Federal Communications Commission.

Douglas W. Webbink,

Chief, Policy and Rules Division, Mass Media Bureau.

[FR Doc. 96–5191 Filed 3–5–96; 8:45 am]

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47 CFR Part 73

[MM Docket No. 89–594, RM–7142, RM–7318]

Radio Broadcasting Services; Harrisburg and Albemarle, NC

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: The Chief, Policy and Rules Division denied the petition for reconsideration, filed by Piedmont Crescent Communications, Inc., of the *Report and Order* in this proceeding, 56 FR 1650, published January 15, 1992. The *Report and Order* granted RM–7142 to allot Channel 224A to Harrisburg and partially denied another proposal, treated as a counterproposal and filed by Piedmont, to substitute Channel 264A for Channel 265A at Albemarle, North Carolina, to reallot Channel 264A to Harrisburg, North Carolina, and to modify the license of Albemarle Station WABZ-FM accordingly, and also to allot Channel 224A to Harrisburg. With this action, the proceeding is terminated.

EFFECTIVE DATE: March 6, 1996.

FOR FURTHER INFORMATION CONTACT: J. Bertron Withers, Jr., Mass Media Bureau, (202) 418–2180.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's *Memorandum Opinion and Order,* MM Docket No. 89–594, adopted February 16, 1996 and released February 29, 1996. The full text of this Commission decision is available for inspection and copying during normal business hours in Commission's Reference Center (Room 239), 1919 M Street, NW., Washington, DC 20554. The complete text of this decision may also be purchased from the Commission's copy contractor, International Transcription Services, 2100 M Street, NW., Suite 140, Washington, DC 20037, (202) 857–3800.

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DEPARTMENT OF TRANSPORTATION

Federal Railroad Administration

49 CFR Part 229

[FRA Docket No. RSGC–2, Notice No. 10]

RIN 2130–AA80

Locomotive Visibility; Minimum Standards for Auxiliary Lights

AGENCY: Federal Railroad Administration (FRA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: FRA amends the locomotive safety standards to increase train visibility. This action requires that certain locomotives be equipped with auxiliary lights to enable motorists, railroad employees and pedestrians to recognize approaching trains at a greater distance. The rule requires that locomotives operated over public highway-rail crossings at greater speeds than 20 miles per hour be equipped with auxiliary lights.

EFFECTIVE DATE: May 6, 1996.

ADDRESSES: Petitions for reconsideration should be submitted in triplicate to the Docket Clerk, Office of Chief Counsel, Federal Railroad Administration, 400 Seventh Street, S.W., Room 8201, Washington, D.C. 20590.

FOR FURTHER INFORMATION CONTACT: Gordon Davids, Bridge Engineer, Office of Safety, FRA, 400 Seventh Street, S.W., Washington, D.C. 20590 (telephone: 202–366–0507); Grady Cothen, Jr., Deputy Associate Administrator for Safety Standards, FRA, 400 Seventh Street, S.W., Washington, D.C. 20590 (telephone: 202–366–0897); or Kyle M. Mulhall, Trial Attorney, Office of Chief Counsel, FRA, 400 Seventh Street, S.W., Washington, D.C. 20590 (telephone: 202–366–0635).

SUPPLEMENTARY INFORMATION: On August 28, 1995, FRA published a notice of proposed rulemaking (NPRM) that would change headlight regulations for locomotives by requiring two auxiliary lights that would be placed on the front of the locomotive to form a triangle with the headlight. 60 FR 44457. Publication of this final rule was required by section 14 of the Amtrak Authorization and Development Act (Pub. L. 102–533). This legislation added a new subsection (u) to § 202 of the Federal Railroad Safety Act of 1970 (FRSA) [45 U.S.C. 431(u)], to address locomotive visibility. On July 5, 1994, § 202(u) of the FRSA, together with all the other general and permanent Federal railroad safety laws, was simultaneously repealed, revised and reenacted without substantive change, and recodified as positive law at 49 U.S.C. 20143. As recodified, the section now reads as follows:

Locomotive Visibility

(a) *Definition.*—In this section, ''locomotive visibility'' means the enhancement of day and night visibility of the front end locomotive of a train, considering in particular the visibility and perspective of a driver of a motor vehicle at a grade crossing.

(b) *Interim Regulations.*—Not later than December 31, 1992, the Secretary of Transportation shall prescribe temporary regulations identifying ditch, crossing, strobe, and oscillating lights as temporary locomotive visibility measures and authorizing and encouraging the installation and use of those lights. Subchapter II of chapter 5 of title 5 does not apply to a temporary regulation or to an amendment to a temporary regulation.

(c) *Review of Regulations.*—The Secretary shall review the Secretary's regulations on locomotive visibility. Not later than December 31, 1993, the Secretary shall complete the current research of the Department of Transportation on locomotive visibility. In conducting the review, the Secretary shall collect relevant information from operational experience by rail carriers using enhanced visibility measures.

(d) *Regulatory Proceeding.*—Not later than June 30, 1994, the Secretary shall begin a regulatory proceeding to prescribe final regulations requiring substantially enhanced locomotive visibility measures. In the proceeding, the Secretary shall consider at least—

(1) Revisions to the existing locomotive headlight standards, including standards for placement and intensity;

(2) Requiring the use of reflective material to enhance locomotive visibility;

(3) Requiring the use of additional alerting lights, including ditch, crossing, strobe, and oscillating lights;

(4) Requiring the use of auxiliary lights to enhance locomotive visibility when viewed from the side;

(5) The effect of an enhanced visibility measure on the vision, health, and safety of train crew members; and

(6) Separate standards for self-propelled, push-pull, and multiple unit passenger operations without a dedicated head end locomotive.

(e) *Final Regulations.*—(1) Not later than June 30, 1995, the Secretary shall prescribe final regulations requiring enhanced locomotive visibility measures. The Secretary shall require that not later than December 31, 1997,

a locomotive not excluded from the regulations be equipped with temporary visibility measures under subsection (b) of this section or the visibility measures the final regulations require.

(2) In prescribing regulations under paragraph (1) of this subsection, the Secretary may exclude a category of trains or rail operations from a specific visibility requirement if the Secretary decides the exclusion is in the public interest and is consistent with rail safety, including grade-crossing safety.

(3) A locomotive equipped with temporary visibility measures prescribed under subsection (b) of this section when final regulations are prescribed under paragraph (1) of this subsection is deemed to be complying with the final regulations for 4 years after the final regulations are prescribed.

After publication of the NPRM, FRA held a public hearing at the request of the Association of American Railroads (AAR) and The American Short Line Railroad Association (ASLRA). This hearing was held in Washington, on November 28, 1995. FRA also extended the comment period on the NPRM. FRA now responds to the comments concerning this rulemaking.

FRA Study of Auxiliary Lights

FRA's Office of Research and Development, through the Volpe National Transportation Systems Center (VNTSC), has studied the impact of auxiliary lights as alerting devices to improve locomotive visibility. A copy of the final report was placed in the docket of this rulemaking.

As part of this study, FRA initially evaluated various lighting systems, paint schemes, and reflective materials. Four of the alerting light systems were selected for further study: standard locomotive headlights and crossing, ditch, and strobe lights. FRA evaluated the lights for compliance with FRA's interim advisory standards and for cost and reliability and conducted field tests on their ability to increase an approaching train's visibility.

The results were that the addition of auxiliary lights significantly increased train visibility compared to the use of standard headlights alone. Results indicated a 10 to 20 percent increase in the distance an approaching train can be recognized. Tests also indicated that motorists are better able to predict the time it takes for an approaching train to enter a crossing. Limited data collected from three railroads participating in the study suggested that accident rates drop significantly when auxiliary lights are used.

The AAR dismisses FRA's findings on two grounds; one, that the field tests did not adequately reproduce real conditions at highway-rail grade crossings; and, two, that FRA failed to separate locomotives that were and were not equipped with auxiliary lights when it determined there was a drop in the accident rate after auxiliary lights were installed on some locomotives.

FRA replies that the field tests were not intended to simulate real conditions at highway-rail grade crossings. They were intended to compare the responses of a selected group of subjects to the approach of trains with several configurations of auxiliary lights, and a control sample with no auxiliary lights. Real conditions at highway-rail grade crossings involve so many variables that testing for all possible conditions would not have been possible within the time and resources available for this project. The tests were successful in measuring the subjects'' response to the carefully selected parameters.

The in-service accident data was requested from the participating railroads by VNTSC after the periods for which the data had been accumulated. FRA used data that was available at the time, and the data had not been collected with this rulemaking in mind. Therefore, the data was not available for an ideal detailed statistical analysis. However, the trend favoring the accident-reduction potential of auxiliary lights was obvious throughout the analysis that was performed and reported by VNTSC.

Section Analysis

1. Three-Light Triangle: § 229.125(d)

It continues to be FRA's belief that a uniform light configuration on locomotives will help the public become familiar with and quickly recognize the appearance of an approaching locomotive. A configuration of three front-mounted lights is the most common system adopted by the railroad industry since the issuance of the first interim rule in 1993. Those three lights form a triangle with one major dimension (base or vertical axis) of at least 60 inches.

In its post-hearing comments, AAR objects to the standard measures used for placing auxiliary lights. AAR argues that 236 Canadian National locomotives, which operate over the United States border with Canada, would have to be refitted to come into compliance since their auxiliary lights are not arranged as required by this rule. As an AAR spokesman at the public hearing states, however, ''[w]e could understand FRA is looking toward standardization of some type over time, and we support that.''

FRA is indeed concerned with giving a consistent warning so motorists are not confused. In addition, the Canadian National filed comments with FRA addressing the NPRM and did not raise this objection. FRA did, however, consider AAR's latest comment.

The normal human eye can discern two objects as separate when the objects are spaced to form a visual angle of approximately one-half of one degree. When the lights are seen as separate, the observer can better estimate the speed of an approaching train because as the locomotive moves closer the lights will appear to move further apart. It is the goal of this rule to give a uniform warning. If the lights are arranged in a standard position, then motorists at grade crossings will become accustomed to judging the train's rate of approach. If the distance between the lights vary, from locomotive to locomotive, then the motorists will not be receiving a consistent warning. The Canadian National locomotives have a maximum axis of as little as 44.5 inches. The smaller axis reduces the distance at which the lights can be discerned as separate, and would give a false visual indication of a greater than actual distance from the train.

It is also unclear under what circumstances these Canadian National locomotives will operate in this country, or if all of these locomotives are intended to be used in the United States. Given the fact that all carriers have been aware of the proposed dimensions for several years, it is difficult to understand why locomotives in use in this country would have been fitted with auxiliary lights which were not in compliance with the interim standards or the NPRM.

Given the prevalence and practicality of the three-light triangle system, the desire for a uniform appearance of an approaching locomotive, and the physical advantages of this system, FRA believes it to be the best lighting system to accomplish the purpose of this rule.

The dimensions for the three-light triangle are the same as those specified in the interim rule as revised on May 13, 1994. Those dimensions were prescribed as the result of comments made on the first interim rule of February 3, 1993. They are functionally the same, but the second interim rule permitted more flexibility in light placement on locomotives to accommodate various locomotive configurations and placement of other vital appliances. FRA will, however, permit the light arrangement on the Canadian National locomotives to be grandfathered. Any locomotive equipped before May 30, 1994, with a

three-auxiliary-light arrangement with one axis at least 44 inches, will be considered in compliance with this rule until such time as the locomotive is rebuilt or retired. This liberalization of the grandfathering provision will validate early investment in visibility measures that increase safety.

The 36-inch minimum vertical axis requirement aids the observer's sight distance. The maximum vertical curve recommended by the American Railway Engineering Association for main track has a rate of change of grade of 0.2 percent per 100 feet. On this vertical curve, a light three feet above the track will be visible to an observer at a distance of 1,095 feet, provided the observer's eyes are three feet above the track. A reduction in height of one foot, of either the observer or the light, reduces the sight distance by approximately 100 feet.

One comment to the first interim rule requested a lower height above the rail for lights on cab control cars in suburban passenger service. FRA believes that an inflexible requirement to place lights on cab control cars or other multiple unit locomotives as defined in this regulation at a height of 36 inches might lead to a reduction in the integrity of the car body structure at this critical location. Such reduced structural integrity could increase the risk of injury to the occupants of the equipment in the event of an accident. The final rule would therefore permit auxiliary lights to be mounted at heights down to 24 inches above the rail on equipment that would not readily accommodate a higher placement.

However, the lower, 24-inch minimum height for multiple unit locomotives and cab control cars is not suitable for general railroad service, owing to the reduced visibility on vertical curves, and susceptibility to damage from snow and foreign material away from commuter lines. FRA therefore retains the minimum height of 36 inches for auxiliary lights for all other applications.

Horizontal orientation of the auxiliary lights should also be reasonably uniform in order to ensure recognition. FRA has selected the ''crossing light'' configuration (focused within plus or minus 15 degrees of a line parallel to the centerline of the locomotive) in lieu of the extreme ''ditch light'' configuration as described in the grandfathering rule (turned outward up to 45 degrees). In the extreme ditch light configuration, there appears to be a risk that the auxiliary lights might affect the night vision of motorists on parallel roadways. Several parties commented that this was a legitimate fear, although no direct evidence was presented.

FRA had also requested comment as to whether a dimmer feature should be required for auxiliary lights similar to the dimmer used on headlights. The comments received on this point indicated that the dimmer feature would be unnecessary. FRA can identify no compelling safety need for a dimmer on auxiliary lights. The one argument made for dimmers was that the device might prevent blinding motorists. As noted above, FRA believes that aligning the lights as required in the final rule should reduce this possibility. Several parties also argued that requiring dimmers would significantly increase installation cost per locomotive.

The interim rule and the proposed rule provided a minimum intensity requirement of 200,000 candela for each auxiliary light. The criterion assumes steady-state operation. Field observations suggest that current alerting light pulsing systems provide more than adequate effective candela; however, research conducted to date evaluated only strobe lights for effective intensity in a pulsing or flashing mode. No comments were received suggesting a separate effective intensity requirement be stated in the final rule for systems that operate pulsing. At this time, FRA can identify no compelling safety reason to set a different candela intensity for pulsing auxiliary lights.

FRA's final rule permits the use of either the steady-state or pulsing auxiliary lights, drawing permissible features from both the ''ditch lights'' and ''crossing lights'' as described in the interim requirements.

It should be noted that nomenclature for auxiliary lights is not standard. For example, most non-pulsing installations referred to by railroads as ''ditch lights'' have, in practice, been aligned within 15 degrees of centerline and would therefore meet FRA's requirements for permanent auxiliary lights. This rule does not elect a single option from among the configurations that railroads continue to evaluate. Rather, it proposes a minimum standardization of placement and alignment of the two auxiliary lights that, with the locomotive headlight, form the distinct triangle.

Speed Limits

Much comment has been received concerning FRA's low speed exclusion from the auxiliary lights requirement. FRA proposed this exception for two reasons; one, accidents at lower speeds are significantly less likely to cause injuries or fatalities (for example, on an annual average, 92 percent of accident fatalities occur at speeds greater than 20 miles per hour); and two, FRA believed the cost of equipping these locomotives, which are, on average, nearer the end of their useful life, would not produce the justifying benefits, given the shorter time for recovering the costs of upgrading.

FRA originally considered requiring the use of auxiliary lights only during the 20 seconds before a locomotive entered a public highway-rail grade crossing. It was quickly concluded, however, that it would be too difficult for a train operator to tell whether or not he was 20 seconds approach time from the crossing. FRA concluded, therefore, that the interest of safety would be best served if all locomotives required by this rule to be equipped with auxiliary lights were required to use those lights whenever the locomotive is moving. Only locomotives which never exceeded 20 miles per hour would be allowed to operate without ever using auxiliary lights.

AAR, ASLRA, and parties representing tourist railroads requested an increase in this speed limit. These parties asked that FRA raise the speed exclusion to 30 miles per hour. FRA has considered this option and also the option of raising the limit to 25 miles per hour. After much consideration, FRA has concluded that the projected reduction in accidents that would occur at speeds greater than 20 miles per hour if locomotives at those speeds were equipped with auxiliary lights significantly outweighs any cost savings from not having to equip the affected class of locomotives.

FRA also believes that having large numbers of unequipped locomotives would confuse the public. Many unequipped locomotives would be able to operate on freight main lines if the speed were significantly raised. Motorists crossing such lines will likely expect to see the light triangle. This might be particularly true in rural areas where many crossings are only passively signed. FRA's analysis of costs and benefits, discussed further below, confirmed the positive contribution that auxiliary lights can make to grade crossing safety, even at speeds only slightly above 20 miles per hour. FRA therefore will retain the 20 miles per hour speed exclusion.

FRA is required to issue a rule that would require that by December 31, 1997, locomotives be equipped with a form of auxiliary lights. In order to develop additional information that may later provide a basis for distinguishing between steady-burning and alternately-pulsing arrangements, AAR has indicated that they would conduct a

further study under which two or more major railroads would equip portions of their fleets used in the same service with steady and pulsing lights. In order to eliminate transient effects, the study would follow the two matched fleets for a period of approximately three years. The progress of this study will be tracked on an annual basis, and at the conclusion of the study, FRA will review the data to determine if a statistically significant difference can be discerned between the effectiveness of steady and flashing lights. The results of the study should provide a factual basis for determining whether further refinement of the rule is appropriate and, if so, the degree of urgency associated with any such change.

2. Flash Rates: § 229.125(e)

Subsection (e) provides that auxiliary lights may be illumined continuously or may be arranged to flash on approach to a highway-rail grade crossing. If flashing lights are used, the rate must be not fewer than 40 and not more than 180 per minute, as provided in the second interim rule. FRA has received no negative comments regarding the range of flash rates permitted for locomotive visibility lights in the second interim rule or the NPRM. The rates are constrained by the need for visibility but also the need to avoid a ''flicker vertigo'' effect on train crew members.

FRA leaves control of flashing lights to the discretion of the railroad. Depending on their operations, some railroads might consider it advisable to interconnect the horn and lighting controls to provide joint activation when approaching a crossing, but that question need not be addressed in a regulation.

3. Operation of Auxiliary Lights: § 229.125(f)

In subsection (f), FRA proposed to require operation of auxiliary lights for a period of at least 20 seconds prior to arrival of the locomotive at the crossing. FRA received comments, however, that estimating the approach time to a crossing is too difficult an assignment to be reliably carried out by the locomotive engineer. FRA agrees that this is an unfair responsibility to place on the train crew. The Final Rule, therefore, requires continuous use of auxiliary lights. Railroads using locomotives with flashing lights shall include in the railroad's operating rules standard procedures for use of this model of auxiliary light.

FRA received several comments from railroads asking allowance for not using auxiliary lights under certain circumstances for the safety of motorists, or railroad employees working in the area, or for certain weather conditions. FRA believes that any exception should be made only in the best interest of safety to avoid grade crossing accidents where there has been a railroad decision not to use the auxiliary lights.

Railroads may wish to extinguish auxiliary lights when the headlight is dimmed under existing operating rules. Rule 5.9 of the General Code of Operating Rules, for instance, requires that the headlight be dimmed at stations and yards where switching is done, when the engine is stopped close behind another engine, when passing another train, and under other specified circumstances.

FRA will allow railroads subject to this rule to except, for a public safety purpose, auxiliary light use at any highway-rail grade crossing so designated in the railroads'' operating rules, timetable, or special order. These exceptions will be subject to disapproval by FRA's Associate Administrator for Safety, or one of FRA's Regional Administrators, after investigation and opportunity for response by the railroad, for good cause stated.

FRA believes there will be little burden on the industry from this requirement since it is currently standard practice for railroads to so print such directions for use by train crews. Under existing railroad rules, there are few exceptions, limited primarily to situations where two trains are approaching each other and it is necessary to avoid blinding their respective locomotive engineers.

4. Other Uses of Auxiliary Lights: Proposed § 229.125(g)

FRA's proposed subsection (g) is deleted from the Final Rule. Continuous use of auxiliary lights is now required for any lead locomotive that is equipped with such lights.

5. Defective En Route: § 229.125(g)

FRA's proposed subsection (h) is relettered, and its provisions are now contained at subsection (g).

FRA received comments from several carrier representatives that more flexibility was needed for making auxiliary light repairs. FRA's proposed subsection regarding movement of defective locomotives permitted a lead locomotive with one defective auxiliary light to proceed to a point where repairs could be made. If both auxiliary lights were out, § 229.9 (movement of non-complying locomotives) would apply, which would ordinarily require that the locomotive be switched to a trailing position or be operated at less than 20 miles per hour. It should be noted that the requirement for auxiliary lights applies only to a lead locomotive.

FRA recognizes that light failures should be infrequent, and accidents occurring during a period of failure even more rare. Although each is important, the large number of safety items on a locomotive presents a challenge with respect to appropriate use of an asset that may be valued as high as two million dollars.

FRA's final rule requires that if either of the two auxiliary lights on a lead locomotive is inoperative at an initial terminal, then each inoperative auxiliary light must be fully repaired prior to the train's departure. At any other time, a lead locomotive may continue with one auxiliary light out to the place where the next calendar day inspection is conducted. An en route failure of both lights would require repair at the next location in the direction of movement where repairs of the kind can be made. This movement must be consistent with § 229.9.

6. Exception for Historic Equipment: § 229.125(h)

FRA also received comments on its proposed rule from parties concerned with historic locomotive models that are not steam driven. FRA agrees that requiring these rare locomotives to be equipped with auxiliary lights is unnecessary and would compromise their historic appearance. These locomotives, including inter-urban electric cars, operate at low speeds on limited operations, and generally during daylight hours. Fitting these historic locomotives with auxiliary lights can entail the upgrading of the entire electrical system. This expense seems unnecessary. FRA has been informed that these locomotives were no longer built after the end of 1948. FRA will therefore allow an exception for historic locomotives built before December 31, 1948. This exception does not apply to any locomotive used in regular commuter or inter-city passenger service. This exception does apply to locomotives operated by historic or tourist railroads.

In 1992, FRA reviewed its policy regarding tourist, scenic and excursion railroads that transport passengers on lines separate from the general railroad system of transportation. While in the past FRA has usually limited its exercise of jurisdiction over passenger operations to those on the general system, FRA determined that public safety required a uniform floor of regulation for this growing segment of the railroad marketplace. Only those

railroads deemed ''insular'' were excluded from this exercise of jurisdiction; however, several existing sets of regulations, including Part 229, do not apply to passenger railroads that are not part of the general rail system. Since a major criterion of non-insular status is the presence of a public highway-rail grade crossing, the issue is presented in this proceeding whether these non-general system railroads should be required to equip their locomotives with auxiliary alerting lights.

FRA has determined that any passenger railroad that is not part of the general railroad system of transportation should not be required to comply with this rule. The small number of locomotives, if any, that would fit in this category present little safety risk at grade crossings. These trains tend to operate at lower speeds, carry fewer passengers over grade crossings, and are used predominately during daytime when visibility is better. This locomotive visibility rule already excludes locomotives operated at 20 miles per hour or less. This exclusion renders the rule inapplicable to many non-steam locomotives owned and operated by passenger railroads off the general system.

7. Grandfathering: § 229.133

The interim provisions on auxiliary lights are contained in 49 CFR 229.133. Subsection (c), which makes use of auxiliary lights elective during the period prior to December 31, 1997, would be repealed on that date.

The interim provisions identify four alerting light arrangements that FRA believed would increase locomotive visibility. First, ditch lights, which are composed of two white lights focused within 45 degrees of the longitudinal centerline of the locomotive. Second, strobe lights, which are two white stroboscopic lights that flash at a rate between one pulse every 1.0 to 1.3 seconds. Third, crossing lights, which are two white standard lights that flash at the same rate as the strobes and are focused within 15 degrees of the longitudinal centerline of the locomotive. And the final alerting lights system, an oscillating light, which is composed of one or more white lights that cast a moving beam in circular or elliptical shapes in front of the locomotive. These alerting light systems will be ''grandfathered'' and considered in temporary compliance with any final rule.

By law, ''grandfathered'' auxiliary lights installed before the final rule is issued may continue in use for four years from the date the final rule is issued.

During the comment period on the NPRM, FRA was asked to extend the grandfathering period beyond the minimum set by the statute. This request was referred to as ''supergrandfathering.'' These comments concerned oscillating and strobe lights.

FRA did consider the use of oscillating lights and strobe lights for inclusion in the NPRM and final rule in § 229.125(d). Both light systems offer significant advantages but have unique drawbacks. An oscillating light can provide a startling effect when the light rapidly reflects off nearby objects, fog, or snow. However, in general, oscillating lights are costly and difficult to maintain. Oscillating lights have often been used individually, a configuration inconsistent with the triangular signature common in European railroad operators.

Desirable effects can also be achieved with pulsating strobe lights, particularly those lights operated in pairs. However, extensive use of strobe and oscillating-type lights on emergency vehicles has reduced their usefulness as a distinct warning of an approaching train. Further, strobe lights can tend to wash out against a light background and may not compete well for attention in a nighttime environment with a variety of light sources.

Research in support of this proceeding indicates that crossing lights and ditch lights—the auxiliary lights most widely used by U.S. railroads—also appear to perform well under both experimental conditions and in revenue service. Experimental field tests compared the performance of a lone headlight with combinations of a headlight and each of the following:

(i) pulsing ''crossing lights'' that were aligned straight down the railroad,

(ii) steady burning ''ditch lights'' that were outwardly aligned at 15 degrees, and

(iii) dual strobe lights mounted on the top of the locomotive.

All three types of auxiliary lights outperformed the lone headlight by significantly increasing the distance a train can be detected and improving an observer's ability to estimate a train's arrival time at the crossing. For detection distance, the crossing light performed best, followed by the ditch and strobe lights. With respect to estimation of time of arrival, the crossing lights were judged to result in the smallest estimation errors for actual arrival time intervals between 7 and 22 seconds. However, the ditch lights clearly aided estimation of arrival, as well.[1]

The Volpe Center gathered limited data from Norfolk Southern, Conrail, and CalTrans (California) comparing accident experience of locomotives equipped with crossing lights to locomotives equipped with a headlight alone. These data suggest that the use of crossing lights may result in a greater than 50- percent reduction in accident rates. Although these trials lasted from only nine to twenty-four months, and some of the accident reduction may have resulted from a ''novelty effect'' (an initial impact that wanes as risk-taking motorists become accustomed to the new lights), there is no reason to believe that there will not be substantial and continuing benefits from use of auxiliary lights.

All of the service applications examined by the Volpe Center involved pulsing auxiliary lights, and the experimental field tests potentially relevant to this issue involved a confounding variable (angle of alignment). Accordingly, no empirically-based comparisons can be made at this time between lights that pulse (alternately flash) on approach to a crossing and those that burn steadily.

FRA agrees with those parties who argued that evidence that crossing lights are superior is not, however, extensive. FRA also recognizes that it has been the agency's policy to encourage early installation of auxiliary lights. Many carriers made just such good faith investments in safety. FRA therefore will permit ''supergrandfathering'' for certain light arrangements. The final rule will consider oscillating lights, installed in newly-acquired equipment ordered prior to January 1, 1996, as permanently grandfathered. Use of these lights is concentrated in low speed and commuter operations over territories where an oscillating pattern should provide significant benefits. Strobe lights will be permitted on a locomotive until the locomotive is retired or rebuilt. Strobe lights will be permanently grandfathered on any locomotive that is limited to operating at speeds no greater than 40 miles per hour. FRA believes this approach best validates early

[1] In the field tests, observers wore headphones to mask noise from the oncoming locomotive. FRA has conducted separate analyses that indicate locomotive horns provide a very powerful (though not always sufficient) warning to motorists that the train is present and its arrival at the crossing is imminent. FRA recognizes that some overlap may exist between the two warning systems; however, to the extent this overlap may be beneficial in modifying risky behavior, its potential should be exploited. The actual service experience tends to confirm the possibility that such an effect may exist.

investment in safety, while encouraging uniform light configurations.

FRA notes that application of strobe or oscillating lights, as attention-getting supplements to the triangular pattern of auxiliary lights made standard by this rule, can have further beneficial effects on safety. Nothing in this final rule should be construed to discourage use of such systems as supplements to the triangle pattern, either through retention of existing lights or new installations.

Related Issues

Reflective Materials

The enabling legislation requires that the Secretary consider the use of reflective materials to enhance locomotive visibility. Research has shown that the frontal visibility of a locomotive displaying a headlight is not affected by reflective material or distinctive colors. The headlight is visible at a far greater distance than any light reflected from the front of the locomotive.

Analysis of the 4,240 highway-rail grade crossing accidents reported to FRA in 1993 shows that the lead locomotive of a train struck the motor vehicle in 3,171 of the accidents. The motor vehicle struck the lead locomotive in 664 accidents. In the remaining 405 accidents, the motor vehicle struck the train at a point behind the lead locomotive.

This information suggests that enhancing the visibility of the front of the train could affect up to 90 percent of crossing accidents. The effect of increasing the visibility of the side of the train does not have as clearly defined a potential to reduce accidents. Nevertheless, FRA continues to conduct research, including analysis of recently designed retro-reflective materials and evaluation of the accident experience of car fleets equipped with retro-reflective material. FRA is required by other legislation to consider the use of retro-reflective materials on railroad cars as well as locomotives, and will address the issue in a separate proceeding. See 49 U.S.C. 20148, Pub. L. 103–440, § 212 (Nov. 2, 1994). As soon as sufficient information becomes available to support a decision on whether to place reflective material on cars and locomotives, FRA will act accordingly.

Applicability: Steam Locomotives

This rule amends Part 229 of title 49, Code of Federal Regulations, which applies, in general, to railroads in the general system and only to non-steam locomotives. FRA believes that, as a general rule, steam locomotives are used with relatively less frequency or at lower speeds than non-steam locomotives. Equipping steam locomotives with alerting lights would cost more per locomotive because of the need to update generators, and some steam operators have commented that the modification would detract from the historic authenticity of this antique equipment. FRA presently has insufficient specific information indicating that safety would benefit from application of auxiliary lights to steam locomotives.

Regulatory Impact

Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule has been evaluated in accordance with existing policies and procedures and is considered ''nonsignificant'' under Executive Order 12866. It is also considered to be not significant under DOT policies and procedures. See 44 FR 11034.

Although the rule is ''nonsignificant,'' FRA nonetheless has prepared a regulatory evaluation addressing the economic impact of the rule. This regulatory evaluation has been placed in the docket and is available for public inspection and copying during normal business hours in Room 8201, Office of Chief Counsel, FRA, 400 Seventh Street, S.W., Washington, D.C. 20590. Copies may also be obtained by submitting a written request to the FRA Docket Clerk at the above address.

The evaluation found costs and benefits associated with this rule calculated for a twenty-year period using the seven percent discount rate required by federal regulatory evaluation guidelines.

This rule allows two distinct light system specifications—a pulsing light system and a steady beam light system. Auxiliary light requirements can be met by equipping locomotives with the lower cost steady beam lights. However, realistically, some locomotives will have steady beam lights installed and others will have pulsing lights installed. Information available to FRA suggests that at least 8,327 locomotives are currently equipped with auxiliary lights complying with the rule. About 52.84 percent of these locomotives have pulsing lights. The remainder (47.16 percent) have steady beam lights. Small operators involved mainly in shortline service may choose to equip their affected locomotive fleet with the less expensive steady beam lights. Assuming locomotives which operate at speeds below 30 m.p.h. are equipped with steady beam lights and all others continue to be equipped in the current proportions, we expect twenty-year costs to total about $83 million. This includes installation and maintenance costs which the railroad industry would not incur in the absence of this rule.

Although specifications for pulsing and steady beam lights differ, data is not available to establish that one light system is more effective than the other. This analysis assumes both are equally effective than the other. For total benefits of the auxiliary lights to justify incurring $83 million in costs, use of the lights must prevent an average of about nine accidents annually. FRA estimates that the use of auxiliary lights will prevent at least 3,300 grade crossing accidents (involving about 750 fatalities and 1,800 injuries) valued at $1.3 billion over twenty years, or an average of about 165 accidents annually. Analysis indicates this accident reduction will almost certainly be achieved and probably will be substantially exceeded as a result of using auxiliary lights. The benefit/cost ratio is 15.7:1.

Analysis of costs and benefits of locomotives operating at maximum speeds between 21 and 25 m.p.h. indicates that for that particular sector this rule has a benefit/cost ratio of no less than 1.3:1. The return on investment represented by the ratio is relatively lower for this sector. However, the increased safety still justifies incurring the costs associated with applying the rule to this sector.

Costs and benefits associated with the in-service tests are not quantified in this analysis. FRA recognizes that participating railroads will incur data collection costs. However, given the permissive nature of the industry in-service tests, we cannot determine the level of participation or the magnitude of costs which the industry will incur. Nevertheless, safety benefits resulting from application of the knowledge gained should far outweigh costs incurred by the participants. Including test costs would not change the final outcome of this analysis.

Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980 (5 U.S.C. 601 *et seq.*) requires a review of rules to assess their impact on small entities, unless the Secretary certifies that a final rule will not have a significant economic impact on a substantial number of small entities. It is certified that this rule will not have a significant economic impact on a substantial number of small entities under the provisions of the Regulatory Flexibility Act.

Paperwork Reduction Act

This rule will require that railroads note any grade crossings excluded from

auxiliary light use in the railroads'' operating rules, time tables, or special orders. It is therefore necessary to estimate the public reporting burden for purposes of the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.*

FRA is currently preparing this analysis. Once it is completed, before the rule takes effect in December, 1997, the paperwork reduction review will be placed in the docket.

FRA is anticipating a minimal paperwork impact from this rule given the fact that railroad operating rules standardly contain the type of operating instructions now required by FRA.

Environmental Impact

FRA has evaluated these regulations in accordance with its procedures for ensuring full consideration of the environmental impact of FRA actions, as required by the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*), other environmental statutes, Executive Orders, and DOT Order 5610.1c. It has been determined that this rule will not have any effect on the quality of the environment.

Federalism Implications

This rule will not have a substantial effect on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, a Federalism Assessment is not necessary.

Under 49 U.S.C. 20106 (superseding at 45 U.S.C. 434), issuance of this regulation preempts any State law, rule, regulation, order, or standard covering the same subject matter, except for a provision directed at a local safety hazard if that provision is consistent with this rule and does not impose an undue burden on interstate commerce.

List of Subjects in 49 CFR Part 229

Railroad safety.

The Final Rule

In consideration of the foregoing, FRA amends Part 229, Title 49, Code of Federal Regulations as follows:

1. The authority citation for Part 229 is revised to read as follows:

Authority: 49 U.S.C. 20102–20103, 20110–20112, 20114, 20133, 20137, 20138, 20143, 20301–20303, 20306, 20701–20703, 21301-21302, 21304, 21306, and 21311; 49 CFR 1.49 (c), (g) and (m).

2. Section 229.9 is amended by revising paragraph (a) introductory text to read as follows:

§ 229.9 Movement of non-complying locomotives.

(a) Except as provided in paragraphs (b), (c) and § 229.125(h), a locomotive with one or more conditions not in compliance with this part may be moved only as a lite locomotive or a dead locomotive after the carrier has complied with the following:

* * * * *

3. Section 229.125 is amended by revising the section heading and by adding (d), (e), (f), (g), and (h) to read as follows:

§ 229.125 Headlights and auxiliary lights.

* * * * *

(d) Effective December 31, 1997, each lead locomotive operated at a speed greater than 20 miles per hour over one or more public highway-rail crossings shall be equipped with operative auxiliary lights, in addition to the headlight required by paragraph (a) or (b) of this section. A locomotive equipped on March 6, 1996 with auxiliary lights in conformance with § 229.133 shall be deemed to conform to this section until March 6, 2000. All locomotives in compliance with § 229.133(c) shall be deemed to conform to this section. Auxiliary lights shall be composed as follows:

(1) Two white auxiliary lights shall be placed at the front of the locomotive to form a triangle with the headlight.

(i) The auxiliary lights shall be at least 36 inches above the top of the rail, except on MU locomotives and control cab locomotives where such placement would compromise the integrity of the car body or be otherwise impractical. Auxiliary lights on such MU locomotives and control cab locomotives shall be at least 24 inches above the top of the rail.

(ii) The auxiliary lights shall be spaced at least 36 inches apart if the vertical distance from the headlight to the horizontal axis of the auxiliary lights is 60 inches or more.

(iii) The auxiliary lights shall be spaced at least 60 inches apart if the vertical distance from the headlight to the horizontal axis of the auxiliary lights is less than 60 inches.

(2) Each auxiliary light shall produce at least 200,000 candela.

(3) The auxiliary lights shall be focused horizontally within 15 degrees of the longitudinal centerline of the locomotive.

(e) Auxiliary lights required by paragraph (d) of this section may be arranged

(1) to burn steadily or

(2) flash on approach to a crossing.

If the auxiliary lights are arranged to flash;

(i) they shall flash alternately at a rate of at least 40 flashes per minute and at most 180 flashes per minute,

(ii) the railroad's operating rules shall set a standard procedure for use of flashing lights at public highway-rail grade crossings, and

(iii) the flashing feature may be activated automatically, but shall be capable of manual activation and deactivation by the locomotive engineer.

(f) Auxiliary lights required by paragraph (d) of this section shall be continuously illuminated immediately prior to and during movement of the locomotive, except as provided by railroad operating rules, timetable or special instructions, unless such exception is disapproved by FRA. A railroad may except use of auxiliary lights at a specific public highway-rail grade crossing by designating that exception in the railroad's operating rules, timetable, or a special order. Any exception from use of auxiliary lights at a specific public grade crossing can be disapproved for a stated cause by FRA's Associate Administrator for Safety or any one of FRA's Regional Administrators, after investigation by FRA and opportunity for response from the railroad.

(g) Movement of locomotives with defective auxiliary lights.

(1) A lead locomotive with only one failed auxiliary light must be repaired or switched to a trailing position before departure from the place where an initial terminal inspection is required for that train.

(2) A locomotive with only one auxiliary light that has failed after departure from an initial terminal, must be repaired not later than the next calendar inspection required by § 229.21.

(3) A lead locomotive with two failed auxiliary lights may only proceed to the next place where repairs can be made. This movement must be consistent with § 229.9.

(h) Any locomotive subject to Part 229, that was built before December 31, 1948, and that is not used regularly in commuter or intercity passenger service, shall be considered historic equipment and excepted from the requirements of paragraphs (d) through (h) of this section.

4. Amend § 229.133 by revising paragraph (c) to read as follows:

§ 229.133 Interim locomotive conspicuity measures—auxiliary external lights.

* * * * *

(c)(1) Any lead locomotive equipped with oscillating lights as described in paragraph (b)(4) that were ordered for installation on that locomotive prior to

January 1, 1996, is considered in compliance with § 229.125(d) (1) through (3).

(2) Any lead locomotive equipped with strobe lights as described in paragraph (b)(2) and operated at speeds no greater than 40 miles per hour, is considered in compliance with § 229.125(d) (1) through (3) until the locomotive is retired or rebuilt, whichever comes first.

(3) Any lead locomotive equipped with two white auxiliary lights spaced at least 44 inches apart on at least one axis which was equipped with these auxiliary lights before May 30, 1994, will be considered in compliance with § 229.125(d) (1) through (3) until the locomotive is retired or rebuilt, whichever comes first.

Appendix B [Amended]

5. Amend Appendix B to Part 229—Schedule of Civil Penalties—by adding in numerical sequence by section number the following:

Section	Violation	Willful violation
* * *	*	*
229.125:		
(a) Headlights	2,500	5,000
(d) Auxiliary lights	2,500	5,000
* * *	*	*

Issued in Washington, DC, on February 28, 1996.

Jolene M. Molitoris,

Federal Railroad Administrator.

[FR Doc. 96–4838 Filed 3–5–96; 8:45 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 672

[Docket No. 960129018–6018–01; I.D. 030196B]

Groundfish of the Gulf of Alaska; Pacific Cod for Processing by the Inshore Component

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Closure.

SUMMARY: NMFS is closing the directed fishery for Pacific cod for processing by the inshore component in the Western Regulatory Area of the Gulf of Alaska (GOA). This action is necessary to prevent exceeding the allocation of Pacific cod for processing by the inshore component in the Western Regulatory Area.

EFFECTIVE DATE: 12 noon, Alaska local time (A.l.t.), March 2, 1996, until 12 midnight, A.l.t., December 31, 1996.

FOR FURTHER INFORMATION CONTACT: Andrew N. Smoker, 907–586–7228.

SUPPLEMENTARY INFORMATION: The groundfish fishery in the GOA exclusive economic zone is managed by NMFS according to the Fishery Management Plan for Groundfish of the Gulf of Alaska (FMP) prepared by the North Pacific Fishery Management Council under authority of the Magnuson Fishery Conservation and Management Act. Fishing by U.S. vessels is governed by regulations implementing the FMP at 50 CFR parts 620 and 672.

In accordance with § 672.20(c)(1)(ii)(B), the allocation of Pacific cod for processing by the inshore component in the Western Regulatory Area was established by the Final 1996 Harvest Specifications of Groundfish (61 FR 4304, February 5, 1996) as 16,965 metric tons (mt).

The Director, Alaska Region, NMFS (Regional Director), has determined, in accordance with § 672.20(c)(2)(ii), that the allocation of Pacific cod total allowable catch for processing by the inshore component in the Western Regulatory Area soon will be reached. The Regional Director established a directed fishing allowance of 15,965 mt, with consideration that 1,000 mt will be taken as incidental catch in directed fishing for other species in the Western Regulatory Area. The Regional Director has determined that the directed fishing allowance has been reached. Consequently, NMFS is prohibiting directed fishing for Pacific cod by vessels catching Pacific cod for processing by the inshore component in the Western Regulatory Area.

Maximum retainable bycatch amounts for applicable gear types may be found in the regulations at § 672.20(g).

Classification

This action is taken under 50 CFR 672.20 and is exempt from review under E.O. 12866.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: March 1, 1996.

Richard W. Surdi,

Acting Director, Office of Fisheries Conservation and Management, National Marine Fisheries Service.

[FR Doc. 96–5228 Filed 3–1–96; 2:35 pm]

BILLING CODE 3510–22–P

50 CFR Part 675

[Docket No. 960129019–6019–01; I.D. 022996B]

Groundfish of the Bering Sea and Aleutian Islands Area; Inshore Component Pollock in the Bering Sea subarea

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Closure.

SUMMARY: NMFS is prohibiting directed fishing for pollock by vessels catching pollock for processing by the inshore component in the Bering Sea subarea (BS) of the Bering Sea and Aleutian Islands management area (BSAI). This action is necessary to prevent exceeding the first allowance of the pollock total allowable catch (TAC) for vessels catching pollock for processing by the inshore component in the BS.

EFFECTIVE DATE: 12 noon, Alaska local time (A.l.t.), March 2, 1996, until 12 noon, A.l.t., April 15, 1996.

FOR FURTHER INFORMATION CONTACT: Mary Furuness, 907–586-7228.

SUPPLEMENTARY INFORMATION: The groundfish fishery in the BSAI exclusive economic zone is managed by the NMFS according to the Fishery Management Plan for the Groundfish Fishery of the Bering Sea and Aleutian Islands Area (FMP) prepared by the North Pacific Fishery Management Council under authority of the Magnuson Fishery Conservation and Management Act. Fishing by U.S. vessels is governed by regulations implementing the FMP at 50 CFR parts 620 and 675.

In accordance with § 675.20(a)(7)(ii), the first seasonal allowance of pollock for the inshore component in the BS was established by the Final 1996 Harvest Specifications of Groundfish (61 FR 4311, February 5, 1996) as 159,311 metric tons (mt).

The Director, Alaska Region, NMFS (Regional Director), has determined in accordance with § 675.20(a)(8), that the first seasonal allowance of pollock TAC for vessels catching pollock for processing by the inshore component in the BS soon will be reached. Therefore, the Regional Director has established a directed fishing allowance of 147,311 mt with consideration that 12,000 mt will be taken as incidental catch in directed fishing for other species in the BS. Consequently, NMFS is prohibiting directed fishing for pollock by vessels catching pollock for processing by the inshore component in the BS. This closure is effective March 2, 1996, until