

**SUPPORTING JUSTIFICATION
RAILROAD SIGNAL SYSTEM REQUIREMENTS
OMB No. 2130-0006**

Summary

- This submission is a request for an extension with change to the last approval granted by OMB on **December 15, 2015**, and which expires **December 31, 2018**.
- FRA published the required 60-day **Federal Register** Notice on August 1, 2018. See 83 FR 37606. FRA received no comments in response to this Notice.
- The total number of **hours requested** for this information collection submission is **444,820 hours**.
- The total number of **hours previously approved** for this information collection amounted to **444,883 hours**.
- **Adjustments** decreased the burden by **63 hours**.
- Total number of **responses requested** for this information collection amounted to **1,673,437**.
- Total number of **responses previously approved** for this information collection amounted to **1,673,546**.
- **Adjustments** decreased the number of responses by **109**.
- There are no **program changes** at this time.
- ****The answer to question number 12** itemizes the hourly burden associated with each requirement of this rule (See pp. 8-16).

1. Circumstances that make collection of the information necessary.

Background

The Signal Inspection Act, as amended (49 U.S.C. 26), provides, among other things, ". . . Each carrier shall report to the Commission in such manner and to such extent as may be required by the Commission, failures of such systems, devices, or appliances to indicate or function as intended; and in case of accident resulting from failure of any such system, device or appliance to indicate or function as intended, and resulting in injury to person or property which is reportable under the rules of the Commission, a statement

forthwith must be made in writing of the fact of such accident by the carrier owning or maintaining such system, device, or appliance to the Commission; whereupon the facts concerning such accident shall be subject to investigation as provided in sections 40-42 of Title 45." The powers and enforcement duties conferred by 49 U.S.C. 26 were transferred from the Interstate Commerce Commission (ICC) to the Secretary of Transportation by Public Law 89-670, October 15, 1966, 80 Stat. 931, which created the Department of Transportation, 49 U.S.C. 1655(e)(6)(a), who in turn delegated that authority to the Federal Railroad Administrator (49 CFR 1.49 (f), (g), and (m)).

The Signal Inspection Act also provides that existing railroad signal systems may not be modified or discontinued without the approval of the ICC (now FRA). Further, the Signal Inspection Act directed the ICC to establish rules, standards, and instructions for the installation, inspection, maintenance and repair of railroad signal systems, devices, and appliances. In compliance with this section of the Act, the ICC adopted the "Rules, Standards, and Instructions for Railroad Signal Systems (RS&I)" on April 13, 1939. These rules have been revised as necessary from time to time and were last revised in 1984. The Federal Railroad Safety Act of 1970, as amended, 45 U.S.C. 437, provides the authority for the FRA to require annual, periodic, or special reports from the nation's carriers to provide such information as the FRA may deem necessary. The regulations pertaining to railroad signal systems are contained in 49 CFR 233 (Signal System Reporting Requirements), 49 CFR 235 (Instructions Governing Applications for Approval of a Discontinuance or Material Modification of a Signal System or Relief from the Requirements of Part 236), and 49 CFR 236 (Rules, Standards, and Instructions Governing the Installation, Inspection, Maintenance, and Repair of Signal and Train Control Systems, Devices, and Appliances).

On June 22, 1988, the President signed into law the Rail Safety Improvement Act of 1988 (RSIA)(P.L. 100-342). Section 9 of the RSIA amends Section 202 of the Federal Railroad Safety Act of 1970 by adding a new subsection 202 (j) providing for the issuance of rules as may be necessary to require that "(1) whoever performs any test required by the Secretary of an automatic train stop, train control, or cab signal apparatus prior to entering territory, where such apparatus will be used, shall certify in writing that such test was properly performed, and (2) that such certification shall be kept and maintained in the same manner and place as the daily inspection report for that locomotive." In accordance with this Act, FRA amended its railroad signal regulations (49 CFR Part 236) to incorporate this change.

Section 233.5 provides that each carrier shall report to FRA within 24 hours whenever the carrier learns of the occurrence of an accident or incident arising from the failure of an appliance, device, method or system to indicate or function as required by 49 CFR 236, the Rules, Standards and Instructions for railroad signal systems.

Section 233.7 sets forth the specific requirements for reporting signal failures within 15 days according to the instructions contained on Form FRA F 6180.14.

Title 49 CFR Part 235 sets forth the specific conditions under which approval of modification or discontinuance of railroad signal systems is required and prescribes the methods used to request that approval from FRA. The application process prescribed in Part 235 provides the vehicle for FRA to obtain the necessary information to make logical and informed decisions concerning carrier requests to modify or discontinue signaling systems.

Section 235.5 requires railroads to obtain FRA approval of discontinuances or material modifications of railroad signaling systems. Section 235.7 defines material modifications and identifies those changes that do not require FRA approval. Section 235.8 provides that any carrier may petition for relief from the requirements of Part 236, and relief will be granted upon an adequate showing by the individual carrier. Sections 235.10, 235.12, and 235.13 detail to whom the application must be sent, what information must be included, in what form the information must be submitted, and who must sign the application.

Section 235.20 provides the means and method for any interested person to make a protest against the granting of a carrier application for signaling changes or for relief from the RS&I. This section sets forth the information which must be shown in the protest, provides the information of where to send the protest, defines the time limit for such protests and provides that any request for a hearing must be accompanied with a showing why the protestant is unable to properly present his or her position by a written statement.

Section 236.110 requires that the results of the testing of certain signaling apparatus be recorded and specifically identifies the tests required by sections 236.102 to 236.109 inclusive; 236.376 to 236.387 inclusive; 236.576, 236.577, and 236.586 to 236.589 inclusive. Section 236.110 further provides that the results of the tests shall be recorded on pre-printed or computerized forms provided by the carrier and that such forms shall show the name of the railroad, place and date, equipment tested, results of tests, repairs, replacements, adjustments made, and condition in which the apparatus was left. This section also requires that the record shall be signed by the employee making the test, and that the record shall be filed in the office of the supervisory official having jurisdiction. Except for results of tests made in compliance with Section 236.587, which record shall be retained for 92 days, each record shall be kept on file until the next record for that particular test is filed, but in no case less than one year.

Included in the RS&I is section 236.587 which requires each carrier to make a departure test of cab signal, train stop, or train control devices on locomotives before that locomotive enters cab signal, train stop, or train control territory. This section further requires that whoever performs the test shall certify in writing that such test was properly performed. The certification and the tests results must be posted in the cab of the locomotive and a copy of the certification and test results left at the test location for filing in the office of the supervisory official having jurisdiction. However, if it is impractical

to leave a copy of the certification and test results at the location of the test, the test results must be transmitted to either (a) the dispatcher or (b) one other designated individual at each location, who shall keep a written record of the test results and the name of the person performing the test. All records made under this section are required to be retained for at least 92 days.

Section 236.590 requires the carrier to clean and inspect the pneumatic apparatus of automatic train stop, train control, or cab signal devices on locomotives every 736 days and to stencil, tag or otherwise mark the pneumatic apparatus to indicate the last cleaning date.

2. **How, by whom, and for what purpose the information is to be used.**

Carriers are required to report to FRA by toll free telephone number whenever an accident occurs that is caused by the failure of a signal system or signal component to indicate or function as intended. Such accident reports are investigated by FRA field inspectors to determine the circumstances and cause(s) of the accident/incident. FRA uses such information in future rulemakings in order to determine whether or not there is a need for revising the existing rules, or devising new rules. The information is also analyzed to determine if a potential safety hazard exists in signal systems or devices similar to the one that caused the accidents. The information gleaned from the investigation of such accidents is disseminated to all FRA personnel and to all segments of the industry, both the railroads and the manufacturers. Thus, the reporting of such accidents and the investigation of the circumstances can be highly instrumental in the prevention of similar accidents.

Carriers are also required to complete and mail a False Proceed Signal Report to FRA within fifteen days after such a failure occurs. The carrier's False Proceed Signal Reports are analyzed by FRA Regional personnel, and certain types of signal failures are investigated by field inspectors. The information, including field investigative reports, are forwarded to FRA Headquarters. The information is compiled and is used to determine the safety worthiness of the signal systems of the nation's railroads, the need for inspections of those systems, and the effectiveness of the regulations pertaining to railroad signal systems.

Carrier's Block Signal Application contains information used by FRA to determine, on a factual and logical basis, whether approval of a carrier's application to modify or discontinue a signaling system should be granted or denied.

FRA uses the information contained in the petition for relief so that the Associate Administrator for Safety – after an investigation by an FRA field inspector – can render an informed and logical decision to approve or deny the petition.

FRA uses the information contained in protest statements and letters to help make a final decision on carrier applications for signaling changes or applications for relief from the requirements of the Rules, Standards, and Instructions (RS&I) for Railroad Signal Systems. If there is no mechanism to permit the public and the interested parties to have input into the decision making process in the matter of carrier applications, important considerations will not be brought to the attention of FRA before such decisions are made.

The records for the results of tests are examined on the carriers' property – during regular business hours by a qualified FRA Signal and Train Control Inspector – to determine that the carrier is performing the tests required by FRA as prescribed in the pertinent sections of Part 236. These records are considered proof that the carrier is maintaining its signal systems in accordance with the requirements of Part 236 and the RS&I, and that the signal systems are in proper operating condition to assure the safety of train operations on the carriers' tracks. Considering FRA's limited resources, FRA could not assess the safety worthiness of the signal systems of the nation's railroads and could not run an effective safety program to assure the integrity of the signal systems on the nation's railroads as required by the Signal Inspection Act without these records.

Carriers having automatic cab signals, train stops, or train control systems are required to make a departure test of each equipped locomotive before the locomotive is operated over cab signal, train stop, or train control territory. The departure test is made to ensure the cab signal, train stop, or train control devices are cut in service, are operational, and are functioning as intended. It is vital that the engineer have this information. The record of the departure test is used by the engineer to ascertain that the locomotive he/she will be operating into equipped territory has on board a cab signal, train stop, or train control device that is responsive to the wayside equipment which the locomotive will encounter during the trip. FRA's Signal and Train Control Inspectors make routine inspections to monitor the carriers' departure tests, and departure test records are examined as part of those inspections. The activity is necessary for FRA to meet its obligations under the Signal Inspection Act to inspect and test such systems and to determine whether such systems, devices, and appliances are in proper condition to operate and provide adequate safety. If the departure record is not kept when the engineer does not participate in the departure test, the engineer will not have knowledge of information as to the operation of vital safety devices on his locomotive, and FRA will be unable to adequately enforce a very important safety regulation regarding the proper testing of cab signal, train stop, or train control devices.

Under section 236.590, the information conveyed by the stencil or tag on the pneumatic apparatus is used by the carriers' employees to determine when the last time the pneumatic apparatus was cleaned and when it must be cleaned again. FRA's Signal and Train Control Inspectors check the cleaning dates of such apparatus during their routine enforcement activities to determine the carriers' compliance with the applicable regulation. If this information is not readily available, FRA cannot adequately enforce

the regulation, requiring the carrier to inspect and clean the pneumatic apparatus of automatic train stop, train control, and cab signal devices. This could result in such devices not being effective and could be a contributing cause of an accident.

3. Extent of automated information collection.

Over the years, FRA has highly encouraged and strongly endorsed the use of advanced information technology, wherever possible, to reduce burden on respondents. In furtherance of this aim, FRA has installed all its external use safety forms in PDF fillable format on its agency Website for easy use by railroads and their employees as well as other users. Also, each recordkeeping requirement concerning a signal system has been carefully reviewed and the wording modified, where necessary, to permit the use of improved information technology at the discretion of the railroad. Presently, more than 140,000 forms required under § 236.110 are completed electronically by railroads. Thus, approximately eight (8) percent of responses are collected electronically for this submission.

4. Efforts to identify duplication.

No other agency collects this unique information. FRA has other reporting requirements concerning railroad accident reporting (§ 225.11). Those reporting requirements do not require reporting the accident unless certain criteria of death, injury, or monetary damage are exceeded. The National Transportation Safety Board (NTSB) also requires certain accidents to be reported, but again has criteria which will not always require the reporting of all accidents. There is no duplication of other reporting or recordkeeping requirements in the signal rules.

The information concerning accidents caused by a signal system or signal appliances needs to be immediately investigated by trained personnel who will be able to recognize significant details of the aftermath of an accident and who can relate the details of an accident to specific components or apparatus. This requires immediate notice so the inspector/investigator can be on the scene of the accident as soon as possible. The railroad accident/incident reporting notification required by § 225.11 provides that the carrier may report the accident 30 days after the accident. However, in the case of accidents involving signal systems, this is too long a timeframe. This long lapse in time would make a meaningful investigation impossible, since the condition(s) that caused the accident would no longer exist.

5. Efforts to minimize the burden on small businesses.

The different reporting burdens will vary from carrier to carrier. However, for the most part regarding this collection of information, the burden for the larger carriers will be greater, and the burden for the smaller carriers will be less, mainly as a result of the amount of equipment owned by the affected railroads. For example, concerning signal

system failure reports required under § 233.7, a large carrier which has many signal failures will expend considerable time each year completing and filing a large number of detailed reports, while a small carrier which has no signal failures will not make any reports at all. This also holds true of the recordkeeping burden. The smaller carriers with only a few hundred miles of signals have a relatively small burden, while the larger carriers – some of which have as much as 12,000 miles of signals – have a much larger burden.

6. Impact of less frequent collection of information.

If this information were not collected or collected less frequently, railroad safety throughout the United States would be seriously hindered. Specifically, without the required departure tests and corresponding records, engineers would not have necessary information concerning the condition of locomotives they operate. This could lead to severe problems, including collisions and derailments. Furthermore, without this collection of information, FRA would not have the required accident and signal failure reports which are essential to the agency in making timely and thorough investigations. Without these reports, FRA could not determine the cause(s) of accidents, or have the necessary data to prevent such accidents/incidents from occurring in the first place (either contemporaneously or in the future).

Without this collection of information, FRA could not examine test results records to ensure that railroads are operating and maintaining safe signal systems. Malfunctioning signal systems could jeopardize the safety of train crews and the traveling public by causing an accident and lead to grave injuries and even deaths, as well as to greater property damage and possibly environmental harm to surrounding communities. Additionally, without this collection of information, FRA would not have the requisite information to determine the effectiveness of current regulations or the necessary information to ascertain when new regulations are needed.

If this information were collected less frequently, FRA would be deprived of essential information used to discern industry trends in signaling. Moreover, FRA would not be able to adequately determine if the nation's carriers are obtaining agency permission before modifying or discontinuing signal systems as required by the Signal Inspection Act (49 U.S.C. 26). This could have harmful and possibly catastrophic safety consequences.

In sum, without this collection of information, FRA would be unable to enforce a critical safety regulation and to oversee an essential part of its comprehensive national rail safety program.

7. Special circumstances.

All information collection requirements are in compliance with this section.

8. Compliance with 5 CFR 1320.8.

In accordance with the Paperwork Reduction Act of 1995 and 5 CFR 1320 (§1320.13), FRA published a Notice in the **Federal Register** on August 1, 2018, soliciting public comment on these information collection requirements. See 83 FR 37606. FRA received no comments in response to this Notice.

9. Payments or gifts to respondents.

There are no monetary payments or gifts made to respondents associated with the information collection requirements contained in these regulations.

10. Assurance of confidentiality.

No confidentiality is promised to respondents. The information collected is not of a sensitive nature, and does not involve carrier financial information or trade secrets.

11. Justification for any questions of a sensitive nature.

This information collection does not contain any questions of a personal or sensitive nature.

12. Estimate of burden hours for information collected.

Note: Based on agency data, there are approximately 741 railroads currently in existence throughout the nation and they comprise the respondent universe for this collection of information.

Per OMB's request, FRA is including the annual dollar cost equivalent of the requested burden hours below. FRA derives this estimate from the 2017 AAR publication Railroad Facts (p. 57), and uses the average annual wages for each employee group as follows: For Executives, Officials, and Staff Assistants, this cost amounts to \$110 per hour. For Professional/Administrative staff, this cost amounts to \$73 per hour. For Maintenance of Way and Structure employees, this cost amounts to \$66 per hour. For Maintenance of Equipment and Stores employees, this cost amounts to \$59 per hour. For Transportation other than Train and Engine employees, this cost amounts to \$72 per hour. For Transportation Train and Engine employees, this cost amounts to \$74 per hour. All cost estimates include 75% overhead.

§ 233.5 - Accidents resulting from signal failure

Each carrier must report within 24 hours to the Federal Railroad Administration by toll-free telephone, number 800-424-0201, whenever it learns of the occurrence of an accident/incident arising from the failure of an appliance, device, method or system to

function or indicate as required by Part 236 of this title that results in a more favorable aspect than intended or other condition hazardous to the movement of a train.

There are approximately 80 carriers in the nation that have signal systems that might have to report such accidents. It is evident from the past record that very few carriers will be involved in this collection of information in any one year. It is estimated that each year approximately 10 carriers will be required to report accidents caused by failures of signal systems. Each carrier makes its own investigation of accidents on its own railroad. When that carrier determines the accident was caused by signal system failure, the carrier is then required to make a toll free phone call to FRA to report the accident within 24 hours. It is estimated that the average time required for the carrier to become aware of the fact that the accident was the result of a signal failure is approximately 28 minutes. The time required to make the telephone call is approximately (2) minutes, resulting in a total average time of approximately 30 minutes. Total annual burden for this requirement is five (5) hours.

Respondent Universe:

741
railroads

Burden time per response:

30
minute
s

Frequency of Response:

On Occasion

Annual number of Responses:	10 telephone calls
Annual Burden:	5 hours
Annual Cost:	\$365 (\$73 x 5 hrs.)

Calculation: 10 phone calls x .5 hour = 5 hours

§ 233.7 - Signal failure reports

Each carrier must report within 15 days each failure of an appliance, device, method, or system to function or indicate as required by Part 236 of this title that results in a more favorable aspect than intended or other condition hazardous to the movement of a train.

Form FRA F 6180.14, "Signal Failure Report," must be used for this purpose and completed in accordance with instructions printed on the form.

There are over 741 rail carriers in the nation. Approximately 80 of those carriers have signaling systems that might require the reporting of a False Proceed Signal Failure. Only those carriers which have False Proceed Signal Failures need respond to this information collection requirement. During the past five years, an average of 33 carriers reported False Proceed Signal Failures each year. Thus, the expected response is about 33 reports each year.

The respondents will report only when a False Proceed Signal Failure occurs on their property. The annual burden on the individual carrier will vary according to how many failures it must report. A large carrier that has many such failures will expend considerable time each year, while a small carrier that has no failures will not make any reports at all. During the last fiscal year, one of the larger carriers reported 17 False Proceed Signal Failures. This carrier expended at least eight (8) hours on such reporting. However, FRA estimates that the average time required for the carrier to evaluate the necessary information and fill-out the report form is much smaller.

Based on the average reports filed over the last five years, FRA estimates the average time to complete a report to be approximately 15 minutes. FRA estimates that the average number of reports completed will amount to approximately 20 per year. Total annual burden for this requirement is five (5) hours.

Respondent Universe:

741
railroads

Burden time per response:

15
minute
s

Frequency of Response:

On Occasion

Annual number of Responses:

20 reports

Annual Burden:

5 hours

Annual Cost:

\$365 (\$73 x 5 hrs.)

Calculation: 20 reports x 15 min. = 5 hours

§ 233.9 - Reports

On July 2, 2014, FRA published a final rule in the Federal Register discontinuing this requirement. See 79 FR 37664. The final rule went into effect on September 2, 2014. Consequently, there is no burden associated with this former provision.

§ 235.5 - Changes requiring filing of application

Except as provided in § 235.7, applications must be filed to cover the following: (1) The discontinuance of a block signal system, interlocking, traffic control system, automatic train stop, train control, or cab signal system or other similar appliance or device; (2) The decrease of the limits of a block signal system, interlocking, traffic control system, automatic train stop, train control, or cab signal system; or (3) The modification of a block signal system, interlocking, traffic control system, automatic train stop, train control, or cab signal system.

There are approximately 80 carriers in the nation which have signaling systems, and can be considered possible respondents. During the last calendar year, approximately 37 different carriers filed Block Signal Applications. FRA estimates that approximately 20 Block Signal Applications will be filed each year. It is estimated that each Block Signal Application will take approximately 10 hours to complete. This includes eight hours (8) to draw the required print showing pertinent information, and two (2) hours to write the letter of application. Total annual burden for this requirement is 200 hours.

Respondent Universe:

80
railroads

Burden time per response:

10
hours

Frequency of Response:

On Occasion

Annual number of Responses:	20 applications	
Annual Burden:		200 hours
Annual Cost:		\$14,600 (\$73 x 200 hrs.)

Calculation: 20 applications x 10 hours = 200 hours

§ 235.8 - Relief from the requirements of Part 236 of this title.

Relief from the requirements of the rules, standards, and instructions (RS&I) contained in Part 236 of this title will be granted upon an adequate showing by an individual carrier. Relief heretofore granted to any carrier shall constitute relief to the same extent as relief granted under the requirements of this Part.

There are approximately 80 railroads in the nation with signaling systems which must be installed and maintained in accordance with the RS&I. Each individual carrier submits an application only if relief from the requirements of the RS&I is needed by that carrier. FRA estimates that it will receive approximately 10 requests for relief. It is estimated that it will take approximately 2.5 hours to draft, write, and edit each letter of application for relief. Total annual burden for this requirement is 25 hours.

Respondent Universe:		80
		railroads

Burden time per response:		2.5
		hours

Frequency of Response:		On Occasion
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Annual number of Responses:	10 relief requests/applications	
Annual Burden:		25 hours
Annual Cost:		\$1,825 (\$73 x 25 hrs.)

Calculation: 10 relief requests/applications x 2.5 hours = 25 hours

§ 235.20 - Protests

A protest against the granting of an application must set forth specifically the grounds upon which it is made, and contain a concise statement of the interest of protestant in the proceeding. The original and two copies of any protest must be filed with the Associate Administrator for Safety, Federal Railroad Administration, Washington, D.C., 20590, and one copy must be furnished to each applicant.

Protests should be filed within the time limit set forth in the public notice. The protestant must certify that service of a copy of its protest was made upon each applicant. Request for hearing must be accompanied with a showing why the protestant is unable to properly present his or her position by written statements.

FRA receives approximately 20 protest letters each year. Some of these protest letters come from individuals who make only one protest of one application and never again make another protest. Other protest letters come from representatives of labor organizations who protest many times each year. Some of the letters are short one page hand-written protests with no more information than the fact the author of the letter is opposed to the application. It is estimated that it takes, on average, approximately 30 minutes to compose and mail a letter of protest. Total annual burden for this requirement is 10 hours.

Respondent Universe:

80
railroads

Burden time per response:

30
minute
s

Frequency of Response:

On Occasion

Annual number of Responses: 20 protest letters

Annual Burden:

10

hours

Annual Cost:

\$730 (\$73 x 10 hrs.)

Calculation: 20 protests x .5 hr. = 10 hours

§ 236.110 - Results of tests

Results of tests made in compliance with §§ 236.102 to 236.109, inclusive; 236.376 to 236.387, inclusive; 236.576; 236.577; and 236.586 to 236.589, inclusive, and 236.917(a) must be recorded on pre-printed forms provided by the railroad or by electronic means, subject to approval by the FRA Associate Administrator for Safety. These records must show the name of the railroad, place and date, equipment tested, results of tests, repairs, replacements, adjustments made, and condition in which the apparatus was left. Each record must be: (1) Signed by the employee making the test, or electronically coded or identified by the number of the automated test equipment (where applicable); (2) Unless otherwise noted, filed in the office of a supervisory official having jurisdiction; and (3) Available for inspection and replication by FRA and FRA-certified State inspectors.

Results of tests made in compliance with §236.587 must be retained for 92 days. Results of tests made in compliance with §236.917(a) must be retained as follows: (1) Results of tests that pertain to installation or modification must be retained for the life cycle of the equipment tested and may be kept in any office designated by the railroad; and (2) Results of periodic tests required for maintenance or repair of the equipment tested must be retained until the next record is filed but in no case less than one year. Results of all other tests listed in this section must be retained until the next record is filed but in no case less than one year. *(Note: The burden associated with § 236.917(a) above is covered under OMB No. 2130-0553. Consequently, there is no additional burden associated with this part of the above provision.)*

Electronic or automated tracking systems used to meet the requirements contained in paragraph (a) of this section must be capable of being reviewed and monitored by FRA at any time to ensure the integrity of the system. FRA's Associate Administrator for Safety may prohibit or revoke a railroad's authority to utilize an electronic or automated tracking system in lieu of preprinted forms if FRA finds that the electronic or automated tracking system is not properly secured, is inaccessible to FRA, FRA-certified State inspectors, or railroad employees requiring access to discharge their assigned duties, or fails to adequately track and monitor the equipment. The Associate Administrator for Safety will provide the affected railroad with a written statement of the basis for his or her decision prohibiting or revoking the railroad from utilizing an electronic or automated tracking system.

Again, there are approximately 80 railroads in the U.S. that have signal systems and that are subject to the recordkeeping requirements of § 236.110. Those 80 railroads employ approximately 5,400 signal maintainers, signal test men, and maintenance foremen. The figure of 5,400 such employees was obtained from the Brotherhood of Railroad Signalmen (BRS), a union to which almost all such employees belong. Additionally, there are approximately 1,000 railroad electricians who perform daily or after trip tests on cab signal, train stop, or train control devices. Thus, there are approximately 6,400 employees on the nation's railroads who could be considered keepers of records

pertaining to railroad signal systems.

The annual burden on the industry as the result of the recordkeeping requirements of § 236.110, except for § 236.587 which is listed as a separate item below, is calculated as follows:

Section 236.110 covers the recordkeeping requirements of 24 different tests that are prescribed by Part 236. Each of these tests requires from one (1) minute to 30 minutes, including the time to gather the tools, make the test, and record the results of the test. FRA's calculations include travel time for each unit tested ranging from half-a-minute to six minutes.

FRA estimates that each year the nation's carriers perform approximately 1,965,464 tests. It is estimated that the average test requires approximately 13.1 minutes or .2177 hour to complete. FRA estimates that there are approximately 6,400 recordkeepers on the 80 carriers who are required to keep records concerning signal system tests. FRA estimates that these tests will require approximately 936,660 report forms. It is estimated that the time to complete each form is approximately 27 minutes (.45 hour).

The recordkeeping burden varies considerably from carrier to carrier. The smaller carriers with only a few hundred miles of signals have a relatively small burden while the larger carriers, some of which have as much as 12,000 miles of signals, have a much larger burden. Some of these railroads – approximately 12 of them – are now keeping these records electronically. It is estimated then that approximately 140,499 records are kept electronically, and that it takes approximately 15 minutes to complete each electronic record. The largest single burden imposed on the industry by the requirements of § 236.110 is the daily or after trip test of automatic cab signal, train stop or train control devices. The burden of the daily or after trip test applies only to certain large carriers and to certain commuter railroads which have automatic cab signal, train stop, or train control systems. Total annual burden for this requirement is 393,397 hours.

Respondent Universe:

80
railroads

Burden time per response:

27
minute
s/15
minute
s

Frequency of Response:		On Occasion
Annual number of Responses:	936,660 forms	
Annual Burden:		393,397 hours
Annual Cost:		\$25,964,202 (\$66 x 393,397 hrs.)

Calculation: 796,161 paper forms x .45 hr. + 140,499 electronic forms x .25 hr.
= 393,397 hours

§ 236.587 - Departure Test

Whoever performs the test must certify in writing that such test was properly performed. The certification and the test results must be posted in the cab of the locomotive and a copy of the certification and test results left at the test location for filing in the office of the supervisory official having jurisdiction. If it is impractical to leave a copy of the certification and test results at the location of the test, the test results must be transmitted to either (i) the dispatcher or (ii) one other designated individual at each location, who must keep a written record of the test results and the name of the person performing the test. These records must be retained for at least 92 days.

There are approximately 18 railroads in the nation with automatic cab signal, train stop, or train control systems. These 18 railroads own approximately 6,697 locomotives that are equipped with cab signal, train stop, or train control devices. The burden will vary considerably between various carriers. Of these 18 carriers, the one with the largest burden has 2,267 equipped locomotives, while the carrier with the smallest burden has only nine (9) such equipped locomotives. The burden is directly proportional to the number of equipped locomotives an individual carrier owns and operates. At any one time, approximately 6,000 of these locomotives are in service. When these locomotives are used in train service, only the lead locomotive is required to have a departure test performed.

Since the average consist of locomotives is three locomotives coupled together, only about 2,000 cab signal, train stop, or train control equipped locomotives must have a departure test each day. Therefore, it is estimated that approximately 2,000 records of departure tests are made each day. The departure test is a simple test to determine that the cab signal, train stop, or train control device is turned on, and is operating as intended so that the device will function to provide the safety of train operation it was designed to ensure. The test generally takes less than four (4) minutes to perform and record the results thereof. The test circuits are generally installed in the rails of the track, and there is no preparatory time to consider. Total time then for test and recordkeeping for each departure test is approximately four (4) minutes for each locomotive tested. These tests

are performed 365 days a year. FRA estimates then that there will be approximately 730,000 recorded tests performed per year. Total annual burden for this requirement is 48,667 hours.

Respondent Universe:

18
railroads

Burden time per response:

4
minute
s

Frequency of Response:	Daily
Annual number of Responses:	730,000 test records
Annual Burden:	48,667 hours
Annual Cost:	\$3,504,024 (\$72 x 48,667 hrs.)

Calculation: 730,000 test records x 4 min. = 48,667 hours

§ 236.590- Pneumatic apparatus

Automatic train stop, train control, or cab signal pneumatic apparatus must be inspected, cleaned, and the results of such inspection recorded as provided by § 229.29(a). When a locomotive with automatic train stop, train control, or cab signal pneumatic apparatus receives out-of-use credit pursuant to § 229.33, the automatic train stop, train control, or cab signal pneumatic apparatus shall be tested in accordance with § 236.588 prior to the locomotive being placed in service.

As mentioned earlier, there are approximately 18 railroads in the nation with cab signal, train stop, or train control systems. Again, these railroads own approximately 6,697 locomotives that are equipped with cab signal, train stop, or train control devices. Each of these locomotive devices has pneumatic valves which must be cleaned once every two years. Again, the burden will vary considerably between various carriers. As noted earlier, of these 18 carriers, the one with the largest burden has 2,267 equipped locomotives, while the carrier with the smallest burden has only nine (9) equipped locomotives. The burden is directly proportional to the number of equipped locomotives

an individual carrier owns and operates.

FRA estimates that the average burden to inspect, clean and stencil/tag these valves every two years (at intervals that do not exceed every 736 days) is approximately 45 minutes each, or approximately 22.5 minutes per year. This 45-minute burden includes five (5) minutes to remove the valves from the locomotive, 30 minutes to inspect and clean the valves, five (5) minutes to reinstall the valves on the locomotive, four (4) minutes preparatory time, and one (1) minute to tag or stencil the cleaning date on the valves. Total annual burden for this requirement is 2,511 hours.

Respondent Universe:

18
railroads

Burden time per response:

22.5
minute
s

Frequency of Response:

Annually

Annual number of Responses:	6,697 stencils/tags
Annual Burden:	2,511 hours
Annual Cost:	\$180,792 (\$72 x 2,511 hrs.)

Calculation: 6,697 stencils/tags x 22.5 min. = 2,511 hours

Total annual burden for this entire information collection is **444,820 hours** and the total dollar cost equivalent of these hours is **\$29,666,903**.

13. Estimate of total annual costs to respondents.

\$5,000 - Miscellaneous Costs

14. Estimate of Cost to Federal Government.

§ 233.5

The total cost to the Federal Government for obtaining, evaluating, and forwarding the information to the appropriate inspector is **\$200**.

The cost of collecting the information is **\$50** for ten long distance telephone calls at \$5 each. An accident form is filled-out by FRA personnel when the call comes in to FRA, but this is a function common to all accident reporting and is chargeable to the regular accident reporting procedures.

Each reported accident caused by failure of a signaling system or signal apparatus is analyzed by an FRA headquarters Signal and Train Control Specialist and, if necessary, referred to the appropriate FRA regional office for investigation. The cost to perform this function is approximately **\$390**, and is calculated by allowing 30 minutes for each accident at \$78 per hour, which includes a 75 percent allowance for overhead and operational expenses. [***Note: Hourly rate reflects 2018 DC GS salary schedule*]

The cost of investigating the accident is a function of FRA which is chargeable to other accounts. This type of accident would be investigated by FRA personnel regardless of how FRA learned of the accident and whether or not the carrier reported it.

§ 233.7

The total cost to the Federal Government for obtaining, evaluating, forwarding, filing and compiling the annual summary report of False Proceed Signal Failures is **\$1,983**.

The cost of collecting the data is zero. Each carrier mails it to the regional FRA office of the FRA region in which the carrier's headquarters is located.

Each Regional Signal and Train Control Specialist spends about two (2) hours per month reviewing and forwarding False Proceed Signal Reports to FRA Headquarters. With eight regions at 24 hours each, the total annual burden on FRA field personnel is 192 hours. FRA Headquarters staff evaluates and files the reports as they are received. This activity requires about four (4) hours each month, or 48 hours each year. Then, after October 1 each year, the Headquarters staff analyze the reports and compile an annual summary report which categorizes the failures by carrier and by type of failure. The technical staff expends 16 hours working up this report. The secretarial staff requires four (4) hours to type and proof the finished Annual False Proceed Signal Report.

A total of 260 employee hours is expended by the FRA in connection with False Proceed Signal Failure reporting. A cost of \$78 per hour is used to calculate the Federal Government's dollar cost. This \$78 includes a 75 percent additive to cover overhead and operational expenses. Thus, the annual burden to the Federal Government for this information collection activity is **\$20,280** in personnel costs.

§ 235.5

The annual cost to the Federal Government for processing 20 Block Signal Applications is **\$52,644**. This amount includes the following expenses (all dollar costs for employee hours include a 75 percent additive to cover overhead and operational expenses):

1. Office of Safety, Washington, D.C. – Eight (8) hours for one Signal and Train Control Specialist to write the Public Notice, review the field report when it is received back from the field, write a brief, and a recommendation to the Associate Administrator for Safety, and draft a decision letter of approval or denial of the application:

20 applications x 8 hours x \$73 per hour = \$11,680

2. Printing of the Public Notices:

20 applications x \$5 each (25 copies) = \$100

3. Mailing - The Public Notices are mailed to an average of 48 interested parties each month for a cost of approximately \$1.50 for each party:

48 mailings x 12 months x \$1.50 = \$864

4. The field Signal and Train Control Inspector conducts an investigation and makes a field report with his recommendations. This process, including travel, takes approximately three (3) days of the inspector's time. Cost to the Government:

20 applications x 3 days x 8 hours x \$73 per hour = \$35,040

5. The Regional Signal and Train Control Specialist reviews the application and forwards to the FRA headquarters. Cost to Government:

20 applications x 1 hour x \$73 per hour = \$1,460

6. Travel costs: Transportation and per diem for the field inspector to make the investigation costs an average of \$150 per application. Cost to Government:

20 applications x \$175 per application = \$3,500

§ 235.8

The annual cost to the Federal Government for processing 24 applications for relief will be **\$20,410**. This amount will include the following expenses (all dollar costs for

employee hours include a 75 percent additive to cover overhead and operational expenses):

1. Office of Safety, Washington, D.C. --- Approximately eight (8) hours for one Signal and Train Control Specialist to write the Public Notice, review the field report when it is received back from the field, write a brief and a recommendation to the Associate Administrator for Safety, and draft a decision letter of approval or denial of the application.

10 applications x 8 hrs. x \$73 per hour = \$5,840

2. Printing of the Public Notices:

10 applications x \$5 each (75 copies) = \$50

3. Mailing - The Public Notices are mailed to an average of approximately 20 interested parties each month for a cost of approximately \$1.50 for each party:

20 mailings x 12 months x \$1.50 = 360

4. The Field Signal and Train Control Inspector conducts an investigation and makes a field report with his recommendations. This process, including travel, takes approximately two (2) days of the Inspector's time. Cost to the Federal Government:

10 applications x 2 days x 8 hours x \$73 per hour = \$11,680

5. The Regional Signal and Train Control Specialist reviews the application and forwards it to FRA Headquarters. Cost to Government:

10 applications x 1 hr. x \$73 = \$730

6. Travel costs: Transportation and per diem for the field inspector to make the investigation costs an average of approximately \$150 per application. Cost to the Federal Government:

10 applications x \$175 = \$1,750

§ 235.20

The total cost to the Federal Government for receiving, considering, and responding to protests of carrier application is **\$1,487**.

The cost to the Federal Government of receiving the protest is nil. The protestants mail

the protest to FRA. Each letter of protest is reviewed, and a letter of acknowledgment is sent to the protestant. Then, after a final decision has been rendered on an application, the protestant is sent a copy of FRA's decision letter. This acknowledgment and notification of FRA's decision takes approximately one (1) hour of a Signal and Train Control Specialist's time. The dollar cost is calculated by using \$73 per hour (includes a 75 percent additive to cover overhead and operational expenses). There is also the cost of approximately 33 cents each letter for postage. Thus, the total cost is:

$$\begin{array}{r} 20 \text{ protests} \times 1 \text{ hr.} \times \$73 \text{ per hour} = \$1,460.00 \\ 60 \text{ letters} \times \$0.45 \text{ per letter} = \quad \quad \quad \underline{27.00} \\ \hline \$1,487.00 \end{array}$$

§ 236.110

There is no cost to the Federal Government in connection with the recordkeeping requirements of § 236.110. The carrier records are examined on a routine basis as part of the regular enforcement activities that monitor carrier compliance with the inspection, testing, and maintenance requirements of the RS&I. The information on the records is not collected or compiled.

§ 236.587

The total cost to the Federal Government in connection with this recordkeeping requirement is zero. The government does not collect this information. FRA's Signal and Train Control Inspectors review these records periodically in connection with their regular enforcement activity to determine that the carrier is properly maintaining signal, train stop or train control apparatus.

§ 236.590

The total cost to the Federal Government in connection with this recordkeeping activity is zero. The government does not collect this information. FRA's Signal and Train Control Inspectors review the carrier records of inspections and tests periodically in connection with their regular enforcement activity to determine if the carrier is properly maintaining its cab signal, train stop, or train control apparatus.

The total cost to the Federal Government then is **\$97,444** (broken down as follows: 200 + 50 + 390 + 1,983 + 20,280 + 52,644 + 20,410 + 1,487).

15. Explanation of program changes and adjustments.

The burden has decreased by **63 hours** from the last approved submission. The decrease in burden is due solely to **adjustments**, which are listed in the table below:

TABLE FOR PROGRAM CHANGE(S)

CFR Section	Responses & Avg. Time (Previous Submission)	Responses & Avg. Time (This Submission)	Burden Hours (Previous Submission)	FRA Burden Hours (This Submission)	Difference (plus/minus)
233.7 – Signal Failure Reports	100 reports 15 minutes	20 reports 15 minutes	25 hours	5 hours	-20 hours -80 responses
235.8 – Requests for Relief from Requirements of the Rules, Standards, & Instructions of 49 CFR Part 236	24 requests 2.5 hours	10 requests 2.5 hours	60 hours	25 hours	-35 hours -14 responses
235.20 – Protest Letter to FRA on Relief Request	35 letters 30 minutes	20 letters 30 minutes	18 hours	10 hours	-8 hours -15 responses

Total **adjustments** above decreased the burden by **63 hours** and by **109 responses**.

The current OMB inventory displays a total burden of 444,883 hours, while the present submission exhibits a burden total of 444,820 hours. Hence, there is a decrease in burden of **63 hours**.

There is no change in burden costs to respondents.

16. Publication of results of data collection.

There are no plans for publication involving these information collection requirements.

17. Approval for not displaying the expiration date for OMB approval.

Once OMB approval is received, FRA will publish the approval number for these information collection requirements in the Federal Register.

18. Exception to certification statement.

No exceptions are taken at this time.

Meeting Department of Transportation (DOT) Strategic Goals

This information collection supports the top DOT strategic goal, namely transportation safety. Specifically, this collection of information promotes rail safety by ensuring that signal systems throughout the country are properly operated and maintained. At any time, FRA can examine test result records to monitor compliance with its safety regulations. This is vital in reducing the number of rail accidents/incidents and corresponding casualties which occur each year. This collection of information further promotes safety through required departure tests and corresponding records. With this critical information, locomotive engineers have the information that they need to operate trains safely and effectively.

This collection of information also promotes rail safety by providing investigators vital accident and signal failure reports which can be used to make timely investigations. Without these reports, FRA might not be able to determine the cause(s) of accidents/incidents, or have the necessary data to prevent accidents/incidents from occurring contemporaneously or in the future. The information provided by this collection is a valuable and constant resource that can be used by the railroads and FRA to implement appropriate and necessary safety measures which will facilitate the following: (i) reduce the number of rail-related deaths; (ii) reduce the number and severity of injuries to railroad workers and the traveling public; and (iii) reduce damage to property and the environment caused by accidents/incidents involving train carrying hazardous materials.

In sum, this collection of information helps FRA to fulfill its core mission of safety as well as DOT's number one strategic goal. Further, in this information collection, as in all its information collection activities, FRA seeks to do its utmost fulfill departmental goals and to be an integral part of One DOT.