

***On-the-Job Training Standards
For
Tourist and Excursion Mechanical Employees
Steam Engines***

January 2, 2021

Foreword

The OJT tasks identified below assumes a continuous and ongoing positive conversation between the designated instructor / qualified person and trainee. It means sufficient opportunity for conversational feedback before, during, and after any task is undertaken. The purpose of this conversation is to ensure learning transfer occurs. Depending on task complexity and learner skill level, most adults gain mastery of new skills through practice and repetition. OJT standards provide the basis for measuring mastery of new skills in a fair and objective manner. It is understood that many of the tasks below are presented in a manner that may suggest non-complying conditions must be present for the trainee to demonstrate proficiency. That is not the case and it is for this reason that a positive conversation between teacher and learner is encouraged throughout the OJT process.

Please also note that there is no obligation under 49 CFR Part 243 for employers to train safety-related railroad employees on skills they will never apply in connection with their duties. For example, if an employee will not be required to perform a single car test, no training on that particular task is required.

On-the-Job Training Roles and Responsibilities – Example Template

- “ The **designated instructor** serves as the overall coordinator of the specific OJT program and is primarily responsible for:
- Acting as the principal point of contact for the process, and ensuring the process is properly implemented.
 - Ensuring that all trainees and qualified persons involved in the OJT process have received hard copies of the OJT program or electronic copies of the checklist.
 - Providing guidance to both the trainee and qualified person in the process once they have received the OJT program.
 - Ensuring that trainees have access to all the supporting publications listed in this OJT program.
 - Ensuring the trainee has successfully completed all safety-related tasks to become a qualified member of an occupational category or subcategory.
2. The **qualified person** (sometimes referred to as a peer trainer) may serve as the mentor/coach for trainees. The qualified person must be qualified and has a duty to communicate with the trainees to ensure OJT is properly administered throughout the process. The qualified person will also provide daily briefings at the beginning and end of each day regarding the specific tasks focused on during that day. The trainee may perform OJT under the direct onsite observation of any qualified person, provided the qualified person has been advised of the circumstances and is capable of intervening if an unsafe act or noncompliance with Federal railroad safety laws, regulations, or orders is observed. **However, the trainee must demonstrate OJT proficiency to the satisfaction of the designated instructor to become a qualified member of an occupational category or subcategory.** A designated instructor and qualified person can be the same person.
3. The **trainee** (new hire) has the responsibility to pay close attention to the qualified person providing OJT, and to take advantage of the knowledge and experience he or she has to offer. Tracking progress of the OJT is essential and is the trainee’s responsibility. Trainees should be aware of, and abide by, the following:
- The designated instructor and/or qualified person will provide practical information and advice on the requirements and responsibilities of assigned duties.
 - Trainees are responsible for completing any narrative and self-study assignments outside the scope of this OJT program. Additional assignments are an integral part of the training experience and must be completed before being deemed qualified by the employer.
 - To gain the maximum benefit from the OJT experience, trainees should:
 - Remain alert and involved in the training activities.
 - Ask questions and learn from feedback.
 - Take notes and apply previous lessons.
 - Complete all required assignments.

- Become familiar with and comply with FRA regulations, railroad safety rules, and other procedures mandated as a condition of employment by the employer.
- Develop and maintain a learning attitude.
- The OJT experience is designed to be much more than following a qualified person around and watching what he or she does. Trainees must take an active role in the OJT and thoroughly engage in the various job tasks outlined in this OJT program.
- Expect the qualified person to say, “Here, you give it a try.” Remember, while progressing through the OJT program, trainees can learn skills, to develop knowledge, and to adopt work habits and routines that will last throughout a railroad career.
- Tracking and documenting OJT progress is an essential process step.

Guidelines for On-the-Job Training Program Coordination and Administration

In most cases, the first week or so of employment will involve administrative details and an overall orientation. Although it is understood that a trainee’s duties may overlap with other organizational requirements, each day of OJT should focus on one of the major duties of the OJT program to the extent possible. Once the tasks have been selected, there should be both an initial briefing on the tasks to be completed at the beginning and end of each day.

- The purpose of the debriefing is to go through the day’s activities, and to focus on each of the tasks associated with the task selected.
- There is no required sequential order for completing the OJT associated with any task, and no attempt is made to prioritize any tasks. Although OJT should be focused on a task, it is anticipated that the task standards will be accomplished based on available training opportunities.

Important Note: Although OJT is a critical aspect of 49 CFR Part 243, FRA will consider, on a case by case basis, alternate approaches to OJT in lieu of the traditional approach (*see 49 CFR § 243.5- On-the-job training*). For example, some employers or training organizations may have access to state of the art indoor/outdoor training facilities that permit students to practice tasks that require neuromuscular coordination to learn in a controlled environment with minimal or no risk of personal injury. Other approaches may include; classroom practical exercises, role play, lab simulation, virtual reality (VR), and other emerging technologies. While FRA does encourage alternate approaches to OJT to lessen the risk of personal injury exposure to students, enough detail must be included in the submission and satisfy the regulatory requirements of 49 CFR § 243.101(d) (1-3).

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Task X: Understand Steam Locomotive and Passenger /Freight Car Air Brake Systems - Part 232, Appendix B		
<u>Performance Tasks</u>	<u>Conditions</u> Tools, Equipment, Documents, Practice	<u>Standards</u> Time, Completeness, or Accuracy
Task X-X: Demonstrate an understanding of steam locomotive and car brake systems.	Given an opportunity to read the appropriate air brake pamphlets, 49 CFR Part 230 and 232, a briefing by the designated instructor or qualified person, the trainee will:	<p>Correctly identify and describe each of the following to the satisfaction of designated instructor or qualified person:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Brake system name. <input type="checkbox"/> Component names and purpose. <input type="checkbox"/> Graduated release (where available). <input type="checkbox"/> Direct release. <input type="checkbox"/> Feed valve braking. <input type="checkbox"/> Periodic cleaning and test intervals.
Task X-X: Demonstrate an understanding of passenger/freight car single car tests.	Given an opportunity to read CFR Part 232, Appendix B, the latest revision of AAR S0-XXX, (placeholder for other sources), and to observe at least two single car tests, a briefing by the designated instructor or qualified person, the trainee will:	<p>Perform a single car test on three separate occasions with 100 percent accuracy, and explain steps during the test to the satisfaction of designated instructor or qualified person:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Purpose of each step in the overall (SCT) test process. <input type="checkbox"/> Frequency. <input type="checkbox"/> Single car test triggers. <input type="checkbox"/> Calibration and documentation.

Task X: Apply Safety Appliance Standards on Steam Locomotives Used in Road Service - Part 231

<p align="center"><u>Performance</u> Tasks</p>	<p align="center"><u>Conditions</u> Tools, Equipment, Documents, Practice</p>	<p align="center"><u>Standards</u> Time, Completeness, or Accuracy</p>
<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting steam locomotives.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.15 these OJT standards, and to participate in at least five separate inspections of a steam locomotive with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>Tender sill steps (four) located on each corner of tender):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Bottom tread not less than 8 by 12 inches, if stirrup used clearance of tread shall not be less than 10 inches. <input type="checkbox"/> Securely fastened with bolts or rivets.
<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting steam locomotives.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.15 these OJT standards, and to participate in at least five separate inspections of a steam locomotive with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>Pilot sill steps (two) located on each end on or near each end of buffer-beam outside of rail and not more than 16 inches above rail):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Tread not less than 8 inches in width by 10 inches in length. <input type="checkbox"/> Securely fastened with bolts or rivets.

Task X: Apply Safety Appliance Standards on Steam Locomotives Used in Road Service - Part 231

<u>Performance</u> Tasks	<u>Conditions</u> Tools, Equipment, Documents, Practice	<u>Standards</u> Time, Completeness, or Accuracy
<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting steam locomotives.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.15 these OJT standards, and to participate in at least five separate inspections of a steam locomotive with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>Pilot-beam handholds (one) each end of buffer-beam and uncoupling lever may be used in lieu of handholds if lever extends across front end of locomotive to within 8 inches of end of buffer-beam, and is seven-eighths of an inch or more in diameter, securely fastened, with a clearance of 2 ½ inches:</p> <ul style="list-style-type: none"><input type="checkbox"/> Minimum diameter five-eighths of an inch.<input type="checkbox"/> Minimum clear length 14 inches.<input type="checkbox"/> Minimum clearance 2 ½ inches.<input type="checkbox"/> Securely fastened with bolts or rivets.

Task X: Apply Safety Appliance Standards on Steam Locomotives Used in Road Service - Part 231

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<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting steam locomotives.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.15 these OJT standards, and to participate in at least five separate inspections of a steam locomotive with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>Side handholds (six) horizontal or vertical. If vertical, one on each side of tender within 6 inches of rear or on corner. One on each side of tender near gangway and one on each side of locomotive at gangway applied vertically:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Minimum diameter seven-eighths of an inch. <input type="checkbox"/> Minimum clear length 16 inches. <input type="checkbox"/> Vertical clear length equal to approximate height of tank. <input type="checkbox"/> Minimum clearance 2 inches. <input type="checkbox"/> Securely fastened with 1 ½ bolts or rivets. <p>If horizontal, one near each end on each side tender. Side handholds shall be not less than 24 nor more than 30 inches above center line of coupler, except where tread of ladder is a handhold. Clearance of outer end of handhold shall be not more than 8 inches from end of tender:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Minimum diameter five-eighths of an inch. <input type="checkbox"/> Minimum clear length 16 inches. <input type="checkbox"/> Minimum clearance 2 ½ inches. <input type="checkbox"/> Securely fastened with 1 ½ bolts or rivets.

Task X: Apply Safety Appliance Standards on Steam Locomotives Used in Road Service - Part 231

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<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting steam locomotives.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.15 these OJT standards, and to participate in at least five separate inspections of a steam locomotive with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>Rear-end handholds (two) horizontal, one near each side of rear end of tender on face of end sill. Clearance of outer end of handhold shall be not more than 16 inches from side of tender:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Minimum diameter five-eighths of an inch. <input type="checkbox"/> Minimum clear length 16 inches. <input type="checkbox"/> Minimum clearance 2 inches. <input type="checkbox"/> Securely fastened with 1 ½ bolts or rivets.
<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting steam locomotives.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.15 these OJT standards, and to participate in at least five separate inspections of a steam locomotive with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>Uncoupling levers (two) double levers operative from either side:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Rear-end levers shall extend across end of tender with handles not more than 12 inches from side of tender. <input type="checkbox"/> Not less than 2 inches clearance around uncoupling lever handle. <input type="checkbox"/> Securely fastened with bolts or rivets.
<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting steam locomotives.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.15 these OJT standards, and to participate in at least five separate inspections of a steam locomotive with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>Couplers (two) automatic at rear of tender and front of locomotive:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Couple height no more than 34 ½ from top of rail. <input type="checkbox"/> Coupler height no less than 31 ½ from top of rail.

Task X: Apply Safety Appliance Standards Common on Steam Locomotives - Part 231

<p align="center"><u>Performance</u> Tasks</p>	<p align="center"><u>Conditions</u> Tools, Equipment, Documents, Practice</p>	<p align="center"><u>Standards</u> Time, Completeness, or Accuracy</p>
<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting steam locomotives.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.15 these OJT standards, and to participate in at least five separate inspections of a steam locomotive with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>Running boards (two) on each side of boiler extending from cab to front end near pilot-beam. Flat-top steam chests may form section of running board:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Minimum width 10 inches. <input type="checkbox"/> If wood not less than 1 ½ inches in thickness. <input type="checkbox"/> If metal not less than 3/16 inches in thickness. <input type="checkbox"/> Securely fastened with bolts, rivets, or studs. <p>Note: Wootten type boilers with cab located on top of boiler more than 12 inches forward from boiler head shall have suitable running boards running from cab to rear of locomotive, with handrailings not less than 20 nor more than 48 inches above outside edge of running boards, securely fastened with bolts, rivets, or studs.</p>

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<p align="center"><u>Performance</u> Tasks</p>	<p align="center"><u>Conditions</u> Tools, Equipment, Documents, Practice</p>	<p align="center"><u>Standards</u> Time, Completeness, or Accuracy</p>
<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting steam locomotives.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.17 these OJT standards, and to participate in at least five separate inspections of a steam locomotive with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>Handrails two or more - one on each side of boiler extending from near cab to near front end of boiler, and extending across front end of boiler:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Not less than 24 inches or more than 66 inches above running board. <input type="checkbox"/> Minimum 1 inch in diameter. <input type="checkbox"/> Securely fastened to boiler. <p>Note: Handrails and steps for headlights that cannot be safely and conveniently reached from pilot-beam or steam chests shall be equipped with secure handrails and steps to access headlights. Metal end or side ladder shall be applied to all tanks more than 48 inches in height, measured from the top of end sill, and securely fastened with bolts or rivets.</p>

Task X: Apply Safety Appliance Standards Common on Steam Locomotives - Part 231

<u>Performance Tasks</u>	<u>Conditions</u> Tools, Equipment, Documents, Practice	<u>Standards</u> Time, Completeness, or Accuracy
<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting steam locomotives.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.17 these OJT standards, and to participate in at least five separate inspections of a steam locomotive with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>Special Requirements for Vanderbilt Tenders:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Running boards (one) on each side of tender not less than 10 inches in width and one on top of tender not less than 48 inches in width, extending from coal space to rear of tender. <input type="checkbox"/> Handrails (one) on each side of top running board, extending from coal space to rear of tank, not less than 1 inch in diameter and not less than 20 inches in height above running board from coal space to manhole. <input type="checkbox"/> Handrail extending from coal space to within 12 inches of rear of tank, attached to each side of tank above side running board not less than 30 nor more than 66 inches above running board. <input type="checkbox"/> Vertical end handhold (one) on each side located within 8 inches of rear of tank extending from within 8 inches of top of end sill to within 8 inches of side handrail. Post supporting rear end of side running board, if not more than 2 inches in diameter and properly located. <input type="checkbox"/> Additional horizontal end handhold shall be applied on rear end when not equipped with vestibules. Handhold to be located not less than 30 nor more than 66 inches above top of end sill. Clear length of handhold to be not less than 48 inches.

Task X: Apply Safety Appliance Standards on Passenger Cars with Wide Vestibules- Part 231

<p align="center"><u>Performance</u> Tasks</p>	<p align="center"><u>Conditions</u> Tools, Equipment, Documents, Practice</p>	<p align="center"><u>Standards</u> Time, Completeness, or Accuracy</p>
<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting a passenger car with wide vestibules.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.12 these OJT standards, and to participate in at least five separate inspections of a wide vestibule passenger car with a qualified person or designated instructor, the trainee will:</p>	<p>Identify the following component and explain why it is either compliance or non-compliant. If non-compliance exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Effective handbrake that is located and can be safely operated while the car is in motion.
<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting a passenger car with wide vestibules.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.12 these OJT standards, and to participate in at least five separate inspections of a wide vestibule passenger car with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>Side handholds (eight), vertically mounted, one on each vestibule door post:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Minimum diameter, five-eighths of an inch, metal. <input type="checkbox"/> Minimum clear length, 16 inches. <input type="checkbox"/> Minimum clearance, 1 ¼ inches. <input type="checkbox"/> Securely fastened with bolts, rivets, or screws.

Task X: Apply Safety Appliance Standards on Passenger Cars with Wide Vestibules- Part 231		
<u>Performance Tasks</u>	<u>Conditions</u> Tools, Equipment, Documents, Practice	<u>Standards</u> Time, Completeness, or Accuracy
Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting a passenger car with wide vestibules.	Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.12 these OJT standards, and to participate in at least five separate inspections of a wide vestibule passenger car with a qualified person or designated instructor, the trainee will:	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>End handholds (four) mounted horizontal one near each side on each end projecting downward from face of vestibule end sill:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Clearance of outer end of handhold shall be not more than 16 inches from side of car. <input type="checkbox"/> Minimum clear length, 16 inches. <input type="checkbox"/> Minimum diameter, five-eighths of an inch, wrought iron or steel. <input type="checkbox"/> Minimum clearance, 2 inches. <input type="checkbox"/> Handholds shall be flush with or project not more than 1 inch beyond vestibule face. <input type="checkbox"/> Securely fastened with bolts or rivets. <p>Note: When marker sockets or brackets are located so that they cannot be conveniently reached from platforms, suitable steps and handholds shall be provided for men to reach such sockets or brackets.</p>
Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting a passenger car with wide vestibules.	Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.12 these OJT standards, and to participate in at least five separate inspections of a wide vestibule passenger car with a qualified person or designated instructor, the trainee will:	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Uncoupling levers (two), one on each end of car so they can be operated by a person standing on the ground. <input type="checkbox"/> Minimum length 42 inches, measured from center line of end of car to handle of attachment.

Task X: Apply Safety Appliance Standards on Passenger Cars with Open-end Platforms - Part 231

<p align="center"><u>Performance</u> Tasks</p>	<p align="center"><u>Conditions</u> Tools, Equipment, Documents, Practice</p>	<p align="center"><u>Standards</u> Time, Completeness, or Accuracy</p>
<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting a passenger car with open-end platforms.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.13 these OJT standards, and to participate in at least five separate inspections of a passenger car with open-end platforms with a qualified person or designated instructor, the trainee will:</p>	<p>Identify the following component and explain why it is either compliance or non-compliant. If non-compliance exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>Effective handbrake that is located and can be safely operated while the car is in motion.</p>
<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting a passenger car with open-end platforms.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.13 these OJT standards, and to participate in at least five separate inspections of a passenger car with open-end platforms with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>End handholds (four), mounted horizontal one near each side of each end on face of platform end sill, projecting downward:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Clearance of outer end of handhold shall be not more than 16 inches from end of end sill. <input type="checkbox"/> Minimum diameter, five-eighths of an inch, wrought iron or steel. <input type="checkbox"/> Minimum clear length, 16 inches. <input type="checkbox"/> Minimum clearance, 2 inches. <input type="checkbox"/> Handholds shall be flush with or project not more than 1 inch beyond surface of end sill. <input type="checkbox"/> Securely fastened with bolts or rivets.

Task X: Apply Safety Appliance Standards on Passenger Cars with Open-end Platforms - Part 231

<p align="center"><u>Performance Tasks</u></p>	<p align="center"><u>Conditions</u> Tools, Equipment, Documents, Practice</p>	<p align="center"><u>Standards</u> Time, Completeness, or Accuracy</p>
<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting a passenger car with open-end platforms.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.13 these OJT standards, and to participate in at least five separate inspections of a passenger car with open-end platforms with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>End-platform handholds (four), horizontal from or near door post to a point not more than 12 inches from corner of car, then approximately vertical to a point not more than 6 inches from top of platform:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Horizontal portion shall be not less than 24 inches in length nor more than 40 inches above platform. <input type="checkbox"/> Minimum clearance 2 inches. <input type="checkbox"/> Securely fastened with bolts, rivets, or screws. <p>Note: Cars equipped with safety gates do not require end-platform handholds.</p>
<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting a passenger car with open-end platforms.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.13 these OJT standards, and to participate in at least five separate inspections of a passenger car with open-end platforms with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Uncoupling levers (two), one on each end of car so they can be operated by a person standing on the ground. <input type="checkbox"/> Minimum length 42 inches, measured from center line of end of car to handle of attachment.

Task X: Apply Safety Appliance Standards on Passenger Cars without End Platforms - Part 231		
<u>Performance Tasks</u>	<u>Conditions</u> Tools, Equipment, Documents, Practice	<u>Standards</u> Time, Completeness, or Accuracy
Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting a passenger car without end platforms.	Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.14 these OJT standards, and to participate in at least five separate inspections of a passenger car without end platforms with a qualified person or designated instructor, the trainee will:	Identify the following component and explain why it is either compliance or non-compliant. If non-compliance exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person. Effective handbrake that is located and can be safely operated while the car is in motion.
Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting a passenger car without end platforms.	Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.14 these OJT standards, and to participate in at least five separate inspections of a passenger car without end platforms with a qualified person or designated instructor, the trainee will:	Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person. Sill steps (four) with one located near each end on each side not more than 24 inches from corner of car to center of tread of sill step: <ul style="list-style-type: none"> <input type="checkbox"/> Outside edge of tread of step shall be not more than 2 inches inside of face of side of car. <input type="checkbox"/> Tread shall be not more than 24 above the top of rail. <input type="checkbox"/> Steps exceeding 18 inches in depth shall have an additional tread and be laterally braced. <input type="checkbox"/> Minimum length of tread, 10 inches. <input type="checkbox"/> Minimum cross-sectional area, ½ by 1 ½ inches or equivalent, wrought iron or steel. <input type="checkbox"/> Minimum clear depth, 8 inches. <input type="checkbox"/> Securely fastened with not less than 1/2-inch bolts with nuts outside (when possible) and riveted over, or with not less than 1/2-inch rivets.

Task X: Apply Safety Appliance Standards on Passenger Cars without End Platforms - Part 231

<p align="center"><u>Performance Tasks</u></p>	<p align="center"><u>Conditions</u> Tools, Equipment, Documents, Practice</p>	<p align="center"><u>Standards</u> Time, Completeness, or Accuracy</p>
<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting a passenger car without end platforms.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.14 these OJT standards, and to participate in at least five separate inspections of a passenger car without end platforms with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>Side handholds (four) mounted horizontal or vertical, one near each end on each side of car over sill step:</p> <ul style="list-style-type: none"> <input type="checkbox"/> If horizontal, not less than 24 nor more than 30 inches above center line of coupler. <input type="checkbox"/> If vertical, lower end not less than 18 nor more than 24 inches above center line of coupler. <input type="checkbox"/> Minimum diameter, five-eighths of an inch, wrought iron or steel. <input type="checkbox"/> Minimum clear length, 16 inches. <input type="checkbox"/> Minimum clearance, 2, inches. <input type="checkbox"/> Securely fastened with bolts, rivets or screws.

Task X: Apply Safety Appliance Standards on Passenger Cars without End Platforms - Part 231

<p align="center"><u>Performance</u> Tasks</p>	<p align="center"><u>Conditions</u> Tools, Equipment, Documents, Practice</p>	<p align="center"><u>Standards</u> Time, Completeness, or Accuracy</p>
<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting a passenger car without end platforms.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.14 these OJT standards, and to participate in at least five separate inspections of a passenger car without end platforms with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>End handholds (four) mounted horizontal one near each side on each end projecting downward from face of end sill or sheathing. Clearance of outer end of handholds shall be not more than 16 inches from side of car:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Handholds shall be flush with or project not more than 1 inch beyond face of end sill. <input type="checkbox"/> Minimum diameter, five-eighths of an inch, wrought iron or steel. <input type="checkbox"/> Minimum clear length, 16 inches. <input type="checkbox"/> Minimum clearance, 2 inches. <input type="checkbox"/> Securely fastened with bolts or rivets. <p>Note: When marker sockets or brackets are located so that they cannot be conveniently reached from platforms, suitable steps and handholds shall be provided for men to reach such sockets or brackets.</p>

Task X: Apply Safety Appliance Standards on Passenger Cars without End Platforms - Part 231

<p align="center"><u>Performance</u> Tasks</p>	<p align="center"><u>Conditions</u> Tools, Equipment, Documents, Practice</p>	<p align="center"><u>Standards</u> Time, Completeness, or Accuracy</p>
<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting a passenger car without end platforms.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.14 these OJT standards, and to participate in at least five separate inspections of a passenger car without end platforms with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>End handrails (four) on cars with projecting end sills, one on each side of each end:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Extending horizontally from doorpost or vestibule frame to a point not more than 6 inches from corner of car, then approximately vertical to a point not more than 6 inches from top of platform end sill; horizontal portion shall be not less than 30 nor more than 60 inches above platform end sill. <input type="checkbox"/> Minimum diameter, five-eighths of an inch, wrought iron or steel. <input type="checkbox"/> Minimum clearance, 2, inches. <input type="checkbox"/> Securely fastened with bolts, rivets or screws.

Task X: Apply Safety Appliance Standards on Passenger Cars without End Platforms - Part 231		
<u>Performance Tasks</u>	<u>Conditions</u> Tools, Equipment, Documents, Practice	<u>Standards</u> Time, Completeness, or Accuracy
<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting a passenger car without end platforms.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.14 these OJT standards, and to participate in at least five separate inspections of a passenger car without end platforms with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>Side door steps (one) under each door with outside edge of tread of step not more than 2 inches inside of face of side of car:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Tread not more than 24 above the top of rail. <input type="checkbox"/> Minimum length of tread, 10 inches. <input type="checkbox"/> Minimum cross-sectional area, ½ by ½ inches or equivalent, wrought iron or steel. <input type="checkbox"/> Minimum clear depth, 8 inches. <input type="checkbox"/> Steps exceeding 18 inches in depth shall have an additional tread and be laterally braced. <input type="checkbox"/> A vertical handhold not less than 24 inches in clear length shall be applied above each side-door step on door post. <input type="checkbox"/> Securely fastened with not less than ½ inch bolts with nuts outside (when possible) and riveted over, or with not less than ½ inch rivets.
<p>Task X-X: Demonstrate an understanding of the safety appliance standards when inspecting a passenger car without end platforms.</p>	<p>Given an opportunity to read the appropriate safety appliance diagrams, 49 CFR Part 231, specifically § 231.14 these OJT standards, and to participate in at least five separate inspections of a passenger car without end platforms with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Uncoupling levers (two), one on each end of car so they can be operated by a person standing on the ground. <input type="checkbox"/> Minimum length 42 inches, measured from center line of end of car to handle of attachment.

Task X: Apply Steam Locomotive Movement for Repair Provisions – Part 230

<u>Performance</u> Tasks	<u>Conditions</u> Tools, Equipment, Documents, Practice	<u>Standards</u> Time, Completeness, or Accuracy
Task X-X: Demonstrate an understanding of proper movement of an FRA defective steam locomotive.	Using 49 CFR Part 230 as a reference, specifically §230.12, and to initiate at least three different scenarios involving non-compliant steam locomotives, the trainee will:	Explain, on two separate occasions with 100 percent accuracy, the relevancy on each of the following to the satisfaction of the designated instructor or qualified person: <ul style="list-style-type: none"><input type="checkbox"/> General limitations<input type="checkbox"/> Non-complying defects.<input type="checkbox"/> Tagging.<input type="checkbox"/> Written notification.<input type="checkbox"/> Notification to crew.<input type="checkbox"/> Location where repairs are made.<input type="checkbox"/> Defects en route.<input type="checkbox"/> Next forward location.<input type="checkbox"/> Yard movements.

Task X: Apply Steam Locomotive Daily Inspection Requirements – Part 230

<p align="center"><u>Performance Tasks</u></p>	<p align="center"><u>Conditions</u> Tools, Equipment, Documents, Practice</p>	<p align="center"><u>Standards</u> Time, Completeness, or Accuracy</p>
<p>Task X-X: Apply Federal Regulations when inspecting a steam locomotive for compliance with Part 230.</p>	<p>Given an opportunity to read 49 CFR Part 230, specifically § 230.13, these OJT standards, and to participate in at least five separate inspections of a steam locomotive cab with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Water glasses, columns, and gage cocks function as intended as evidenced by testing. <input type="checkbox"/> All boiler feed-water delivery systems function as intended as evidenced by testing. <input type="checkbox"/> Steam gauges defective/inoperative. <input type="checkbox"/> Air brake gauges defective/inoperative. <input type="checkbox"/> Air brake valves defective/inoperative. <input type="checkbox"/> Brake pipe leakage does not exceed 5 psi per minute. <input type="checkbox"/> Steam leaks obstructing view of the train crew. <input type="checkbox"/> Locomotive cab controls, e.g., cylinder cocks, sanders, audible warning devices function as intended. <input type="checkbox"/> Cab aprons properly maintained, and in suitable condition for service. <input type="checkbox"/> Cab lights function as intended. <input type="checkbox"/> Head lights illumination that is inadequate. <input type="checkbox"/> Air compressor functions as intended. <input type="checkbox"/> Throttle lever engages properly. <input type="checkbox"/> Reverser gear lever latch engages properly, including steam and air power assist systems if so equipped.

Task X: Apply Steam Locomotive Daily Inspection Requirements – Part 230

<p align="center"><u>Performance Tasks</u></p>	<p align="center"><u>Conditions</u> Tools, Equipment, Documents, Practice</p>	<p align="center"><u>Standards</u> Time, Completeness, or Accuracy</p>
<p>Task X-X: Apply Federal Regulations when inspecting a steam locomotive for compliance with Part 230.</p>	<p>Given an opportunity to read 49 CFR Part 230, these OJT standards, and to participate in at least five separate inspections of a steam locomotive exterior with a qualified person or designated instructor, the trainee will::</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Water or steam leaks from under lagging (seams). <input type="checkbox"/> Stay bolts leaking. <input type="checkbox"/> Washout plugs leaks. <input type="checkbox"/> Mudring leaks. <input type="checkbox"/> Feedwater/delivery systems and related piping with excessive water and/or steam leaks.
<p>Task X-X: Apply Federal Regulations when inspecting a steam locomotive for compliance with Part 230.</p>	<p>Given an opportunity to read 49 CFR Part 230, these OJT standards, and to participate in at least five separate inspections of a steam locomotive driving gear with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, 100 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Piston rods cracked or loose. <input type="checkbox"/> Fasteners not properly secured. <input type="checkbox"/> Crossheads and guides do not maintain proper vertical (1/4 inches) and lateral clearance (3/16 inches). <input type="checkbox"/> Valve gear rods do not function properly. <input type="checkbox"/> Connecting rods defective or unsuitable for service. Side motion does not exceed ¼ inches on crack pins. <input type="checkbox"/> Oil and grease cups secured. <input type="checkbox"/> Crank pins loose/defective.

Task X: Apply Steam Locomotive Daily Inspection Requirements – Part 230		
<u>Performance Tasks</u>	<u>Conditions</u> Tools, Equipment, Documents, Practice	<u>Standards</u> Time, Completeness, or Accuracy
Task X-X: Apply Federal Regulations when inspecting a steam locomotive for compliance with Part 230.	Given an opportunity to read 49 CFR Part 230, tape measure, these OJT standards, and to participate in at least five separate inspections of a steam locomotive foundation brake gear with a qualified person or designated instructor, the trainee will:	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, at least 90 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Foundation brake gear, including all levers / rods / brake beams / hangers / and pins bind or foul. <input type="checkbox"/> Pins improperly secured. <input type="checkbox"/> Brake shoe improperly aligned with tread of wheel. <input type="checkbox"/> Piston travel limits as prescribed in § 230.76. <input type="checkbox"/> Clearance above top of rail less than 2 ½ inches.
Task X-X: Apply Federal Regulations when inspecting a steam locomotive tender for compliance with Part 230.	Given an opportunity to read § 230.99, a briefing by the designated instructor or qualified person, the trainee will:	Discuss tender axle loads in relation to minimum allowable diameters at journal, wheel seat, and centers, to the satisfaction of the designated instructor or qualified person.

Task X: Apply Steam Locomotive Daily Inspection Requirements – Part 230

<p align="center"><u>Performance</u> Tasks</p>	<p align="center"><u>Conditions</u> Tools, Equipment, Documents, Practice</p>	<p align="center"><u>Standards</u> Time, Completeness, or Accuracy</p>
<p>Task X-X: Apply Federal Regulations when inspecting a steam locomotive for compliance with Part 230.</p>	<p>Given an opportunity to read 49 CFR Part 230, machinist rule, taper gauge, appropriate wheel gauges, these OJT standards, and to participate in at least five separate inspections of a steam locomotive running gear with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Wheel with a crack or break in the flange / tread / rim / plate / hub / or bracket. <input type="checkbox"/> Wheel slid flat or shelled spot 2 ½ inches or more. <input type="checkbox"/> Wheel or tire flange chipped more than 1 ½ inch in length and ½ inch in width. <input type="checkbox"/> Wheel or tire having broken rim, 5/8 inch above the tread, less than 3 ¾ inches in width. <input type="checkbox"/> Wheel or tire having a seam running lengthwise within 3 ¾ inches from flange. <input type="checkbox"/> Flange worn 15/16 inch thick or less, measured at 3/8 inch above tread. <input type="checkbox"/> Tread worn hollow 5/16 inch or more. <input type="checkbox"/> Flange height less than 1 inch or more than 1 ½ inch measured from tread to top of flange. <input type="checkbox"/> Rim less than 1 inch thick. <input type="checkbox"/> Wheel variance greater than 3/32 inch on same axle or same driving wheel base. <input type="checkbox"/> Lateral motion between wheel hubs and boxes shall not exceed measurements per §230.105. <input type="checkbox"/> Axle bent. <input type="checkbox"/> Journals that are cut and will not run cool without turning. <input type="checkbox"/> Axles with transverse seams or bent. <input type="checkbox"/> Cut journals that cannot be made to run cool without turning. <input type="checkbox"/> Transverse seams in iron or steel axles. <input type="checkbox"/> Seams in axles causing journals to run hot.

Task X: Apply Steam Locomotive Daily Inspection Requirements – Part 230		
<u>Performance Tasks</u>	<u>Conditions</u> Tools, Equipment, Documents, Practice	<u>Standards</u> Time, Completeness, or Accuracy
Task X-X: Apply Federal Regulations when inspecting a steam locomotive for compliance with Part 230.	Given an opportunity to read 49 CFR Part 230, machinist rule, tape measure, taper gauge, appropriate wheel gauges, these OJT standards, and to participate in at least five separate inspections of a steam locomotive wheel centers with a qualified person or designated instructor, the trainee will:	Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person. <ul style="list-style-type: none"> <input type="checkbox"/> Filling blocks or shims missing, or improperly applied. <input type="checkbox"/> Wheels centers loose on axle. <input type="checkbox"/> Broken or defective tire fastenings. <input type="checkbox"/> Broken or cracked hubs, plates, bolts or spokes. <input type="checkbox"/> Driving or trailing wheel center with three adjacent spokes or 25 percent or more of the spokes in the wheel broken.
Task X-X: Apply Federal Regulations when inspecting a steam locomotive for compliance with Part 230.	Given an opportunity to read 49 CFR Part 230, these OJT standards, and to participate in at least five separate inspections of a steam locomotive spring rigging with a qualified person or designated instructor, the trainee will:	Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person. <ul style="list-style-type: none"> <input type="checkbox"/> Top leaf broken or two leaves in top half or any three leaves in spring broken. <input type="checkbox"/> Any spring with leaves excessively shifting in the band. <input type="checkbox"/> Broken coil springs. <input type="checkbox"/> Broken driving box saddle, equalizer, hanger, bolt, or pin.
Task X-X: Apply Federal Regulations when inspecting a steam locomotive for	Given an opportunity to read 49 CFR Part 230, machinist rule, tape measure, taper gauge, appropriate wheel gauges, these	Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, at least

Task X: Apply Steam Locomotive Daily Inspection Requirements – Part 230

<p align="center"><u>Performance Tasks</u></p>	<p align="center"><u>Conditions</u> Tools, Equipment, Documents, Practice</p>	<p align="center"><u>Standards</u> Time, Completeness, or Accuracy</p>
<p>compliance with Part 230.</p>	<p>OJT standards, and to participate in at least five separate inspections of a steam locomotive tires with a qualified person or designated instructor, the trainee will:</p>	<p>95 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Wheel diameter variance on same axle exceeds 3/32 inches. <input type="checkbox"/> Back to back flange variance on same axle exceeds ¼ inch. <input type="checkbox"/> Tire thickness shall correspond to minimum thickness depending on weight per axle as defined in table §230.112(d). <input type="checkbox"/> Tire width less than 5 ½ inches (standard gage track) and less than 5 inches on narrow gage. <input type="checkbox"/> Plain tires width less and 6 inches on standard gage and 5 ½ inches on narrow gage.
<p>Task X-X: Apply Federal Regulations when inspecting a steam locomotive for compliance with Part 230.</p>	<p>Given an opportunity to read 49 CFR Part 230, these OJT standards, and to participate in at least five separate inspections of a steam locomotive tender trucks, with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <ul style="list-style-type: none"> <input type="checkbox"/> An elliptical spring with its top (long) leaf or any other five leaves in the entire spring pack broken. <input type="checkbox"/> Broken coil spring or saddle. <input type="checkbox"/> Coil spring fully compressed. <input type="checkbox"/> Broken or cracked equalizer, hanger, bolt, gib or pin. <input type="checkbox"/> Broken coil spring saddle. <input type="checkbox"/> Semi-elliptical spring with a top (long) leaf broken or two leaves in the top half broken, or any three leaves in the entire spring broken. <input type="checkbox"/> Side bearing in contact not by design.

Task X: Apply Steam Locomotive Daily Inspection Requirements – Part 230

<p align="center"><u>Performance Tasks</u></p>	<p align="center"><u>Conditions</u> Tools, Equipment, Documents, Practice</p>	<p align="center"><u>Standards</u> Time, Completeness, or Accuracy</p>
<p>Task X-X: Apply Federal Regulations when inspecting a steam locomotive for compliance with Part 230.</p>	<p>Given an opportunity to read 49 CFR Part 230, these OJT standards, and to participate in at least five separate inspections of a steam locomotive tender axles and journals, with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>Tender axle:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Bent. <input type="checkbox"/> Collars broken, cracked, or worn less than ¼ or less in thickness. <input type="checkbox"/> Accident damage. <input type="checkbox"/> Fillet in the back shoulder that is worn out. <input type="checkbox"/> A gouge between the wheel seats more than 1/8 inch in depth. <p>Tender journal:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Cuts or seams causing overheating. <input type="checkbox"/> Transverse seams. <input type="checkbox"/> A circumferential score. <input type="checkbox"/> Corrugation. <input type="checkbox"/> Pitting. <input type="checkbox"/> Rust. <input type="checkbox"/> Etching.

Task X: Apply Steam Locomotive Daily Inspection Requirements – Part 230

<p align="center"><u>Performance</u> Tasks</p>	<p align="center"><u>Conditions</u> Tools, Equipment, Documents, Practice</p>	<p align="center"><u>Standards</u> Time, Completeness, or Accuracy</p>
<p>Task X-X: Apply Federal Regulations when inspecting a steam locomotive for compliance with Part 230.</p>	<p>Given an opportunity to read 49 CFR Part 230, these OJT standards, and to participate in at least five separate inspections of a steam locomotive and tender plain bearing journal boxes, with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>Tender plain bearing box:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Does not contain visible free oil. <input type="checkbox"/> Lid that is missing, broken, or stuck open. <input type="checkbox"/> Contains foreign matter that could damage bearing. <p>Lubricating pad:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Missing. <input type="checkbox"/> Not in contact with the journal. <input type="checkbox"/> Torn 50 percent or more. <input type="checkbox"/> Scorched, burned, or glazed. <input type="checkbox"/> Decayed or deteriorated that impairs proper lubrication. <p>Plain bearing:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Missing, cracked, or broken. <input type="checkbox"/> Liner loose, or broken out piece. <input type="checkbox"/> Evidence of being overheated. <p>Plain bearing wedge:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Missing, cracked or broken. <input type="checkbox"/> Not located in its design position.

Task X: Apply Steam Locomotive Daily Inspection Requirements – Part 230

<p align="center"><u>Performance</u> Tasks</p>	<p align="center"><u>Conditions</u> Tools, Equipment, Documents, Practice</p>	<p align="center"><u>Standards</u> Time, Completeness, or Accuracy</p>
<p>Task X-X: Apply Federal Regulations when inspecting a steam locomotive for compliance with Part 230.</p>	<p>Given an opportunity to read 49 CFR Part 230, these OJT standards, and to participate in at least five separate inspections of a steam locomotive tender frame and body, with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <p>Tender:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Height variance between deck and cab deck does not exceed ½ inch. <input type="checkbox"/> Minimum gangway width between tender and locomotive measured on tangent track 16 inches. <input type="checkbox"/> Less than 2 ½ from the top of rail. <input type="checkbox"/> Center sill broken, cracked more than 6 inches, or permanently bent or buckled more than 2 ½ inches in any six foot length. <input type="checkbox"/> Coupler carrier that is broken or missing. <input type="checkbox"/> Center plate, any portion missing or broken or not properly secured. <input type="checkbox"/> Side sill, crossbearer, or body bolster broken.
<p>Task X-X: Apply Federal Regulations when inspecting a steam locomotive for compliance with Part 230.</p>	<p>Given an opportunity to read 49 CFR Part 230, these OJT standards, and to participate in at least five separate inspections of a steam locomotive draft system with a qualified person or designated instructor, the trainee will:</p>	<p>Identify each of the following components and explain why each is either compliance or non-compliant. If non-compliance with any of these components exists, find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Safety bar(s) or safety chains properly secured with proper length. <input type="checkbox"/> Draft gear and associated attachments function as intended and securely fastened. <input type="checkbox"/> Lost motion between steam locomotive and tender does not exceed ½ inch. <input type="checkbox"/> Springs buffers if used under sufficient compression keep chafing faces in contact. <input type="checkbox"/> Chafing irons properly secured and provide the required vertical and lateral movement.

Task X: Apply 31 Service Day Inspection Items - Part 230		
<u>Performance</u> Tasks	<u>Conditions</u> Tools, Equipment, Documents, Practice	<u>Standards</u> Time, Completeness, or Accuracy
Task X-X: Demonstrate an understanding of steam locomotive 31 Service Day inspection items.	Given an opportunity to read 49 CFR Part 230, specifically § 230.14, these OJT standards, and to participate in at least three separate 31 Service Day inspections of a steam locomotive with a qualified person or designated instructor, the trainee will:	<p>Perform each of the following on two separate occasions with 100 percent accuracy to the satisfaction of the designated instructor or qualified person.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Wash boiler. <input type="checkbox"/> Clean water glasses and gauge cocks. <input type="checkbox"/> Clean arch tube, thermic siphons, and circulators (when equipped). <input type="checkbox"/> Service/inspect all boiler washout plugs. <input type="checkbox"/> Service/inspect/test staybolts. <input type="checkbox"/> Service/inspect/remove fusible plugs (when equipped). <input type="checkbox"/> Complete Form 1.

Task X: Apply 92 Service Day Inspection Items - Part 230		
<u>Performance</u> Tasks	<u>Conditions</u> Tools, Equipment, Documents, Practice	<u>Standards</u> Time, Completeness, or Accuracy
Task X-X: Demonstrate an understanding of steam locomotive 92 Service Day inspection items.	Given an opportunity to read 49 CFR Part 230, specifically § 230.15, these OJT standards, and to participate in at least three separate 92 Service Day inspections of a steam locomotive with a qualified person or designated instructor, the trainee will:	<p>Perform each of the following on two separate occasions with 100 percent accuracy to the satisfaction of the designated instructor or qualified person.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Remove and test all air and steam gauges, (see § 230.45 for steam gauge test procedures). <input type="checkbox"/> Clean steam gauge siphon pipe. <input type="checkbox"/> Renew all tubular water glasses. <input type="checkbox"/> Test and adjust all safety relief valves. <input type="checkbox"/> Orifice test air compressor, (see § 230.71 for test procedures and operational efficiency) <input type="checkbox"/> Test/repair main reservoirs for excessive leakage, (see § 230.78(a) for test procures).

Task X: Apply 92 Service Day Inspection Items - Part 230		
<u>Performance</u> Tasks	<u>Conditions</u> Tools, Equipment, Documents, Practice	<u>Standards</u> Time, Completeness, or Accuracy
		<input type="checkbox"/> Test/repair all brake cylinders for excessive leakage, (see § 230.78(b) for test procedures). <input type="checkbox"/> Enter and inspect tender tank interior for defects. <input type="checkbox"/> Complete Form 1.

Task X: Apply Annual Inspection Items - Part 230		
<u>Performance</u> Tasks	<u>Conditions</u> Tools, Equipment, Documents, Practice	<u>Standards</u> Time, Completeness, or Accuracy
Task X-X: Demonstrate an understanding of steam locomotive Annual inspection items.	Given an opportunity to read 49 CFR Part 230, specifically § 230.16, these OJT standards, and to participate in at least three separate Annual inspections of a steam locomotive with a qualified person or designated instructor, the trainee will:	Perform each of the following on two separate occasions with 100 percent accuracy to the satisfaction of the designated instructor or qualified person. <ul style="list-style-type: none"> <input type="checkbox"/> Remove arch brick and test thickness of arch and water bar tubes. <input type="checkbox"/> Perform a hydrostatic test of the boiler at 25 percent of MWAP with metal temperature between 70 and 120 degrees Fahrenheit. <input type="checkbox"/> Service/inspect/test staybolts. <input type="checkbox"/> Test thickness of dry pipes. <input type="checkbox"/> Enter and inspect the smokebox for defects. <input type="checkbox"/> Enter and inspect the boiler interior for defects. <input type="checkbox"/> Perform hammer or UT test and hydrostatic test at MAWP on main reservoirs (non-welded and drilled). <input type="checkbox"/> Remove and inspect drawbars and pins via NDE <input type="checkbox"/> Inspect longitudinal lap joint boiler seams. <input type="checkbox"/> Remove and inspect all staybolt cap and sleeves for defects (every 5 years). <input type="checkbox"/> Complete Form 3. <p>Note: Trainee will explain to the satisfaction of the designated instructor or qualified person, all qualifying events that trigger a</p>

Task X: Apply Annual Inspection Items - Part 230

<u>Performance</u> Tasks	<u>Conditions</u> Tools, Equipment, Documents, Practice	<u>Standards</u> Time, Completeness, or Accuracy
		hydrostatic test of the boiler.

Task X: Apply 1472 Service Day Inspection Items - Part 230

<u>Performance</u> Tasks	<u>Conditions</u> Tools, Equipment, Documents, Practice	<u>Standards</u> Time, Completeness, or Accuracy
Task X-X: Demonstrate an understanding of steam locomotive 1472 Service Day inspection items.	Given an opportunity to read 49 CFR Part 230, specifically § 230.17, these OJT standards, and to participate in at least three separate 1472 Service Day inspections of a steam locomotive with a qualified person or designated instructor, the trainee will:	Perform each of the following on two separate occasions with 100 percent accuracy to the satisfaction of the designated instructor or qualified person. <ul style="list-style-type: none"><input type="checkbox"/> Remove boiler flues, clean and inspect boiler interior for defects.<input type="checkbox"/> Remove jacket and lagging and inspect boiler exterior for defects.<input type="checkbox"/> Inspect and clean locomotive frame.<input type="checkbox"/> Perform a hydrostatic test of the boiler at 25 percent of MWAP with metal temperature between 70 and 120 degrees Fahrenheit.<input type="checkbox"/> Conduct boiler survey and verify thickness of boiler proper.*<input type="checkbox"/> Update Specification Card Form 4.* <p>*These steps only required for safety-related railroad employees responsible for calculation, completion, and execution of Specification Card Form 4.</p>