



U.S. DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL

**FRA Lacks Sufficient Oversight Controls
To Consistently Assess Conductor
Certification Compliance**

FRA

Report No. ST2020050

September 28, 2020





FRA Lacks Sufficient Oversight Controls To Consistently Assess Conductor Certification Compliance

Self-initiated

Federal Railroad Administration] | ST2020050 | September 28, 2020

What We Looked At

Freight trains in the United States generally operate with a conductor, who is responsible for the train, freight, and crew, and an engineer, who operates the locomotive. To ensure that only people who meet minimum Federal safety standards serve as conductors, in 2011, the Federal Railroad Administration (FRA) issued a rule for the certification of conductors, Title 49, Code of Federal Regulations, Part 242. This rule requires railroads to have a formal program for training prospective conductors and determining that they are competent before they are certified. Given the potential impact of the conductor certification rule on railroad safety, we initiated this audit to assess FRA's oversight of railroad conductor certification programs.

What We Found

FRA does not have sufficient oversight controls to consistently assess railroads' compliance with Part 242 requirements. Specifically, FRA reviews of railroad conductor certification programs lack formal procedures. FRA officials currently evaluate programs using a checklist with some Part 242 requirements, an industry group program template, and officials' professional judgment. These narrow reviews are not comprehensive, however, because programs are not evaluated at a consistent level of detail, and the process remains undocumented. FRA officials also perform Part 242 inspections and compliance audits without comprehensive procedures. As a result, the audit documentation and inspection data do not identify all of the Agency's Part 242 compliance audits or demonstrate audit quality. However, FRA is responsive to Part 242 waiver requests and conductor certification petitions. Specifically, the Agency has procedures in place for handling waiver requests and is meeting its goal timelines for reviewing and deciding on petitions.

Our Recommendations

We made five recommendations to improve FRA's oversight of railroad conductor certification programs, guidance for program officials and inspectors, and quality of its audit data. FRA concurred with all of our recommendations, and we consider them resolved but open pending completion of the planned actions.

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Memorandum

Date: September 28, 2020

Subject: INFORMATION: FRA Lacks Sufficient Oversight Controls To Consistently Assess Conductor Certification Compliance | Report No. ST2020050

From: David Pouliott 
Assistant Inspector General for Surface Transportation Audits

To: Federal Railroad Administrator

Freight trains in the United States generally operate with two crewmembers—the conductor and the engineer. The conductor is responsible for the train, freight, and crew. The engineer operates the locomotive and is responsible for the air brakes, dynamic brakes, and radio control. To ensure that only people who meet minimum Federal safety standards serve as conductors, in 2011, the Federal Railroad Administration (FRA) issued a rule for the certification of conductors, as required by the Rail Safety Improvement Act of 2008 (RSIA).¹

This rule—Title 49, Code of Federal Regulations (CFR), Part 242—went into effect in 2012 and requires railroads to have a formal program for training prospective conductors and determining that they are competent before they are certified. It also prescribes minimum Federal safety standards for conductor eligibility, training, testing, and certification, as well as to guide the railroads’ monitoring activities. The purpose of the rule is to improve railroad safety and reduce the rate and number of accidents and incidents caused by human factors, such as an employee’s physical condition, improper communications, and improper train handling. Over the past 10 years, roughly 38 percent of non-grade crossing train accidents were attributed to human factors. Enforcement staff in FRA’s Operating Practices safety discipline oversee the railroad industry’s efforts to certify and monitor conductors. Part 242 requires FRA to review railroad conductor certification programs. As the programs are implemented, FRA evaluates railroad and conductor compliance with the regulation.

Given the potential impact of the conductor certification rule on railroad safety, we initiated this audit to assess FRA’s oversight of railroad conductor certification programs. Specifically, we reviewed Agency-approved conductor certification

¹ Pub. L. No. 110-432, Div. A. (2008).

programs, compliance audit procedures and documentation, and other oversight activities related to Part 242. We conducted our work in accordance with generally accepted Government auditing standards. We reviewed Federal laws and regulations, as well as FRA's policies and procedures for overseeing compliance with the conductor certification rule. We analyzed 30 conductor certification programs from 7 class I, 4 class II, 11 class III, and 8 passenger railroads,² selecting the class II, class III, and passenger certification programs from a statistical sample. We also analyzed programs from a census of class I railroads. We reviewed information provided by FRA, including Part 242 inspection data from 2012 to 2019 for FRA's eight Regional Offices. We reviewed Part 242 audit documentation from FRA Headquarters and the eight regions from 2018 to 2020. We interviewed officials at FRA Headquarters, and we observed inspectors performing conductor certification checks in FRA Region 2. However, we were unable to observe FRA officials conducting Part 242 compliance audits due to the Office of Management and Budget's (OMB) non-mission-critical travel ban that began in March 2020.

Exhibit A details our scope and methodology. Exhibit B lists the entities we visited or contacted.

We appreciate the courtesies and cooperation of Department of Transportation representatives during this audit. If you have any questions concerning this report, please call me at (202) 366-1844 or Wendy Harris, Program Director, at (202) 366-2794.

cc: The Secretary
DOT Audit Liaison, M-1
FRA Audit Liaison, ROA-2

² Freight railroads are divided into three classes based on annual revenues.

Results in Brief

FRA does not have sufficient oversight controls to consistently assess railroads' compliance with Part 242 requirements.

FRA's conductor certification rule—established in response to the RSIA—took effect in 2012. To oversee the industry's compliance with these requirements, FRA reviews and approves railroad-submitted certification programs, performs inspections and compliance audits, assesses regulatory waiver requests, and evaluates petitions through its Operating Crew Review Board. However, the Agency has not developed comprehensive and formal internal procedures or controls for planning, performing, or documenting its program reviews and compliance audits. As such, FRA officials do not have the information or tools they need to consistently perform Part 242 compliance oversight activities. Specifically:

- **FRA reviews of railroad conductor certification programs lack formal procedures.** Agency officials said they approved conductor certification programs for 750 railroads as of December 2019. Part 242 does not require FRA to document or notify railroads about its approvals. The rule does contain numerous detailed requirements that railroad programs must address. Over time, FRA officials narrowed their review to focus on specific requirements. They currently use a checklist with some of the Part 242 requirements, an industry group program template, and officials' professional judgment to evaluate the programs. This narrow review is not comprehensive because programs are not evaluated at a consistent level of detail, and the process remains undocumented. We developed our own checklist to analyze a sample of railroad programs. The documents we reviewed contained the six required chapters (see table on page 8) but did not describe the specific actions railroads would take to ensure compliance with all of the Part 242 sections. Without descriptions of those actions, we were unable to evaluate whether a railroad's program fully complies with Part 242. FRA's review process allows for railroad discretion in the level of detail included in programs. However, without a comprehensive procedure documenting FRA's interpretation of detailed program requirements, FRA officials cannot ensure program reviews are consistent and adhere to the Agency's interpretations of the rule.
- **FRA officials perform Part 242 inspections and compliance audits without comprehensive procedures.** According to FRA's data, since 2012, the Agency has audited 63 percent of railroads for compliance with

conductor certification requirements. However, the audit documentation and inspection data did not identify all of FRA's Part 242 compliance audits or demonstrate audit quality. Based on our review, this was due to the lack of comprehensive internal procedures and instructions for planning, conducting, and documenting these audits. For example, the Agency provides unclear instructions to explain how inspectors should use activity codes to record their Part 242-related work. As a result, FRA cannot effectively track the types of conductor certification oversight activities it conducts each year, including the number of railroad programs it audits.

- **FRA is responsive to Part 242 waiver requests and conductor certification petitions.** The Agency performs two other oversight functions—processing waivers and reviewing conductor petitions. Since 1999,³ FRA has received a total of 28 requests for waivers of Part 242 regulations and has procedures in place for processing these requests. FRA's Operating Crew Review Board evaluates petitions seeking review of conductor certification denials and revocations. Agency policy explains the petition review and appeal processes in detail. Based on our review of the case data from fiscal year 2018, the Board is meeting its goal timelines for reviewing and providing decisions on cases.

We are making recommendations to improve FRA's oversight of railroad conductor certification programs, guidance for program officials and inspectors, and quality of its audit data. However, we did not identify any areas for correction in FRA's waiver or petition review processes within the scope of our audit; thus, we are not making any recommendations in those areas.

Background

Enacted in 2008, the RSIA⁴ was the first statute in almost 15 years that reauthorized FRA's safety programs. It required FRA to broaden its safety-related responsibilities, such as requirements to promulgate 17 rules to improve railroad safety, including the conductor certification rule that took effect in 2012. As codified in 49 CFR § 242, the purpose of the rule is to ensure that only persons who meet minimum Federal safety standards serve as conductors, reduce the rate and number of accidents and incidents, and improve railroad safety. It prescribes

³ After the conductor certification rule went into effect in 2012, some transit agencies updated longstanding waivers—dating back to 1999—that exempted them from FRA regulations because they only share use of the general railroad system.

⁴ Pub. L. No. 110-432, Div. A. (2008).

minimum Federal safety standards for the eligibility, training, testing, certification, and monitoring of all conductors. All railroads must comply with Part 242 requirements unless they operate only on track that is not part of the general railroad system of transportation. Examples include plant railroads, tourist railroads, and urban rapid transit operations. The conductor certification rule was modeled on 1991 regulations governing the qualification and certification of locomotive engineers.⁵

In 2013, the Office of Inspector General (OIG) reported⁶ that insufficient guidance, training, and supervisory review were hindering FRA's oversight of compliance with the RSIA. Specifically, FRA had started to assess railroad programs for compliance with RSIA rules before it provided guidance to its oversight staff. Enforcement staff in FRA's Operating Practices safety discipline—program officials at Headquarters and inspectors in FRA's Regional Offices—oversee the industry's efforts to certify and monitor conductors. Yet, the current Operating Practices Manual, which FRA published in November 2012, does not include a section on overseeing compliance with conductor certification rules.

The Government Accountability Office (GAO) directs Federal managers to clearly document internal controls in management directives, administrative policies, or operating manuals.⁷ FRA produces compliance manuals—the primary materials for inspection staff's classroom and on-the-job training—for each of its safety disciplines. FRA also publishes these manuals on its website to set organizational expectations for inspection tasks, establish investigation requirements, and explain its interpretation and application of rules to both the railroads it oversees and the public.

Based on our observations during this audit, FRA's oversight of railroad compliance with conductor certification rules includes several types of activities:

- Program officials at FRA Headquarters review conductor certification programs submitted by railroads to see if they identify policies and processes for meeting Part 242 requirements. FRA maintains copies of the programs but does not document its reviews or approvals.
- FRA's Operating Practices Division staff perform inspections of railroad operations that may include checking conductor certification paperwork. These inspections are recorded in FRA's Railroad Inspection System for Personal Computers (RISPC) and may result in enforcement actions, such

⁵ Title 49, Code of Federal Regulations (CFR), Part 240, *Qualification and Certification of Locomotive Engineers*.

⁶ *FRA is Nearing Completion of Rules Required by the Rail Safety Improvement Act, But Needs to Improve Oversight* (OIG Report No. CR-2013-070), April 17, 2013. OIG reports are available on our website: <https://www.oig.dot.gov/>.

⁷ GAO, *Standards for Internal Control in the Federal Government* (GAO-14-704G), 2014.

as recording defects or recommending the Agency pursue violations for noncompliance with regulations.

- Inspectors and program officials perform compliance audits—in-depth reviews that usually examine railroad compliance with several safety regulations at once, such as drug and alcohol (Part 219), safety data (Part 225), locomotive engineer certification (Part 240), and conductor certification (Part 242). The inspectors and program officials document these audits in various ways and record them in RISPC. Like inspections, audit findings may lead to enforcement actions.
- Program officials also meet with railroads every year to discuss conductor safety conduct. Since 2014, some of the larger railroads have been required to conduct annual reviews of their responses to instances of poor safety conduct by certified conductors during the prior calendar year.
- FRA’s Safety Board reviews industry requests for regulatory waivers and documents decisions in formal memoranda.
- FRA’s Operating Crew Review Board reviews conductor certification denials and revocations, documenting its decisions in formal memoranda. Data on the number and timeliness of cases are published annually in FRA’s Enforcement Report.

Prior to our audit, FRA did not keep a list that indicated whether the railroads subject to Part 242 had received Agency approvals for their programs. Instead, FRA retained copies of approved Part 242 programs in its files. A program official said that each year he compares those files to a report produced by the Agency’s Office of Safety’s Regulatory Analysis Division⁸ to see if all railroads that must comply with Part 242 have an approved program. In addition, inspectors conducting inspections and audits in the field look at all aspects of a railroad’s operating practices, including whether it has a Part 242 program.

⁸ The Office of Safety, Regulatory Analysis Division produces an annual report with a summary of the railroads that were required to report to FRA that year.

FRA Does Not Have Sufficient Oversight Controls To Consistently Assess Railroads' Compliance With Part 242 Requirements

To oversee industry compliance with Part 242 conductor certification requirements, FRA reviews railroad programs, performs inspections and compliance audits, reviews regulatory waiver requests, and considers petitions through the Operating Crew Review Board. FRA's conductor certification rule—developed in response to the RSIA—took effect in 2012. Yet, the Agency has not developed comprehensive internal controls for planning, performing, or documenting program reviews and compliance audits. Still, FRA does respond to the few Part 242 waiver requests it receives and performs timely reviews of conductor certification petitions.

FRA Reviews of Railroad Conductor Certification Programs Lack Formal Procedures

While Part 242 requires each railroad to have an FRA-approved conductor certification program, the Agency does not provide its officials with documented procedures for performing reviews. Specifically, railroad programs must include six program chapters (see table, column 1). Appendix B of Part 242 has detailed instructions for developing these chapters, which cover 20 sections of Part 242 (see table, column 2). Each section includes 1 or more of 210 detailed items. For example, Part 242 states that the third chapter of a program should address testing and evaluating previously certified conductors. According to appendix B, this chapter should reference section 242.121, Knowledge testing, which includes 14 items, including 1 that states conductors should be tested on a railroad's safety and operating rules.⁹ According to Part 242, railroads have discretion in how they address the requirements, but they must describe their planned actions in their program documents.

⁹ Part 242.121(c)(4)(i).

Table. Part 242 Requirements for Conductor Certification Programs

Program Chapters	Part 242 Sections Listed in Appendix B
1. General Information & Elections	§ 242.103: Approval of design of individual railroad programs by FRA § 242.107: Designation of types of service*
2. Training Persons Previously Certified	§ 242.119: Training*
3. Testing & Evaluating Persons Previously Certified	§ 242.121: Knowledge testing* § 242.117: Vision and hearing acuity*
4. Training, Testing, & Evaluating Persons Not Previously Certified	§ 242.119: Training* § 242.7: Definitions
5. Monitoring Operational Performance by Certified Conductors	§ 242.123: Monitoring operational performance*
6. Procedures for Routine Administration of the Conductor Certification Program	§ 242.109: Determinations required for certification and recertification* § 242.111: Prior safety conduct as a motor vehicle operator § 242.113: Prior safety conduct as an employee of a different railroad § 242.115: Substance abuse disorders and alcohol drug rules compliance § 242.125: Certification determinations made by other railroads § 242.127: Reliance on qualification requirements of other countries § 242.201: Time limitations for certification § 242.203: Retaining information supporting determinations § 242.211: Replacement of certificates § 242.301: Requirements for territorial qualification § 242.401: Denial of certification § 242.403: Criteria for revoking certification § 242.407: Process for revoking certification

Note: (1) While all the items in the second column above are identified in Part 242, appendix B, the ones marked with asterisks are also identified in § 242.101, the section of the rule that states that railroads are required to have conductor certification programs. (2) The table lists 21 rather than 20 sections because 1 applies to 2 chapters and is included twice.

Source: 49 CFR § 242

While the regulation directs FRA to review these programs for compliance with Part 242, it does not require the Agency to document its reviews or approvals. A railroad program is considered approved and may be implemented 30 days after the filing date unless FRA notifies the railroad that the program does not meet Part 242 criteria.

Since the regulation went into effect in 2012, many railroads developed their programs using a template developed by an industry group in consultation with a former FRA official, who was responsible for Part 242 oversight. According to an FRA official, that former staff member completed but did not document the initial reviews and approvals of many of the programs. The official also stated that the Agency had approved conductor certification programs for the 750 railroads that

were required to comply with Part 242 by December 2019. However, FRA did not establish a formal process for conducting or documenting reviews.

FRA officials told us that, over time, they have focused on checking the program narratives that describe how railroads plan to address specific requirements but do not expect programs to include all of the 210 items associated with the 20 Part 242 sections. For example, FRA officials said they want to see greater detail on territorial qualification¹⁰ requirements (§ 242.301) because railroads routinely deal with these issues. They look for less detail on requirements that are less complicated or deal with infrequent situations, such as noncompliance with alcohol and drug rules (§ 242.115). The sections where they want to see greater detail are highlighted in a short checklist that FRA officials said they consult, but do not fill out, when performing reviews. They also said that they recently started using the industry group template to guide their reviews because it has examples of narratives that address requirements with the appropriate level of detail. While the checklist and template serve as guides, FRA officials said they ultimately rely on their professional judgement to identify which sections should contain more details when they review railroad programs.

FRA's checklist includes 17 of the 20 sections identified in appendix B. To conduct our audit, we developed our own Part 242 checklist with the 20 sections and the full set of 210 related items. We used our checklist to analyze a sample of 30 FRA-approved conductor certification programs from 7 class I, 4 class II, 11 class III, and 8 passenger railroads. We selected the class II, class III, and passenger certification programs from a statistical sample and reviewed programs from a census of class I railroads.

We found that the FRA-approved railroad programs in our sample contained the 6 program chapters Part 242 requires but had varying amounts of detail on the railroads' plans to address the 210 more detailed items. Twenty-nine of the 30 programs we reviewed did not fully describe all of the items associated with at least 1 of the 20 sections, such as the processes for evaluating an employee's prior safety conduct at a different railroad (§ 242.113) or denying conductor certifications (§ 242.401). The industry group template that most non-class I, non-passenger railroads use to develop their programs includes many of the 210 items on our checklist. However, based on our review, on average, those programs did not fully describe 72 of the 210 items. Without full descriptions, we were unable to evaluate whether each railroad program provides a framework for ensuring the railroad and its conductors comply with Part 242.

¹⁰ Part 242 defines a conductor with "territorial qualifications" as possessing the knowledge of railroad operating rules and timetable instructions, including familiarity with track physical characteristics of the territory over which the train moves, necessary for safe operation.

Instead of using a more comprehensive approach to reviewing railroad conductor certification programs similar to the one we performed, FRA officials said their narrow approach is based on the Agency's interpretation of Part 242 over time. From FRA's perspective, while program documents do not need to address all 210 items associated with the 20 sections, railroads still have to comply with all of the requirements when they implement their programs. FRA officials said they also approach program reviews narrowly because the Agency thoroughly examines a railroad's regulatory compliance during program audits. They explained that the railroad programs have been in place for many years and have not been associated with major safety problems, which is reflected in the inspection and investigation data we reviewed. Those data show that between 2012 and 2018, only 4 of 129 violations related to Part 242 cited railroads that did not have a sufficient conductor certification program.¹¹ Still, in the absence of a comprehensive and documented process, FRA cannot ensure that its staff will review conductor certification programs in a consistent way that adheres to longstanding Agency interpretations of requirements and improves railroad safety.

FRA Officials Perform Part 242 Inspections and Compliance Audits Without Comprehensive Procedures

While compliance audits are intended to be thorough examinations of railroad regulatory compliance, FRA gives few written instructions to officials who conduct Part 242 inspections and compliance audits. As a result, these regional officials plan, perform, and document their work in a variety of ways, and inspectors often document their work incorrectly in FRA's inspection data system.

FRA's Operating Practices Division Lacks Procedures to Oversee Railroad Compliance With Part 242

The goal of FRA's Operating Practices Division is to promote safety in railroad operations by reducing accidents and other events attributed to noncompliance with human factor-related Federal railroad safety regulations and railroad operating rules, practices, and procedures.¹² As the Division's Operating Practices Compliance Manual explains, FRA's primary methodology for achieving this goal is through a properly conceived, executed, and balanced safety program, uniformly implemented by informed personnel, such as inspectors. The Operating

¹¹ § 242.101: Certification program required.

¹² FRA, *Operating Practices Compliance Manual*, 2012.

Practices inspectors' priorities include, but are not limited to, accident and incident investigations, complaint investigations, and compliance audits.

The Operating Practices Compliance Manual was released in 2012, after FRA began its oversight of conductor certification programs. However, the manual only mentions the rule in connection with the list of activity codes inspectors use to complete their reports. It does not include comprehensive procedures or accurate instructions on how to perform the Part 242 oversight work inspectors have been doing with railroads for over 8 years. For example, the manual does not instruct inspectors how to address their concerns about inadequate, missing, or incorrect procedures in a railroad's program with FRA Headquarters. This and other issues may be covered in a Part 242 chapter that FRA is currently drafting for inclusion in the compliance manual.

FRA officials told us that the Agency hires experienced people as Operating Practices inspectors because an effective inspector needs to bring working knowledge to the training and guidance FRA provides. An FRA official said an inspector's training for doing Part 242 audits occurs primarily on the job. In contrast, the Operating Practices Compliance Manual contains detailed audit protocols for inspectors who assess implementation of railroad engineer certification programs (Part 240), including steps to take before, during, and after an audit. Based on our review, FRA gives its inspectors few written training materials and inadequate instructions on evaluating Part 242 compliance. The written materials for Part 242 inspector training consist of slides dated 2012–2013 with high-level descriptions of the regulation and scenarios an inspector may encounter in the field; fillable job aids for inspecting railroad conductor records; and instructions for preparing an audit plan that are based on the June 2003 edition of the GAO's *Government Auditing Standards*, which has since undergone three revisions.

FRA Performs Part 242 Compliance Audits Inconsistently From Region to Region

We examined FRA's inspection data from 2012 to 2019 and audit documentation from 2018 through February 2020. Based on our analysis of FRA's data, the Agency audited 470 of 750 railroads (63 percent) for compliance with conductor certification requirements. We found that while FRA officials conduct Part 242 inspections and audits, the Agency's eight Regional Offices do not have a consistent process for planning, documenting, and completing their work.

For example, there is little evidence that the Regional Offices conduct risk-based planning for Part 242 compliance audits. Yet, descriptions in the Operating Practices Compliance Manual explain how to direct limited inspector resources by considering risk factors such as railroad accidents and incidents, violations recommended for non-compliance with regulations, complaints received by FRA, or new railroad operations. Only one of the Regional Offices identified Part 242

compliance as a safety concern in its planning documents, but it did not describe the basis of selection for the railroads it would audit. Similarly, in an Agency audit tracker for 2020, program officials at FRA Headquarters planned to conduct Part 242 audits of two class I railroads this year. Yet they did not explain why the railroads had been selected. As of March 2020, FRA had not conducted any Part 242 audits of class I railroads' nationwide operations. One official in a Regional Office told us that in his experience, regional supervisors planning audits divided railroads into two categories—freight and passenger—and audited them on a cyclical basis, moving a railroad with accidents or with concerns from labor organizations or individual employees up on the list. However, this planning process was not captured in any documentation FRA provided to us.

FRA also does not require its Regional Offices to perform and track their Part 242 work consistently and comprehensively. When we asked for documentation related to Part 242 activities, two Regional Offices provided none. Other Regional Offices gave us records that showed inspectors finding critical safety issues during their audits. A couple of examples— one from records provided by Regional Offices, one from an FRA accident investigation report—highlight the importance of this issue and its connection to risk-based audit planning:

- In the first example, an FRA inspector reviewing files before an audit of Metro North Commuter Railroad noted that speeds were not listed on the physical characteristics¹³ section of the railroad's conductor recertification exam. This is important because conductors are required to remind engineers about upcoming speed restrictions; knowledge of their territory's physical characteristics tells them when to do so. Metro North's training department corrected this problem by adding major speed drops at dangerous curves to the exam.
- The second example—the deadly derailment of Amtrak 501 in 2017—further illustrates the connection between detailed Part 242 compliance audits and effective oversight. Based on the limited data FRA provided, Amtrak had not been audited for Part 242 compliance before the derailment. The Agency's post-accident investigation¹⁴ found that Amtrak failed to establish the minimum number of trips in the head end (i.e., front) of the train required for conductors qualifying in the territory where the derailment occurred. The conductor of Amtrak 501 had not taken any such trips. Additionally, the conductor's physical characteristics test violated Amtrak's Part 242 program because it did not include adequate questions to sufficiently measure the conductor's knowledge of the

¹³ *Physical characteristics* means the actual track profile of and physical location for points within a specific yard or route that affect the movement of the locomotive or train.

¹⁴ Federal Railroad Administration, Office of Railroad Safety, Accident and Analysis Branch, *Accident Investigation Report HQ-2017-1239 Amtrak 501, DuPont, Washington*, December 18, 2017.

territory, including the curve where the derailment occurred or locations or landmarks approaching it. FRA determined the conductor's certification was a probable contributing factor to the cause and severity of the accident.

Given the absence of comprehensive procedures in the Operating Practices Compliance Manual or other adequate instructions for inspectors and program officials, FRA cannot have assurance that its oversight activity is performed systematically or effectively.

Due to Entry Errors, FRA's Inspection Data System Contains Inaccurate Part 242 Data

Inspectors document their findings on railroad compliance and noncompliance in the Agency's RISPC using three Part 242 activity codes: "CPR" to record a completed compliance audit, "242" to determine whether a railroad complies with Part 242, and "CERT" to determine whether a conductor's certificate complies with Part 242. FRA officials said inspectors auditing conductor certification programs should input activity codes CPR and 242 into RISPC together, but the Operating Practices Compliance Manual does not specify this. We saw several examples where one code was entered but not both together. As a result, we were only able to verify whether a compliance audit took place by opening individual inspection reports and reading the inspector's description of work.

Of the 470 railroads that FRA audited for Part 242 compliance, RISPC data indicate that 209 audits (44 percent) were completed in 1 day or less. We were unable to determine whether these 209 entries definitely documented Part 242 compliance audits or if they represented other inspection-related activities, such as certification checks, investigations, and responses to complaints. An FRA official told us that a RISPC report showing that an inspector looked at many conductor records generally signifies a Part 242 compliance audit. Fewer inspected records mean that the Part 242 activity might have occurred in the course of an investigation, in response to a complaint, or during an audit of a small railroad with few conductor records to inspect.

We observed a few other types of data-entry errors. For example, we noticed in an inspection report documenting a compliance check of a conductor's certificate had "242" entered instead of "CERT" in RISPC. While RISPC contains many entries on certificate checks that are listed under "CERT," this code is used for both conductors and engineers. Thus, unless an inspector notes a defect found during a certificate check, FRA cannot use RISPC data to identify whether a certificate belongs to an engineer or a conductor.

As a result of these hindrances to accurate data entry, FRA cannot effectively identify all Regional Office Part 242 compliance audits or accurately monitor inspector oversight of conductor certifications.

FRA Is Responsive to Part 242 Waiver Requests and Conductor Certification Petitions

FRA performs two other functions as part of its conductor certification oversight—processing waivers and reviewing conductor petitions. Over the past 20 years, FRA has received a total of 28 requests from railroads for waivers of compliance with Part 242 and had procedures in place for processing these requests. Most waiver requests are to allow conductors to report incidents confidentially through the Close Call Confidential Reporting System. Within that 20-year period, FRA also denied one request for a waiver of compliance with all Part 242 regulations. Generally, FRA receives 100 to 200 requests for safety waivers each year.

FRA's Operating Crew Review Board evaluates petitions from conductors seeking review of certification denials and revocations. Agency policy explains the petition review and appeal processes in detail, and FRA reviewed 178 petitions from 2014 through 2018. Part 242 includes FRA's goal to review and provide decisions on petitions in 180 days. Based on our review of the case data from fiscal year 2018, the Board is meeting this goal timeline.

Conclusion

The stated purpose of the conductor certification regulations is to ensure only people who meet minimum safety standards serve as conductors, to reduce the rate and number of accidents and incidents, and to improve railroad safety. The regulation was designed to make conductors more accountable for safe train operations.

Railroads carry millions of passengers and more than a billion tons of freight each year. The Nation relies on over 50,000 class I railroad and Amtrak conductors and engineers—and the many conductors and engineers who work for other types of railroads—to get people and goods to their destinations safely. Without comprehensive, consistent oversight by FRA officials, the Agency cannot reasonably ensure that railroads and conductors are meeting the minimum Federal safety standards in Part 242 that are intended to protect the public.

Recommendations

To improve FRA's oversight of railroad conductor certification programs, we recommend that the Federal Railroad Administrator:

1. Develop and implement a procedure for reviewing and tracking new and updated railroad conductor certification programs.
2. Finalize the Operating Practices Compliance Manual chapter on conductor certification compliance and enforcement and distribute it to inspectors; include a process an inspector can use to notify FRA Headquarters about a problem with a railroad's conductor certification program.
3. Develop and implement a plan for systematically conducting Part 242 compliance audits of all railroads to which the regulations apply.
4. Modify the Railroad Inspection System for Personal Computers (RISPC) to capture data that specifies the types of Part 242 oversight activities inspectors are recording.
5. Develop and issue instructions on the proper entry of Part 242 activity codes in RISPC.

Agency Comments and OIG Response

We provided FRA with our draft report on August 18, 2020, and received its response on September 16, 2020, which is included as an appendix to this report. FRA concurred with all five recommendations and provided appropriate actions and completion dates. Accordingly, we consider all recommendations resolved but open pending completion of the planned actions.

Actions Required

We consider recommendations 1 through 5 resolved but open pending completion of the planned actions.

Exhibit A. Scope and Methodology

We conducted our work from October 2019 through August 2020 in accordance with generally accepted Government auditing standards as prescribed by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. The effective date of FRA's conductor certification rule was January 1, 2012. Accordingly, we reviewed the Agency's oversight activities pertaining to railroad conductor certification from 2012 through February 2020 and audit planning documents for 2020.

We identified criteria related to FRA's oversight of railroad conductor certification programs, as well as prior OIG and GAO audit findings and recommendations.¹⁵ We reviewed the RSIA; 49 U.S.C. Subtitle V—Rail Programs; the railroad conductor certification regulation at 49 CFR § 242 (Part 242); and a May 2019 notice of proposed rulemaking related to the Operating Crew Review Board. We also reviewed FRA Order 2100.3, Operating Crew Review Board; FRA's Operating Practices Compliance Manual (2012), including the draft of a chapter on conductor certification; FRA's Enforcement Procedures (2014); and GAO's *Standards for Internal Control in the Federal Government*.¹⁶ Additionally, we reviewed FRA's National Safety Program Plans (NSPP) for fiscal years 2012–2017; FRA's Operating Practices NSPP/Audit Tracker for fiscal years 2018–2020; an FRA report on conductor cognitive demands;¹⁷ and a National Transportation Safety Board (NTSB) railroad accident report on the 2018 train collision in Cayce, SC.¹⁸

To assess FRA's reviews of conductor certification program submissions between 2012 and 2019, we worked with FRA to identify the list of 750 railroads with currently approved programs. Prior to this audit, FRA did not keep such a list. The 750 railroads comprised our audit universe, but we were unable to independently validate the list's completeness because there was no other source available. We deemed the list reliable for the purposes of this audit because it enabled us to identify gaps in FRA's review process.

¹⁵ FRA is *Nearing Completion of Rules Required by the Rail Safety Improvement Act, But Needs to Improve Oversight* (OIG Report No. CR-2013-070), April 17, 2013; GAO, *Freight Trains Are Getting Longer, and Additional Information Is Needed to Assess Their Impact* (GAO-19-443), May 30, 2019.

¹⁶ GAO, *Standards for Internal Control in the Federal Government* (GAO-14-704G), 2014.

¹⁷ FRA, *Cognitive and Collaborative Demands of Freight Conductor Activities: Results and Implications of a Cognitive Task Analysis* (DOT/FRA/ORD-12/13), July 2012.

¹⁸ NTSB, *Amtrak Passenger Train Head-on Collision With Stationary CSX Freight Train, Cayce, South Carolina, February 4, 2018* (NTSB RAR-19/02), July 23, 2019.

We interviewed program officials at FRA Headquarters about how they reviewed programs. We assessed the checklist FRA officials use to guide their reviews and also an industry group program template. Based on these items and our review of 49 CFR § 242, appendix B, we developed our own checklist, which included all 20 Part 242 sections and the 210 corresponding detailed items. We interviewed FRA program officials about the Agency's interpretations of the requirements and the level of detail they look for in a railroad's conductor certification program. We then selected a statistical sample of 78 programs and collected the program documents FRA had on file. We used our checklist to determine whether the sample of railroad conductor certification programs provided sufficient detail on the railroads' plans for complying with the 210 items. We noted if a railroad program did not address each of the items associated with a particular section. For example, section 242.121, Knowledge testing, includes 14 items. One item states that conductors should be tested on a railroad's safety and operating rules. Accordingly, if a railroad program did not discuss both safety rules and operating rules, we determined that the railroad did not meet all of the elements outlined in that item.

For our initial sample size computation, we used an estimated noncompliance rate of 50 percent, a confidence level of 90 percent, and a precision no greater than +/-10 percent. We stratified our universe by the four classes¹⁹ of railroads and increased the sample size of railroad classes where we considered it appropriate. The final sample size was of 78 of the 750 railroads, distributed as follows: Stratum 1 was a census of all 7 class I railroads; stratum 2 was a simple random sample of 4 out of 13 class II railroads; stratum 3 was a simple random sample of 59 out of 691 class III railroads; and stratum 4 was a simple random sample of 8 out of 39 passenger railroads. Because most class III programs in our sample used the industry group template, we reviewed 11 class III railroads in our original sample of 59. In total, we reviewed 30 railroad programs.

To assess FRA's oversight of railroad compliance with Part 242, we reviewed and analyzed relevant RISPC data from 2012–2019. We observed an FRA Headquarters official demonstrate how he obtained RISPC data related to Part 242 audits. We requested all of FRA's audit documentation for Part 242 audits completed through 2018, and reviewed documents FRA provided, which were from 2018 to 2020 for FRA Headquarters and its Regional Offices. We reviewed FRA and NTSB accident investigation reports relating to the derailment of Amtrak 501. We also reviewed training materials, audit planning guidance, and job aids for inspectors engaged in Part 242 audits and inspections. We observed inspectors performing conductor certification checks in Region 2, but were

¹⁹ There are three classes of railroads and passenger carriers.

unable to observe FRA officials conducting Part 242 compliance audits due to OMB's non-mission-critical travel ban that began on March 14, 2020.

Additionally, we asked FRA to provide us with railroads' annual reviews and analyses of the administration of their programs for responding to instances of poor safety conduct by certified conductors during the prior year. Per 49 CFR § 242.215, each class I and class II railroad, as well as Amtrak, must conduct this annual review and analysis. An FRA official told us that although these assessments must be provided to FRA upon request, class I railroads and Amtrak present results from their annual reviews in a group meeting each year to identify trends and share information. We could not attend any of these meetings, but FRA provided us with the railroads' presentation slides from the 2013–2018 events. We reviewed these slides and analyzed those from 2018 to see if they included all of the annual review components in 49 CFR § 242.215. None of them did.

To assess the safety impact of conductor certification programs, we interviewed an official from FRA's Office of Safety, Regulatory Analysis Division who told us FRA had not conducted any studies measuring the safety impact of the conductor certification rule. The official also said FRA's safety data cannot be disaggregated in a way that would allow us to identify conductor-related accidents and incidents.

To identify criminal referrals related to conductor certification and potential fraud risk-areas, we reviewed a list of OIG investigations and Hotline complaints from 2012 to 2019. To assess FRA actions related to conductor certification violations and Operating Crew Review Board cases, we reviewed FRA's Enforcement Reports for fiscal years 2012–2018 and conductor certification-specific violations data from calendar years 2012–2018. We also interviewed FRA officials about the collection, reliability, and interpretation of the violation and Operating Crew Review Board case data.

To evaluate the FRA Safety Board's review of regulatory waivers related to Part 242, we reviewed the full list of 28 conductor certification-related waiver requests FRA received from 1999 to 2019. We also interviewed the Agency counsel to the Safety Board about the board's review processes.

Exhibit B. Organizations Visited or Contacted

FRA Facilities

FRA Headquarters

Office of Railroad Safety, Operating Practices Division

Office of Railroad Safety, Regulatory Analysis Division

Office of Chief Counsel, Safety Law Division

FRA Regions

Site visit to Union Station in Washington, DC, with FRA officials from Region 2, Wilmington, DE

Other Organizations

American Short Line and Regional Railroad Association (ASLRRA)

Amtrak Office of Inspector General (Amtrak OIG)

Association of American Railroads (AAR)

Exhibit C. List of Acronyms

CFR	Code of Federal Regulations
DOT	Department of Transportation
FRA	Federal Railroad Administration
GAO	Government Accountability Office
OIG	Office of Inspector General
OMB	Office of Management and Budget
NSPP	National Safety Program Plan
NTSB	National Transportation Safety Board
RISPC	Railroad Inspection System for Personal Computers
RSIA	Rail Safety Improvement Act of 2008

Exhibit D. Major Contributors to This Report

WENDY HARRIS	PROGRAM DIRECTOR
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BRIAN LONGIN	SENIOR ANALYST
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GEORGE ZIPF	SUPERVISORY MATHEMATICAL STATISTICIAN

Appendix. Agency Comments

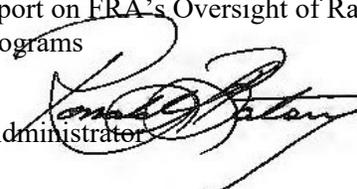


U.S. Department
of Transportation

**Federal Railroad
Administration**

MEMORANDUM

INFORMATION: Management Response to Office of Inspector General
Subject: (OIG) Draft Report on FRA's Oversight of Railroad Conductor Certification Programs Date: September 15, 2020

From: Ronald L. Batory
Federal Railroad Administrator 

To: David Pouliott
Assistant Inspector General for Surface Transportation Reply to the Attn of: ROA-3

The Federal Railroad Administration (FRA) works with industry stakeholders to improve U.S. railway safety performance. We advance rail safety with data-driven decision making and innovative technologies to save lives; reduce the number of injuries, accidents, and transportation disruptions; and mitigate adverse economic impacts. Conductor training, testing, and certification are important tools for managing human factor-related safety risks.

In June 2020, FRA completed its comprehensive restructuring of the Office of Railroad Safety, including establishing a revamped Operating Practices Division within the Office of Railroad Systems and Technology. This new structure aligns headquarters based engineers and subject matter experts with regionally based inspectors and specialists. This integrated structure enables greater use of data to inform oversight activities with field-based district teams conducting audits and inspections.

FRA reviewed the draft report and offers the following comments:

- FRA's recent Office of Railroad Safety restructuring will improve our inspection and audit processes. The new Audit Management Division within the Office of Data Analysis and Program Support is establishing minimum standards and coordinating oversight of regulations that require railroads to create and implement performance-based plans. The Division will provide audit training for FRA safety staff and develop systems to coordinate, support, and evaluate audit management.
- FRA is updating its internal compliance manuals, including the one on operating practices. The manuals will be designed for easier online access and revision.
- FRA is completing a draft final rule that will revise engineer qualification and certifications requirements. These revisions will improve consistency with the conductor requirements and simplify compliance with and oversight of both.

Based on our review of the draft report, FRA concurs with OIG's recommendations as written. We plan to complete actions to address recommendations 3, 4, and 5 by March 15, 2021, and recommendations 1 and 2 by August 15, 2021.

We appreciate this opportunity to comment on the OIG draft report. Please contact Rosalyn G. Millman, Planning and Performance Officer, at 202-493-1339, with any questions.

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OIG conducts audits and investigations on behalf of the American public to improve the performance and integrity of DOT's programs to ensure a safe, efficient, and effective national transportation system.

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