

**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
Washington, D.C. 20590**

Locomotive Engineer Review Board

Decision Concerning
Union Pacific Railroad Company's
Revocation of Mr. M. K. Green's
Locomotive Engineer Certification

FRA Docket Number EQAL 2010-43

Decision

The Locomotive Engineer Review Board (Board) of the Federal Railroad Administration (FRA) has reviewed the decision of the Union Pacific Railroad Company (UP) to revoke Mr. M. K. Green's (Petitioner) locomotive engineer certification (certification) in accordance with the provisions of Title 49, Part 240 of the Code of Federal Regulations (49 C.F.R. Part 240). The Board hereby grants Mr. Green's petition for the reasons set forth below.

Background

On May 8, 2010, at approximately 5:45 p.m., Petitioner allegedly operated train ILRAVX-06 near Mile Post 609 (MP 609) in Alpine, TX at 61 miles per hour (mph), more than 10 mph over the maximum authorized speed at that location. By letter dated May 18, 2010, Petitioner was notified that his certification was suspended pending a hearing investigating the incident. After a investigative hearing on June 3, 2010, Petitioner was notified that his certification had been revoked for violations of railroad operating rules implementing 49 C.F.R. § 240.117(e)(2), prohibiting operation of a train in excess of 10 mph over the maximum authorized limit.

A petition was timely filed with FRA by mail on October 5, 2010 by the Brotherhood of Locomotive Engineers and Trainmen on behalf of Petitioner, requesting that FRA review UP's decision to revoke his certification. The petition asserts that the revocation was improper because:

- (1) UP failed to follow agreed-upon procedures for the revocation of Petitioner's certification, including time limits on notification of investigation, failure to allow Petitioner to review evidence, and defects in the conduct of the investigative hearing.
- (2) Petitioner was unable to slow his locomotive, because the two-unit locomotive consist had inoperative dynamic brakes on both locomotives.
- (3) The evidence UP provided to support its decision to revoke Petitioner's

certification was inaccurate and unreliable; the event recorder data was inconsistent with the conductor's logbook, the AEI clock, and the event recorder data from the second non-controlling locomotive on Petitioner's train.

Pursuant to 49 C.F.R. § 240.405(b), (c), a copy of the petition was sent to UP. The railroad elected to comment and was required by 49 C.F.R. § 240.405(d)(2) to provide Petitioner with a copy of the materials submitted to FRA.

UP's Response

UP responded to Petitioner's assertions by arguing that:

- (1) Petitioner was properly notified of the charges against him, provided time to review the evidence submitted against him, and the investigative hearing was conducted properly.
- (2) Petitioner is an experienced engineer, well-versed in handling trains with braking problems found en route. Petitioner did not report defective brakes until after reviewing maintenance records in preparation for the investigative hearing.
- (3) UP supported its decision to revoke Petitioner's certification with event recorder downloads demonstrating Petitioner was speeding at the location of the speed restriction, supported by the conductor's logbook and AEI data.

Locomotive Engineer Review Board's Determination

Based on its review of the record, the Board has determined that:

- (1) UP alleges that on May 8, 2010, at approximately 5:45 p.m., Petitioner operated train ILRAVX-06 near MP 609 at 61 mph, more than 10 mph over the maximum authorized speed at that location.
- (2) In support of its contention that Petitioner exceeded the maximum authorized speed at MP 609 by more than 10 mph, UP offered event recorder downloads showing the speed of Petitioner's train for several moments in time. Transcript at 46 – 70; Hearing Exhibits E – N, P, and Q.
- (3) Because event recorder data indicates time according to the locomotive clock, but can only provide an estimate of the location of the locomotive, the data must be corroborated by extrinsic evidence to demonstrate the speed of the locomotive at a given location.
- (4) To corroborate the event recorder data, UP offered the conductor's logbook and a list of highway-rail grade crossings, which the railroad then used to attempt to establish the train's location at given points in time. A witness for UP stated that

he also used automatic equipment identification (AEI) scanner reports to determine the train's location, though the reports were not provided as exhibits. Hearing Exhibits E, F, and R; Transcript at 149, 169-73.

- (5) The exhibits offered by UP to corroborate the event recorder data do not clarify that the train moved into the speed restriction near MP 609 moving at 61 mph, as the exhibits also serve to undermine the conclusion that the train was proceeding through the speed restriction in excess of 60 mph. Hearing Exhibits E – R; Transcript at 62, 63, 202.
- (6) UP failed to provide substantial evidence supporting its decision to revoke Petitioner's certification.

Analysis of the Petition

In reviewing petitions of revocation decisions, the Board considers four issues in determining whether decertification was proper under FRA's regulations. See 49 C.F.R. § 240.405(f). First, whether substantial evidence exists to support the railroad's factual findings in its decision. See 58 Fed. Reg. 18982, 19001 (April 9, 1993). Second, when considering procedural disputes, the Board will "determine whether substantial harm was caused the petitioner by virtue of the failure to adhere to the dictated procedures for making the railroad's decision. A finding of substantial harm is grounds for reversing the railroad's decision." Id. To establish grounds upon which the Board may grant relief, Petitioner must show: (1) that procedural error occurred, and (2) the procedural error caused substantial harm. Id. Third, whether the railroad's legal interpretations are correct based on a de novo review. Id. Finally, whether "an intervening cause prevented or materially impaired the locomotive engineer's ability to comply with the railroad operating rule or practice which constitutes a violation under §§ 240.117(e)(1) through (e)(5) of this part." 49 C.F.R. § 240.307(i)(1).

Petitioner presents several arguments which fall into three categories. First, Petitioner argues that the on-the-property hearing was marred by several procedural defects which substantially harmed his ability to address UP's allegations. Second, Petitioner argues that the dynamic brake of the locomotive consist was ineffective; Petitioner did not state whether this argument was to be construed as an intervening cause of the alleged violation or rather as evidence that no violation occurred. Finally, Petitioner argues that the evidence entered by UP was unreliable for proving a violation occurred, and in some instances supported Petitioner's contention that he did not exceed the maximum authorized speed by more than 10 mph. It is on this third basis that the Board decides to grant the Petition.

The primary evidence presented by UP to show Petitioner's speed through the permanent speed restriction at MP 609 are snapshots from the locomotive event recorder. Hearing Exhibits H – N, P, and Q. The event recorder keeps a record of locomotive speed over time, along with other circumstances of operation such as throttle position, air brake service reductions, and the train horn. E.g., Hearing Exhibit H. By providing the wheel size of the locomotive as measured by a UP employee and the present location of the locomotive, the event recorder software can

estimate where the locomotive was at a given point in time. Transcript at 191 – 96. In order to substantiate the estimate created by the software, UP attempted to corroborate the location of the locomotive at given times with other extrinsic evidence. Upon its review of this evidence, including the conductor’s logbook, a list of highway-rail grade crossings with mileposts, and a UP employee’s testimony concerning AEI scanners, the Board finds UP did not provide substantial evidence to support its decision.

Throughout the hearing, UP compared the time, speed, and location reading of the event recorder to the conductor report, manually kept by the conductor of Petitioner’s train as it proceeded along its route. Hearing Exhibit E; Transcript at 62, 63, 202. The times and speeds of the event recorder and the conductor report are consistent. However, the accuracy of the recorder in showing the speed of the locomotive at a given time according to the locomotive clock is not in dispute. Rather, the crux of the dispute lies in establishing that the locomotive was operating within the permanent speed restriction prior to 5:46 p.m. according to the locomotive clock, at which point the event recorder shows the locomotive traveling at a speed of 50 mph. Hearing Exhibit K. The Board finds that the report does not adequately establish that the locomotive was operating within the speed restriction at MP 609 in excess of 10 mph over the maximum authorized speed.

Initially, UP offered several snapshots from the event recorder to establish that the times, speeds, and locations of the event recorder matched those of the conductor’s logbook. Transcript at 46 – 70; Hearing Exhibits E – N. After presenting the event recorder snapshots which ostensibly show Petitioner’s alleged violation, UP attempted to bolster its evidence by introducing additional event recorder snapshots for other points in time. Hearing Exhibits L – N. These exhibits correspond to 6:24 p.m., 6:36 p.m., and 8:01 p.m. respectively. When those times are compared to the times listed on the conductor’s report, Hearing Exhibit E, the speeds listed in the conductor report match those listed in the event recorder snapshots.¹ However, the “Milepost” field differs by increasingly large values as the download continues backwards in time towards MP 609, the time and location at issue. In Hearing Exhibit L, at 6:24 p.m., the discrepancy extends over a full mile, with the conductor report showing a location of MP 580.7, and the event recorder showing a location of MP 579.59. The evidence provided by UP shows the train moving at or above 60 mph through 5:45.04 p.m. by the locomotive clock, and slowing to 50 mph before 5:46.00 p.m. According to the event recorder, the train traveled approximately 4,800 feet, less than a mile, in this time. As such, the difference in milepost between the event recorder and the conductor report is larger than the difference between the event recorder snapshots showing the time when UP alleges that Petitioner entered the permanent speed restriction and when Petitioner was traveling 50 mph. Hearing Exhibits H and K.

In addition to the discrepancy between the locations listed in the conductor’s report and the event recorder data, the conductor report also casts doubt on the conclusion that Petitioner entered the permanent speed restriction faster than the maximum authorized speed. The conductor report

¹ The Board notes that the copies of the snapshots provided sometimes omit the speed of the locomotive due to holes punched in the original pages. The content of the event recorder data is further established by testimony provided during the hearing. Transcript at 75, 88, 91 – 92.

shows Petitioner's train at MP 615.5 at 5:41 p.m. If the time in the conductor report is consistent with the time in the event recorder, the train would have to be traveling 90 mph, well in excess of the speed shown by the event recorder, in order for the train to reach MP 609.7, six miles away, by 5:45 p.m. As discussed above, Hearing Exhibits L through N indicate the times on the conductor report and the times in the event recorder are synchronized. When combined with the discrepancies described above, the Board is concerned about the reliability of the event recorder data in this instance.

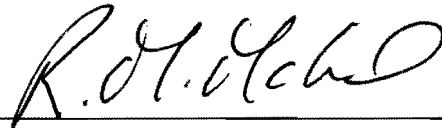
Because these discrepancies were identified during the hearing, UP decided to introduce additional evidence in an attempt to further support the event recorder data. UP first offered testimony indicating that the event recorder times and locations were synchronized with the times when the train passed by AEI scanners, which operate at fixed, known locations. Transcript at 149 – 50. However, UP did not offer the scans into evidence, and testimony indicates that the AEI scanner clocks were not synchronized with the locomotive clock. Transcript at 169 – 71. Because the AEI scanner reports were not introduced as exhibits, and because the clocks were not synchronized, the Board does not find this testimony to be persuasive. UP also introduced a list of highway-rail grade crossings. Hearing Exhibit O. The list of crossings included mileposts, which were then used to attempt to show that when the event recorder showed the train at one of the mileposts listed in Hearing Exhibit O, the train was operating its horn as required at highway-rail grade crossings. However, the list of crossings in Hearing Exhibit O includes several crossings in close proximity, and therefore does not clearly demonstrate an exact relationship between the location of the highway-rail grade crossings and the estimate of milepost location in the event recorder data.

The substantial evidence standard requires, in the words of the Supreme Court, “such evidence as a reasonable mind might accept as adequate to support a conclusion.” Consolidated Edison Co. of New York v. N.L.R.B., 305 U.S. 197, 217 (1938). Examining the totality of the evidence presented to establish the accuracy of the location estimates created from the event recorder data, the Board concludes that the event recorder data was not so keenly accurate to establish that Petitioner was already within the permanent speed restriction at MP 609 before he slowed the train to 50 mph by 5:46 p.m. While event recorder data is a useful tool in determining train speed and location, the circumstances of this case cast doubt on the event recorder snapshots provided as evidence by UP. As such, the Board finds UP did not provide substantial evidence to support its decision to revoke Petitioner's certification. Because this is a sufficient basis for granting the Petition, the Board declines to reach Petitioner's other assertions of error.

Conclusion

Based on the above findings and conclusions, the Board hereby grants the petition in accordance with the provisions of Title 49, Part 240 of the Code of Federal Regulations.

Issued in Chicago, IL on JUN 21 2011.



Richard M. McCord
Chairman,
Locomotive Engineer Review Board

SERVICE LIST EQAL 2010-43

A copy of the Locomotive Engineer Review Board decision in this matter has been sent by certified mail and return receipt requested to each person shown below.

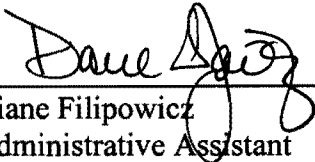
SENT CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. M. K. Green
754 Packsaddle Circle
Del Rio, TX 78840

Mr. Warren Dent
General Chairman, BLE&T
607 W. Harwood Road
Hurst, TX 76054

Mr. Lawrence Brennan, Jr.
Manager, Engineering Certification & Licensing
Union Pacific Railroad Company
1400 Douglas Street, Mailstop 1010
Omaha, NE 68179

Mr. W. Scott Hinckley
Union Pacific Railroad Company
1400 Douglas Street, Mailstop 1180
Omaha, NE 68179



Diane Filipowicz
Administrative Assistant

JUN 21 2011

Date

enc: Post LERB Memo

cc: FRA DOCKET EQAL 2010-43

SENDER: COMPLETE THIS SECTION

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- Print your name and address on the reverse so that we can return the card to you.
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1. Article Addressed to:

Mr. M. K. Green
754 Packsaddle Circle
Del Rio, TX 78840

EQAL 2010-43

2. Article Number
(Transfer from service label)

7008 3230 0002 3925 7948

PS Form 3811, February 2004

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1. Article Addressed to:

Mr. Warren Dent
General Chairman, BLE&T
607 W. Harwood Road
Hurst, TX 76054

EQAL 2010-43

2. Article Number
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1. Article Addressed to:

Mr. Lawrence Brennan, Jr.
Manager, Engineering Certification & Licensing
Union Pacific Railroad Company
1400 Douglas Street, Mailstop 1010
Omaha, NE 68179

EQAL 2010-43

2. Article Number
(Transfer from service label)

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. W. Scott Hinckley
Union Pacific Railroad Company
1400 Douglas Street, Mailstop 1180
Omaha, NE 68179

EQAL 2010-43

2. Article Number
(Transfer from service label)

7008 3230 0002 3925 7917

COMPLETE THIS SECTION ON DELIVERY

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Agent

Addressee

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C. Date of Delivery

D. Is delivery address different from Item 1? Yes
If YES, enter delivery address below: No

3. Service Type

Certified Mail

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Return Receipt for Merchandise

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4. Restricted Delivery? (Extra Fee)

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