in the goal of one minute

- 1 per car?
- 2 A. I don't know what he did with those above him.
- 3 Q. Was there any changes or reconsideration of that
4 policy prior to your retirement?
- 5 A. The --
- 6 Q. The goal of getting cars inspected within a minute?
- 7 A. Not as far as I know.
- 8 Q. For the job of inspecting the cars, that also
9 involves issues that concern both railroad employees
10 and the public from a safety standpoint, correct?
- 11 A. Correct.
- 12 Q. What are the types of things that carmen will look
13 for during this inspection process to prevent
14 possible injury to other railroad employees or the
15 public in general?
- 16 A. Safety appliances are probably the biggest thing they
17 look at, which ladders, crossovers, anything that a
18 CP employee -- or even the shippers, where they would
19 be on that car, for any reason. Secondly would be,
20 you know, your undercarriage, any wheel defects,
21 brake defects, or anything that would, obviously,
22 make that car unsafe. And the third thing was just a
23 general inspection of the car for damage. Those
24 would be the biggest things.
- 25 Q. And would the carmen also inspect the couplers and

1 draw bars?

2 A. Yes.

3 Q. Had you ever used an ATV to ride alongside of R6 on
4 the river side?

5 A. Myself, no.

6 Q. When carmen were conducting inspections using the
7 ATVs on the river side of R6 did any come to you with
8 concerns about the conditions they had to drive in
9 while inspecting --

10 MR. RAUSER: Object to on foundation.

11 Q. (By Mr. Kvas) Go ahead.

12 A. We were not driving on the river side of the six
13 track when I retired.

14 Q. Do you know why?

15 A. We didn't have the space.

16 Q. At the time you retired, which you told me, I think,
17 was November of 2013, were there any plans in place
18 at that time to create additional areas to operate an
19 ATV on the river side of R6?

20 A. There had been discussions of what we needed to make
21 it safe to do. I don't know what plans, if any, were
22 actually in place at the time.

23 Q. Tell me what you remember concerning the suggestions
24 to make it safe?

25 A. We had to make it wider, pretty simple.

1 STATE OF MINNESOTA DISTRICT COURT
2 COUNTY OF HENNEPIN FOURTH JUDICIAL DISTRICT
3 PERSONAL INJURY

4 -----

5 Bradley R. Biegler,
6 Plaintiff,

7 vs. Court File No.
27-CV-14-2020

8 Soo Line Railroad Company, a
corporation, d/b/a Canadian Pacific,
9 Defendant.

10 -----

11 DEPOSITION OF BRIAN BURMA, taken under the
12 Rules of Civil Procedures for the District Courts of
13 the State of Minnesota, on the 2nd of February, 2015,
14 commencing at 4:30 p.m., at SWEENEY & MASTERSON,
15 P.A., 600 Degree of Honor Building, 325 Cedar Street,
16 St. Paul, Minnesota, before Michele M. McGovern, a
17 notary public in and for the State of Minnesota,
18 County of Anoka.

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2852 Anthony Lane South
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(612)333-8986

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APPEARANCES

ON BEHALF OF THE PLAINTIFF:

WILLIAM KVAS, Attorney at Law
HUNEGS, LeNEAVE & KVAS, P.A.
1000 Twelve Oaks Center Drive
Suite 101
Wayzata, Minnesota 55391

ON BEHALF OF THE DEFENDANT:

ERIC E. HOLMAN, Attorney at Law
SWEENEY & MASTERSON P.A.
600 Degree of Honor Building
325 Cedar Street
St. Paul, Minnesota 55101

SCOTT H. RAUSER Attorney at Law
SWEENEY & MASTERSON, P.A.
600 Degree of Honor Building
325 Cedar Street
St. Paul, Minnesota 55101

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WITNESS

Brian Burma

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1 BRIAN BURMA,
2 a witness in the above-entitled matter, being first
3 duly sworn by the notary public to tell the truth,
4 the whole truth and nothing but the truth, testifies
5 on his oath as follows:

6 EXAMINATION

7 BY MR. KVAS:

8 Q. Can you give us your full name, please?

9 A. Brian Fredrick Burma.

10 Q. Mr. Burma, my name is Bill Kvas, an attorney
11 representing Brad Biegler in a claim that's been
12 filed against the railroad. I have some questions to
13 ask you pertaining to his claim. If at any time you
14 don't hear or understand a question that I ask, feel
15 free to ask me to rephrase or repeat the question,
16 and I'll be happy to do so. If you don't do that,
17 I'll assume you've heard and understood my question;
18 is that fair?

19 A. That's fair.

20 Q. Tell me where you live?

21 A. 436 County Road E, Hudson, Wisconsin.

22 Q. Any plans to move in the next six to 12 months?

23 A. Looking at property, but nothing -- no down payment
24 yet.

25 Q. In Minnesota or in Wisconsin?

- 1 A. Minnesota.
- 2 Q. And what documents did you review to prepare for your
3 testimony?
- 4 A. What --
- 5 Q. Yes, what documents did you look at to prepare for
6 your testimony here today?
- 7 A. Just a few of the examples.
- 8 Q. When you say, "Examples," what do you mean by that?
- 9 A. The e-mail exhibits.
- 10 (Deposition Exhibit Nos. 1, 2 & 3 were
11 marked for identification.)
- 12 Q. (By Mr. Kvas) Showing you, sir, what we've marked as
13 Exhibits 1, 2 and 3. If you want to take a moment to
14 look at those and tell me if those were among the
15 documents that you looked at for your testimony
16 today?
- 17 A. No. 1 and No. 3.
- 18 Q. All right. Do you remember, just generally, what any
19 of the other e-mails or exhibits you looked at to
20 prepare for today consisted of?
- 21 A. Just some of the pictures of the area from when we
22 did the reenactment the following day.
- 23 Q. And did you know Brad Biegler before this accident?
- 24 A. Yes.
- 25 Q. How long had you known him?

- 1 A. I started the railroad 10/8 of '07.
- 2 Q. And what position?
- 3 A. Carman.
- 4 Q. Had you had carman experience on any other railroad
- 5 before that?
- 6 A. No.
- 7 Q. And when did you obtain your carman rights?
- 8 A. Approximately 9/15 of 2010.
- 9 Q. And what positions did you then hold with the
- 10 railroad?
- 11 A. Carman, relief ride up as a carman, ride-up carman,
- 12 worked at the Ford plant, worked at the Intermodal
- 13 yard in Shoreham, ripped track carman, yard carman.
- 14 Q. Ever hold a position in management or as a foreman?
- 15 A. I started relief foreman training April of 2010.
- 16 Q. April of 2010?
- 17 A. Correct.
- 18 Q. And then did you subsequently work as a relief
- 19 foreman?
- 20 A. Yes.
- 21 Q. How often would that happen?
- 22 A. It depended on the vacation schedule for the regular
- 23 foremen.
- 24 Q. Is it something where it was once a month, once a
- 25 week, once a year?

- 1 A. It just depended on what the foremen's vacation
2 schedule was. I might work a month straight as
3 relief foreman, I might only work three days one
4 week.
- 5 Q. All right. And what are the duties of the relief
6 foreman?
- 7 A. Everything of the regular foreman minus any
8 discipline.
- 9 Q. You're responsible for enforcement of the rules?
- 10 A. Enforcement of the rules, but no discipline for
11 infractions.
- 12 Q. Was there ever a time that you were a relief foreman
13 and Mr. Biegler was under your charge?
- 14 A. Yes.
- 15 Q. And do you have any recollection of the days or
16 times?
- 17 A. Any time from April 2010 on.
- 18 Q. What was your job title on the day of this accident?
- 19 A. Manager mechanical.
- 20 Q. When did you obtain that position?
- 21 A. November of 2013. And I was supervisor mechanical
22 from January until November of 2013.
- 23 Q. How do those two positions differ, between a
24 supervisor mechanical and a manager of mechanical?
- 25 A. Supervisor mechanical reported to the manager

- 1 mechanical.
- 2 Q. So you'd been on the job a couple of months at the
- 3 time this accident occurs?
- 4 A. As the manager mechanical, yes, two months.
- 5 Q. And what were your typical working hours?
- 6 A. Six a.m. to six p.m.
- 7 Q. And what days of the week?
- 8 A. Seven.
- 9 Q. So you were working seven days a week?
- 10 A. At that time, yes.
- 11 Q. And how long had you been working seven days a week,
- 12 12 hours a day?
- 13 A. November on.
- 14 Q. November of 2013?
- 15 A. Correct.
- 16 Q. Was that because of the additional and added
- 17 responsibilities you had with that job?
- 18 A. Correct. And there was no supervisor mechanical that
- 19 immediately filled the position that I held.
- 20 Q. Let's take before November of 2013, what kind of
- 21 hours were you working as a supervisor of mechanical?
- 22 A. Six to six, six days a week.
- 23 Q. Not much better?
- 24 A. Not much better.
- 25 Q. How long had you been doing that, and by that,

- 1 working 12 hour days, six days a week?
- 2 A. Since I started the position.
- 3 Q. And when was that?
- 4 A. January.
- 5 Q. Back when you were yard carman, how many hours would
6 you work?
- 7 A. Forty to 80 hours a week.
- 8 Q. And how many days a week, is that six days a week as
9 well?
- 10 A. Whatever -- seven days a week wasn't always allowed.
11 On your seventh day you got double time, so it just
12 depended if double time was allowed or not whether
13 you could work seven.
- 14 Q. Were the other carmen working similar hours?
- 15 MR. HOLMAN: I'm going to object as to
16 foundation.
- 17 Q. (By Mr. Kvas) Go ahead?
- 18 MR. HOLMAN: You can go ahead and answer.
- 19 THE WITNESS: Not all carmen, but some.
- 20 Q. (By Mr. Kvas) All right. As a percentage, were more
21 than half of them working the 40 to 80 hours a week
22 six days a week?
- 23 A. Under half.
- 24 Q. What determined who worked overtime and who didn't?
- 25 A. Overtime list. It went by seniority.

- 1 A. Yes.
- 2 Q. And it's physically demanding work, is it not?
- 3 A. Yes.
- 4 Q. It's physical labor?
- 5 A. Correct.
- 6 Q. And at any time before January of 2014, did any of
- 7 Mr. Biegler's fellow carmen come to you and say, Brad
- 8 isn't able to do his share of the work?
- 9 A. No.
- 10 Q. Did you have any concerns, at any time you had
- 11 responsibility for his work, that he was not fully
- 12 qualified to perform all of the work of the carman?
- 13 A. No.
- 14 Q. And that'd be true both from a physical and a mental
- 15 standpoint, correct?
- 16 A. Correct.
- 17 Q. And as far as any emotional or psychiatric issues,
- 18 there wasn't anything you ever observed with him any
- 19 time before January of 2014 that led you to be
- 20 concerned that he had any form of mental or
- 21 psychiatric problem?
- 22 A. None that I noted.
- 23 Q. And I assume none that you heard of from any the
- 24 coworkers, true?
- 25 A. No.

- 1 Q. That means you did hear anything from any of the
2 coworkers?
- 3 A. I did not hear anything from any of his coworkers.
- 4 Q. In January of 2014 how much time was allotted for
5 inspection of the cars?
- 6 A. Approximately 30 seconds per side.
- 7 Q. And where did that directive come from?
- 8 A. General manager.
- 9 Q. One of the six?
- 10 A. Correct.
- 11 Q. And do you know when that change was made to 30
12 seconds per side?
- 13 A. Sometime in 2013.
- 14 Q. Would that have been -- did that coincide with the
15 realignment of the tracks and the acquisition of the
16 ATVs for inspections?
- 17 A. I believe it was prior.
- 18 Q. Do you know approximately when?
- 19 A. May, June.
- 20 Q. And what was the allotted time before May or June of
21 2013?
- 22 A. I believe it was two minutes per car, or one minute
23 per side.
- 24 Q. As part of your carman training you would become
25 familiar with the AAR Field Manual?

- 1 A. Correct.
- 2 Q. In particular, the safety appliances that have to be
3 functioning on a car?
- 4 A. Yes.
- 5 Q. Take me through some of the things you have to do as
6 a carman when performing an inspection in this 30
7 seconds to do a thorough inspection?
- 8 A. Inspection of air hose, couplers, pin lifter,
9 handbrake, running board, handhold, sill step, air
10 valves, wheel and truck components, car body, and
11 then repeat on the other end.
- 12 Q. Did you mention ladders?
- 13 A. Safety -- handholds, sill steps, yes.
- 14 Q. Are there times also where you have to approach the
15 car and look underneath it?
- 16 A. Yes.
- 17 Q. All right. What are the circumstances where that is
18 required?
- 19 A. Bottom rod safety supports, if the brake system had a
20 bottom rod. An inspection of draft gear pockets
21 after you looked at the coupler.
- 22 Q. In addition, during this 30-second per side
23 inspection, would you also have to bleed the air from
24 the car?
- 25 A. Correct, on inbound inspection.

- 1 Q. For the inbound inspections on R6, how long would it
2 take to bleed a car?
- 3 A. Depends if the valves were functional.
- 4 Q. All right. What's the range?
- 5 A. Couple seconds for the auto -- if the auto release
6 worked, if not, it might take 30 seconds to stand
7 there and physically hold the valve to drain.
- 8 Q. Given that it might take upwards of 30 seconds to
9 perform that task -- let me go back. When you talk
10 about some of the items you're inspecting for the air
11 hose, the coupler, and the brakes, I assume?
- 12 A. (Witness nodding head.)
- 13 Q. Is that correct?
- 14 A. Yes.
- 15 Q. One of the reasons you do that is so that when that
16 train is out on the mainline and coupled with
17 whatever cars that could be carrying whatever
18 chemicals, that those cars stay on the track,
19 correct?
- 20 A. Correct.
- 21 Q. Because if, as a carman, performing this 30-second
22 per side inspection you miss a defect, you have the
23 potential for a derailment and the loss of both
24 railroad lives and the public, correct?
- 25 A. Potentially, yes.

1 Q. Understanding the gravity and importance of this
2 inspection, in your experience as a carman, do you
3 feel that 30 seconds per side is a sufficient amount
4 of time for a car inspector to perform the thorough
5 inspection to insure the safety of that car on the
6 tracks?

7 A. No.

8 Q. And you're not the only one that feels that way
9 at St. Paul, correct?

10 A. Correct.

11 Q. And there's been concerns raised by others. Who is
12 your predecessor?

13 A. Mike VanDenover.

14 Q. All right. Do you know whether Mr. VanDenover had
15 expressed concerns to higher-ups over the so-called
16 goal of trying to accomplish the inspections in 30
17 seconds per side?

18 A. He did not agree with -- that 30 seconds was enough
19 time either.

20 Q. In other words, he felt the same way you did and the
21 same way other carmen out there that were charged
22 with performing this safety task?

23 A. Correct.

24 Q. In your time -- because you followed him, correct?

25 A. Yes.

1 could get in and attempt to put out a hazardous
2 chemical fire?

3 A. Potentially, yes.

4 Q. Do you feel that that's a potential safety
5 shortcoming at the St. Paul yard?

6 A. Yes.

7 Q. Do you know what the present plans are to complete
8 the road --

9 A. I do not.

10 Q. -- on R6? Is there any earthmoving equipment out
11 there today performing any work on it?

12 A. I do not know.

13 Q. Who participated in the reenactment on the following
14 day?

15 A. Myself, Brandon Smith, Eric, and the guy that came
16 and did measurements to all the locations of the
17 cars, and topography was mapped.

18 Q. And what was the purpose for the reenactment?

19 A. Figure out what went wrong so we could protect the
20 other carmen.

21 Q. And what conclusions were drawn?

22 A. Inconclusive.

23 Q. You couldn't determine what happened?

24 A. Correct.

25 Q. And based on evidence -- was there any evidence that

Phillip J. Qualy
Legislative Director,
Chairperson

Nicholas J. Katich
Assistant Director

Brian L. Hunstad
Secretary



Labor & Professional Centre
411 Main Street / Suite 212
St. Paul, MN 55102
651-222-7500 (o)
651-222-7828 (f)
UTUMNLEGBD@VISI.COM

Minnesota Legislative Board

A Division of SMART, Sheet metal, Air, Rail and Transit Union
Printed In House

June 12, 2015

Commissioner Charles Zelle ✓
Minnesota Department of Transportation
395 John Ireland Boulevard
St. Paul, MN 55155

Director William Gardner
Minnesota Department of Transportation
395 John Ireland Boulevard
St. Paul, MN 55155

RE: MnDOT Rail Yard Lighting Report Memo of May 28th, 2015, UTU Response.

Dear Commissioner Zelle and Director Gardner,

This letter will serve to respond to MnDOT memoranda regarding railroad "Yard Lighting Report" dated May 28th, 2015. This responsive letter follows our prior submissions to MnDOT, 1) "Railroad Yard Lighting in Minnesota" dated January 15th, 2015, 2) "Yard Lighting Report", responsive letter of clarification dated March 25th, 2015, and, 3) "Railroad Yard Lighting Report, Deposition, "Biegler versus Soo Line Railway, d.b.a. Canadian Pacific", dated April 16th, 2015.

In response to MnDOT's Railroad Yard Report memoranda, enclosed herewith please review professional comments and technical clarifications from:

- 1) Mr. Mark Ziemer, Barr Engineering, letter dated June 12, 2015.
- 2) Mr. Lawrence Mann, Counsel, Apler & Mann, dated June 12, 2015.

As a format in response to MnDOT's Railroad Yard Report memoranda, we will respond to each of the four MnDOT property memos regarding carrier property with the same format, numerical references, with additional comments.

With MnDOT's report to the Legislature, UTU-SMART-TD Minnesota respectfully requests inclusion of our submissions listed prior herein. We believe the Legislature must be informed of the statements made by CP managers regarding mechanical inspection time limits divulged in "Biegler vs. Soo Line Railroad, d/b/a. CP".

With Legislature's charge to MnDOT, UTU-SMART-TD appreciates that assessing a historically entrenched private industry is a difficult task. We have presented our railroad yard lighting information to MnDOT as clearly as possible. We again direct your attention to blue color coded priorities set forth prior. We assert that as the men and women who actually work the trains, switch the rail yards, and inspect railroad equipment across Minnesota nightly, our submissions are true and correct.

**Commissioner Zelle
Director Gardner
June 12, 2015
Page two**

For the railroad workers of Minnesota, I want to reiterate the vital importance of the 2014 Railroad Yard Lighting law. While railroad yard lighting will improve worker safety and efficiencies, yard lighting is essential to effectively perform 49 CFR 215.13, Appendix "D" mechanical inspection on rail cars being placed in trains before departure. It is in the public interest to assure railroad cars moving in trains have received effective mechanical inspection.

We respectfully request your continued efforts to strengthen railroad and public safety with this common sense statute that remains necessary. It is our sincere hope the MnDOT Railroad Yard Lighting report to the Legislature:

- 1) Will not weaken the existing statute 219.375 in any manner. It is essential for railroad safety to maintain the AREMA standard.**
- 2) Will apply for and assert authority to gain objective, independent lighting or illumination measurements at all Minnesota rail yards.**
- 3) Will apply for and assert a clear definition of duties for state rail inspectors to respond to complaints of lighting issues that are not repaired within 48 hours from a documented time of first report.**
- 4) Will clarify statute language to correct the unintended interpretation between 219.375, Subdivision Five, subpart 1 (a)(b) and 2, correction of "and/or" grammar, to reflect the legislative intent to light certain railroad yards to the AREMA standard in Minnesota.**
- 5) Will clarify and provide statute language to light seventeen listed yards in Minnesota where significant levels of switching, assembly, disassembly, and inspections occur, or are subject to occur, with hazardous material, during atmospheric darkness on a regular basis.**
- 6) Will clarify that Minnesota Statute 219.375 is subject to provisions set forth in Minnesota Statute 218.041, Subd. 4, "Commissioners Duties Upon Petition", order to correct unique or unsafe conditions.**
- 7) Will recommend legislation in areas listed prior to gain enforcement powers with force of financial penalty to assure compliance.**

Please review attached memorandums and advocacy letters. Please be reminded that UTU-SMART-TD has issued two legal briefs in support of our 2014 Railroad Yard Lighting legislation. The four Class One and short-line carriers have not contested our second legal brief.

The United Transportation Union, Sheet metal, Air, Rail, and Transit Union, (UTU-SMART-TD) is the exclusive representative of the Conductor's, Switchmen, Yardmaster's, and Remote Control Locomotive Operator's contracts nationwide. The UTU SMART-TD Minnesota Legislative Board is vested with the responsibility

**Commissioner Zelle
Director Gardner
June 12, 2015
Page three.**

to protect the safety, welfare, and governmental interests of our membership within the state of Minnesota.

We hope this information is helpful toward improving railroad safety and public security in Minnesota. In advance, thank you for your review of this information.

With kindest regards,



**Phillip Qualy
Minnesota Legislative Board
United Transportation Union-SMART-TD**

enclosure

**cc : Office of Minnesota Governor Mark Dayton
Office of Minnesota Attorney General Lori Swanson
Minnesota Legislative Leadership.
Mr. John Previsich, UTU-SMART-TD President
Mr. John Risch, UTU-SMART-TD National Legislative Director
UTU-SMART-TD General Committees of Adjustment
UTU-SMART-TD Minnesota Legislative Committee, Locals 64, 281, 650, 911,
1000, 1067, 1137, 1175, 1177, 1292, 1614, and 1976 .**



united transportation union

Date: June 12, 2015

**To: William Gardner
Director, Office of Freight and Commercial Vehicle Operations**

**From: Phillip Qualy
Minnesota Legislative Director
UTU-SMART-TD Minnesota**

RE: BNSF Railway Yard Lighting Analysis

In response to the information contained in the MnDOT Railroad Yard Lighting memorandum of May 28th, 2015:

1)Identify yards where work is performed: UTU-SMART-TD Minnesota concurs with BNSF's listing of yards. However, we do not concur BNSF's statements regarding the status of yard lighting that meets the AREMA standard at all yards.

2)Describe the lighting and nature and placement: From MnDOT's report of BNSF's submission, it appears that BNSF has not provided measurements or accurate information regarding yard operations, inspection, and lighting status.

Legislative testimony can be provided from BNSF employees, BNSF safety representatives, and others who are represented by UTU-SMART-TD Minnesota.

3)Lighting standard: The BNSF's blanket statement regarding the AREMA standard, "all four of the yards meet the AREMA guidelines" focus on yards that are opposite from the yards that encamp UTU-SMART-TD's specific concerns.

4)Environmental considerations of lighting: All BNSF yards in Minnesota are located at the center of an industrial area or in rural areas outside of town limits.

5) Plans and timeliness: UTU-SMART-TD disagrees with BNSF's statement and assertions. We respectfully disagree with BNSF's characterization of Duluth Rice Point, East Grand Forks and St. Cloud Yard operations. We do not recognize, nor have we ever heard of the term "strip tracks" in this industry, referenced to BNSF Union Yard. However, BNSF does acknowledge that "assembly of trains" (with associated disassembly and inspections) does occurs at Dayton's Bluff Yard.

UTU-SMART-TD asserts that BNSF Dayton's Bluff Yard has operations occurring far more than the carrier reveals. Further, this yard has the unique location of being the last yard in Minnesota a train can be mechanically inspected before departing for over 200 miles along the Mississippi River. This poses a unique environmental imperative to assure railroad safety. Therefore, UTU-SMART-TD



asserts that authorities granted to the Commissioner of Transportation, under Minnesota Statute 218.041, Subdivision 4, are appropriate and may be necessary.

6) UTU-SMART-TD Report Summary: We concur with MnDOT's summary. We wish to reiterate that BNSF controls safety committee documents. UTU-SMART-TD lighting complaints submitted to MnDOT and Legislature remain unresolved.

Regarding the BNSF Midway and Union Yards, we wish to clarify that Midway is an intermodal yard and most likely meets the AREMA standard currently. However, intermodal containers that may carry hazardous materials are not subject to hazardous material regulations as prescribed for railroad rolling stock. We understand BNSF is redesigning Midway to include Union Yard as part of their Midway intermodal facility. UTU-SMART-TD welcomes BNSF's long anticipated remodeling of Midway and Union Yards into one intermodal operation with lighting that meets or exceeds the AREMA standard.

7) Discrepancies Between the Railroad and Union Reports:

The BNSF refers only to Minnesota. Statute 219.375, Subdivision One for guidance. However, UTU-SMART-TD asserts the interpretation of Subdivision Five 1(a) as a guiding statute. As written, Subdivision Five (1)(a) states:

(1) Between sunset and sunrise:

(a) Locomotives, or rail cars carrying placarded hazardous materials, are frequently switched, repaired, or inspected, OR,

UTU-SMART-TD's listed yards meet this statute requirement. This portion of the statute stands alone as a requirement. Further, it is essential to consider and accept that these yards are subject to be worked by any and all trains containing hazardous materials moving on the subdivision where that yard is located.

UTU-SMART-TD asserts MnDOT must recognize the Legislature's intent to light certain railroad yards in Minnesota. With only two refineries and four Class One carriers in Minnesota, the Legislature could not have intended to only light one yard in the entire state (UP Roseport).

With this letter of response, please find the letter of Mr. Larry Mann, Alper & Mann. With the question posed regarding the placement of "or" and "and", the current statute could be litigated. However, we respectfully request MnDOT to recommend that the Legislature amend current statute language to clarify this question for those who choose to seek an ambiguous interpretation rather than the common sense intent to improve railroad safety.

8) Purpose of MnDOT Analysis: UTU-SMART-TD apologizes for any confusion created by our matrix of information. However, we have been available to verbally clarify our presentation of railroad yard lighting status. Because of the difficult nature of the task before MnDOT, we strongly recommend that objective and independent traffic analysis and lighting measurements be obtained.

9) UTU-SMART-TD believes our assertion and definition of "frequently" has been appropriate, consistent with industry standard, if not generous. We believe that

when considering days and nights, MnDOT must accept the reality that atmospheric darkness is essentially equal to daylight operations in a calendar year. Therefore it is essential to reinforce the state's expectation to improve worker safety and quality of mechanical inspections regardless of traditional shift designations. If designated operations and inspections are occurring at a yard during anytime during atmospheric darkness, we assert this yard must be lighted to the AREMA standard. Please reference the Barr Engineering Report for Dayton's Bluff Yard.

10) BNSF's Dayton's Bluff, Rice's Point, East Grand Forks Yards move rail cars containing hazardous materials and are currently being assembled and inspected.

11) Regarding maintenance issues and reporting of non-compliant conditions, it is essential for railroad safety for MnDOT to receive yard lighting complaints. There is no other mechanism to assure maintenance, compliance, and railroad safety. We recommend that MnDOT gain legislative authority for rail inspectors to investigate yard lighting complaints. Further, we recommend that MnDOT gain legislative authority to assess financial penalty for non-compliance.

Recommendations:

We concur with MnDOT's need to seek clarification of the current state statute.

a) We remain concerned with a statute definition of "frequent" operation based on hours, days of the week, and work shifts. Rather, we believe when considering days and nights, MnDOT must accept the reality that atmospheric darkness is essentially equal to daylight hours on a calendar year basis. Railroads operate around the clock each day of the year. Therefore it is essential to reinforce the state's expectation to improve worker safety and quality of mechanical inspections regardless of traditional shift designations. If designated switching, assembly, disassembly, and inspections are occurring at a yard during atmospheric darkness, we assert this yard must be lighted to the AREMA standard.

UTU-SMART-TD acknowledges the practical nature of seasonal operations. When considering seasonal operations and inspections at certain yards at night, it is reasonable for carriers to install temporary lighting source at those yards.

h) We are confused by MnDOT's recommendation that "only those yards required under subd. 1 and 5 should be included in reports to the commissioner". As we are not certain as to the recommendation's intent, UTU-SMART-TD Minnesota would oppose any arbitrary limitation of duty to assure lighting maintenance enforcement. We would oppose any arbitrary limitation on yards that meet the requirement set forth in Subdivision Five, (1)(a).

c) We recommend that MnDOT clarify the "and" versus "or" concern in statute language to affirm legislative intent and as an alternative to litigation.

d) UTU-SMART-TD strongly recommends that MnDOT gain and exercise authority to perform objective and independent railroad yard lighting measurements.

e) We question MnDOT's inclusion of MNOSHA into the railroad industry. While we appreciate MnDOT may seek expertise to measure lighting and investigate non-compliance, it is unclear whether MNOHSA would have any

jurisdiction on a railroad property if that department is not participating in a Federal Railroad Administration state partnership program, 49 CFR 212.

Thank you for your review of this UTU-SMART-TD responsive memorandum.



united transportation union

Date: June 12, 2015

**To: William Gardner
Director, Office of Freight and Commercial Vehicle Operations**

**From: Phillip Qualy
Minnesota Legislative Director
UTU-SMART-TD Minnesota**

RE: CN Railway Yard Lighting Analysis

In response to the information contained in the MnDOT Railroad Yard Lighting memorandum of May 28th, 2015:

1)Identify yards where work is performed: UTU-SMART-TD Minnesota concurs with CN's listing of yards. However, we do not concur CN's statements regarding the status of yard lighting that meets the AREMA standard at all yards.

2)Describe the lighting and nature and placement: From MnDOT's report of CN's submission, it appears that CN has not provided measurements or accurate information regarding yard operations, inspection, and lighting status.

As reported, CN does not repair lighting defects in a timely manner. By CN's own admission and witnessed practice, it appears they repair and maintain lighting on a "quarterly basis". This practice is not consistent with the legislative and statute intent to repair lighting issues within 48 hours of first report.

Legislative testimony can be provided from CN employees, CN safety representatives, and others who are represented by UTU-SMART-TD Minnesota.

3)Lighting standard: The CN's general description and blanket statement that five yards meet the reporting standard in Minnesota Statute Subdivision One is unclear if not incorrect. The CN's references to hand held lanterns and/or head lamps are disingenuous. (A whole set of eye-sight contrast and loss of peripheral ambient night vision issues stem from use of head lamps. Therefrom, these devices are not regulated nor required). We commend MnDOT for recognizing the importance of ambient light and not accepting CN's attempt to circumvent legislative intent.

4)Environmental considerations of lighting: All CN yards in Minnesota are located at the center of an industrial area or in rural areas outside of town limits.

5) Plans and timeliness: UTU-SMART-TD disagrees with CN's statement that all five yards listed are AREMA compliant. We respectfully disagree with CN's characterization of Missabe Junction, Wales, Biwabek and Welpen Yard operations. As well, at least twenty five tank cars of hazardous materials are switched and inspected per day at CN Proctor Yard. Please reference Barr Engineering's report regarding Proctor Yard. Therefore, we assert that Proctor lighting must be reengineered and relighted to comply with state statute by December 31, 2015.



6) UTU-SMART-TD Report Summary: We concur with MnDOT's summary. We wish to identify that CN does not provide hazardous condition report forms. CN's safety process deficiencies remain under review by the Federal Railroad Administration. We wish to reiterate that CN controls safety committee documents. Nonetheless, CN's safety committee process is irrelevant and has no standing as to the state statute. UTU-SMART-TD lighting complaints to CN and submitted to MnDOT and the Legislature remain unresolved.

7) Discrepancies Between the Railroad and Union Reports:

The CN refers only to Mn. Statute 219.375, Subdivision One for guidance. However, UTU-SMART-TD asserts interpretation of Subdivision Five as a guiding statute. As written, Subdivision Five (1)(a) states:

(1) Between sunset and sunrise:

(a) Locomotives, or rail cars carrying placarded hazardous materials, are frequently switched, repaired, or inspected, OR,

UTU-SMART-TD's listed yards meet this statute requirement. This portion of the statute stands alone as a requirement. Further, it is essential to consider and accept that these yards are subject to be worked by any and all trains with hazardous materials moving on the subdivision where that yard is located.

UTU-SMART-TD asserts MnDOT must recognize the Legislature's intent to light certain railroad yards in Minnesota. With only two refineries and four Class One carriers in Minnesota, the Legislature could not have intended to only light one yard in the entire state (UP Roseport).

With this letter of response, please find the letter of Mr. Larry Mann, Alper & Mann. With the question posed regarding the placement of "or" and "and", the current statute could be litigated. However, we respectfully request MnDOT to recommend that the Legislature amend current statute language to clarify this question for those who choose to seek an ambiguous interpretation rather than the common sense intent to improve railroad safety.

8) Purpose of MnDOT Analysis: UTU-SMART-TD apologizes for any confusion created by our matrix of information. However, we have been available to verbally clarify our presentation of railroad yard lighting status. Because of the difficult nature of the task before MnDOT, we strongly recommend that objective and independent traffic analysis and lighting measurements be obtained.

9) UTU-SMART-TD believes our assertion and definition of "frequently" has been appropriate, consistent with industry standard, if not generous. We believe when considering days and nights, MnDOT must accept the reality that atmospheric darkness is essentially equal to daylight operations over a calendar year. Therefore it is essential to reinforce the expectation to improve worker safety and quality of mechanical inspections regardless of traditional shift designations. If designated operations and inspections are occurring at a yard during anytime during atmospheric darkness, we assert this yard must be lighted to the AREMA standard.

10) CN's Proctor, Rainier, Biwabek, and Keenen Yards move rail cars containing hazardous materials and are currently being switched, assembled, or inspected.

11) Regarding maintenance issues and reporting of non-compliant conditions, it is essential for railroad safety for MnDOT to receive yard lighting complaints. There is no other mechanism to assure maintenance, compliance, and railroad safety. We recommend that MnDOT gain legislative authority for rail inspectors to investigate yard lighting complaints. Further, we recommend that MnDOT gain legislative authority to assess financial penalty for non-compliance.

Recommendations:

We concur with MnDOT's need to seek clarification of the current state statute.

a) We remain concerned with a statute definition of "frequent" operation based on hours, days of the week, and work shifts. Rather, we believe when considering days and nights, MnDOT must accept the reality that atmospheric darkness is essentially equal to daylight hours on a calendar year basis. Railroads operate around the clock each day of the year. Therefore it is essential to reinforce the state's expectation to improve worker safety and quality of mechanical inspections regardless of traditional shift designations. If designated switching, assembly, disassembly, and inspections are occurring at a yard during atmospheric darkness, we assert this yard must be lighted to the AREMA standard.

UTU-SMART-TD acknowledges the practical nature of seasonal operations. When considering seasonal operations and inspections at certain yards at night, it is reasonable for carriers to install temporary lighting source at those yards. The CN hazardous material service schedules at Missabe Junction, Biwabek, Wales, and Wilpen Yards may well meet a seasonal definition.

b) We are confused by MnDOT's recommendation that "only those yards required under subd. 1 and 5 should be included in reports to the commissioner". As we are not certain as to the recommendation's intent, UTU-SMART-TD Minnesota would oppose any arbitrary limitation of duty to assure lighting maintenance enforcement. We would oppose any arbitrary limitation on yards that meet the requirement set forth in Subdivision Five, (1)(a).

c) We recommend that MnDOT clarify the "and" versus "or" concern in statute language to affirm legislative intent and as an alternative to litigation.

d) UTU-SMART-TD strongly recommends that MnDOT gain and exercise authority to perform objective and independent railroad yard lighting measurements.

e) We question MnDOT's inclusion of MNOSHA into the railroad industry. While we appreciate MnDOT may seek expertise to measure lighting and investigate non-compliance, it is unclear whether MNOHSA would have any jurisdiction on a railroad property if that department is not participating in a Federal Railroad Administration state partnership program, 49 CFR 212.

Thank you for your review of this UTU-SMART-TD memorandum.



united transportation union

Date: June 12, 2015

**To: William Gardner
Director, Office of Freight and Commercial Vehicle Operations**

**From: Phillip Qualy
Minnesota Legislative Director
UTU-SMART-TD Minnesota**

RE: Canadian Pacific Railway Yard Lighting Analysis

In response to the information contained in the MnDOT Railroad Yard Lighting memorandum of May 28th, 2015:

1)Identify yards where work is performed: UTU-SMART-TD Minnesota concurs with CP's listing of yards. However from MnDOT's summary, we do not concur nor see measurements from CP regarding yard lighting installation status.

2)Describe the lighting and nature and placement: From MnDOT's report for CP, UTU-SMART-TD asserts that the CP Health and Safety Committee and Safety Advisory Board process has no standing whatsoever and is irrelevant to the statute.

The CP management controls the safety committee process. The CP SAB committee has not met for over seven months. CP management drafts and controls safety committee meeting minutes. In the CP safety process, the carrier can simply choose to not meet, and, or, refuse to correct, repair, or otherwise improve reported physical plant issues. The CP safety committee process and lack of accountability reflect the historical and current status on CP and other carriers across Minnesota.

Legislative testimony can be provided from CP employees, CP safety committee members, and others who are represented by UTU-SMART-TD Minnesota.

3)Lighting standard: The CP's blanket statement that the AREMA lighting standard "were met at the nine yards" is incorrect. While CP St. Paul Yard is well lighted, without actual independent and objective lighting measurements, CP's blanket statement that all yards are AREMA compliant is not supported in fact.

4)Environmental considerations of lighting: All CP yards in Minnesota are located at the center of an industrial area or are in rural areas outside of town limits.

5) Plans and timeliness: UTU-SMART-TD disagrees with CP's statement and assertions. With the reference to CP's "System-Wide Safety Advisory Board", that process has no accountability nor performance measure. Again, this process is irrelevant to the requirement set forth in Minnesota Statute 219.375.

CP Dunn yard is two miles, or very close to, two miles to the Ashland Refinery at St. Paul Park, Minnesota. CP Hastings Yard is an industrial and intermediate yard where switching, assembly, disassembly, and inspections occur around the clock. CP road trains with hazardous materials are blocked and re blocked for destination.



6) UTU-SMART-TD Report Summary: We concur with MnDOT's summary. We wish to reiterate that CP controls safety documents but again, this is irrelevant. Further, unresolved lighting issues submitted have not been corrected or improved.

7) Difference in interpretation of Subdivision Five: UTU-SMART-TD correctly reads the existing statute. As written, Subdivision Five (1)(a) states:

(1) Between sunset and sunrise:

(a) Locomotives , or rail cars carrying placarded hazardous materials, are frequently switched, repaired, or inspected, OR,

UTU-SAMRT-TD's listed yards meet this statute requirement. This portion of the statute stands alone as a requirement. Further, it is essential to consider and accept that these yards are subject to be worked by any and all trains with hazardous materials moving on that subdivision where the yard is located.

UTU-SMART-TD asserts MnDOT must recognize the Legislature's intent to light certain railroad yards in Minnesota. With only two refineries and four Class One carriers in Minnesota, the Legislature could not have intended to only light one yard in the entire state (UP Roseport).

With this letter of response, please find the letter of Mr. Larry Mann, Alper & Mann. With the question posed regarding the placement of "or" and "and", the current statute could be litigated. However, we respectfully request MnDOT to recommend that the Legislature amend current statute language to clarify this question for those who choose to seek an ambiguous interpretation rather than the common sense intent to improve railroad safety.

8) Purpose of MnDOT Analysis: UTU-SMART-TD apologizes for any confusion created by our matrix of information. However, we have been available to verbally clarify our presentation of railroad yard lighting status. Because of the difficult nature of the task before MnDOT, we strongly recommend that objective and independent traffic analysis and lighting measurements be obtained.

Discrepancies between the Railroad and Union reports:

9) UTU-SMART-TD believes our assertion and definition of "frequently" has been appropriate, consistent with industry standard, if not generous. We believe that when considering days and nights, MnDOT must accept the reality that atmospheric darkness is essentially equal to day light operations over a calendar year. Therefore it is essential to reinforce the state's expectation to improve worker safety and quality of mechanical inspections regardless of traditional shift designations. If designated operations and inspections are occurring at a yard during anytime during atmospheric darkness, we assert this yard must be lighted to the AREMA standard.

10) At CP New Ulm, River Junction, River Junction South, Hastings, and Dunn, rail cars containing hazardous materials are currently being switched and inspected.

11) Regarding maintenance issues and reporting of non-compliant conditions, it is essential for railroad safety for MnDOT to receive yard lighting complaints. There is no other mechanism to assure maintenance, compliance, and railroad safety. We recommend that MnDOT gain legislative authority for rail inspectors to investigate yard lighting complaints. Further, we recommend that MnDOT gain legislative authority to assess financial penalty for non-compliance.

Recommendations:

We concur with MnDOT's need to seek clarification of the current state statute.

- a) **We remain concerned with a statute definition of "frequent" operation based on hours, days of the week, and work shifts. Rather, we believe when considering days and nights, MnDOT must accept the reality that atmospheric darkness is essentially equal to daylight hours on a calendar year basis. Railroads operate around the clock each day of the year. Therefore it is essential to reinforce the state's expectation to improve worker safety and quality of mechanical inspections regardless of traditional shift designations. If designated switching, assembly, disassembly, and inspections are occurring at a yard during atmospheric darkness, we assert this yard must be lighted to the AREMA standard.**

UTU-SMART-TD acknowledges the practical nature of seasonal operations. When considering seasonal operations and inspections at certain yards at night, it is reasonable for carriers to install temporary lighting source at those yards.

- b) **We are confused by MnDOT's recommendation that "only those yards required under subd. 1 and 5 should be included in reports to the commissioner". As we are not certain as to the recommendation's intent, UTU-SMART-TD Minnesota would oppose any arbitrary limitation of duty to assure lighting maintenance enforcement. We would oppose any arbitrary limitation on yards that meet the requirement set forth in Subd. Five, (1)(a).**
- c) **We recommend that MnDOT clarify the "and" versus "or" concern in statute language to affirm legislative intent and as an alternative to litigation.**
- d) **UTU-SMART-TD strongly recommends that MnDOT gain and exercise authority to perform objective and independent railroad yard lighting measurements.**
- e) **We question MnDOT's inclusion of MNOSHA into the railroad industry. While we appreciate MnDOT may seek expertise to measure lighting and investigate non-compliance, it is unclear whether MNOHSA would have any jurisdiction on a railroad property if that department is not participating in a Federal Railroad Administration state partnership program, 49 CFR 212.**

Thank you for your review of this UTU-SMART-TD responsive memorandum



united transportation union

Date: June 12, 2015

**To: William Gardner
Director, Office of Freight and Commercial Vehicle Operations**

**From: Phillip Qualy
Minnesota Legislative Director
UTU-SMART-TD Minnesota**

RE: UP Railway Yard Lighting Analysis

In response to the information contained in the MnDOT Railroad Yard Lighting memorandum of May 28th, 2015:

1)Identify yards where work is performed: UTU-SMART-TD Minnesota does not concur with UP's listing of yards. We do not concur UP's statements regarding the status of lighting installation.

2)Describe the lighting and nature and placement: From MnDOT's report of UP's submission and failure to provide requested follow-up information, it appears that UP has not provided due diligence to provide accurate yard operations, inspection, maintenance or lighting status information.

As reported, UP does not repair lighting defects in a timely manner. Legislative testimony can be provided from UP employees, UP safety representatives, and others who are represented by UTU-SMART-TD Minnesota.

3)Lighting standard: The UP's general description and blanket statement that eight of thirteen yards meet the reporting standard in Minnesota Statute Subdivision One is unclear if not incorrect. No UP yard lighting measurements have been referenced.

4)Environmental considerations of lighting: All UP yards in Minnesota are located at the center of an industrial area or in rural areas outside of town limits.

5) Plans and timeliness: UTU-SMART-TD asserts that UP Roseport Yards, both north and south yards, meet all statute requirements to be lighted to the AREMA standard by December 31, 2015. We remain concerned that UP does not appear to grasp the statute requirement to improve worker safety and the quality of mechanical inspections at Roseport, Western Avenue, and other listed yards.

Please reference Barr Engineering's report regarding Western Avenue Yard. There is no question that cars containing hazardous materials are switched and inspected by UP Yard SSP-Job 79 six nights per week near downtown St. Paul.

6) UTU-SMART-TD Report Summary: We concur with MnDOT's summary. We wish to reiterate that UP controls safety hotline documents. Specific UP yard lighting complaints reported by UTU-SMART-TD have not been corrected or improved after legislative testimony and provision of documents to MnDOT.



7) Discrepancies Between the Railroad and Union Reports:

The UP refers only to Mn. Statute 219.375, Subdivision One for guidance. However, UTU-SMART-TD asserts the interpretation of Subdivision Five (a) as a guiding statute. As written, Subdivision Five (1)(a) states:

(1) Between sunset and sunrise:

(a) Locomotives, or rail cars carrying placarded hazardous materials, are frequently switched, repaired, or inspected, OR,

UTU-SMART-TD's listed yards meet this statute requirement. This portion of the statute stands alone as a requirement. Further, it is essential to consider and accept that these yards are subject to be worked by any and all trains containing hazardous materials moving on the subdivision where that yard is located.

UTU-SMART-TD asserts MnDOT must recognize the Legislature's intent to light certain railroad yards in Minnesota. With only two refineries and four Class One carriers in Minnesota, the Legislature could not have intended to only light one yard in the entire state (UP Roseport).

With this letter of response, please find the letter of Mr. Larry Mann, Alper & Mann. With the question posed regarding the placement of "or" and "and", the current statute could be litigated. However, we respectfully request MnDOT to recommend that the Legislature amend current statute language to clarify this question for those who choose to seek an ambiguous interpretation rather than the common sense intent to improve railroad safety.

8) Purpose of MnDOT Analysis: UTU-SMART-TD apologizes for any confusion created by our matrix of information. However, we have been available to verbally clarify our presentation of railroad yard lighting status. Because of the difficult nature of the task before MnDOT, we strongly recommend that objective and independent traffic analysis and lighting measurements be obtained.

9) 9) UTU-SMART-TD believes our assertion and definition of "frequently" has been appropriate, consistent with industry standard, if not generous. We believe that when considering days and nights, MnDOT must accept the reality that atmospheric darkness is essentially equal to daylight operations over a calendar year. Therefore it is essential to reinforce the state's expectation to improve worker safety and quality of mechanical inspections regardless of traditional shift designations. If designated operations and inspections are occurring at a yard during anytime during atmospheric darkness, we assert this yard must be lighted to the AREMA standard.

10) UP's East Minneapolis, Roseport, So. St. Paul, Hoffman, Western Avenue, Valley Park, Merriam, Mankato, and Albert Lea Yards move, or subject to move, rail cars containing hazardous materials. These yards currently operate and inspect cars in train, or to be placed in train, during atmospheric darkness. We believe it is essential to accept that even if yards are not moving hazardous materials, when switching, assembly, disassembly, and inspections of trains are during atmospheric darkness, lighting that meets the AREMA standard will improve railroad safety.

Regarding East Minneapolis and the adjacent private intermodal facility, UTU-SMART-TD asserts that ambient light from private industry yards are not an appropriate component within light measurement for a common carrier rail yard. Light sources from right angle, or other angle to track side, is blocked and does not illuminate down the walkways of railroad yard tracks (as to design of lead lighting).

11) Regarding maintenance issues and reporting of non-compliant conditions, it is essential for railroad safety for MnDOT to receive yard lighting complaints. There is no other mechanism to assure maintenance, compliance, and railroad safety. We recommend that MnDOT gain legislative authority for rail inspectors to investigate yard lighting complaints. Further, we recommend that MnDOT gain legislative authority to assess financial penalty for non-compliance.

Recommendations:

We concur with MnDOT's need to seek clarification of the current state statute.

a)We remain concerned with a statute definition of "frequent" operation based on hours, days of the week, and work shifts. Rather, we believe when considering days and nights, MnDOT must accept the reality that atmospheric darkness is essentially equal to daylight hours on a calendar year basis. Railroads operate around the clock each day of the year. Therefore it is essential to reinforce the state's expectation to improve worker safety and quality of mechanical inspections regardless of traditional shift designations. If designated switching, assembly, disassembly, and inspections are occurring at a yard during atmospheric darkness, we assert this yard must be lighted to the AREMA standard.

UTU-SMART-TD acknowledges the practical nature of seasonal operations. When considering seasonal operations and inspections at certain yards at night, it is reasonable for carriers to install temporary lighting source at those yards.

b)We are confused by MnDOT's recommendation that "only those yards required under subd. 1 and 5 should be included in reports to the commissioner". As we are not certain as to the recommendation's intent, UTU-SMART-TD Minnesota would oppose any arbitrary limitation of duty to assure lighting maintenance enforcement. We would oppose any arbitrary limitation on yards that meet the requirement set forth in Subdivision Five, (1)(a).

c)We recommend that MnDOT clarify the "and" versus "or" concern in statute language to affirm legislative intent and as an alternative to litigation.

d)UTU-SMART-TD strongly recommends that MnDOT gain and exercise authority to perform objective and independent railroad yard lighting measurements.

e)We question MnDOT's inclusion of MNOSHA into the railroad industry. While we appreciate MnDOT may seek expertise to measure lighting and investigate non-compliance, it is unclear whether MNOHSA would have any jurisdiction on a railroad property if that department is not participating in a Federal Railroad Administration state partnership program, 49 CFR 212.

Thank you for your review of this UTU-SMART-TD responsive memorandum.

Phillip J. Qualy
Legislative Director,
Chairperson

Nicholas J. Katch
Assistant Director

Brian L. Hunstad
Secretary



Labor & Professional Centre
411 Main Street / Suite 212
St. Paul, MN 55102
651-222-7500 (a)
651-222-7828 (f)
UTUMNLEGBD@VISL.COM

Minnesota Legislative Board

A Division of SMART, Sheet metal, Air, Rail and Transit Union
Printed In House

June 12, 2015

**Commissioner Charles Zelle
Minnesota Department of Transportation
395 John Ireland Boulevard
St. Paul, MN 55155**

**Director William Gardner ✓
Minnesota Department of Transportation
395 John Ireland Boulevard
St. Paul, MN 55155**

RE: MnDOT Rail Yard Lighting Report Memo of May 28th, 2015, UTU Response.

Dear Commissioner Zelle and Director Gardner,

This letter will serve to respond to MnDOT memoranda regarding railroad “Yard Lighting Report” dated May 28th, 2015. This responsive letter follows our prior submissions to MnDOT, 1) “Railroad Yard Lighting in Minnesota” dated January 15th, 2015, 2) “Yard Lighting Report”, responsive letter of clarification dated March 25th, 2015, and, 3) “Railroad Yard Lighting Report, Deposition, “Biegler versus Soo Line Railway, d.b.a. Canadian Pacific”, dated April 16th, 2015.

In response to MnDOT’s Railroad Yard Report memoranda, enclosed herewith please review professional comments and technical clarifications from:

- 1) Mr. Mark Ziemer, Barr Engineering, letter dated June 12, 2015.**
- 2) Mr. Lawrence Mann, Counsel, Apler & Mann, dated June 12, 2015.**

As a format in response to MnDOT’s Railroad Yard Report memoranda, we will respond to each of the four MnDOT property memos regarding carrier property with the same format, numerical references, with additional comments.

With MnDOT’s report to the Legislature, UTU-SMART-TD Minnesota respectfully requests inclusion of our submissions listed prior herein. We believe the Legislature must be informed of the statements made by CP managers regarding mechanical inspection time limits divulged in “Biegler vs. Soo Line Railroad, d/b/a. CP”.

With Legislature’s charge to MnDOT, UTU-SMART-TD appreciates that assessing a historically entrenched private industry is a difficult task. We have presented our railroad yard lighting information to MnDOT as clearly as possible. We again direct your attention to blue color coded priorities set forth prior. We assert that as the men and women who actually work the trains, switch the rail yards, and inspect railroad equipment across Minnesota nightly, our submissions are true and correct.

**Commissioner Zelle
Director Gardner
June 12, 2015
Page two**

For the railroad workers of Minnesota, I want to reiterate the vital importance of the 2014 Railroad Yard Lighting law. While railroad yard lighting will improve worker safety and efficiencies, yard lighting is essential to effectively perform 49 CFR 215.13, Appendix "D" mechanical inspection on rail cars being placed in trains before departure. It is in the public interest to assure railroad cars moving in trains have received effective mechanical inspection.

We respectfully request your continued efforts to strengthen railroad and public safety with this common sense statute that remains necessary. It is our sincere hope the MnDOT Railroad Yard Lighting report to the Legislature:

- 1) Will not weaken the existing statute 219.375 in any manner. It is essential for railroad safety to maintain the AREMA standard.**
- 2) Will apply for and assert authority to gain objective, independent lighting or illumination measurements at all Minnesota rail yards.**
- 3) Will apply for and assert a clear definition of duties for state rail inspectors to respond to complaints of lighting issues that are not repaired within 48 hours from a documented time of first report.**
- 4) Will clarify statute language to correct the unintended interpretation between 219.375, Subdivision Five, subpart 1 (a)(b) and 2, correction of "and/or" grammar, to reflect the legislative intent to light certain railroad yards to the AREMA standard in Minnesota.**
- 5) Will clarify and provide statute language to light seventeen listed yards in Minnesota where significant levels of switching, assembly, disassembly, and inspections occur, or are subject to occur, with hazardous material, during atmospheric darkness on a regular basis.**
- 6) Will clarify that Minnesota Statute 219.375 is subject to provisions set forth in Minnesota Statute 218.041, Subd. 4, "Commissioners Duties Upon Petition", order to correct unique or unsafe conditions.**
- 7) Will recommend legislation in areas listed prior to gain enforcement powers with force of financial penalty to assure compliance.**

Please review attached memorandums and advocacy letters. Please be reminded that UTU-SMART-TD has issued two legal briefs in support of our 2014 Railroad Yard Lighting legislation. The four Class One and short-line carriers have not contested our second legal brief.

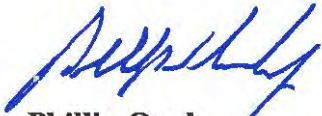
The United Transportation Union, Sheet metal, Air, Rail, and Transit Union, (UTU-SMART-TD) is the exclusive representative of the Conductor's, Switchmen, Yardmaster's, and Remote Control Locomotive Operator's contracts nationwide. The UTU SMART-TD Minnesota Legislative Board is vested with the responsibility

**Commissioner Zelle
Director Gardner
June 12, 2015
Page three.**

to protect the safety, welfare, and governmental interests of our membership within the state of Minnesota.

We hope this information is helpful toward improving railroad safety and public security in Minnesota. In advance, thank you for your review of this information.

With kindest regards,



**Phillip Qualy
Minnesota Legislative Board
United Transportation Union-SMART-TD**

enclosure

**cc : Office of Minnesota Governor Mark Dayton
Office of Minnesota Attorney General Lori Swanson
Minnesota Legislative Leadership.
Mr. John Previsich, UTU-SMART-TD President
Mr. John Risch, UTU-SMART-TD National Legislative Director
UTU-SMART-TD General Committees of Adjustment
UTU-SMART-TD Minnesota Legislative Committee, Locals 64, 281, 650, 911,
1000, 1067, 1137, 1175, 1177, 1292, 1614, and 1976 .**



united transportation union

Date: June 12, 2015

**To: William Gardner
Director, Office of Freight and Commercial Vehicle Operations**

**From: Phillip Qualy
Minnesota Legislative Director
UTU-SMART-TD Minnesota**

RE: BNSF Railway Yard Lighting Analysis

In response to the information contained in the MnDOT Railroad Yard Lighting memorandum of May 28th, 2015:

1)Identify yards where work is performed: UTU-SMART-TD Minnesota concurs with BNSF's listing of yards. However, we do not concur BNSF's statements regarding the status of yard lighting that meets the AREMA standard at all yards.

2)Describe the lighting and nature and placement: From MnDOT's report of BNSF's submission, it appears that BNSF has not provided measurements or accurate information regarding yard operations, inspection, and lighting status.

Legislative testimony can be provided from BNSF employees, BNSF safety representatives, and others who are represented by UTU-SMART-TD Minnesota.

3)Lighting standard: The BNSF's blanket statement regarding the AREMA standard, "all four of the yards meet the AREMA guidelines" focus on yards that are opposite from the yards that encamp UTU-SMART-TD's specific concerns.

4)Environmental considerations of lighting: All BNSF yards in Minnesota are located at the center of an industrial area or in rural areas outside of town limits.

5) Plans and timeliness: UTU-SMART-TD disagrees with BNSF's statement and assertions. We respectfully disagree with BNSF's characterization of Duluth Rice Point, East Grand Forks and St. Cloud Yard operations. We do not recognize, nor have we ever heard of the term "strip tracks" in this industry, referenced to BNSF Union Yard. However, BNSF does acknowledge that "assembly of trains" (with associated disassembly and inspections) does occur at Dayton's Bluff Yard.

UTU-SMART-TD asserts that BNSF Dayton's Bluff Yard has operations occurring far more than the carrier reveals. Further, this yard has the unique location of being the last yard in Minnesota a train can be mechanically inspected before departing for over 200 miles along the Mississippi River. This poses a unique environmental imperative to assure railroad safety. Therefore, UTU-SMART-TD



asserts that authorities granted to the Commissioner of Transportation, under Minnesota Statute 218.041, Subdivision 4, are appropriate and may be necessary.

6) UTU-SMART-TD Report Summary: We concur with MnDOT's summary. We wish to reiterate that BNSF controls safety committee documents. UTU-SMART-TD lighting complaints submitted to MnDOT and Legislature remain unresolved.

Regarding the BNSF Midway and Union Yards, we wish to clarify that Midway is an intermodal yard and most likely meets the AREMA standard currently. However, intermodal containers that may carry hazardous materials are not subject to hazardous material regulations as prescribed for railroad rolling stock. We understand BNSF is redesigning Midway to include Union Yard as part of their Midway intermodal facility. UTU-SMART-TD welcomes BNSF's long anticipated remodeling of Midway and Union Yards into one intermodal operation with lighting that meets or exceeds the AREMA standard.

7) Discrepancies Between the Railroad and Union Reports:

The BNSF refers only to Minnesota Statute 219.375, Subdivision One for guidance. However, UTU-SMART-TD asserts the interpretation of Subdivision Five 1(a) as a guiding statute. As written, Subdivision Five (1)(a) states:

(1) Between sunset and sunrise:

(a) Locomotives, or rail cars carrying placarded hazardous materials, are frequently switched, repaired, or inspected, OR,

UTU-SMART-TD's listed yards meet this statute requirement. This portion of the statute stands alone as a requirement. Further, it is essential to consider and accept that these yards are subject to be worked by any and all trains containing hazardous materials moving on the subdivision where that yard is located.

UTU-SMART-TD asserts MnDOT must recognize the Legislature's intent to light certain railroad yards in Minnesota. With only two refineries and four Class One carriers in Minnesota, the Legislature could not have intended to only light one yard in the entire state (UP Roseport).

With this letter of response, please find the letter of Mr. Larry Mann, Alper & Mann. With the question posed regarding the placement of "or" and "and", the current statute could be litigated. However, we respectfully request MnDOT to recommend that the Legislature amend current statute language to clarify this question for those who choose to seek an ambiguous interpretation rather than the common sense intent to improve railroad safety.

8)Purpose of MnDOT Analysis: UTU-SMART-TD apologizes for any confusion created by our matrix of information. However, we have been available to verbally clarify our presentation of railroad yard lighting status. Because of the difficult nature of the task before MnDOT, we strongly recommend that objective and independent traffic analysis and lighting measurements be obtained.

9) UTU-SMART-TD believes our assertion and definition of "frequently" has been appropriate, consistent with industry standard, if not generous. We believe that

when considering days and nights, MnDOT must accept the reality that atmospheric darkness is essentially equal to daylight operations in a calendar year. Therefore it is essential to reinforce the state's expectation to improve worker safety and quality of mechanical inspections regardless of traditional shift designations. If designated operations and inspections are occurring at a yard during anytime during atmospheric darkness, we assert this yard must be lighted to the AREMA standard. Please reference the Barr Engineering Report for Dayton's Bluff Yard.

10) BNSF's Dayton's Bluff, Rice's Point, East Grand Forks Yards move rail cars containing hazardous materials and are currently being assembled and inspected.

11) Regarding maintenance issues and reporting of non-compliant conditions, it is essential for railroad safety for MnDOT to receive yard lighting complaints. There is no other mechanism to assure maintenance, compliance, and railroad safety. We recommend that MnDOT gain legislative authority for rail inspectors to investigate yard lighting complaints. Further, we recommend that MnDOT gain legislative authority to assess financial penalty for non-compliance.

Recommendations:

We concur with MnDOT's need to seek clarification of the current state statute.

a) We remain concerned with a statute definition of "frequent" operation based on hours, days of the week, and work shifts. Rather, we believe when considering days and nights, MnDOT must accept the reality that atmospheric darkness is essentially equal to daylight hours on a calendar year basis. Railroads operate around the clock each day of the year. Therefore it is essential to reinforce the state's expectation to improve worker safety and quality of mechanical inspections regardless of traditional shift designations. If designated switching, assembly, disassembly, and inspections are occurring at a yard during atmospheric darkness, we assert this yard must be lighted to the AREMA standard.

UTU-SMART-TD acknowledges the practical nature of seasonal operations. When considering seasonal operations and inspections at certain yards at night, it is reasonable for carriers to install temporary lighting source at those yards.

b) We are confused by MnDOT's recommendation that "only those yards required under subd. 1 and 5 should be included in reports to the commissioner". As we are not certain as to the recommendation's intent, UTU-SMART-TD Minnesota would oppose any arbitrary limitation of duty to assure lighting maintenance enforcement. We would oppose any arbitrary limitation on yards that meet the requirement set forth in Subdivision Five, (1)(a).

c) We recommend that MnDOT clarify the "and" versus "or" concern in statute language to affirm legislative intent and as an alternative to litigation.

d) UTU-SMART-TD strongly recommends that MnDOT gain and exercise authority to perform objective and independent railroad yard lighting measurements.

e) We question MnDOT's inclusion of MNOSHA into the railroad industry. While we appreciate MnDOT may seek expertise to measure lighting and investigate non-compliance, it is unclear whether MNOHSA would have any

jurisdiction on a railroad property if that department is not participating in a Federal Railroad Administration state partnership program, 49 CFR 212.

Thank you for your review of this UTU-SMART-TD responsive memorandum.



united transportation union

Date: June 12, 2015

**To: William Gardner
Director, Office of Freight and Commercial Vehicle Operations**

**From: Phillip Qualy
Minnesota Legislative Director
UTU-SMART-TD Minnesota**

RE: CN Railway Yard Lighting Analysis

In response to the information contained in the MnDOT Railroad Yard Lighting memorandum of May 28th, 2015:

1)Identify yards where work is performed: UTU-SMART-TD Minnesota concurs with CN's listing of yards. However, we do not concur CN's statements regarding the status of yard lighting that meets the AREMA standard at all yards.

2)Describe the lighting and nature and placement: From MnDOT's report of CN's submission, it appears that CN has not provided measurements or accurate information regarding yard operations, inspection, and lighting status.

As reported, CN does not repair lighting defects in a timely manner. By CN's own admission and witnessed practice, it appears they repair and maintain lighting on a "quarterly basis". This practice is not consistent with the legislative and statute intent to repair lighting issues within 48 hours of first report.

Legislative testimony can be provided from CN employees, CN safety representatives, and others who are represented by UTU-SMART-TD Minnesota.

3)Lighting standard: The CN's general description and blanket statement that five yards meet the reporting standard in Minnesota Statute Subdivision One is unclear if not incorrect. The CN's references to hand held lanterns and/or head lamps are disingenuous. (A whole set of eye-sight contrast and loss of peripheral ambient night vision issues stem from use of head lamps. Therefrom, these devices are not regulated nor required). We commend MnDOT for recognizing the importance of ambient light and not accepting CN's attempt to circumvent legislative intent.

4)Environmental considerations of lighting: All CN yards in Minnesota are located at the center of an industrial area or in rural areas outside of town limits.

5) Plans and timeliness: UTU-SMART-TD disagrees with CN's statement that all five yards listed are AREMA compliant. We respectfully disagree with CN's characterization of Missabe Junction, Wales, Biwabek and Welpen Yard operations. As well, at least twenty five tank cars of hazardous materials are switched and inspected per day at CN Proctor Yard. Please reference Barr Engineering's report regarding Proctor Yard. Therefore, we assert that Proctor lighting must be reengineered and relighted to comply with state statute by December 31, 2015.



6) UTU-SMART-TD Report Summary: We concur with MnDOT's summary. We wish to identify that CN does not provide hazardous condition report forms. CN's safety process deficiencies remain under review by the Federal Railroad Administration. We wish to reiterate that CN controls safety committee documents. Nonetheless, CN's safety committee process is irrelevant and has no standing as to the state statute. UTU-SMART-TD lighting complaints to CN and submitted to MnDOT and the Legislature remain unresolved.

7) Discrepancies Between the Railroad and Union Reports:

The CN refers only to Mn. Statute 219.375, Subdivision One for guidance. However, UTU-SMART-TD asserts interpretation of Subdivision Five as a guiding statute. As written, Subdivision Five (1)(a) states:

(1) Between sunset and sunrise:

(a) Locomotives, or rail cars carrying placarded hazardous materials, are frequently switched, repaired, or inspected, OR,

UTU-SMART-TD's listed yards meet this statute requirement. This portion of the statute stands alone as a requirement. Further, it is essential to consider and accept that these yards are subject to be worked by any and all trains with hazardous materials moving on the subdivision where that yard is located.

UTU-SMART-TD asserts MnDOT must recognize the Legislature's intent to light certain railroad yards in Minnesota. With only two refineries and four Class One carriers in Minnesota, the Legislature could not have intended to only light one yard in the entire state (UP Roseport).

With this letter of response, please find the letter of Mr. Larry Mann, Alper & Mann. With the question posed regarding the placement of "or" and "and", the current statute could be litigated. However, we respectfully request MnDOT to recommend that the Legislature amend current statute language to clarify this question for those who choose to seek an ambiguous interpretation rather than the common sense intent to improve railroad safety.

8) Purpose of MnDOT Analysis: UTU-SMART-TD apologizes for any confusion created by our matrix of information. However, we have been available to verbally clarify our presentation of railroad yard lighting status. Because of the difficult nature of the task before MnDOT, we strongly recommend that objective and independent traffic analysis and lighting measurements be obtained.

9) UTU-SMART-TD believes our assertion and definition of "frequently" has been appropriate, consistent with industry standard, if not generous. We believe when considering days and nights, MnDOT must accept the reality that atmospheric darkness is essentially equal to daylight operations over a calendar year. Therefore it is essential to reinforce the expectation to improve worker safety and quality of mechanical inspections regardless of traditional shift designations. If designated operations and inspections are occurring at a yard during anytime during atmospheric darkness, we assert this yard must be lighted to the AREMA standard.

10) CN's Proctor, Rainier, Biwabek, and Keenen Yards move rail cars containing hazardous materials and are currently being switched, assembled, or inspected.

11) Regarding maintenance issues and reporting of non-compliant conditions, it is essential for railroad safety for MnDOT to receive yard lighting complaints. There is no other mechanism to assure maintenance, compliance, and railroad safety. We recommend that MnDOT gain legislative authority for rail inspectors to investigate yard lighting complaints. Further, we recommend that MnDOT gain legislative authority to assess financial penalty for non-compliance.

Recommendations:

We concur with MnDOT's need to seek clarification of the current state statute.

a) We remain concerned with a statute definition of "frequent" operation based on hours, days of the week, and work shifts. Rather, we believe when considering days and nights, MnDOT must accept the reality that atmospheric darkness is essentially equal to daylight hours on a calendar year basis. Railroads operate around the clock each day of the year. Therefore it is essential to reinforce the state's expectation to improve worker safety and quality of mechanical inspections regardless of traditional shift designations. If designated switching, assembly, disassembly, and inspections are occurring at a yard during atmospheric darkness, we assert this yard must be lighted to the AREMA standard.

UTU-SMART-TD acknowledges the practical nature of seasonal operations. When considering seasonal operations and inspections at certain yards at night, it is reasonable for carriers to install temporary lighting source at those yards. The CN hazardous material service schedules at Missabe Junction, Biwabek, Wales, and Wilpen Yards may well meet a seasonal definition.

b) We are confused by MnDOT's recommendation that "only those yards required under subd. 1 and 5 should be included in reports to the commissioner". As we are not certain as to the recommendation's intent, UTU-SMART-TD Minnesota would oppose any arbitrary limitation of duty to assure lighting maintenance enforcement. We would oppose any arbitrary limitation on yards that meet the requirement set forth in Subdivision Five, (1)(a).

c) We recommend that MnDOT clarify the "and" versus "or" concern in statute language to affirm legislative intent and as an alternative to litigation.

d) UTU-SMART-TD strongly recommends that MnDOT gain and exercise authority to perform objective and independent railroad yard lighting measurements.

e) We question MnDOT's inclusion of MNOSHA into the railroad industry. While we appreciate MnDOT may seek expertise to measure lighting and investigate non-compliance, it is unclear whether MNOHSA would have any jurisdiction on a railroad property if that department is not participating in a Federal Railroad Administration state partnership program, 49 CFR 212.

Thank you for your review of this UTU-SMART-TD memorandum.



united transportation union

Date: June 12, 2015

**To: William Gardner
Director, Office of Freight and Commercial Vehicle Operations**

**From: Phillip Qualy
Minnesota Legislative Director
UTU-SMART-TD Minnesota**

RE: Canadian Pacific Railway Yard Lighting Analysis

In response to the information contained in the MnDOT Railroad Yard Lighting memorandum of May 28th, 2015:

1)Identify yards where work is performed: UTU-SMART-TD Minnesota concurs with CP's listing of yards. However from MnDOT's summary, we do not concur nor see measurements from CP regarding yard lighting installation status.

2)Describe the lighting and nature and placement: From MnDOT's report for CP, UTU-SMART-TD asserts that the CP Health and Safety Committee and Safety Advisory Board process has no standing whatsoever and is irrelevant to the statute.

The CP management controls the safety committee process. The CP SAB committee has not met for over seven months. CP management drafts and controls safety committee meeting minutes. In the CP safety process, the carrier can simply choose to not meet, and, or, refuse to correct, repair, or otherwise improve reported physical plant issues. The CP safety committee process and lack of accountability reflect the historical and current status on CP and other carriers across Minnesota.

Legislative testimony can be provided from CP employees, CP safety committee members, and others who are represented by UTU-SMART-TD Minnesota.

3)Lighting standard: The CP's blanket statement that the AREMA lighting standard "were met at the nine yards" is incorrect. While CP St. Paul Yard is well lighted, without actual independent and objective lighting measurements, CP's blanket statement that all yards are AREMA compliant is not supported in fact.

4)Environmental considerations of lighting: All CP yards in Minnesota are located at the center of an industrial area or are in rural areas outside of town limits.

5) Plans and timeliness: UTU-SMART-TD disagrees with CP's statement and assertions. With the reference to CP's "System-Wide Safety Advisory Board", that process has no accountability nor performance measure. Again, this process is irrelevant to the requirement set forth in Minnesota Statute 219.375.

CP Dunn yard is two miles, or very close to, two miles to the Ashland Refinery at St. Paul Park, Minnesota. CP Hastings Yard is an industrial and intermediate yard where switching, assembly, disassembly, and inspections occur around the clock. CP road trains with hazardous materials are blocked and re blocked for destination.



6) UTU-SMART-TD Report Summary: We concur with MnDOT's summary. We wish to reiterate that CP controls safety documents but again, this is irrelevant. Further, unresolved lighting issues submitted have not been corrected or improved.

7) Difference in interpretation of Subdivision Five: UTU-SMART-TD correctly reads the existing statute. As written, Subdivision Five (1)(a) states:

(1) Between sunset and sunrise:

(a) Locomotives , or rail cars carrying placarded hazardous materials, are frequently switched, repaired, or inspected, OR,

UTU-SAMRT-TD's listed yards meet this statute requirement. This portion of the statute stands alone as a requirement. Further, it is essential to consider and accept that these yards are subject to be worked by any and all trains with hazardous materials moving on that subdivision where the yard is located.

UTU-SMART-TD asserts MnDOT must recognize the Legislature's intent to light certain railroad yards in Minnesota. With only two refineries and four Class One carriers in Minnesota, the Legislature could not have intended to only light one yard in the entire state (UP Roseport).

With this letter of response, please find the letter of Mr. Larry Mann, Alper & Mann. With the question posed regarding the placement of "or" and "and", the current statute could be litigated. However, we respectfully request MnDOT to recommend that the Legislature amend current statute language to clarify this question for those who choose to seek an ambiguous interpretation rather than the common sense intent to improve railroad safety.

8) Purpose of MnDOT Analysis: UTU-SMART-TD apologizes for any confusion created by our matrix of information. However, we have been available to verbally clarify our presentation of railroad yard lighting status. Because of the difficult nature of the task before MnDOT, we strongly recommend that objective and independent traffic analysis and lighting measurements be obtained.

Discrepancies between the Railroad and Union reports:

9) UTU-SMART-TD believes our assertion and definition of "frequently" has been appropriate, consistent with industry standard, if not generous. We believe that when considering days and nights, MnDOT must accept the reality that atmospheric darkness is essentially equal to day light operations over a calendar year. Therefore it is essential to reinforce the state's expectation to improve worker safety and quality of mechanical inspections regardless of traditional shift designations. If designated operations and inspections are occurring at a yard during anytime during atmospheric darkness, we assert this yard must be lighted to the AREMA standard.

10) At CP New Ulm, River Junction, River Junction South, Hastings, and Dunn, rail cars containing hazardous materials are currently being switched and inspected.

11) Regarding maintenance issues and reporting of non-compliant conditions, it is essential for railroad safety for MnDOT to receive yard lighting complaints. There is no other mechanism to assure maintenance, compliance, and railroad safety. We recommend that MnDOT gain legislative authority for rail inspectors to investigate yard lighting complaints. Further, we recommend that MnDOT gain legislative authority to assess financial penalty for non-compliance.

Recommendations:

We concur with MnDOT's need to seek clarification of the current state statute.

- a) **We remain concerned with a statute definition of "frequent" operation based on hours, days of the week, and work shifts. Rather, we believe when considering days and nights, MnDOT must accept the reality that atmospheric darkness is essentially equal to daylight hours on a calendar year basis. Railroads operate around the clock each day of the year. Therefore it is essential to reinforce the state's expectation to improve worker safety and quality of mechanical inspections regardless of traditional shift designations. If designated switching, assembly, disassembly, and inspections are occurring at a yard during atmospheric darkness, we assert this yard must be lighted to the AREMA standard.**

UTU-SMART-TD acknowledges the practical nature of seasonal operations. When considering seasonal operations and inspections at certain yards at night, it is reasonable for carriers to install temporary lighting source at those yards.

- b) **We are confused by MnDOT's recommendation that "only those yards required under subd. 1 and 5 should be included in reports to the commissioner". As we are not certain as to the recommendation's intent, UTU-SMART-TD Minnesota would oppose any arbitrary limitation of duty to assure lighting maintenance enforcement. We would oppose any arbitrary limitation on yards that meet the requirement set forth in Subd. Five, (1)(a).**
- c) **We recommend that MnDOT clarify the "and" versus "or" concern in statute language to affirm legislative intent and as an alternative to litigation.**
- d) **UTU-SMART-TD strongly recommends that MnDOT gain and exercise authority to perform objective and independent railroad yard lighting measurements.**
- e) **We question MnDOT's inclusion of MNOSHA into the railroad industry. While we appreciate MnDOT may seek expertise to measure lighting and investigate non-compliance, it is unclear whether MNOHSA would have any jurisdiction on a railroad property if that department is not participating in a Federal Railroad Administration state partnership program, 49 CFR 212.**

Thank you for your review of this UTU-SMART-TD responsive memorandum



united transportation union

Date: June 12, 2015

To: William Gardner
Director, Office of Freight and Commercial Vehicle Operations

From: Phillip Qualy
Minnesota Legislative Director
UTU-SMART-TD Minnesota

RE: UP Railway Yard Lighting Analysis

In response to the information contained in the MnDOT Railroad Yard Lighting memorandum of May 28th, 2015:

1)**Identify yards where work is performed:** UTU-SMART-TD Minnesota does not concur with UP's listing of yards. We do not concur UP's statements regarding the status of lighting installation.

2)**Describe the lighting and nature and placement:** From MnDOT's report of UP's submission and failure to provide requested follow-up information, it appears that UP has not provided due diligence to provide accurate yard operations, inspection, maintenance or lighting status information.

As reported, UP does not repair lighting defects in a timely manner. Legislative testimony can be provided from UP employees, UP safety representatives, and others who are represented by UTU-SMART-TD Minnesota.

3)**Lighting standard:** The UP's general description and blanket statement that eight of thirteen yards meet the reporting standard in Minnesota Statute Subdivision One is unclear if not incorrect. No UP yard lighting measurements have been referenced.

4)**Environmental considerations of lighting:** All UP yards in Minnesota are located at the center of an industrial area or in rural areas outside of town limits.

5) **Plans and timeliness:** UTU-SMART-TD asserts that UP Roseport Yards, both north and south yards, meet all statute requirements to be lighted to the AREMA standard by December 31, 2015. We remain concerned that UP does not appear to grasp the statute requirement to improve worker safety and the quality of mechanical inspections at Roseport, Western Avenue, and other listed yards.

Please reference Barr Engineering's report regarding Western Avenue Yard. There is no question that cars containing hazardous materials are switched and inspected by UP Yard SSP-Job 79 six nights per week near downtown St. Paul.

6) **UTU-SMART-TD Report Summary:** We concur with MnDOT's summary. We wish to reiterate that UP controls safety hotline documents. Specific UP yard lighting complaints reported by UTU-SMART-TD have not been corrected or improved after legislative testimony and provision of documents to MnDOT.



7) Discrepancies Between the Railroad and Union Reports:

The UP refers only to Mn. Statute 219.375, Subdivision One for guidance. However, UTU-SMART-TD asserts the interpretation of Subdivision Five (a) as a guiding statute. As written, Subdivision Five (1)(a) states:

(1) Between sunset and sunrise:

(a) Locomotives, or rail cars carrying placarded hazardous materials, are frequently switched, repaired, or inspected, OR,

UTU-SMART-TD's listed yards meet this statute requirement. This portion of the statute stands alone as a requirement. Further, it is essential to consider and accept that these yards are subject to be worked by any and all trains containing hazardous materials moving on the subdivision where that yard is located.

UTU-SMART-TD asserts MnDOT must recognize the Legislature's intent to light certain railroad yards in Minnesota. With only two refineries and four Class One carriers in Minnesota, the Legislature could not have intended to only light one yard in the entire state (UP Roseport).

With this letter of response, please find the letter of Mr. Larry Mann, Alper & Mann. With the question posed regarding the placement of "or" and "and", the current statute could be litigated. However, we respectfully request MnDOT to recommend that the Legislature amend current statute language to clarify this question for those who choose to seek an ambiguous interpretation rather than the common sense intent to improve railroad safety.

8) **Purpose of MnDOT Analysis:** UTU-SMART-TD apologizes for any confusion created by our matrix of information. However, we have been available to verbally clarify our presentation of railroad yard lighting status. Because of the difficult nature of the task before MnDOT, we strongly recommend that objective and independent traffic analysis and lighting measurements be obtained.

9) 9) UTU-SMART-TD believes our assertion and definition of "frequently" has been appropriate, consistent with industry standard, if not generous. We believe that when considering days and nights, MnDOT must accept the reality that atmospheric darkness is essentially equal to daylight operations over a calendar year. Therefore it is essential to reinforce the state's expectation to improve worker safety and quality of mechanical inspections regardless of traditional shift designations. If designated operations and inspections are occurring at a yard during anytime during atmospheric darkness, we assert this yard must be lighted to the AREMA standard.

10) UP's East Minneapolis, Roseport, So. St. Paul, Hoffman, Western Avenue, Valley Park, Merriam, Mankato, and Albert Lea Yards move, or subject to move, rail cars containing hazardous materials. These yards currently operate and inspect cars in train, or to be placed in train, during atmospheric darkness. We believe it is essential to accept that even if yards are not moving hazardous materials, when switching, assembly, disassembly, and inspections of trains are during atmospheric darkness, lighting that meets the AREMA standard will improve railroad safety.

Regarding East Minneapolis and the adjacent private intermodal facility, UTU-SMART-TD asserts that ambient light from private industry yards are not an appropriate component within light measurement for a common carrier rail yard. Light sources from right angle, or other angle to track side, is blocked and does not illuminate down the walkways of railroad yard tracks (as to design of lead lighting).

11) Regarding maintenance issues and reporting of non-compliant conditions, it is essential for railroad safety for MnDOT to receive yard lighting complaints. There is no other mechanism to assure maintenance, compliance, and railroad safety. We recommend that MnDOT gain legislative authority for rail inspectors to investigate yard lighting complaints. Further, we recommend that MnDOT gain legislative authority to assess financial penalty for non-compliance.

Recommendations:

We concur with MnDOT's need to seek clarification of the current state statute.

a)We remain concerned with a statute definition of "frequent" operation based on hours, days of the week, and work shifts. Rather, we believe when considering days and nights, MnDOT must accept the reality that atmospheric darkness is essentially equal to daylight hours on a calendar year basis. Railroads operate around the clock each day of the year. Therefore it is essential to reinforce the state's expectation to improve worker safety and quality of mechanical inspections regardless of traditional shift designations. If designated switching, assembly, disassembly, and inspections are occurring at a yard during atmospheric darkness, we assert this yard must be lighted to the AREMA standard.

UTU-SMART-TD acknowledges the practical nature of seasonal operations. When considering seasonal operations and inspections at certain yards at night, it is reasonable for carriers to install temporary lighting source at those yards.

b)We are confused by MnDOT's recommendation that "only those yards required under subd. 1 and 5 should be included in reports to the commissioner". As we are not certain as to the recommendation's intent, UTU-SMART-TD Minnesota would oppose any arbitrary limitation of duty to assure lighting maintenance enforcement. We would oppose any arbitrary limitation on yards that meet the requirement set forth in Subdivision Five, (1)(a).

c)We recommend that MnDOT clarify the "and" versus "or" concern in statute language to affirm legislative intent and as an alternative to litigation.

d)UTU-SMART-TD strongly recommends that MnDOT gain and exercise authority to perform objective and independent railroad yard lighting measurements.

e)We question MnDOT's inclusion of MNOSHA into the railroad industry. While we appreciate MnDOT may seek expertise to measure lighting and investigate non-compliance, it is unclear whether MNOHSA would have any jurisdiction on a railroad property if that department is not participating in a Federal Railroad Administration state partnership program, 49 CFR 212.

Thank you for your review of this UTU-SMART-TD responsive memorandum.