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▶ 49 CFR Part 227 Occupational Noise Exposure for Railroad Operating Employees				Date:
49 CFR Part -	Criteria examined	Yes	No	Comments
Subpart A -				
§ 227.3(b)	Does the railroad (or contractor) meet one of the exceptions listed in this section? <ul style="list-style-type: none"> <li>▶ Operates only within a facility?</li> <li>▶ Is a rapid transit operation NOT connected to the general railroad system?</li> <li>▶ Is a rapid transit operation connected to the general railroad system and operates under a shared use waiver?</li> <li>▶ Is a railroad that operates tourist, scenic, historic, or excursion operations?</li> </ul>			
§ 227.3(b)(5)	Do the employees of the “foreign railroad” report for duty outside the U.S.? <ul style="list-style-type: none"> <li>▶ Is the “foreign railroad” covered by and complying with a hearing conservation rule while operating in the U.S., that meets the requirements of this rule?</li> </ul>			<b>Defect Code - 220-003-B5</b> Failure to Meet the Required Conditions for Foreign Railroad Operations
Subpart B -				
§ 227.101(a)(1)(i) § 227.101(a)(1)(ii)	Does the employer have any employees who: <ul style="list-style-type: none"> <li>▶ Only move locomotives within repair facilities?</li> <li>▶ Move locomotives less than 100 feet for inspection or maintenance?</li> </ul>			If the employer has <b>only</b> such employees, the employer is exempt from coverage - <b>Stop here.</b>
§ 227.101(a)(1)(iii)	Does the employer have any employees who: <ul style="list-style-type: none"> <li>▶ are contractors who operate historic equipment is occasional service - AND - have been provided with and <b>required to wear</b> hearing protectors?</li> </ul>			If the employer has <b>only</b> such employees, the employer is exempt from coverage - <b>Stop here.</b>
§ 227.101(a)(1) § 227.101(a)(2) and § 227.101(a)(3)	Does the employer have any employees who: <ul style="list-style-type: none"> <li>▶ Are “train” employees covered by hours of service?</li> <li>▶ Are Direct Supervisors who frequently work in cab?</li> <li>▶ Frequently work in and outside the cab and designated by the employer as covered?</li> </ul>			If the employer has any such employees, <b>proceed</b> to the rest of the compliance determination.
§ 227.103(a)(1)	Has the employer established and implemented a noise monitoring program to determine employee exposures by the required date? (Class 1, Passenger, or Commuter Railroad )			<b>Defect Code - 227-103-A</b> Failure to Develop and/or Implement a Noise Monitoring Program after February 26, 2008

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§ 227.103(a)(2)	Has the employer established and implemented a noise monitoring program to determine employee exposures by the required date? (Railroad with 400,000 or More Annual Employee Hours but Not a Class 1, Passenger, or Commuter Railroad)			<b>Defect Code - 227-103-A2</b> Failure to Develop and/or Implement a Noise Monitoring Program after August 26, 2008
§ 227.103(a)(3)	Has the employer established and implemented a noise monitoring program to determine employee exposures by the required date? (Railroad with Fewer than 400,000 Annual Employee Hours)			<b>Defect Code - 227-103-A3</b> Failure to Implement Noise Monitoring Program after August 26, 2009
§ 227.103(b)(1)	Is the employer's sampling strategy comprehensive? <ul style="list-style-type: none"> <li>▶ Does the sampling strategy cover all operational variations; including noise sources when employees are outside the cab during the work shift, including operational variations such as different routes with more or fewer grade crossings or routes going uphill vs downhill, etc. ?</li> <li>▶ Does the sampling strategy confirm that the measurement methods used (area vs personal monitoring) are appropriate for the conditions in the cab; <ul style="list-style-type: none"> <li>▶ e.g.; localized or directional sources,</li> <li>▶ random quickly varying levels, etc.?</li> </ul> </li> <li>▶ Does the sampling strategy help with selection of personal hearing protection (PHP); <ul style="list-style-type: none"> <li>▶ identifies specific operational conditions where PHP is not needed,</li> <li>▶ identifies highest levels to insure PHP selections will not "overly" protect and interfere with communications?</li> </ul> </li> </ul>			<b>Defect Code - 227-103-B</b> Failure to Use Sampling as Required for Noise Monitoring
§ 227.103(c)(1)	Do the sampling instruments demonstrate integration of all continuous, intermittent, and impulse sound levels from 80 decibels to 140 decibels? <ul style="list-style-type: none"> <li>◇ Examine sampling documentation and, if necessary, the instrument specifications used by railroad.</li> </ul>			<b>Defect Code - 227-103-C1</b> Failure to integrate sound levels into the noise measurements.

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§ 227.103(c)(2)	<p>Do the sampling instruments used comply with the technical requirements;</p> <ul style="list-style-type: none"> <li>(i) an ANSI S1.4–1983 compliant sound level meter (Type 2), set to A-weighting and SLOW response;</li> <li>(ii) an ANSI S1.43–1997 compliant integrated sound level meter (Type 2), set to A-weighting and SLOW response; or</li> <li>(iii) an ANSI ANSI S1.25–1991 compliant noise dosimeter (Type 2), set to A-weighting and SLOW response.</li> </ul> <ul style="list-style-type: none"> <li>◇ Examine sampling documentation and, if necessary, the instrument specifications used by railroad.</li> </ul>			<b>Defect Code - 227-103-C2</b> Failure to make noise measurements or to use conforming sound level meter, integrated sound level meter, or noise dosimeter.
§ 227.103(c)(3)	<p>Were the sampling instruments used calibrated properly?</p> <ul style="list-style-type: none"> <li>◇ Examine sampling documentation and the instrument specifications used by railroad.</li> </ul>			<b>Defect Code - 227-103-C3</b> Failure to use calibrated instruments to measure employee noise exposure.
§ 227.103(d)	<p>Has the railroad repeated noise monitoring when changes have occurred that could lead to;</p> <ul style="list-style-type: none"> <li>▶ additional employees exposed at or above the action level; or</li> <li>▶ hearing protectors being may be inadequate or over-protective at new levels.</li> </ul> <ul style="list-style-type: none"> <li>◇ Examine sampling results and operational documentation from the railroad.</li> </ul>			<b>Defect Code - 227-103-D</b> Failure to repeat noise monitoring where and when required.
§ 227.103(e)	<p>Has the railroad done sufficient monitoring to identify jobs where hearing protection is not required?</p> <ul style="list-style-type: none"> <li>◇ Examine sampling results and operational documentation from the railroad.</li> </ul>			<b>Defect Code - 227-103-E</b> Failure to consider work environments where hearing protectors may be omitted
§ 227.103(f)	<p>Has the railroad made efforts to facilitate observation of monitoring by union representatives?</p> <ul style="list-style-type: none"> <li>◇ Interview employees and representatives.</li> </ul>			<b>Defect Code - 227-103-F</b> Failure to provide opportunity to observe monitoring.
§ 227.103(g)(1)	<p>Has the railroad properly notifies monitored employees of their exposures?</p> <ul style="list-style-type: none"> <li>◇ Interview employees and representatives.</li> <li>◇ Request copies of notification letters and postings.</li> </ul>			<b>Defect Code - 227-103-G1</b> Failure to notify each monitored employee of the results of the monitoring.

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§ 227.103(g)(2)	<p>Has the railroad properly posted monitoring results;</p> <ul style="list-style-type: none"> <li>▶ at the appropriate crew origination point,</li> <li>▶ for a minimum of 30 days, and</li> <li>▶ were the results understandable to other crews?</li> </ul> <ul style="list-style-type: none"> <li>◇ Interview employees and representatives.</li> <li>◇ Request copies of notification letters and postings.</li> </ul>			<p><b>Defect Code - 227-103-G2</b> Failure to post the monitoring results at the appropriate crew origination point for a minimum of 30 days.</p>
§ 227.105(a)	<p>Has the railroad properly measured, observed and documented exposures to determine;</p> <ul style="list-style-type: none"> <li>▶ if the exposures exceed the limits in appendix A (equivalent to an 8-hour TWA exposure of 90 dB(A)),</li> <li>▶ what appropriate protection is required, and</li> <li>▶ provided the protection?</li> </ul> <p>(Appropriate protection is any combination of noise operational controls, personal hearing protection or other measures that reduces exposures below an 8-hour TWA exposure of 90 dB(A)).</p> <ul style="list-style-type: none"> <li>◇ Examine sampling results and request detailed documentation of noise measurements from the railroad as necessary to insure dose calculations were done properly.</li> </ul>			<p><b>Defect Code - 227-105-A</b> Failure to provide appropriate protection for employees exposed to noise that exceeds limits specified in Appendix A</p> <p><b>To use this defect - review §§227.103 and §§227.113 through 227.117</b></p>
§ 227.105(b)	<p>Did the railroad observe and document the source(s) of noise exposures exceeding 115 dB (A)?</p> <ul style="list-style-type: none"> <li>◇ Examine sampling results and request detailed documentation of noise measurements as necessary from the railroad.</li> <li>◇ Note if any events above 115 dB(A) are shown and not annotated to either identify the “source” or indicate no source was apparent.</li> <li>◇ Review any data where “measurement artifacts” have been removed and determine if the reasoning used to do so was appropriate. The review should include the raw data - before the artifact(s) were removed, including the original dose information.</li> </ul>			<p><b>Defect Code - 227-105-B</b> Failure to observe and document the source(s) of noise exposures exceeding 115dB(A)</p>
§ 227.105(c)	<p>Has the railroad prevented employee exposure to continuous noise in excess of 115 dB(A)?</p>			<p><b>Defect Code - 227-105-C</b> Failure to protect employee from exposure to continuous noise exceeding 115 dB(A)</p> <hr/> <p><b>To use this defect - review §§227.115 and 227.117</b></p>

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§ 227.105(d)	Did the railroad prevent employees from being exposed to continuous noise greater than 115 dB(A) and equal to or less than 120 dB(A) in excess of five seconds for the total daily duration?			<b>Defect Code - 227-105-D</b> Failure to protect employee from exposure to continuous noise greater than 115 dB(A) and equal or less than 120 dB(A) in excess of five second. <b>See above.</b>
§ 227.107(a)	Has the railroad established a hearing conservation program consistent with the requirements of this Subpart? ◇ Request copies of the railroad's HCP documentation and use it to evaluate the overall compliance as well as those individual elements that follow in this Subpart.			<b>Defect Code - 227-107-A</b> Failure to administer a continuing, effective hearing conservation program for all employees exposed to noise at or above the action level. <b>To use this defect - review §§227.109 through 227.121</b>
§ 227.107(b)	Has the railroad properly measured, observed and documented exposures to ensure that exposures were properly assessed consistent with Appendix A? (This is the parallel of the criteria in §227.105(a). ) ◇ Examine sampling results and request detailed documentation of noise measurements from the railroad as necessary to insure dose calculations were done properly.			<b>Defect Code - 227-107-B</b> Failure to compute noise exposure as required.
§ 227.109(a)	Has the railroad established an audiometric testing program that complies with the requirements of this section? Has the railroad demonstrated continuing maintenance of the audiometric testing program? ◇ Request copies of the railroad's audiometric testing program documentation and use it to evaluate the overall compliance as well as those individual elements that follow in this Section (227.109).			<b>Defect Code - 227-109-A</b> Failure to Establish and/or maintain an audiometric testing program <b>To use this defect - review sections § 227.109(b) through § 227.109 (j)</b>
§ 227.109(b)	Has the railroad provided audiometric testing in a manner that is at no cost to the employees involved? (This paragraph refers only to the audiometric test itself. It does not refer to additional costs that an employee might incur, e.g., missed trips or missed work time as a result of the test.) ◇ Request copies of the railroad's audiometric testing program notifications and other communications notifying covered employees of the need to get audiometric testing done. ◇ Interview employees and representatives.			<b>Defect Code - 227-109-B</b> Failure to provide audiometric tests at no cost to employees.

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§ 227.109(c)	<p>Has the railroad provided audiometric testing performed by personnel with credentials consistent with the requirements of this Section?</p> <ul style="list-style-type: none"> <li>◇ Request copies of the credentials of the individuals who perform audiometric testing for the railroad's program.</li> <li>◇ Review credentials and, if possible, interview testing personnel.</li> </ul>			<p><b>Defect Code - 227-109-C</b> Failure to have qualified person perform Audiometric tests</p>
§ 227.109(d)	<b>Audiometric testing program.</b> (d) [Reserved]			
§ 227.109(e)(1)(i) § 227.109(e)(1)(ii)	<p>Has the railroad established a valid baseline audiogram for all NEW employees hired after February 26, 2007;</p> <ul style="list-style-type: none"> <li>▶ within 6 months of the new employee's first tour of duty where mobile test vans are NOT used, or</li> <li>▶ within 1 year of the new employee's first tour of duty where mobile test vans ARE used?</li> <li>◇ Request copies of all baseline audiometric tests for employees hired after February 26, 2007 for review.</li> <li>◇ Review should focus on hire date and testing date to confirm compliance.</li> </ul>			<p><b>Defect Code - 227-108-E1I</b> Failure to establish a valid baseline audiogram for employees hired after February 26, 2007 within six months of the new employee's first tour of duty</p> <p><b>Defect Code - 227-108-E1I</b> Failure to establish a valid baseline audiogram within one year of new Employee's first tour of duty when mobile test vans are used.</p>
§ 227.109(e)(2)(i)	<p>Has the railroad established a valid baseline audiogram for all Existing employees by;</p> <ul style="list-style-type: none"> <li>▶ February 26, 2009 (all railroads &gt; 400,000 annual employee hours), or</li> <li>▶ February 26, 2010 (railroads &lt; 400,000 annual employee hours).</li> <li>◇ Request copies of all baseline audiometric tests for employees employed as of February 26, 2007 for review.</li> <li>◇ Review audiometric tests to determine: <ul style="list-style-type: none"> <li>(i) if existing employees who did not have valid baseline audiograms, got them by the date required.</li> <li>(ii) if the baseline audiograms for existing employees who had fully compliant 1910.95(h) tests were used to comply with this Section.</li> <li>(iii) if the baseline audiograms for existing employees who had partially compliant 1910.95(h) tests were reviewed by the appropriate person and found to be valid for used to comply with this Section.</li> </ul> </li> </ul>			<p><b>Defect Code - 227-109-E2I</b> Failure to establish a valid audiogram baseline for existing employees after February 26, 2009 for larger railroads and after February 26, 2010 for railroads with less than 400,000 annual employee hours.</p> <p><b>Defect Code - 227-109-E2I</b> Failure to use baseline audiogram obtained prior to February 26, 2007 for existing employee.</p>

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§ 227.109(e)(3)  § 227.109(e)(4)	Has the railroad taken steps to insure employees have not been exposed to occupational noise for a 14-hour period immediately preceding the audiometric examination? Has the railroad taken steps to insure employees have been notified of the need to avoid exposure to non-occupational noise for a 14-hour period immediately preceding the audiometric examination? ◇ Request copies of the railroad’s audiometric testing program notifications and other communications notifying covered employees of the need to avoid the noise exposures. ◇ Ask railroad representatives how they confirm the employees’ were not exposed during the preceding 14 hour period. ◇ Interview employees and representatives.			<b>Defect Code - 227-109-E3</b> Testing to establish a baseline audiogram was not preceded by at least 14 hours without exposure to occupational noise in excess of action level. <b>Defect Code - 227-109-E4</b> Failure to notify employees of need to avoid high levels of non-occupational noise exposure during 14-hour period preceding audiometric examination.
§ 227.109(f)(1)  § 227.109(f)(2)	Has the railroad taken steps offer employees audiometric testing within the required interval - ≥280 days to ≤450 days? Has the railroad taken steps inform employees of the requirement for audiometric testing within the required interval - ≤1095 days? Has the railroad taken steps to enforce this requirement? ◇ Request copies of the railroad’s audiometric testing program notifications and other communications notifying covered employees. ◇ Ask railroad representatives how they confirm the employees’ were tested within the required intervals. ◇ Interview employees and representatives.			<b>Defect Code - 227-109-F1</b> Failure to offer audiometric test to each employee in hearing conservation program at least once each calendar year.  <b>Defect Code - 227-109-F2</b> Failure to require each employee in the hearing conservation program to take an audiometric test at least once every 1095 days.

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§ 227.109(g)(1)  § 227.109(g)(2)  § 227.109(g)(3)	<p>Does the railroad’s audiometric testing program clearly specify how and by whom a comparison of the periodic to the baseline audiogram is done?</p> <p>Does the railroad’s audiometric testing program clearly specify when and how retesting of suspected STS audiograms is done?</p> <ul style="list-style-type: none"> <li>▶ Do audiometric test records show evidence of the process?</li> </ul> <p>Has the railroad had the appropriate professionals perform the reviews of “problem” audiometric tests?</p> <ul style="list-style-type: none"> <li>▶ Has the railroad supplied the professionals the required information?</li> <li>◇ Request copies of the railroad’s audiometric testing program.</li> <li>◇ Request copies of the credentials of the individuals who perform audiometric testing for the railroad’s program.</li> <li>◇ Review credentials and, if possible, interview testing personnel.</li> <li>◇ Ask railroad representatives how they perform the repeat testing within the required intervals.</li> </ul>			<p><b>Defect Code - 227-109-G1</b> Failure to evaluate periodic audiogram against the employee’s baseline audiogram</p> <p><b>Defect Code - 227-109-G3</b> Failure to provide to qualified medical personnel performing review of problem audiograms all specified information</p>
§ 227.109(h)(1)	<p>Has the railroad properly notified employees that they have an STS;</p> <ul style="list-style-type: none"> <li>▶ in writing, and</li> <li>▶ within 30 days?</li> <li>◇ Interview employees and representatives.</li> <li>◇ Request copies of notification letters and findings to confirm dates are within the requirements.</li> </ul>			<p><b>Defect Code - 227-109-H1</b> Failure to inform employee in writing of a standard threshold shift within 30 days of determination.</p>
§ 227.109(h)(2)  § 227.109(h)(2)(i)  § 227.109(h)(2)(ii)	<p>Has the railroad adequately documented the basis for any STS being found to be NOT work related?</p> <p>For STS determined to be work related, has the railroad;</p> <ul style="list-style-type: none"> <li>▶ fitted employees who were not using them with hearing protection, trained them and required them to use it, or</li> <li>▶ re-fitted employees who were using them with hearing protection (with higher attenuation if necessary), re-trained them and required them to use it?             <ul style="list-style-type: none"> <li>▶ Does the railroad have records documenting these activities and specifically identifying them as being related to the finding of a STS?</li> </ul> </li> <li>◇ Interview employees and railroad representatives.</li> <li>◇ Request copies of findings containing STS evaluations.</li> <li>◇ Request copies of records of the training, fitting, etc.</li> </ul>			<p><b>Defect Code - 227-109-H2</b> Failure to take appropriate steps for employee with standard threshold shift</p>

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§ 227.109(h)(2)(iii)  § 227.109(h)(2)(iv)	Has the railroad properly notified employees of their condition, and in the case of a pathology of the ear due to hearing protectors, properly referred them? Has the railroad properly notified employees of their condition, and where hearing protection use is not an issue, properly informed them of the need for an otological examination? ◇ Interview employees and representatives. ◇ Request copies of notification letters and findings to confirm referrals were done or the information was clear and informative.			<b>Defect Code - 227-109-H2</b> Failure to take appropriate steps for employee with standard threshold shift
§ 227.109(h)(3)	Has the railroad properly identified employees whose STS is not persistent AND who have TWA exposures below 90 dB(A)? Has the railroad properly notified employees of their condition, and the fact that hearing protection use is no longer required? ◇ Interview employees and representatives. ◇ Request copies of notification letters and findings to confirm the information was clear and informative.			<b>Defect Code - 227-109-H3</b> Failure to inform employee of new audiometric interpretation when standard threshold shift is not present.
§ 227.109(i)	Has the railroad revised and baseline audiograms? Have the revisions followed the proper procedures? ◇ Request copies of all baseline audiometric and periodic tests for review. ◇ For tests conducted through February 26, 2009, review audiometric tests to determine: ◇ if the change from original baseline to the most recent series of periodic audiometric test results shows persistence. (Two or more of the most recent tests show the same level of loss from the original baseline). OR ◇ if the change from original baseline to the most recent periodic audiometric test results shows a significant improvement. ◇ For tests conducted after February 26, 2009, review audiometric tests to determine if the revisions were done consistent with appendix C.			<b>Defect Code - 227-109-I</b> Failure to use required method for revising baseline audiograms.
§ 227.109(j)	Optional procedure - No guidance necessary			
§ 227.111(a)	Do the audiometric tests include of all the required frequencies? Are the audiometric tests done at each specified frequency for each ear separately? ◇ Examine audiometric test documentation.			<b>Defect Code - 227-111-A</b> Failure to conduct audiometric test as required

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§ 227.111(b)	Are the instruments used to perform audiometric tests compliant with the rule? ◇ Examine audiometric test instrument specifications used by railroad.			<b>Defect Code - 227-111-B</b> Failure to conduct audiometric tests with required equipment
§ 227.111(c)	Are the audiometric tests done in rooms verified to meet the background noise limit requirements as stated in the appendix? ◇ Examine audiometric test documentation including documentation of testing of ambient noise levels in the rooms.			<b>Defect Code - 227-111-C</b> Failure to conduct audiometric examinations in a room meeting the requirements of appendix D.
§ 227.111(d)(1)	Does the railroad test the functional operation of the audiometers used for audiometric tests by either a personal test or the use of an appropriate calibration device? ◇ Examine audiometric test documentation including documentation of testing of the functional operation to determine if the instruments are checked before each day's tests.			<b>Defect Code - 227-111-D1</b> Failure to perform daily calibration as required
§ 227.111(d)(2)	Does the railroad test the functional operation of the audiometers used for audiometric tests by an appropriate acoustic calibration device at least annually? Does the railroad insure that, for instruments that fail the annual acoustic test, the instrument undergoes an exhaustive calibration performed in accordance with ANSI S3.6-2004 as required? ◇ Examine records of annual acoustic and exhaustive calibrations of the audiometric test instruments to insure the tests are completed in a timely and technically correct manner.			<b>Defect Code - 227-111-D2</b> Failure to perform annual calibration as required
§ 227.111(d)(3)(i) § 227.111(d)(3)(ii)	Does the railroad insure that instruments used in fixed sites undergo an exhaustive calibration performed in accordance with ANSI S3.6-2004 at least every two years? Does the railroad insure that instruments used in mobile test vans undergo an exhaustive calibration performed in accordance with ANSI S3.6-2004 at least every two years? ◇ Examine records of exhaustive calibrations of the audiometric test instruments to insure the tests are completed in a timely and technically correct manner.			<b>Defect Code - 227-111-D3</b> Failure to perform exhaustive calibration as required
§ 227.113	<b>Noise operational controls.</b> Optional procedure			
§ 227.115(a)(1) § 227.115(a)(2)	Does the railroad provide and replace hearing protectors at no cost to employees? ◇ Interview employees.			<b>Defect Code - 227-115-A1</b> Failure to provide hearing protectors to employees at no cost to employee. <b>Defect Code - 227-115-A2</b> Failure to replace hearing protectors as necessary

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§ 227.115(a)(3)	<p>What methods does the railroad use to insure employee's ability to understand and respond to voice radio communications and audible warnings?</p> <ul style="list-style-type: none"> <li>◇ Interview employees.</li> <li>◇ Review any instructional material the railroad uses for this purpose.</li> </ul>			<b>Defect Code - 227-115-A3</b> Failure of railroad to consider employee's ability to understand and respond to voice radio communications and audible warnings
§ 227.115(a)(4)	<p>Does the railroad offer a variety of hearing protectors across a range of attenuation levels?</p> <ul style="list-style-type: none"> <li>◇ Ask to see the variety of HP offered and review different style and the levels of attenuation offered.</li> </ul>			<b>Defect Code - 227-115-A4</b> Failure to offer a variety of hearing protectors with range of attenuation levels
§ 227.115(a)(5)	<p>Does the railroad train the employees on the proper use and care of hearing protectors in a clear and understandable manner?</p> <ul style="list-style-type: none"> <li>◇ Interview employees.</li> <li>◇ Review any instructional material the railroad uses for this purpose.</li> </ul>			<b>Defect Code - 227-115-A5</b> Failure to provide training in the use and care of hearing protectors provided to employees
§ 227.115(a)(6)	<p>Does the railroad ensure proper fitting and use of all hearing protectors?</p> <ul style="list-style-type: none"> <li>◇ Interview employees.</li> <li>◇ Review any instructional material the railroad uses for this purpose.</li> </ul>			<b>Defect Code - 227-115-A6</b> Failure to ensure proper initial fitting and/or supervising the correct use of all hearing protectors
§ 227.115(b)	<p>Does the railroad properly identify all employees who are exposed above the action level to ensure hearing protectors are available to these employees?</p>			<b>Defect Code - 227-115-B</b> Failure to make hearing protectors available as required.
§ 227.115(c)	<p>Does the railroad identify and require employees exposed above the action level <b>and</b> who have not had a baseline audiometric test to wear hearing protectors?</p> <p>Does the railroad identify and require employees exposed above the action level <b>and</b> who have an STS to wear hearing protectors?</p> <ul style="list-style-type: none"> <li>◇ Review copies of exposure records that identify exposures above the action level.</li> <li>◇ Review copies of baseline audiometric test records to determine if employees identified in exposure records and not baseline audiometric test can be identified</li> <li>◇ Review copies of findings of audiometric test records that identify STSs.</li> <li>◇ Determine if employees with STS are identified as required to use hearing protectors.</li> </ul>			<b>Defect Code - 227-115-C</b> Failure to require the use of hearing protectors as required at action level

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49 CFR Part -	Criteria examined	Yes	No	Comments
§ 227.115(d)	<p>Does the railroad identify and require employees exposed above an exposure equivalent to 8-hour TWA <math>\geq</math> 90 dB(A)?</p> <p>Does the railroad and verify that the hearing protectors are sufficiently protective to reduce exposures below an exposure equivalent to 8-hour TWA <math>\geq</math> 90 dB(A)?</p> <ul style="list-style-type: none"> <li>◇ Review copies of exposure records that identify exposures equivalent to 8-hour TWA <math>\geq</math> 90 dB(A).</li> <li>◇ Determine if the hearing protectors are sufficiently protective.(See § 227.117)</li> </ul>			<p><b>Defect Code - 227-115-D</b> Failure to require use of hearing protectors when employee is exposed to TWA of 90 dB(A) or greater.</p>
§ 227.117	<p>Does the railroad evaluate the attenuation of the hearing protectors according to the prescribed methods?</p> <p>Do the hearing protectors the railroad supplies adequately attenuate exposures as required? (b) and (c).</p> <p>Does the railroad re-evaluate the attenuation of the hearing protectors whenever employee exposures change?</p> <ul style="list-style-type: none"> <li>◇ Review records of hearing protector evaluations to verify they are being done according to the requirements of the rule.</li> <li>◇ Review records of employee exposures to ensure that the hearing protectors available - and required to be used - are sufficiently protective.</li> <li>◇ Review records of employee exposures to ensure that the hearing protectors available are changed to those that are sufficiently protective at the changed exposure levels.</li> </ul>			<p><b>Defect Code - 227-117-A</b> Failure to evaluate hearing protector attenuation as required.</p> <p><b>Defect Code - 227-117-B</b> Failure to attenuate employee exposure to TWA of 90 dB(A) or lower as required.</p> <p><b>Defect Code - 227-117-C</b> Failure to attenuate employee exposure to TWA of 85 dB(A) or lower for employees that have experienced a standard threshold shift</p> <p><b>Defect Code - 227-117-D</b> Failure to re-evaluate the adequacy of hearing protector attenuation.</p>
<p>§ 227.119(a)(1)</p> <p>§ 227.119(a)(2)</p>	<p>Has the railroad taken steps to offer employees training within the required interval - <math>\geq</math>280 days to <math>\leq</math>450 days?</p> <p>Has the railroad taken steps to inform employees of the requirement for training within the required interval - <math>\leq</math>1095 days?</p> <ul style="list-style-type: none"> <li>▶ Has the railroad taken steps to enforce this requirement for training?</li> <li>◇ Request copies of the railroad's training program notifications and other communications notifying covered employees.</li> <li>◇ Ask railroad representatives how they confirm the employees' were tested within the required intervals.</li> <li>◇ Interview employees and representatives.</li> </ul>			<p><b>Defect Code - 227-119-A1</b> Failure to offer the training program to each employee in the hearing conservation program at least once each calendar year.</p> <p><b>Defect Code - 227-119-A2</b> Failure to require each employee to complete the training at least every 1095 days.</p>

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▶ 49 CFR Part 227 Occupational Noise Exposure for Railroad Operating Employees				Date:
49 CFR Part -	Criteria examined	Yes	No	Comments
§ 227.119(b)	<p>Has the railroad established and provided a training program for employees hired after February 26, 2007, within six months of the employee's first tour of duty.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> For Class 1, passenger, and commuter railroads, and railroads with 400,000 or more annual employee hours, has the railroad established and provided a training program for employees hired before February 26, 2007 by February 26, 2009?</li> <li><input type="checkbox"/> For railroads with fewer than 400,000 annual employee hours, has the railroad established and provided a training program for employees hired before February 26, 2007 by February 26, 2010?</li> </ul> <p>How is training offered?</p> <ul style="list-style-type: none"> <li>◇ Request copies of training records and compare them to the records of baseline audiometric tests to verify the training was completed by the required dates.</li> </ul>			<p><b>Defect Code - 227-119-B</b> Failure to provide the training within required time frame.</p>
§ 227.119(c)	<p>Does the railroad's training program contain information on all of the required elements?</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> The effects of noise on hearing;</li> <li><input type="checkbox"/> The purpose of hearing protectors;</li> <li><input type="checkbox"/> The advantages, disadvantages, and attenuation of various types of hearing protectors;</li> <li><input type="checkbox"/> Instructions on selection, fitting, use, and care of hearing protectors;</li> <li><input type="checkbox"/> The purpose of audiometric testing, and an explanation of the test procedures;</li> <li><input type="checkbox"/> An explanation of noise operational controls, where used;</li> <li><input type="checkbox"/> General information concerning the expected range of workplace noise exposure levels associated with major categories of railroad equipment and operations (e.g., switching and road assignments, hump yards near retarders, etc.) and appropriate reference to requirements of the railroad concerning use of hearing protectors;</li> <li><input type="checkbox"/> The purpose of noise monitoring and a general description of monitoring procedures;</li> <li><input type="checkbox"/> The availability of a copy of this part, an explanation of the requirements of this part as they affect the responsibilities of employees, and employees' rights to access records under this part;</li> <li><input type="checkbox"/> How to determine what can trigger an excessive noise report, pursuant to § 229.121(b); and</li> <li><input type="checkbox"/> How to file an excessive noise report, pursuant to § 229.121(b).</li> </ul> <p>How is training offered?</p> <ul style="list-style-type: none"> <li>◇ Request copies of the training program materials and compare them to the elements listed in terms of content and understandability.</li> </ul>			<p><b>Defect Code - 227-119-C</b> Failure of training program and/or training materials to include required information</p>

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▶ 49 CFR Part 227 Occupational Noise Exposure for Railroad Operating Employees				Date:
49 CFR Part -	Criteria examined	Yes	No	Comments
§ 227.121(a)(1)	<p>Are records available for review by FRA, employees and other appropriate representatives?            Are exposure measurement records for a given run or yard operation available for review by all employees whose exposures are represented by that run or yard operation?            Are exposure measurement records for specific locations available to employee representatives as required?</p> <ul style="list-style-type: none"> <li>◇ Interview employees and their representatives.</li> <li>◇ Any difficulty in obtaining access to records by FRA personnel should have been revealed by now.</li> </ul> <p><b>This defect is an overarching Defect based on failure to comply with one or more of the individual defects listed below.</b></p>			<b>Defect Code -227-121-A1</b> Failure to maintain and retain records as required
§ 227.121(a)(1)(i)	See guidance for § 227.121(a)(1) above			<b>Defect Code -227-121-A1I</b> Failure to make records available for inspection and copying/photocopying to representatives of the FRA, upon request
§ 227.121(a)(1)(ii)	See guidance for § 227.121(a)(1) above			<b>Defect Code -227-121-A1II</b> Failure to make an employee's records available for inspection and copying/photocopying to that employee, former employee, or authorized representative
§ 227.121(a)(1)(iii)	See guidance for § 227.121(a)(1) above			<b>Defect Code -227-121-A1III</b> Failure to make exposure measurement records for a given run or yard available as required.
§ 227.121(a)(1)(iv)	See guidance for § 227.121(a)(1) above			<b>Defect Code -227-121-A1IV</b> Failure to make exposure measurement records for specific locations available to regional or national labor representatives, upon request.

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▶ 49 CFR Part 227 Occupational Noise Exposure for Railroad Operating Employees				Date:
49 CFR Part -	Criteria examined	Yes	No	Comments
§ 227.121(a)(2)	<p>Are records electronic?</p> <p>Are the electronic records available company-wide?</p> <p>Are the electronic records Safe and Secure?</p> <p>◇ Electronic records should be able to trace all changes to a given record set - i.e.; an individual employee's exposure measurements - so that no loss of information can occur. Access to records to make changes should identify the person who accesses the record and should be secured by password access or some similar means of tracing users and securing the data.</p> <p>Are paper copies of the electronic records available for inspection and copying/ photocopying by representatives of the FRA?</p>			<p><b>Defect Code -227-121-A2</b></p> <p>Failure to follow electronic recordkeeping format as required</p>
§ 227.121(a)(3)	<p>Are records transferred if a Railroad ceases to exist?</p> <p>▶ How?</p> <p>▶ Has the successor maintained the records as required?</p>			<p><b>Defect Code - 227-121-A3</b></p> <p>Failure to transfer or retain records as required.</p>
§ 227.121(b)(1)	<p>Do the exposure records contain sufficient information to;</p> <p><input type="checkbox"/> identify the employee whose exposure was measured,</p> <p><input type="checkbox"/> identify the location and nature of the operation the employee was doing,</p> <p><input type="checkbox"/> verify that the instrument used was set up according to the requirements,</p> <p><input type="checkbox"/> verify that the instrument used was calibrated properly, and</p> <p><input type="checkbox"/> identify exposures above 115 dB(A)?</p>			<p><b>Defect Code - 227-B1</b></p> <p>Failure to maintain an accurate record of all employee exposure measurements as required.</p>
§ 227.121(b)(2)	<p>Are exposure records maintained for the length of the employees' employment plus 30 years?</p>			<p><b>Defect Code - 227-B2</b></p> <p>Failure to retain employee exposure measurement records as required.</p>
§ 227.121(c)(1)	<p>Do the audiometric test records contain all of the required elements?</p> <p><input type="checkbox"/> name of the employee;</p> <p><input type="checkbox"/> job classification of the employee;</p> <p><input type="checkbox"/> date of the audiogram;</p> <p><input type="checkbox"/> examiner's name;</p> <p><input type="checkbox"/> date of the last acoustic calibration of the audiometer; or</p> <p><input type="checkbox"/> date of the last exhaustive calibration of the audiometer;</p> <p><input type="checkbox"/> measurements of the background sound pressure levels in audiometric test rooms;</p> <p><input type="checkbox"/> model and serial number of the audiometer</p>			<p><b>Defect Code - 227-121-C1</b></p> <p>Failure to maintain employee audiometric test records as required.</p>

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▶ 49 CFR Part 227 Occupational Noise Exposure for Railroad Operating Employees				Date:
49 CFR Part -	Criteria examined	Yes	No	Comments
§ 227.121(c)(2)	Are records retained for the length of employees' employment plus 30 years?			<b>Defect Code - 227-121-C2</b> Failure to retain employee audiometric test records as required.
§ 227.121(d)(1)	Are records maintained for all affected positions or persons designated to be in the program per 227.101(a)(3)?			<b>Defect Code - 227-121-D1</b> Failure to maintain a record of all positions or persons or both designated to be placed in a hearing conservation program as required
§ 227.121(d)(2)	Are the records maintained for the duration of the designation?			<b>Defect Code - 227-121-D2</b> Failure to retain records of those employees designated to the hearing conservation program, as required
§ 227.121(e)(1)	Do the railroad's training program records contain information on all of the required elements? (See § 227.119(c) ) Are sign-in or attendance sheets available for review to verify attendance?			<b>Defect Code - 227-121-E1</b> Failure to <u>maintain</u> copies of all training program materials and/or a record of employees trained as required.
§ 227.121(e)(2)	Are the records maintained for the 3 year period of time?			<b>Defect Code - 227-121-E2</b> Failure to <u>retain</u> copies of all training program materials and/or records of employees trained as required
§ 227.121(f)(1)	Do the records of employees with an STS contain all of the required elements? <input type="checkbox"/> Date of the employee's baseline audiogram; <input type="checkbox"/> Date of the employee's most recent audiogram; <input type="checkbox"/> Date of the establishment of a standard threshold shift; <input type="checkbox"/> The employee's job code; and <input type="checkbox"/> An indication of how many standard threshold shifts the employee has experienced in the past, if any; and ▶ Can the Railroad produce a list of those who have had a STS within the last calendar year?			<b>Defect Code - 227-121-F1</b> Failure to maintain a record of all employees found to have experienced a standard threshold shift within the prior calendar year, as required

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<b>► 49 CFR Part 227 Occupational Noise Exposure for Railroad Operating Employees</b>				<b>Date:</b>
<b>49 CFR Part -</b>	<b>Criteria examined</b>	<b>Yes</b>	<b>No</b>	<b>Comments</b>
§ 227.121(f)(2)	Have the STS records been maintained for 5 years?			<b>Defect Code - 227-121-F2</b> Failure to retain records of all employees found to have experienced standard threshold shifts within prior calendar year as required.