SUPPORTING JUSTIFICATION
GRADE CROSSING SIGNAL SYSTEM SAFETY REGULATIONS (49 CFR 234)
OMB No. 2130-0534

Summary of Submission

- This submission is a revision to the previous approval granted by OMB on September 29, 2010, which now expires on September 30, 2013. The only change is in the respondent universe, which increased from 728 railroads to 763 railroads.

- The total number of burden **hours previously approved** for this information collection was **8,152 hours.**

- The total number of burden **hours requested** for this submission is **8,152 hours.**

- Total number of **responses previously approved** for this information collection was **36,608**.

- Total number of **responses requested** for this submission is **36,608**.

- **The answer to question **number 12** itemizes the hourly burden associated with each requirement of this rule (See pp. 5-8).

1. Circumstances that make collection of the information necessary.

Background

Section 23 of the Rail Safety Improvement Act of 1988 (P.L. 100-342) amended section 202 of the Federal Railroad Safety Act of 1970, 45 U.S.C. 431, by adding a new subsection "q" as follows: "The Secretary shall, within one year after the date of the enactment of the Rail Safety Improvement Act of 1988, issue such rules, regulations, orders, and standards as may be necessary to ensure the safe maintenance, inspection, and testing of signal systems and devices at railroad highway grade crossings."

FRA believes that the risks to the traveling public and railroad employees from highway-rail grade crossing accidents resulting from warning system failures and malfunctions can be reduced. Motorists lose faith in warning systems that constantly warn of an oncoming train when none is present. Therefore, the fail-safe feature built into a warning system loses its effectiveness if the system is not repaired in a reasonable amount of time. An even greater risk for an accident to occur is when a warning system fails to activate when a train is approaching. FRA's rule requires railroads to take specific responses in the event of a false activation or an activation failure.

FRA's rule requires railroads to take the following actions when they have been notified that a highway-rail grade crossing warning system has failed: (1) Notify train crews and law enforcement agencies of the malfunctioning warning system; (2) Take appropriate actions to warn and control highway traffic pending inspection and repair of the warning system; and (3) Repair the system.

2. <u>How, by whom, and for what purpose the information is to be used</u>.

FRA uses telephone notifications to assemble a database of every accident/incident involving on-track railroad equipment and an automobile, bus, truck, motorcycle, bicycle, farm vehicle, or pedestrian at a highway-rail grade crossing resulting from a crossing signal activation failure. These notifications must be provided to the National Response Center at a toll-free number within 24 hours of such an accident/incident. FRA uses this information to discern different types of grade crossing accident/incident patterns or trends and to develop and implement appropriate safety strategies – both immediate and long-term – to prevent similar accidents/incidents.

Railroads use credible reports of warning system malfunctions, partial activations, or false activations to notify FRA and train employees and appropriate law enforcement agencies when a warning system malfunctions so that immediate appropriate alternative measures can be taken to protect motorists and railroad employees at the subject crossing until repairs have been completed.

FRA uses grade crossing signal system failure reports to craft better solutions to the problems of crossing device malfunctions. In particular, FRA reviews these reports to obtain information that it uses in implementing more effective safety programs to prevent accidents/incidents attributable to these types of failures from occurring in the future. With this information, FRA can correlate accident experience and equipment malfunctions with types of circuits and age of equipment. FRA can then pinpoint the causes of crossing system failures and investigate them, if necessary, to determine whether periodic maintenance, inspection, and testing standards are effective. Thus, if FRA finds that a disproportionate number of system failures are in systems with critical components 30 years old, it can take appropriate regulatory steps for that type of malfunction, which would be significantly different than if a disproportionate number of malfunctions occur in relatively new systems on specific railroads.

Finally, FRA uses the required records, which railroads must keep for one year, as a ready resource to analyze possible causes and contributing factors related to grade crossing accident/incidents and to devise effective strategies and programs that will serve FRA, railroad, law enforcement, and other entities interested in reducing the number and severity of these types of accidents/incidents and in promoting greater rail safety throughout the United States.

3. Extent of automated information collection.

FRA highly encourages and strongly endorses the use of advanced information technology, wherever possible, to reduce burden on respondents. Under § 234.109, railroads have the option of keeping the required records electronically, or on forms they provide. Also, FRA has installed all its safety forms on its Website for easy downloading by railroads and other users. The forms being used to collect the required information are simple to complete. For the collection of information concerning grade crossing failure information, FRA has provided railroads with a revised "fill-in-the-blanks" form, containing two digit "failure codes" with an additional comments section to be used if necessary.

It should be remarked that the burden for this collection of information is already very minimal.

4. Efforts to identify duplication.

The information collection requirements to our knowledge are not duplicated anywhere.

Similar data are not available from any other source.

5. Efforts to minimize the burden on small businesses.

As noted earlier, the burden incurred from this collection of information is fairly minimal. The larger railroads operate the majority of grade-crossings and signal systems in this country. Therefore, the greater portion of the burden falls on them, while smaller railroads experience a minor portion of an already very small 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 considerably jeopardized. Specifically, without the required telephonic notifications, FRA, railroads, and law enforcement agencies would not quickly know which signal systems are malfunctioning and resulting in accidents/incidents between on-track railroad equipment and automobiles, buses, trucks, motorcycles, bicycles, farm vehicles, or pedestrians at highway-rail grade crossings. Without this collection of information, FRA, railroads, and law enforcement agencies could not take and implement immediate effective safety measures to protect railroad workers and the public at these affected grade crossings.

Also, without the required notification to train crews and proper law enforcement authorities upon receiving a credible report of a warning system malfunction, railroads having maintenance responsibility for that particular warning system might not promptly initiate efforts to warn highway users and railroad employees about that grade crossing,

thereby increasing the risk of a serious accident/incident with corresponding injuries and possible fatalities. The collection of information enhances safety because it requires railroads to take certain immediate steps. Specifically, railroads must take the following actions: (1) Prior to any train's arrival at the crossing, notify the train crew of the report of activation failure and notify any other railroads operating over the crossing; (2) Notify the law enforcement agency having jurisdiction over the crossing, or railroad police capable of responding and controlling vehicular traffic; and (3) Provide for alternative means of actively warning highway users of approaching trains, consistent with the requirements of this section. As a result, all affected parties – train crew, law enforcement agencies, and motorist/pedestrians – can be forewarned and take effective measures to reduce the likelihood of an accident/incident occurring.

Without the required records, FRA could not be able to compile both an immediate and historical database regarding grade crossing signal system malfunctions. As a result, FRA's safety program would be significantly impaired. In particular, FRA and other investigators would not have essential information to determine the types, locations, times and dates of signal system malfunctions as well as the time and date of any repair actions taken by railroads prior to the repair and reactivation of the affected system. Also, without these records, FRA might be missing critical information that could be used to establish the cause(s) of an accident/incident and to devise effective strategies and programs to prevent similar types of accidents/incidents from occurring in the future.

It should be noted that the frequency of submission of information is presently as minimal as possible. Requesting any of the required information less frequently would impede FRA's safety program and put at risk railroad employees and the traveling public. The burden for this collection of information is already very minimal.

7. <u>Special circumstances</u>.

Two of the information collection requirements are not within the guidelines established in 5 CFR 1320.5. The first requirement is the telephonic notification by railroads to FRA within 24 hours of every impact between on-track railroad equipment and an automobile, bus, truck, motorcycle, bicycle, farm vehicle, or pedestrian at a highway-rail grade crossing involving a signal activation failure. The second and closely related requirement is the filing of a complete grade crossing signal failure report under § 234.9, which stipulates 15 days as the time frame for reporting each activation failure. The frequency of reporting grade crossing signal failures is not subject to FRA's control. Activation failures are inherently dangerous to the motoring public, and to railroad employees and passengers, especially when there is any type of collision. Safety, specifically the prevention of loss of life/additional loss of life and any further injuries to railroad employees and the motoring public and rail passengers when there is a collision, demands that FRA, law enforcement authorities, and other first responders be immediately notified so that necessary action can be quickly taken. The timely filing of such complete reports and other grade crossing signal activation failure reports (where there is no collision) is

essential so that FRA, railroads, and law enforcement agencies can take long-term actions to protect railroad employees and the rail and motoring public and to prevent any such signal failures from happening in the future. In particular, FRA needs to constantly monitor such signal activation failures in order to be able to institute timely remedial action(s) to protect railroad workers and the public and to head-off a major, perhaps even catastrophic, accident/incident from occurring.

All other information collection requirements are in compliance with this section.

8. Compliance with 5 CFR 1320.8.

As required by the Paperwork Reduction Act of 1995, FRA published a notice in the Federal Register on March 27, 2013, soliciting comment on this particular information collection. *78 FR 18668.* FRA received no comments in response to this notice.

Background

Previously, the railroads and public were given the opportunity to comment on the information collection requirements during the notice of proposed rulemaking (NPRM) stage of the regulatory process.

Most commenters supported or reluctantly agreed with the need for some level of malfunction reporting.

9. Payments or gifts to respondents.

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

10. Assurance of confidentiality.

Information collected is not of a confidential nature, and FRA pledges no confidentiality.

11. Justification for any questions of a sensitive nature.

These information collection requirements have nothing to do with sensitive matters such as sexual behavior and attitudes, religious beliefs, and other matters commonly considered private.

12. Estimate of burden hours for information collected.

Note: According to the latest agency data, there are approximately 763 railroads now operating in the United States.

The Grade Crossing Signal System Safety Regulations (49 CFR 234) contain four different information collection requirements. Reporting burden of each requirement is as follows:

Telephone Notification (49 CFR 234.7)

Each railroad must report to FRA every impact between on-track railroad equipment and an automobile, bus, truck, motorcycle, bicycle, farm vehicle, or pedestrian at a highway-rail grade crossing involving a crossing signal activation failure. Notification must be provided to the National Response Center within 24 hours of occurrence at (800) 424-0201. Complete reports must thereafter be filed with FRA pursuant to § 234.9 of this part (activation failure report) and 49 CFR 225.11 (accident/incident report).

Each telephone report must state the following: (1) The name of the railroad; (2) The name, title, and telephone number of the individual making the report; (3) The time, date, and location of accident; (4) The U.S. DOT-AAR Grade Crossing Identification Number; (5) The circumstances of the accident, including operating details of the grade crossing warning device; (6) The number of persons killed or injured, if any; (7) The maximum authorized train speed; and (8) The posted highway speed limit, if known.

Respondent universe is approximately 763 railroads. FRA expects that it will receive an average of approximately eight (8) telephone calls annually reporting an impact at a grade crossing involving a crossing signal activation failure. It is estimated that each phone call will take approximately 15 minutes. Total annual burden for this requirement is two (2) hours.

Respondent Universe: 763 railroads

Burden time per response: 15 minutes

Frequency of Response: On occasion

Annual number of Responses: 8 phone calls

Annual Burden: 2 hours

Calculation: 8 phone calls x 15 min. = 2 hours

Grade Crossing Signal System Failure Reports (49 CFR 234.9)

Each railroad must report to FRA within 15 days each activation failure of a highway-rail grade crossing warning system. FRA Form F 6180.83, "Highway-Rail Grade Crossing Warning System Report," must be used for this purpose and completed in accordance with instructions printed on the form.

Respondent universe is approximately 763 railroads. FRA estimates that approximately 600 activation failure reports will be received annually under this requirement. It is estimated that it will take approximately 15 minutes to complete each report. This includes the time for the respondents to collect the information, prepare the report, and submit it to FRA. Total annual burden for this requirement is 150 hours.

Respondent Universe: 763 railroads

Burden time per response: 15 minutes

Frequency of Response: On occasion

Annual number of Responses: 600 reports
Annual Burden: 150 hours

Calculation: 600 x 15 min. = 150 hours

Notification to Train Crew and Proper Law Enforcement Authority (234.105/106/107)

Upon receipt of a credible report of a warning system malfunction, partial activation, or false activation, a railroad having maintenance responsibility for the warning system must promptly initiate efforts to warn highway users and railroad employees at the subject crossing by taking the following actions: (a) Prior to any train's arrival at the crossing, notify the train crew of the report of activation failure and notify any other railroads operating over the crossing; (b) Notify the law enforcement agency having jurisdiction over the crossing, or railroad police capable of responding and controlling vehicular traffic; and (c) Provide for alternative means of actively warning highway users of approaching trains, consistent with the requirements stipulated in these sections.

FRA estimates that approximately 12,000 activation failures (warning system malfunctions, partial activations, or false activations) will occur annually. It should be noted that a large number of false activations occur each year which necessitate both the train crews and law enforcement authorities be notified. Thus, approximately 24,000 notifications will take place each year. It is estimated that it will take approximately 15 minutes to notify the two required parties, and provide for alternative means of actively warning highway users of approaching trains. Total annual burden for this requirement is 6,000 hours.

Respondent Universe: 763 railroads

Burden time per response: 15 minutes

Frequency of Response: On occasion

Annual number of Responses: 24,000 notifications
Annual Burden: 6,000 hours

Calculation: 24,000 notifications x 15 min. = 6,000 hours

Recordkeeping (234.109)

Each railroad must keep records pertaining to compliance with this subpart. Records may be kept on forms provided by the railroad or by electronic means. Each railroad must keep the following information for each credible report of warning system malfunction:

(1) Location of crossing (by highway name and DOT/AAR Crossing Inventory number);

(2) Time and date of receipt by railroad of report of malfunction;

(3) Actions taken by railroad prior to repair and reactivation of repaired system; and

(4) Time and date of repair.

Each railroad must retain for at least one year (from the latest date of railroad activity in response to a credible report of malfunction) all records referred to in paragraph (a) of this section. Records required to be kept must be made available to FRA as provided by 49 U.S.C. 20107 (formerly 208 of the Federal Railroad Safety Act of 1970 (45 U.S.C. 437)).

FRA estimates that there will be approximately 12,000 reports of malfunctions annually, and that records will be kept for each of them (as required). It is estimated that it will take approximately 10 minutes to complete each record with the necessary information. Total annual burden for this requirement is 2,000 hours annually.

Respondent Universe: 763 railroads

Burden time per response: 10 minutes

Frequency of Response: On occasion

Annual number of Responses: 12,000 records
Annual Burden: 2,000 hours

Calculation: 12,000 records x 10 min. = 2,000 hours

Total annual burden for the entire information collection is 8,152 hours (2 + 150 + 6,000 + 2,000).

13. Estimate of total annual costs to respondents.

$270 Postage (600 signal system failure reports @ $.45)

$9,006 Telephone calls (8 calls + 12,000 calls/notifications @ $.75; train crews are notified by radio so there is no cost involved.)

$9,276 Total

14. Estimate of Cost to Federal Government.

Cost to Federal Government is for reviewing the activation failure reports submitted by the respondents. It is estimated that it will take approximately 15 minutes per report. Annual cost is $12,750 [600 reports x 15 minutes x $85 p/hour (includes 75% overhead)].

15. Explanation of program changes and adjustments.

As noted in the submission summary above, this is a request for a revision to the previous approval. The only change is in the respondent universe, which increased from 728 railroads to 763 railroads. The total burden for this information collection remains **8,152 hours**. Thus, there are no **program changes** or **adjustments** at this time.

The cost to respondents listed above amounts to $9,276. The cost to respondents listed in the OMB inventory is $5,857. Thus, the difference between these two costs exhibits an increase of **$3,419**, which would be an **adjustment**. [*Note: The cost to respondents in the OMB inventory is not correct. The cost to respondents provided in the last submission actually was **$9,270**. Thus, the true cost to respondents has increased by $6 (from $9,270 to $9,276). This change in cost is an **adjustment** that reflects an increase in the cost of postage for a first class letter from 44 cents to 45 cents. Thus, the calculation would be as follows: 600 signal system failure reports x .45 = $270 (rather than 600 signal system failure reports x .44 = $264) + $9,006 = **$9,276***].

16. Publication of results of data collection.

There is no tabulation, collection or publication of responses.

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. Without this collection of information, rail safety in the United States would be seriously hampered. Specifically, without this collection of information, FRA, railroads, and law enforcement authorities would not know which signal systems are malfunctioning throughout the country. This could lead to an increased number of accidents/incidents where train crews and the traveling public are injured and possibly killed. The collection of information promotes safety by allowing FRA, railroads, and law enforcement authorities to take necessary safety measures upon learning that a grade crossing signal system has malfunctioned.

The collection of information also promotes safety by providing critical information that the agency can use in investigating accidents/incidents to determine the cause(s) of these events and prevent future accidents/incidents from occurring. Furthermore, the collection of information promotes safety by enabling FRA to set up an ongoing database that provides necessary and vital information regarding accidents/incidents involving on-track equipment and an automobile, bus, truck, motorcycle, bicycle, farm vehicle, or pedestrian at a highway-grade crossing resulting from a signal activation failure. This information can be used by FRA, railroads, and law enforcement authorities to make highway-grade crossings safer.

In summary, this collection promotes the top DOT Strategic Goal as well FRA's primary mission, namely transportation/railroad safety. In this information collection, as in all its information collection activities, FRA seeks to do its utmost to fulfill DOT Strategic Goals and to be an integral part of One DOT.