

***On-the-Job Training Standards  
For  
Mechanical Employees,  
QP's, QMP's and QMI's***

*February 12, 2019*

## **Foreword**

*The OJT tasks identified below assumes a continuous and ongoing positive conversation between the designated instructor / qualified person and trainee. It means enough 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 duties in passenger service, no training on those tasks is required.*

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

1. 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).

## TABLE OF CONTENTS

<b>Task X: Discuss Air Brake Systems for Freight (QP or QMI)</b> .....	7
<b>Task X: Understand General Requirements for Freight Air Brake Systems (QP or QMI)</b> .....	8
<b>Task X: Perform Air Brake Inspection and Testing on Freight Equipment (QP or QMI)</b> .....	10
<b>Task X: Perform a Locomotive Cab Inspection</b> .....	14
<b>Task X: Perform a Locomotive Engine Compartment and Car Body Inspection</b> .....	15
<b>Task X: Perform a Locomotive Truck, Running Gear and Draft System Inspection</b> .....	16
<b>Task X: Apply Remote Control Locomotive (RCL) Regulations</b> .....	17
<b>Task X: Apply Movement for Repair Provisions on Locomotives and Rolling Equipment</b> .....	18
<b>Task X: Perform a Freight Car Inspection</b> .....	19
<b>Duty X: Perform a Freight and/or Passenger Car Safety Appliance Inspection</b> .....	20
<b>Task X: Apply Blue Signal Protection</b> .....	21
<b>Task X: Discuss Rear End Marker Regulations</b> .....	24
<b>Task X: Recognize Locomotive Glazing Compliance</b> .....	25
<b>Task X: Inspect for Adequate Reflectorization Material on Freight Rolling Stock</b> .....	26
<b>Task X: Verify Proper Operation of Exterior Side Door Safety Systems (QP)</b> .....	27
<b>Task X: Perform a Passenger Car Exterior Calendar Day Mech. Inspection (QMP) – Part I</b> .....	28
<b>Task X: Perform a Passenger Car Exterior Calendar Day Mech. Inspection (QMP) – Part II</b> .....	29
<b>Task X: Perform a Passenger Car Exterior Calendar Day Mech. Inspection (QMP) – Part III</b> .....	30
<b>Task X: Perform a Passenger Car Exterior Calendar Day Mech. Inspection (QMP) – Part IV</b> .....	31
<b>Task X: Perform a Passenger Car Exterior Calendar Day Mech. Inspection (QMP) – Part V</b> .....	32
<b>Task X: Perform a Passenger Car Periodic Mech. Inspection (QMP) – Part I</b> .....	33

<b>Task X: Perform a Passenger Car Periodic Mech. Inspection (QMP) – Part II .....</b>	<b>34</b>
<b>Task X: Perform a Passenger Car Periodic Mech. Inspection (QMP) – Part III.....</b>	<b>35</b>
<b>Task X: Perform a Passenger Car Interior Calendar Day Mech. Inspection (QP or QMP).....</b>	<b>36</b>
<b>Task X: Apply Movement for Repair Provisions for Passenger Equipment (QP or QMP).....</b>	<b>37</b>
<b>Task X: Understand General Requirements for Passenger Air Brake Systems (QMP).....</b>	<b>38</b>
<b>Task X: Explain Periodic Maintenance Intervals for Passenger Air Brake Systems (QMP).....</b>	<b>39</b>
<b>Task X: Perform Air Brake Inspection and Test on Passenger Equipment (QP or QMP).....</b>	<b>40</b>

<b>Task X: Discuss Air Brake Systems for Freight (QP or QMI)</b>		
<b><u>Performance</u> Tasks</b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> Demonstrate an understanding of freight locomotive air brake systems.	Given an opportunity to read the appropriate air brake pamphlets, and 49 CFR Part 232, or its equivalent, the trainee will study three different locomotives air brake systems to the satisfaction of the designated instructor or qualified person:	Explain, for each of the three systems: <ul style="list-style-type: none"> <li><input type="checkbox"/> Brake system name.</li> <li><input type="checkbox"/> Component names and purpose.</li> <li><input type="checkbox"/> Graduated release (where available).</li> <li><input type="checkbox"/> Direct release.</li> <li><input type="checkbox"/> Electropneumatic brake (where available).</li> <li><input type="checkbox"/> Dynamic brake.</li> <li><input type="checkbox"/> Feed valve braking.</li> <li><input type="checkbox"/> Periodic cleaning and test intervals.</li> </ul>
<b>Task X-2:</b> Demonstrate an understanding of freight car air brake systems.	Given an opportunity to read the appropriate air brake pamphlets, and 49 CFR Part 232, or its equivalent, the trainee will study three different freight air brake systems to the satisfaction of the designated instructor or qualified person:	Explain in sufficient detail, on three separate occasions: <ul style="list-style-type: none"> <li><input type="checkbox"/> Brake system name.</li> <li><input type="checkbox"/> Component names and purpose.</li> <li><input type="checkbox"/> Periodic cleaning and test intervals (where applicable).</li> </ul>
<b>Task 1-3:</b> Demonstrate an understanding of freight car single car tests.	Given an opportunity to read § 232.303, and the latest revision of AAR S0-486, and to observe at least two single car tests, the trainee will, to the satisfaction of the designated instructor or qualified person:	Explain the: <ul style="list-style-type: none"> <li><input type="checkbox"/> Purpose of each step in the overall (SCT) test process.</li> <li><input type="checkbox"/> Frequency.</li> <li><input type="checkbox"/> Single car test triggers.</li> <li><input type="checkbox"/> Calibration and documentation.</li> <li><input type="checkbox"/> Steps for moving a car to another location overdue single car test.</li> </ul>

<b>Task X: Understand General Requirements for Freight Air Brake Systems (QP or QMI)</b>		
<b><u>Performance Tasks</u></b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> Demonstrate an understanding of the general requirements for all train brake systems.	Given an opportunity to read 49 CFR Part 232, specifically § 232.103(a-m), or its equivalent, and at least one oral briefing by the designated instructor or qualified person, the trainee will, to the satisfaction of the designated instructor or qualified person:	<p>Explain with 100 percent accuracy, on three separate occasions:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> The minimum number of operative air brakes in a freight train at any given time.</li> <li><input type="checkbox"/> The number of operative air brakes required on freight trains receiving a Class I brake test.</li> <li><input type="checkbox"/> Piston travel requirements for body and non-body mounted brake cylinders.</li> </ul>
<b>Task X-2:</b> Demonstrate an understanding of the general requirements for all train brake systems regarding the securing of unattended equipment.	Given an opportunity to read § 232.103 (n)(1-11), or its equivalent, and at least one oral briefing by the designated instructor or qualified person, the trainee will, to the satisfaction of the designated instructor or qualified person:	<p>Explain with 100 percent accuracy, on three separate occasions:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> The purpose of venting air from brake pipe at a rate not to exceed a service rate and leaving the angle cock in the open position on the first unit of equipment left unattended.</li> <li><input type="checkbox"/> Number of handbrakes required to be applied on unattended freight cars.</li> <li><input type="checkbox"/> Number of handbrakes required to be applied on unattended locomotives in the lead consist of a train.</li> <li><input type="checkbox"/> Number of handbrakes required to be applied on an unattended locomotive consist outside a yard.</li> <li><input type="checkbox"/> Number of handbrakes required to be applied on an unattended locomotive consist in a yard.</li> <li><input type="checkbox"/> Requirements for securing the controlling locomotive cab and/or reverser on unattended train standing on a main train or siding outside a yard with any loaded tank car containing a poisonous inhalation hazard, and/or a combination of twenty (20) or more loaded tank cars, or loaded intermodal portable tanks with hazardous materials.</li> </ul>



<b>Task X: Understand General Requirements for Freight Air Brake Systems (QP or QMI)</b>		
<b><u>Performance Tasks</u></b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-3:</b> Demonstrate an understanding of the general requirements for locomotives equipped with dynamic brakes.	Given an opportunity to read § 232.109, or its equivalent, (and at least one oral briefing by the designated instructor or qualified person, the trainee will, to the satisfaction of the designated instructor or qualified person:	Explain with 95 percent accuracy, on three separate occasions: <ul style="list-style-type: none"> <li><input type="checkbox"/> Notification requirements to locomotive engineers regarding the status of all dynamic brakes in a consist for locomotives equipped with dynamic brakes ordered on or after April 1, 2006, or placed in service for the first time after October 1, 2007.</li> <li><input type="checkbox"/> Number of calendar days a locomotive with inoperative dynamic brakes may remain in service without repair.</li> <li><input type="checkbox"/> Tagging requirements for locomotives with inoperative dynamic brakes.</li> <li><input type="checkbox"/> Actions required when declaring dynamic brakes deactivated.</li> </ul>
<b>Task X-4:</b> Demonstrate an understanding of the general requirements for train handling information.	Given an opportunity to read § 232.110, or its equivalent, (and at least one oral briefing by the designated instructor or qualified person, the trainee will, to the satisfaction of the designated instructor or qualified person:	Explain the five elements of train handling information a train crew is required to receive and maintain in the cab of the controlling locomotive when taking charge of a train.
<b>Task X-5:</b> Demonstrate an understanding of when a certain air brake tests must be performed on freight equipment.	Given an opportunity to read Part 232 Subpart C, specially §§ 232.205, 232.207, 232.209, 232.211, 232.215, or its equivalent, (and at least one oral briefing by the designated instructor or qualified person, the trainee will, to the satisfaction of the designated instructor or qualified person:	Explain with 95 percent accuracy, all the operational parameters associated with each freight air brake test.  <i>For example:</i> A Class I brake test is required at each location where the train originates operating in excess of 20 miles.

<b>Task X: Perform Air Brake Inspection and Testing on Freight Equipment (QP or QMI)</b>		
<b><u>Performance</u> Tasks</b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<p><b>Task X-1:</b> Demonstrate the ability to perform a Class I (Initial Terminal) freight air brake test.</p>	<p>Given an opportunity to read §232.205, or its equivalent, a tape measure, and to assist in performing at least three Class I freight air brake tests with a designated instructor or qualified person, the trainee will:</p>	<p>Find, on two separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Brake pipe pressure within 15 psi at which train will be operated, but not less than 75 PSI at rear of train.</li> <li><input type="checkbox"/> Brake pipe service reduction of 20 psi.</li> <li><input type="checkbox"/> After waiting 45-60 seconds, maintaining feature (if equipped) cut-out and brake pipe leakage does not exceed 5 psi.</li> <li><input type="checkbox"/> If used, air flow does not exceed 60 CFM.</li> <li><input type="checkbox"/> Correct retaining valve position.</li> <li><input type="checkbox"/> Inoperative brake.</li> <li><input type="checkbox"/> Brake rigging fouling.</li> <li><input type="checkbox"/> Excessive piston travel as indicated by badge plate or stencil.</li> <li><input type="checkbox"/> Insufficient piston travel as indicated by badge plate or stencil.</li> <li><input type="checkbox"/> Brake connection rods/pins worn or missing.</li> <li><input type="checkbox"/> Brake shoes worn or missing.</li> <li><input type="checkbox"/> Brake hose worn.</li> <li><input type="checkbox"/> Brake pipe insecure.</li> <li><input type="checkbox"/> Slack adjuster inoperative (if equipped).</li> <li><input type="checkbox"/> Angle or cut-out cock not properly positioned.</li> <li><input type="checkbox"/> Inspection of both sides of train.</li> <li><input type="checkbox"/> Verify release of each brake.</li> <li><input type="checkbox"/> Roll-by option if used train speed not to exceed 10 mph.</li> <li><input type="checkbox"/> Documentation/record for locomotive engineer of Class I brake test includes; date, time, number of cars inspected, name of qualified person(s) conducting test, and location where test was performed.</li> </ul>

<b>Task X: Perform Air Brake Inspection and Testing on Freight Equipment (QP or QMI)</b>		
<b><u>Performance</u> Tasks</b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-2:</b> Demonstrate the ability to perform a Class IA (1000 Mile) freight air brake test.	Given an opportunity to read § 232.207, or its equivalent, possess a tape measure, and to assist in performing at least three Class IA freight air brake tests with a designated instructor or qualified person, the trainee will:	Find, on two separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following: <ul style="list-style-type: none"> <li><input type="checkbox"/> Improper brake pipe pressure.</li> <li><input type="checkbox"/> Inoperative brake.</li> <li><input type="checkbox"/> Excessive brake pipe leakage.</li> <li><input type="checkbox"/> Excessive air flow (CFM).</li> <li><input type="checkbox"/> Brake rigging fouling.</li> <li><input type="checkbox"/> Excessive piston travel.</li> <li><input type="checkbox"/> Insufficient piston travel.</li> <li><input type="checkbox"/> Brakes ineffective.</li> <li><input type="checkbox"/> Brake connection pins worn or missing.</li> <li><input type="checkbox"/> Brake shoes worn or missing.</li> <li><input type="checkbox"/> Slack adjuster inoperative (if equipped).</li> <li><input type="checkbox"/> Angle or cut-out cock not properly positioned.</li> </ul>
<b>Task X-3:</b> Demonstrate the ability to perform a Class II (intermediate) freight air brake test.	Given an opportunity to read § 232.209, or its equivalent, possess a tape measure, and to assist in performing at least three Class II freight air brake tests with a designated instructor or qualified person, the trainee will:	Find, on two separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following: <ul style="list-style-type: none"> <li><input type="checkbox"/> Improper brake pipe pressure.</li> <li><input type="checkbox"/> Inoperative brake.</li> <li><input type="checkbox"/> Excessive brake pipe leakage.</li> <li><input type="checkbox"/> Excessive air flow (CFM).</li> <li><input type="checkbox"/> Brake rigging fouling.</li> <li><input type="checkbox"/> Excessive piston travel.</li> <li><input type="checkbox"/> Insufficient piston travel.</li> <li><input type="checkbox"/> Brakes ineffective.</li> <li><input type="checkbox"/> Brake connection pins worn or missing.</li> <li><input type="checkbox"/> Brake shoes worn or missing.</li> <li><input type="checkbox"/> Slack adjuster inoperative (if equipped).</li> <li><input type="checkbox"/> Angle or cut-out cock not properly positioned.</li> </ul>

<b>Task X: Perform Air Brake Inspection and Testing on Freight Equipment (QP or QMI)</b>		
<b><u>Performance Tasks</u></b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-4:</b> Demonstrate an understanding of when a Class III freight air brake test must be performed.	Given an opportunity to read § 232.211, or its equivalent, and to assist in performing at least two Class III freight air brake tests with a designated instructor or qualified person, the trainee will:	Explain how and when a Class III freight air brake test is performed.
<b>Task X-5:</b> Demonstrate an understanding of the special requirements relating to extended haul freight trains.	Using 49 CFR Part 232, or its equivalent, the trainee will, to the satisfaction of the designated instructor or qualified person:	With 95 percent accuracy, explain each of the following: <input type="checkbox"/> What is the mileage limitation? <input type="checkbox"/> What is a pre-departure inspection (Part 215)? <input type="checkbox"/> How is defective equipment handled? <input type="checkbox"/> How many cars can be added to the train? <input type="checkbox"/> How many cars can be set-out from train?
<b>Task X-6:</b> Demonstrate an understanding of a transfer train freight air brake test.	Using 49 CFR Part 232, or its equivalent, the trainee will, to the satisfaction of the designated instructor or qualified person:	Explain how and when a transfer train freight air brake test is performed.
<b>Task X-7:</b> Demonstrate an understanding of freight brake tests using a yard test plant.	Given an opportunity to read 49 CFR Part 232, or its equivalent, and to assist in observing at least three freight air brake tests conducted with a yard test plant with a designated instructor or qualified person, the trainee will, to the satisfaction of the designated instructor or qualified person:	With 95 percent accuracy, explain each of the following: <input type="checkbox"/> What is meant by yard test plant performance? <input type="checkbox"/> Which end does the yard plant connect to the train? <input type="checkbox"/> What is meant by overcharging? <input type="checkbox"/> How long can the train be off air after the brake test is completed? <input type="checkbox"/> What is the minimum brake pipe pressure? <input type="checkbox"/> What are the gradient requirements? <input type="checkbox"/> How often must the yard plant be calibrated? <input type="checkbox"/> What intervals is periodic inspection, maintenance and required and what type of documentation is necessary? <input type="checkbox"/> What are cold weather considerations?

<b>Task X: Perform Air Brake Inspection and Testing on Freight Equipment (QP or QMI)</b>		
<b><u>Performance</u> Tasks</b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-8:</b> Explain Two-Way End-of-Train device functions.	Given an opportunity to read 49 CFR Part 232 Subpart E, or its equivalent, and observe at least one demonstration by the designated instructor or qualified person, the trainee will, to the satisfaction of the designated instructor or qualified person:	<p>With 100 percent accuracy, discuss the purpose of each step below:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Identify unique identification code.</li> <li><input type="checkbox"/> Arm the device.</li> <li><input type="checkbox"/> Compare quantitative values.</li> <li><input type="checkbox"/> Initiate emergency brake activation feature from rear end.</li> </ul> <p>Explain:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Inspection and installation considerations.</li> <li><input type="checkbox"/> Calibration and documentation requirements.</li> </ul>

<b>Task X: Perform a Locomotive Cab Inspection</b>		
<b><u>Performance</u> Tasks</b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> Apply Federal Regulations when inspecting locomotives.	Given an opportunity to read 49 CFR Part 229, or its equivalent, and to inspect five freight locomotives, the trainee will:	<p>Find, on two separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Any inspection and/or test overdue.</li> <li><input type="checkbox"/> Equalizing reservoir, brake pipe, brake cylinder or air flow (CFM) leakage.</li> <li><input type="checkbox"/> Defective brake valve(s), controller or secondary brake.</li> <li><input type="checkbox"/> Duplex air brake gauges in error/defective.</li> <li><input type="checkbox"/> Speed indicator defective.</li> <li><input type="checkbox"/> Cab light, headlight, or conspicuity lights inoperative/inadequate.</li> <li><input type="checkbox"/> Crew seat not properly secured.</li> <li><input type="checkbox"/> Cab floor hazardous (oil or other debris).</li> <li><input type="checkbox"/> Cab door latch defective.</li> <li><input type="checkbox"/> Cab windshield shattered or otherwise obstructing view of right-of-way.</li> <li><input type="checkbox"/> Alerter/deadman device does not function as intended.</li> <li><input type="checkbox"/> Audible warning device inoperative.</li> <li><input type="checkbox"/> High voltage equipment covers defective/missing.</li> <li><input type="checkbox"/> Rotating parts or other personal injury covers defective/missing.</li> <li><input type="checkbox"/> Trailing locomotives do not respond to actions initiated from cab of controlling locomotive.</li> <li><input type="checkbox"/> Electronic screen display panel defective.</li> <li><input type="checkbox"/> Traction motor(s) cut-out.</li> <li><input type="checkbox"/> Sanitary compartment defective.</li> </ul>

<b>Task X: Perform a Locomotive Engine Compartment and Car Body Inspection</b>		
<b><u>Performance</u> Tasks</b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> Apply Federal Regulations when inspecting locomotives.	Given an opportunity to read 49 CFR Parts 229, or its equivalent, inspect five freight locomotives, the trainee will:	<p>Find, on two separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> High voltage equipment covers defective/missing.</li> <li><input type="checkbox"/> Engine, generator, fan or other rotating equipment covers/guards defective/missing.</li> <li><input type="checkbox"/> Engine protective devices inoperative.</li> <li><input type="checkbox"/> Engine parts loose/missing/defective.</li> <li><input type="checkbox"/> Exhaust or battery gases not venting to atmosphere.</li> <li><input type="checkbox"/> Hazardous fuel or lube oil leak and/or accumulation.</li> <li><input type="checkbox"/> Passageway/running board hazardous/obstructions (oil/debris/defective cab body door latches).</li> <li><input type="checkbox"/> Passageway, running board, stairwell illumination inadequate.</li> <li><input type="checkbox"/> Corner stairway steps loose/defective.</li> <li><input type="checkbox"/> Corner stairway vertical handholds loose/defective.</li> <li><input type="checkbox"/> Vertical handhold not painted contrasting color.</li> <li><input type="checkbox"/> Uncoupling lever with improper handle clearance.</li> <li><input type="checkbox"/> Uncoupling lever with improper clearance when used as end handhold.</li> <li><input type="checkbox"/> Jumper cable defective or improperly located.</li> <li><input type="checkbox"/> Jumper cable receptacle housing broken/defective.</li> </ul>

<b>Task X: Perform a Locomotive Truck, Running Gear and Draft System Inspection</b>		
<b><u>Performance</u> Tasks</b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> Apply Federal Regulations when inspecting locomotives.	Given an opportunity to read 49 CFR Part or its equivalent, and possess appropriate AAR approved gauges, inspect five freight locomotives, the trainee will:	<p>Find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person. Non-complying conditions may include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> High voltage equipment covers defective/missing.</li> <li><input type="checkbox"/> Truck frame, bolster or equalizer cracked/broken.</li> <li><input type="checkbox"/> Traction motor nose suspension unit with components broken/defective.</li> <li><input type="checkbox"/> Truck outer coil, shock absorber, or elliptical springs(s)/saddle broken.</li> <li><input type="checkbox"/> Spring plank cracked/broken.</li> <li><input type="checkbox"/> Side bearing clearance excessive, parts broken/missing.</li> <li><input type="checkbox"/> Traction motor or gear covers loose/defective/missing.</li> <li><input type="checkbox"/> Suspension motor bearing bolts missing/loose.</li> <li><input type="checkbox"/> Suspension bearing lubrication assembly defective.</li> <li><input type="checkbox"/> Clearance above top of rail less than 2½ inches.</li> <li><input type="checkbox"/> Sander(s) inoperative.</li> <li><input type="checkbox"/> Wheel slid flat or shelled spot 2½ inches or more.</li> <li><input type="checkbox"/> Wheel flange more than 1½ inches in height.</li> <li><input type="checkbox"/> Wheel flange thickness 7/8 inches or less.</li> <li><input type="checkbox"/> Wheel bearing overheated/defective.</li> <li><input type="checkbox"/> Draft gear broken/components missing or excess slack.</li> <li><input type="checkbox"/> Crack/break in coupler outside shaded area.</li> <li><input type="checkbox"/> Crack/break in coupler knuckle pulling face.</li> <li><input type="checkbox"/> Coupler with no anti-creep.</li> <li><input type="checkbox"/> Crack/broken coupler yoke or carrier.</li> <li><input type="checkbox"/> Uncoupling lever inoperative.</li> </ul>



<b>Task X: Apply Remote Control Locomotive (RCL) Regulations</b>		
<b><u>Performance</u> Tasks</b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> Apply Federal Regulations when inspecting Remote Control (RCL) Locomotives.	Given an opportunity to read § 229.15, or its equivalent, and to inspect three remote control locomotives, the trainee will, to the satisfaction of the designated instructor or qualified person:	<p>Conduct tests, determine compliance and achieve 100 percent accuracy on three occasions by verifying functionality of:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Automatic notification of operator incapacitated feature in one-person operation.</li> <li><input type="checkbox"/> Locomotive control unit to respond to Operator Control Unit (OCU) in primary command.</li> <li><input type="checkbox"/> Secondary OCU functions man-down features remain active, e.g. bell, horn, and emergency brake application.</li> <li><input type="checkbox"/> OCU initiates full service application of locomotive and train brakes, and drops tractive effort when signal from RCL to OCU is interrupted in excess of five seconds.</li> <li><input type="checkbox"/> On/Off OCU switch if so equipped. Off shall cause full service application of locomotive train brakes and elimination of tractive effort.</li> <li><input type="checkbox"/> Distinct and unambiguous audible or visual warning device indicating when locomotive is under active remote control operation.</li> <li><input type="checkbox"/> Full service application of locomotive and train brakes and elimination of locomotive tractive when main reservoir pressure drops below 90 psi.</li> <li><input type="checkbox"/> RCL initiates emergency application of locomotive and train brakes when air valves and electrical selector switch is moved between manual and remote control mode.</li> </ul>

<b>Task X: Apply Movement for Repair Provisions on Locomotives and Rolling Equipment</b>		
<b><u>Performance</u> Tasks</b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> Demonstrate an understanding of movement of an FRA defective freight car.	Given an opportunity to read 49 CFR Part 215, specifically §215.9, or its equivalent, the trainee will, to the satisfaction of the designated instructor or qualified person:	<p>Explain each of the following with 95 percent accuracy:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> What constitutes a non-complying freight car?</li> <li><input type="checkbox"/> What is meant by tagging and what information is required?</li> <li><input type="checkbox"/> How is written notification achieved?</li> <li><input type="checkbox"/> What constitutes notification to crew?</li> <li><input type="checkbox"/> Define location where repairs are made?</li> <li><input type="checkbox"/> What are the restrictions for loading and unloading a defective car?</li> <li><input type="checkbox"/> What are the retention requirements for tags?</li> </ul>
<b>Task X-2:</b> Demonstrate an understanding of movement of an FRA defective locomotive.	Given an opportunity to read 49 CFR Part 229, specifically §229.9, or its equivalent, the trainee will, to the satisfaction of the designated instructor or qualified person:	<p>Explain each of the following with 95 percent accuracy:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> What constitutes a non-complying locomotive?</li> <li><input type="checkbox"/> What is meant by tagging and what information is required?</li> <li><input type="checkbox"/> How is written notification achieved?</li> <li><input type="checkbox"/> How is written notification achieved?</li> <li><input type="checkbox"/> Define location where repairs are made?</li> <li><input type="checkbox"/> How are defects enroute handled?</li> <li><input type="checkbox"/> What is meant by next forward location?</li> <li><input type="checkbox"/> Define yard movements.</li> </ul>
<b>Task X-3:</b> Demonstrate an understanding of movement of a freight locomotive or car with FRA defective air brakes.	Given an opportunity to read 49 CFR Part 232, specifically §232.15, or its equivalent, the trainee will, to the satisfaction of the designated instructor or qualified person:	<p>Explain each of the following with 95 percent accuracy:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> What defines a non-complying freight locomotive or car?</li> <li><input type="checkbox"/> What constitutes nearest location for repair?</li> <li><input type="checkbox"/> What are the prohibitions on defective locomotive or car in train receiving Class I brake test?</li> <li><input type="checkbox"/> What is meant by tagging and what information is required?</li> <li><input type="checkbox"/> How is written notification achieved?</li> <li><input type="checkbox"/> What constitutes notification to crew?</li> <li><input type="checkbox"/> How to is the computation for the percentage of operative brakes in a train calculate?</li> <li><input type="checkbox"/> How is rolling equipment with inoperative brakes placed in a train?</li> <li><input type="checkbox"/> What are the retention requirements for tags?</li> </ul>

<b>Task X: Perform a Freight Car Inspection</b>		
<b><u>Performance</u> Tasks</b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> Apply Federal Regulations when inspecting freight cars.	Given an opportunity to read 49 CFR Part 215, or its equivalent, and possess a tape measure, appropriate AAR approved gauges, and to perform at least five separate inspections of at least 30 freight cars (e.g. inter-modal, hopper, box, gondola, etc.), the trainee will:	Find, on two separate inspections, at least 75 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following: <ul style="list-style-type: none"> <li><input type="checkbox"/> Truck bolster, side frame cracked/broken.</li> <li><input type="checkbox"/> Coil springs cracked/broken.</li> <li><input type="checkbox"/> Spring plank cracked/broken.</li> <li><input type="checkbox"/> Center casting cracked/broken.</li> <li><input type="checkbox"/> Side bearing clearance excessive or running in contact when not designed to do so.</li> <li><input type="checkbox"/> Roller bearing adapter worn out or out of position.</li> <li><input type="checkbox"/> Roller bearing defective.</li> <li><input type="checkbox"/> Clearance above top of rail less than 2½ inches.</li> <li><input type="checkbox"/> Wheel slid flat or shelled spot more than 2½ inches.</li> <li><input type="checkbox"/> Wheel flange height more than 1½ inches.</li> <li><input type="checkbox"/> Wheel flange thickness 7/8 inches or less.</li> <li><input type="checkbox"/> Body bolster or body center casting cracked/broken.</li> <li><input type="checkbox"/> Body crossbearer, sidesill, endsill, centersill cracked/broken.</li> <li><input type="checkbox"/> Draft gear or cushion unit broken/components missing.</li> <li><input type="checkbox"/> Crack/break in coupler outside shaded area.</li> <li><input type="checkbox"/> Crack/break in coupler knuckle pulling face.</li> <li><input type="checkbox"/> Crack/broken coupler yoke or carrier.</li> <li><input type="checkbox"/> Coupler height in excess of 34½ inches.</li> <li><input type="checkbox"/> Coupler height less than 31½ inches.</li> <li><input type="checkbox"/> Uncoupling lever inoperative.</li> </ul>

<b>Duty X: Perform a Freight and/or Passenger Car Safety Appliance Inspection</b>		
<b><u>Performance</u> Tasks</b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<p><b>Task X-1:</b> Apply Federal Regulations when inspecting freight cars or passenger equipment.</p> <p><b>Note:</b> Completion of the standards listed in the third column will vary depending on equipment configuration.</p>	<p>Given an opportunity to read 49 CFR Part 231, or its equivalent, and possess a tape measure, and to perform at least five inspections of at least 30 freight cars (e.g. inter-modal, hopper, box, gondola, etc.), or passenger equipment (10), the trainee will:</p>	<p>Find, on two separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Handbrake improperly applied, located, inoperative, ineffective or components broken or missing.</li> <li><input type="checkbox"/> Handbrake wheel with less than 4 inches clearance around rim or with less than 4 inches of clearance to vertical plane of knuckle face.</li> <li><input type="checkbox"/> Brake step wrong dimensions, improperly applied, located or brackets/fasteners loose, broken or missing.</li> <li><input type="checkbox"/> End platform wrong dimensions, improperly applied, located or brackets/fasteners loose, broken or missing.</li> <li><input type="checkbox"/> End/side handhold/handrails or ladder tread improperly applied, located or brackets/fasteners or stiles loose, broken or missing.</li> <li><input type="checkbox"/> Ladder wrong dimensions improperly applied, located or brackets/fasteners loose, broken or missing.</li> <li><input type="checkbox"/> Running board wrong dimensions improperly applied, located or brackets/fasteners loose, broken or missing.</li> <li><input type="checkbox"/> Sill step wrong dimensions improperly applied, located or brackets/fasteners loose, broken or missing.</li> <li><input type="checkbox"/> Side door steps wrong dimensions improperly applied, located or brackets/fasteners loose, broken or missing.</li> <li><input type="checkbox"/> Uncoupling lever wrong dimensions improperly applied, located or brackets/fasteners loose, broken or missing.</li> </ul>

<b>Task X: Apply Blue Signal Protection</b>		
<b><u>Performance</u> Tasks</b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> Demonstrate an understanding of Blue Signal Scope and Display requirements.	Given an opportunity to read Part 218, Subpart A, or its equivalent, along with any necessary clarification by the designated instructor or qualified person, the trainee will:	Write a short paragraph summarizing each of the following: <input type="checkbox"/> § 218.21. <input type="checkbox"/> § 218.23. <input type="checkbox"/> Distinctions between blue signals versus blue lights.  <b>Note:</b> The written report must be reviewed and approved by designated instructor or qualified person.
<b>Task X-2:</b> Gain an understanding of how to properly apply § 218.22 (Utility Employee).	Given an opportunity to read § 218.22, or its equivalent, along with any necessary clarification by the designated instructor or qualified person, the trainee will:	Write a report listing the eight factors necessary to comply with the blue signal display regulations concerning utility employees.  <b>Note:</b> The written report must be reviewed and approved by designated instructor or qualified person.
<b>Task X-3:</b> Apply Federal Regulations when working on a main track, § 218.25.	Given an opportunity to read § 218.25, or its equivalent, along with any necessary clarification by the designated instructor or qualified person, the trainee will:	Demonstrate proper blue signal protection on the main track achieving 100 percent accuracy on three occasions by: <input type="checkbox"/> Display blue signal at each end of the equipment, <input type="checkbox"/> Attach blue signal to the controlling locomotive (if applicable).
<b>Task X-4:</b> Apply Federal Regulations when working on a track other than a main track § 218.27.	Given an opportunity to read § 218.27, or its equivalent, along with any necessary clarification by the designated instructor or qualified person, the trainee will:	Demonstrate proper blue signal protection on other than main track achieving 100 percent accuracy on three occasions by: <input type="checkbox"/> Display blue signal at or near each switch providing entrance. <input type="checkbox"/> Lock and line each switch against movement. <input type="checkbox"/> Attach blue signal to the controlling locomotive (if applicable). <input type="checkbox"/> Line, lock, and flag each crossover switch when required.

<b>Task X: Apply Blue Signal Protection</b>		
<b><u>Performance</u> Tasks</b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<p><b>Task X-5:</b> Apply Federal Regulations using alternate methods of protection, in a locomotive servicing track area § 218.29 (a).</p>	<p>Given an opportunity to read § 218.29 (a), or its equivalent, along with any necessary clarification by the designated instructor or qualified person, the trainee will:</p>	<p>Demonstrate proper blue signal protection using alternate methods of protection in a locomotive service area achieving 100 percent accuracy on three occasions by:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Display blue signal at or near each switch providing entrance.</li> <li><input type="checkbox"/> Lock and line each switch against movement.</li> <li><input type="checkbox"/> Attaching blue signal to each controlling locomotive where it is readily visible to the operator of the locomotive.</li> </ul> <p>Explain with 100 percent accuracy:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Proper placement/use of derails distance in feet and speed restrictions in area.</li> <li><input type="checkbox"/> Movements under the direction of an authorized person in charge.</li> <li><input type="checkbox"/> Locomotives stop short of coupling to other locomotives.</li> <li><input type="checkbox"/> Locomotives moving in and out of serving area.</li> <li><input type="checkbox"/> Requirements for repositioning locomotives within service area and the notification of workers.</li> <li><input type="checkbox"/> Requirements for restoring protection.</li> </ul>

<b>Task X: Apply Blue Signal Protection</b>		
<b><u>Performance</u> Tasks</b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-6:</b> Apply Federal Regulations using alternate methods of protection in a car shop repair track area, §218.29(b).	Given an opportunity to read §218.29 (b), or its equivalent, along with any necessary clarification by the designated instructor or qualified person, the trainee will:	<p>Demonstrate proper blue signal protection using alternate methods of protection in a car shop repair track area achieving 100 percent accuracy on three occasions by:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Display blue signal at or near each switch providing entrance.</li> <li><input type="checkbox"/> Lock and line each switch against movement.</li> </ul> <p>Explain with 100 percent accuracy:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Proper placement/use of derails distance in feet and speed restrictions in area.</li> <li><input type="checkbox"/> Movements under the direction of an authorized person in charge.</li> <li><input type="checkbox"/> Requirements for repositioning cars within service area and the notification of workers.</li> <li><input type="checkbox"/> Requirements for restoring protection.</li> </ul>
<b>Task X-7:</b> Apply Federal Regulations using derails in lieu of manually operated switches §218.29(c).	Given an opportunity to read §218.29 (c), or its equivalent, along with any necessary clarification by the designated instructor or qualified person, the trainee will:	<p>Explain with 100 percent accuracy:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Location of derails from equipment being protected.</li> <li><input type="checkbox"/> Blue signal display and locking requirements.</li> <li><input type="checkbox"/> Emergency repair work.</li> </ul>
<b>Task X-8:</b> Apply Federal Regulations when inspecting remotely controlled switches §218.30.	Given an opportunity to read §218.30, or its equivalent, along with any necessary clarification by the designated instructor or qualified person, the trainee will:	<p>Explain with 100 percent accuracy:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Operator of the remotely controlled switch obligations with respect to applying and removing blue signal protection.</li> <li><input type="checkbox"/> Methods for locking remotely controlled switches.</li> <li><input type="checkbox"/> Information required when providing remote control blue signal protection.</li> <li><input type="checkbox"/> Record retention requirements.</li> </ul>

<b>Task X: Discuss Rear End Marker Regulations</b>		
<b><u>Performance Task</u></b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> Demonstrate an understanding of rear end markers.	Given an opportunity to read 49 CFR Part 221 Subpart B, or its equivalent, along with any necessary clarification by the designated instructor or qualified person, the trainee will, to the satisfaction of the designated instructor or qualified person and:	Explain with 95 percent accuracy, the requirements associated for each of the following: <ul style="list-style-type: none"> <li><input type="checkbox"/> Display requirements.</li> <li><input type="checkbox"/> Installation.</li> <li><input type="checkbox"/> Weather and/or visibility considerations.</li> <li><input type="checkbox"/> Hours of display.</li> <li><input type="checkbox"/> Inspection procedure (§221.16).</li> <li><input type="checkbox"/> Movement for repair.</li> <li><input type="checkbox"/> Telemetry considerations - cross reference to §232.409.</li> </ul>



<b>Task X: Recognize Locomotive Glazing Compliance</b>		
<b><u>Performance Task</u></b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> Demonstrate an understanding of locomotive glazing.	Given an opportunity to read 49 CFR Part 223 Subpart B, or its equivalent, along with any necessary clarification by the designated instructor or qualified person, the trainee will, to the satisfaction of the designated instructor or qualified person: and:	<p>Find, on two separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Designated service conditions.</li> <li><input type="checkbox"/> Type I glazing installation locations.</li> <li><input type="checkbox"/> Type II glazing installation locations.</li> <li><input type="checkbox"/> Marking of glazing material.</li> <li><input type="checkbox"/> Identification/stenciling of locomotives.</li> </ul> <p><b>Note:</b> Trainee should explain remedial action required when locomotive cab window is damaged to the extent it no longer provides good visibility.</p>

<b>Task X: Inspect for Adequate ReflectORIZATION Material on Freight Rolling Stock</b>		
<b><u>Performance</u> Task</b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<p><b>Task X-1:</b> Inspect freight car and locomotive for adequate reflective sheeting.</p> <p><i>Note: Only applies car is on repair track for a single car test as required by § 232.305, and when locomotive is receiving and annual inspection/test as required by § 229.27.</i></p>	<p>Given an opportunity to read 49 CFR Part 224, specifically §224.109, or its equivalent, and to inspect at least three freight cars and two locomotives, the trainee will:</p>	<p>Find, on two separate inspections (car and locomotive separately), at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Determine that at least 80 percent of the retroreflective sheeting material remaining is not damaged or obscured.</li> <li><input type="checkbox"/> When applicable, proper reporting and use of Universal Machine Language Equipment Register for reporting damaged.</li> </ul> <p><b>Note:</b> Requirements for retroreflective sheeting material can be referenced in the table below.</p>

TABLE 2 OF SUBPART B.—MINIMUM QUANTITY REQUIREMENT FOR RETROREFLECTIVE SHEETING ON FREIGHT ROLLING STOCK

Freight car or locomotive length	Minimum area of retroreflective sheeting required (per car/locomotive side)—yellow sheeting (ft <sup>2</sup> )	Minimum area of retroreflective sheeting required (per car/locomotive side)—white sheeting (ft <sup>2</sup> )
Less than 50 ft.	3.5	4.0
Over 50 ft. to 60 ft.	4.0	5.0
Over 60 ft. to 70 ft.	4.5	5.5
Over 70 ft. to 80 ft.	5.0	6.0
Over 80 ft. to 90 ft.	5.5	7.0
Over 90 ft. to 100 ft. <sup>1</sup>	6.0	7.5

<sup>1</sup> Freight cars or locomotives over 100 ft. in length must be equipped with an additional one-half a square foot of sheeting on each side for every additional 10 feet of length.

<b>Task X: Verify Proper Operation of Exterior Side Door Safety Systems (QP)</b>		
<b><u>Performance</u> Task</b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> I Apply Federal Regulations when inspecting passenger cars.	Given an opportunity to read 49 CFR Part 238, specifically § 238.133 and § 238.135 or its equivalent, and to perform at least 5 observations of Tier I Passenger equipment (e.g. coach, diner, cab car, etc.), the trainee will:	<p>Complete, on three separate inspections, with 100 percent accuracy, the following tasks related to exterior side door safety systems:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Verify through visual inspection, all door by-pass devices that can affect the safe operation of the train are sealed in the normal (non-by-pass) position when taking control of the train.</li> <li><input type="checkbox"/> If used, and in lieu of visual inspection of door by-pass devices, verify door summary status indicator is functioning as intended.</li> <li><input type="checkbox"/> Simulate reporting of unsealed door by-pass device in accordance with railroad reporting procedures.</li> <li><input type="checkbox"/> Simulate a crewmember safety briefing for trains experiencing an enroute failure of a door by-pass device.</li> <li><input type="checkbox"/> Demonstrate how to safely override a door summary circuit or no-motion system, or both, in the event of an enroute exterior side door failure or malfunction.</li> <li><input type="checkbox"/> Demonstrate how to identify and isolate equipment with a malfunctioning exterior powered or manual side door.</li> </ul>

<b>Task X: Perform a Passenger Car Exterior Calendar Day Mech. Inspection (QMP) – Part I</b>		
<b><u>Performance Task</u></b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> I Apply Federal Regulations when inspecting passenger cars.	Given an opportunity to read 49 CFR Part 238, specifically § 238.133 and § 238.303, or its equivalent, and to perform at least 5 inspections of Tier I Passenger equipment (e.g. coach, diner, baggage, cab car, MU locomotive), the trainee will:	Find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following: <ul style="list-style-type: none"> <li><input type="checkbox"/> All exterior side door safety system override devices must be inactive and sealed in all passenger cars and all locomotives in the train consist, including cab cars and MU locomotives, if they are so equipped.</li> <li><input type="checkbox"/> Products of combustion are released entirely outside the cab and other compartments.</li> <li><input type="checkbox"/> Each battery container is vented and each battery is kept from gassing excessively.</li> <li><input type="checkbox"/> Coupler sidewall or pin bearing bosses and the pulling face of the knuckles are not broken or cracked.</li> <li><input type="checkbox"/> The coupler assembly is equipped with anti-creep protection.</li> <li><input type="checkbox"/> The coupler carrier is not broken or cracked.</li> <li><input type="checkbox"/> The yoke is not broken or cracked.</li> <li><input type="checkbox"/> A device is provided under the lower end of all drawbar pins and articulated connection pins to prevent the pin from falling out of place in case of breakage.</li> </ul>

<b>Task X: Perform a Passenger Car Exterior Calendar Day Mech. Inspection (QMP) – Part II</b>		
<b><u>Performance Task</u></b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> I Apply Federal Regulations when inspecting passenger cars.	Given an opportunity to read 49 CFR Part 238, specifically § 238.303, or its equivalent, and to perform at least 5 inspections of Tier I Passenger equipment (e.g. coach, diner, baggage, etc.), the trainee will:	<p>Find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Protective construction or safety hangers are provided to prevent spring planks, spring seats, or bolsters from dropping to the track structure in event of a hanger or spring failure.</li> <li><input type="checkbox"/> The top (long) leaf or any of the other three leaves of the elliptical spring is not broken, except when a spring is part of a nest of three or more springs and none of the other springs in the nest has its top leaf or any of the other three leaves broken.</li> <li><input type="checkbox"/> The outer coil spring or saddle is not broken.</li> <li><input type="checkbox"/> The equalizers, hangers, bolts, gibs, or pins are not cracked or broken.</li> <li><input type="checkbox"/> The coil spring is not fully compressed when the car is at rest.</li> <li><input type="checkbox"/> The shock absorber is not broken or leaking oil or other fluid.</li> <li><input type="checkbox"/> Each air bag or other pneumatic suspension system component inflates or deflates, as applicable, correctly and otherwise operates as intended.</li> <li><input type="checkbox"/> Each truck tie bar is not loose.</li> <li><input type="checkbox"/> Each motor suspension lug, equalizer, hanger, gib, or pin is not cracked or broken.</li> <li><input type="checkbox"/> The truck frame is not broken and is not cracked in a stress area that may affect its structural integrity.</li> <li><input type="checkbox"/> Each friction side bearing with springs designed to carry weight does not have more than 25 percent of the springs in any one nest broken.</li> <li><input type="checkbox"/> Each friction side bearing does not run in contact unless designed to operate in that manner.</li> <li><input type="checkbox"/> The maximum clearance of each side bearing does not exceed the manufacturer's recommendation</li> </ul>

<b>Task X: Perform a Passenger Car Exterior Calendar Day Mech. Inspection (QMP) – Part III</b>		
<b><u>Performance Task</u></b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> I Apply Federal Regulations when inspecting passenger cars.	Given an opportunity to read 49 CFR Part 238, specifically § 238.303, or its equivalent, and to perform at least 5 inspections of Tier I Passenger equipment (e.g. coach, diner, baggage, etc.), the trainee will:	<p>Find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> A single flat spot that is 2 ½ inches or more in length, or two adjoining spots that are each two or more inches in length.</li> <li><input type="checkbox"/> A gouge or chip in the flange that is more than 1 ½ inches in length and ½ inch in width</li> <li><input type="checkbox"/> A broken rim, if the tread, measured from the flange at a point 5/8 of an inch above the tread, is less than 3 ¾ inches in width.</li> <li><input type="checkbox"/> A shelled-out spot 2 ½ inches or more in length, or two adjoining spots that are each two or more inches in length.</li> <li><input type="checkbox"/> A seam running lengthwise that is within 3 ¾ inches of the flange.</li> <li><input type="checkbox"/> A flange worn to a 7/8 inch thickness or less, gauged at a point 3/8 of an inch above the tread.</li> <li><input type="checkbox"/> A tread worn hollow 5/16 of an inch or more.</li> <li><input type="checkbox"/> A flange worn to a 7/8 inch thickness or less, gauged at a point 3/8 of an inch above the tread.</li> <li><input type="checkbox"/> A tread worn hollow 5/16 of an inch or more.</li> <li><input type="checkbox"/> A flange height of 1 1/2 inches or more measured from the tread to the top of the flange.</li> <li><input type="checkbox"/> A rim less than 1 inch thick.</li> <li><input type="checkbox"/> A crack or break in the flange, tread, rim, plate, or hub</li> <li><input type="checkbox"/> A loose or welded wheel.</li> </ul>

<b>Task X: Perform a Passenger Car Exterior Calendar Day Mech. Inspection (QMP) – Part IV</b>		
<b><u>Performance Task</u></b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> I Apply Federal Regulations when inspecting passenger cars.	Given an opportunity to read 49 CFR Part 238, specifically § 238.303, or its equivalent, and to perform at least 5 inspections of Tier I Passenger equipment (e.g. coach, diner, baggage, etc.), the trainee will:	<p>Find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Each jumpers and cable connection between coaches, between locomotives, or between a locomotive and a coach is located and guarded in a manner that provides sufficient vertical clearance. Jumpers and cable connections may not hang with one end free.</li> <li><input type="checkbox"/> The insulation is not broken or badly chafed.</li> <li><input type="checkbox"/> No plug, receptacle, or terminal is broken.</li> <li><input type="checkbox"/> No strand of wire is broken or protruding.</li> <li><input type="checkbox"/> Each door and cover plate guarding high voltage equipment is marked "Danger High Voltage" or with the word "Danger" and the normal voltage carried by the parts so protected.</li> <li><input type="checkbox"/> Each buffer plate is in place.</li> <li><input type="checkbox"/> Each diaphragm, if any, is in place and properly aligned.</li> </ul>

<b>Task X: Perform a Passenger Car Exterior Calendar Day Mech. Inspection (QMP) – Part V</b>		
<b><u>Performance Task</u></b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> I Apply Federal Regulations when inspecting passenger cars.	Given an opportunity to read 49 CFR Part 238, specifically § 238.303, or its equivalent, and to perform at least 5 inspections of Tier I Passenger equipment (e.g. coach, diner, baggage, etc.), the trainee will:	Find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following: <ul style="list-style-type: none"> <li><input type="checkbox"/> A sign of having been overheated as evidenced by discoloration or other telltale sign of overheating, such as damage to the seal or distortion of any bearing component.</li> <li><input type="checkbox"/> A loose or missing cap screw.</li> <li><input type="checkbox"/> A broken, missing, or improperly applied cap screw lock.</li> <li><input type="checkbox"/> A seal that is loose or damaged or permits leakage of lubricant in clearly formed droplets.</li> </ul>



<b>Task X: Perform a Passenger Car Periodic Mech. Inspection (QMP) – Part I</b>		
<b><u>Performance Task</u></b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> I Apply Federal Regulations when inspecting passenger cars.	Given an opportunity to read 49 CFR Part 238, specifically § 238.307, or its equivalent, and to perform at least 5 inspections of Tier I Passenger equipment (e.g. coach, diner, baggage, etc.), the trainee will:	Find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following: <ul style="list-style-type: none"> <li><input type="checkbox"/> Seats and seat attachments are not broken or loose.</li> <li><input type="checkbox"/> Luggage racks are not broken or loose.</li> <li><input type="checkbox"/> All beds and bunks are not broken or loose, and all restraints or safety latches and straps are in place and function as intended.</li> <li><input type="checkbox"/> A representative sample of emergency window exits operate as intended.</li> <li><input type="checkbox"/> Emergency lighting systems are operational.</li> <li><input type="checkbox"/> All hand operated switches carrying currents with a potential of more than 150 volts that may be operated while under load are covered and are operative from the outside of the cover.</li> <li><input type="checkbox"/> A means is provided to display whether the switches are open or closed.</li> <li><input type="checkbox"/> Switches not designed to be operated safely while under load are legibly marked with the voltage carried and the words "must not be operated under load".</li> </ul>

<b>Task X: Perform a Passenger Car Periodic Mech. Inspection (QMP) – Part II</b>		
<b><u>Performance Task</u></b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> I Apply Federal Regulations when inspecting passenger cars.	Given an opportunity to read 49 CFR Part 238, specifically § 238.307, or its equivalent, and to perform at least 5 inspections of Tier I Passenger equipment (e.g. coach, diner, baggage, etc.), the trainee will:	Find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following: <ul style="list-style-type: none"> <li><input type="checkbox"/> The distance between the guard arm and the knuckle nose is not more than 5 1/8 inches on standard type couplers (MCB contour 1904), or not more than 5 5/16 inches on D&amp;E couplers.</li> <li><input type="checkbox"/> The free slack in the coupler or drawbar not absorbed by friction devices or draft gears is not more than 1/2 inch.</li> <li><input type="checkbox"/> The draft gear is not broken, to the extent possible without dropping cover plates.</li> <li><input type="checkbox"/> All trucks are equipped with a device or securing arrangement to prevent the truck and car body from separating in case of derailment.</li> <li><input type="checkbox"/> All center castings on trucks are not cracked or broken. ,</li> </ul>

<b>Task X: Perform a Passenger Car Periodic Mech. Inspection (QMP) – Part III</b>		
<b><u>Performance Task</u></b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> I Apply Federal Regulations when inspecting passenger cars.	Given an opportunity to read 49 CFR Part 238, specifically § 238.307, or its equivalent, and to perform at least 5 inspections of Tier I Passenger equipment (e.g. coach, diner, baggage, etc.), the trainee will:	<p>Find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> A continuous accumulation of oil or grease.</li> <li><input type="checkbox"/> Improper functioning of a component.</li> <li><input type="checkbox"/> A crack, break, excessive wear, structural defect, or weakness of a component.</li> <li><input type="checkbox"/> A leak.</li> <li><input type="checkbox"/> Use of a component or system under a condition that exceeds that for which the component or system is designed to operate.</li> <li><input type="checkbox"/> Insecure attachment of a component.</li> <li><input type="checkbox"/> All the items identified in the exterior calendar day mechanical inspection contained at § 238.303 are in conformity with the conditions prescribed in that section.</li> <li><input type="checkbox"/> All the items identified in the interior calendar day mechanical inspection contained at § 238.305 are in conformity with the conditions prescribed in that section.</li> <li><input type="checkbox"/> The periodic mechanical inspection shall specifically include the manual door releases, which shall be inspected not less frequently than every 368 days. At a minimum, this inspection shall determine that all manual door releases operate as intended.</li> </ul>

<b>Task X: Perform a Passenger Car Interior Calendar Day Mech. Inspection (QP or QMP)</b>		
<b><u>Performance</u> Task</b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> I Apply Federal Regulations when inspecting passenger cars.	Given an opportunity to read 49 CFR Part 238, specifically § 238.305, or its equivalent, and to perform at least 5 inspections of Tier I Passenger equipment (e.g. coach, diner, baggage, etc.), the trainee will:	<p>Find, on three separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> All fan openings, exposed gears and pinions, exposed moving parts of mechanisms, pipes carrying hot gases and high voltage equipment, switches, circuit breakers, contactors, relays, grid resistors, and fuses are installed in non-hazardous locations or equipped with guards to prevent personal injury.</li> <li><input type="checkbox"/> Floors of passageways and compartments are free from oil, water, waste, or any obstruction that creates a slipping, tripping, or fire hazard, and floors are properly treated to provide secure footing.</li> <li><input type="checkbox"/> All D rings, pull handles, or other means to access manual door releases are in place based on a visual inspection.</li> <li><input type="checkbox"/> All emergency equipment, including a fire extinguisher, pry bar, auxiliary portable lighting, and first aid kits, as applicable, are in place.</li> <li><input type="checkbox"/> The words "Emergency Brake Valve" are legibly stenciled or marked near each brake pipe valve or shown on an adjacent badge plate.</li> <li><input type="checkbox"/> All doors and cover plates guarding high voltage equipment are marked "Danger High Voltage" or with the word "Danger" and the normal voltage carried by the parts so protected.</li> <li><input type="checkbox"/> All safety related signage is in place and legible</li> <li><input type="checkbox"/> All trap doors safely operate and securely latch in place in both the up and down position.</li> <li><input type="checkbox"/> All vestibule steps are illuminated. All end doors and side doors operate safely and as intended.</li> </ul>

<b>Task X: Apply Movement for Repair Provisions for Passenger Equipment (QP or QMP)</b>		
<b><u>Performance Task</u></b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> I Demonstrate an understanding of movement of a defective Tier I passenger car.	Given an opportunity to read 49 CFR Part 238, specifically § 238.17, or its equivalent, along with any necessary clarification by the designated instructor or qualified person, the trainee will, to the satisfaction of the designated instructor or qualified person:	<p>Explain with 95 percent accuracy, the action(s) required for each of the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Power brake defects found during a Class I brake test.</li> <li><input type="checkbox"/> Power brake defects occurring enroute and calculation of operative brakes.</li> <li><input type="checkbox"/> Other than power brake defects found during the exterior or interior calendar day inspection.</li> <li><input type="checkbox"/> Other than power brake defects occurring enroute.</li> <li><input type="checkbox"/> Running gear defects found during the exterior or interior calendar day inspection.</li> <li><input type="checkbox"/> Running gear defects occurring enroute.</li> <li><input type="checkbox"/> Restrictions based on operative/inoperative brakes.</li> <li><input type="checkbox"/> Tagging.</li> <li><input type="checkbox"/> Written notification.</li> <li><input type="checkbox"/> Notification to crew.</li> <li><input type="checkbox"/> Location where repairs are made.</li> </ul>

<b>Task X: Understand General Requirements for Passenger Air Brake Systems (QMP)</b>		
<b><u>Performance Task</u></b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> Demonstrate an understanding of passenger car single car tests.	Given an opportunity to read 49 CFR Part 238, specifically §238.311, or APTA Standard SS-M-005-98, the trainee will, to the satisfaction of the designated instructor or qualified person:	<p>Explain with 95 percent accuracy, the purpose of each step in the (SCT) test process.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Frequency.</li> <li><input type="checkbox"/> Single car test triggers.</li> <li><input type="checkbox"/> Calibration and documentation.</li> <li><input type="checkbox"/> Steps for moving a car to another location overdue single car test.</li> </ul>
Task X-2: Demonstrate an understanding of when a certain air brake tests must be performed on passenger equipment.	Given an opportunity to read 49 CFR Part 238 Subpart D, specially §§ 238.313, 238.315, 238.317, or its equivalent, the trainee will, to the satisfaction of the designated instructor or qualified person, and:	<p>Explain in sufficient detail, all the operational parameters associated with each passenger air brake test.</p> <p><i>For example:</i> A Class I brake test is required prior to the train's departure from an originating terminal, and every 1,500 miles or once each additional calendar day, whichever occurs first, that the train remains in continuous passenger service.</p>

<b>Task X: Explain Periodic Maintenance Intervals for Passenger Air Brake Systems (QMP)</b>		
<b><u>Performance</u> Tasks</b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-1:</b> Demonstrate an understanding of passenger DMU or MU locomotive air brake maintenance intervals.	Given an opportunity to read 49 CFR Part 238, specifically §238.309, or its equivalent, the trainee will, to the satisfaction of the designated instructor or qualified person:	<p>Explain with 95 percent accuracy, periodic brake equipment maintenance intervals for each of the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> DMU or MU locomotive is part of a fleet that is not 100 percent equipped with air dryers.</li> <li><input type="checkbox"/> DMU or MU locomotive is part of a fleet that is 100 percent equipped with air dryers and is equipped with PS-68, 26-C, 26-L, PS-90, CS-1, RT-2, RT-5A, GRB-1, CS-2, or 26-R brake systems.</li> <li><input type="checkbox"/> DMU or MU locomotive is part of a fleet that is 100 percent equipped with air dryers and is equipped with KB-HL1, KB-HS1, or KBCT1.</li> <li><input type="checkbox"/> All other DMU or MU locomotives.</li> </ul>
<b>Task X-2:</b> Demonstrate an understanding of passenger equipment air brake maintenance intervals.	Given an opportunity to read 49 CFR Part 238, specifically §238.309, or its equivalent, the trainee will, to the satisfaction of the designated instructor or qualified person:	<p>Explain with 95 percent accuracy, periodic brake equipment maintenance intervals for each of the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Passenger equipment equipped with an AB-type brake system.</li> <li><input type="checkbox"/> Passenger equipment equipped with a 26-C or equivalent brake system.</li> <li><input type="checkbox"/> Passenger equipment equipped with other than an AB, ABD, ABDX, 26-C, or equivalent brake system.</li> </ul>
<b>Task X-3:</b> Demonstrate an understanding of passenger cab cars air brake maintenance intervals.	Given an opportunity to read 49 CFR Part 238, specifically §238.309, or its equivalent, the trainee will, to the satisfaction of the designated instructor or qualified person:	<p>Explain with 95 percent accuracy, periodic brake equipment maintenance intervals for each of the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Locomotives equipped with CCB-1, CCB-2, CCB-26, EPIC 1 (formerly EPIC 3102), EPIC 3102D2, EPIC 2, KB-HS1, or Fastbrake brake systems.</li> <li><input type="checkbox"/> Cab car brake system using brake valves that are identical to the passenger coach 26-C brake system.</li> <li><input type="checkbox"/> cab car brake system using brake valves that are identical to the locomotive 26-L brake system.</li> <li><input type="checkbox"/> All other types of cab car brake valves.</li> </ul>

<b>Task X: Perform Air Brake Inspection and Test on Passenger Equipment (QP or QMP)</b>		
<b><u>Performance</u> Tasks</b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<p><b>Task X-1:</b> Demonstrate the ability to perform a Class I air brake test on passenger equipment.</p>	<p>Given an opportunity to read §238.313 or its equivalent, and to assist in performing at least three Class I air brake tests with a designated instructor or qualified person, the trainee will:</p>	<p>Find, on two separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Air pressure at which the train's air brakes will be operated, but not less than 90 psi.</li> <li><input type="checkbox"/> Friction brakes apply and remain applied on each car in the train until a release of the brakes has been initiated.</li> <li><input type="checkbox"/> Verify that each side of each car's brake system responds properly to application and release signals.</li> <li><input type="checkbox"/> Brake shoes or pads are firmly seated against the wheel or disc with the brakes applied.</li> <li><input type="checkbox"/> Piston travel is within prescribed limits, either by direct observation, observation of a piston travel indicator, or in the case of tread or disc brakes by determining that the brake shoe or pad provides pressure to the wheel.</li> <li><input type="checkbox"/> Proper release of the brakes can be determined by observation of the clearance between the brake shoe and the wheel or between the brake pad and the brake disc.</li> <li><input type="checkbox"/> Communicating signal system is tested and known to be operating as intended.</li> <li><input type="checkbox"/> Each brake shoe or pad is securely fastened and correctly aligned in relation to the wheel or to the disc.</li> <li><input type="checkbox"/> Engineer's brake valve or controller will cause the proper train line commands for each position or brake level setting.</li> <li><input type="checkbox"/> Brake pipe leakage does not exceed 5 pounds per square inch per minute if leakage will affect service performance.</li> <li><input type="checkbox"/> The emergency brake application and deadman pedal or other emergency control devices function as intended.</li> <li><input type="checkbox"/> Each brake shoe or pad is not below the minimum thickness established by the railroad.</li> <li><input type="checkbox"/> Each angle cock and cutout cock is properly positioned.</li> <li><input type="checkbox"/> Brake rigging does not bind or foul.</li> <li><input type="checkbox"/> Electropneumatic brakes apply on each car.</li> <li><input type="checkbox"/> Brake disk is free of cracks.</li> <li><input type="checkbox"/> Brake indicators if equipped operate as intended.</li> <li><input type="checkbox"/> Verify brake pipe pressure changes on the last car in train.</li> </ul>



<b>Task X: Perform Air Brake Inspection and Test on Passenger Equipment (QP or QMP)</b>		
<b><u>Performance Tasks</u></b>	<b><u>Conditions</u> Tools, Equipment, Documents, Practice</b>	<b><u>Standards</u> Time, Completeness, or Accuracy</b>
<b>Task X-2:</b> Demonstrate the ability to perform a Class IA air brake test on passenger equipment.	Given an opportunity to read §238.315 or its equivalent, and to assist in performing at least three Class IA air brake tests with a designated instructor or qualified person, the trainee will:	Find, on two separate inspections, at least 95 percent of any non-complying conditions noted by the designated instructor or qualified person, and/or confirm compliance with the following: <ul style="list-style-type: none"> <li><input type="checkbox"/> Brake pipe leakage does not exceed 5 pounds per square inch per minute if brake pipe leakage will affect service performance.</li> <li><input type="checkbox"/> Each brake sets and releases by inspecting as required.</li> <li><input type="checkbox"/> If MU locomotives that utilize an electric signal to communicate a service brake application and only a pneumatic signal to propagate an emergency brake application, the emergency brake application functions as intended.</li> <li><input type="checkbox"/> Each angle cock and cutout cock is properly positioned</li> <li><input type="checkbox"/> Communicating signal system is tested and known to be operating as intended.</li> <li><input type="checkbox"/> Verify that each side of each car's brake system responds properly to application and release signals.</li> <li><input type="checkbox"/> Verify brake pipe pressure changes on the last car in train.</li> </ul>
<b>Task X-3:</b> Demonstrate the ability to perform a Class II air brake test on passenger equipment.	Given an opportunity to read §238.317 or its equivalent, and to assist in performing at least three Class II air brake tests with a designated instructor or qualified person, the trainee will:	Explain how and when a Class II passenger air brake test is performed.