



Inspector(s):		Inspection Location:		Date:	Region:
Builder:		Locomotive Initials & Number:		Locomotive Type:	No. of locos to be Built: Builder Job #
Item	Number - Dimensions - Location - Manner of Application <small>(All brackets used solely to support safety appliances are mechanically fastened per MP&E TB 98-14)</small>	CFR Reference*	Notes		
Definitions	<ul style="list-style-type: none"> • Locomotive used in switching service means a locomotive regularly assigned to perform yard switching service. • Switching service means the classification of cars according to commodity or destination; assembling of cars for train movements; changing the position of cars for purposes of loading, unloading, or weighing, placing of locomotives and cars for repair or storage; or moving of rail equipment in connection with work service that does not constitute a road movement. However, this term does not include movement of a train or part of a train within yard limits by the road locomotive and the placement of locomotives or cars in a train or their removal from a train by the road locomotive while en route to the train's destination. • Safety tread surface means that portion of anti-skid surface of a switching step that actually is contacted by a shoe or boot. • Uncoupling mechanism means the arrangement for operating the coupler lock lift, including the uncoupling lever and all other appurtenances that facilitate operation of the coupler. 	<p>231.30(b)(1)</p> <p>231.30(b)(2)</p> <p>231.30(b)(3)</p> <p>231.30(b)(4)</p>			

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Switching Step	<input type="checkbox"/> Each locomotive used in switching service must have four switching steps. (See Plate A) <input type="checkbox"/> Each switching step must have a minimum width of 24 inches and a minimum depth of 12 inches, except when necessary to accommodate the turning arc of a six-wheel truck and its appurtenances, the inside edge of the switching step shall have a minimum width of 17 inches (See Plate B). <input type="checkbox"/> A backstop, solid or perforated, with minimum height of backstop of six inches above the safety tread surface. <input type="checkbox"/> A height of not more than 19 inches measured from top of rail to the safety tread surface. <input type="checkbox"/> Switching steps must be located on each side near each end of a locomotive used in switching service. The bottom step of the stairway at these locations may also serve as a switching step if it meets all of the requirements above. <input type="checkbox"/> Switching steps must be supported by a bracket at each end and fastened to the bracket by two bolts or rivets of at least ½ inch diameter or by a weldment of at least twice the strength of a bolted attachment. <input type="checkbox"/> Vertical clearance must be unobstructed, except for minor intrusions created by mechanical fasteners or a small triangular gusset plate at the platform level walkway, and free for use for at least a distance of 84 inches over a portion of the switching step that is not less than 7 inches deep by 24 inches wide. <input type="checkbox"/> Steel or other material of equivalent or better strength and deflection characteristics, anti-skid, safety design, having at least 50% of the tread surface as open space must be used. <input type="checkbox"/> When the step material creates a second level safety tread surface, the maximum difference in surface levels may not exceed ¾ of an inch. <input type="checkbox"/> The safety tread surface must extend to within ½ inch of each edge of the step.	231.30(c)(1) 231.30(c)(2)(i) 231.30(c)(2)(iii) 231.30(c)(2)(iv) 231.30(c)(3) 231.30(c)(4)(i) 231.30(c)(4)(ii) 231.30(c)(5)(i) 231.30(c)(5)(ii) 231.30(c)(5)(iii)	
Switching Step Visibility	<input type="checkbox"/> Switching steps shall be illuminated, on multiple-unit locomotive consists used in switching service, only the front switching steps of the leading unit and the rear switching steps of the trailing unit must be illuminated.	231.30(c)(6)	

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Vertical Handholds	<input type="checkbox"/> Each switching step must be provided with two vertical handholds or handrails, one on each side of the switching step stairway. <input type="checkbox"/> Constructed of wrought iron, steel or other material of equivalent strength and durability that is at least one inch diameter and be securely fastened to the locomotive with ½ inch or larger bolts or rivets. <input type="checkbox"/> Begin not less than six inches nor more than thirty-two inches above the safety tread surface of the switching step. <input type="checkbox"/> On units with high snow-plows, each must begin not more than 36 inches above the safety tread surface of the switching step. <input type="checkbox"/> Extend upward from switching step surface at least 48 inches. <input type="checkbox"/> Be painted in a contrasting color to a height of at least 48 inches above the safety tread surface of the switching step. <input type="checkbox"/> Provide at least 2½ inches of usable hand clearance throughout its entire length.	231.30(e) 231.30(e)(i) 231.30(e)(ii) 231.30(e)(iii) 231.30(e)(iv) 231.30(e)(v)	
Uncoupling Mechanism	<input type="checkbox"/> Each locomotive used in switching service must have means for operating the uncoupling mechanism safely from the switching step as well as from ground level. No part of the uncoupling mechanism may extend into the switching step or stairway opening or end platform area when the mechanism is in its normal position or when it is operated. (See Plate A).	231.30(f)	

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Horizontal End Handholds	<input type="checkbox"/> Each locomotive used in switching service must have four horizontal end handholds. Each horizontal end handhold must: <ul style="list-style-type: none"> <input type="checkbox"/> Be constructed of wrought iron, steel or other material of equivalent strength and durability that is at least 5/8 inch ¹ in diameter and be securely fastened to the locomotive with 1/2 inch or larger bolts or rivets. <input type="checkbox"/> Be located not less than 30 inches nor more than 50 inches above the top of rail with its outer end not more than 16 inches from the side of the locomotive. ² <input type="checkbox"/> On units with a high snowplow that makes normal end handhold location inaccessible, end handhold shall be located on top of plow blade, with the center of the handhold not more than 53 inches above the top of rail, and be in line with the slope of the plow blade. <i>(Note: Take exception to plow-mounted horizontal end handholds if the clear length begins more than 16 inches from the outside edge of plow.)</i> <input type="checkbox"/> Be at least fourteen inches long. <input type="checkbox"/> Provide at least two inches usable hand clearance throughout its entire length. <input type="checkbox"/> The uncoupling lever may also serve as a horizontal end handhold if it complies with the requirements of this paragraph. When an uncoupling lever also serves as the horizontal end handhold, it is considered to be securely fastened if its securement brackets are attached to the locomotive by 1/2 inch or larger bolts or rivets and its movement between those brackets is limited to the rotation necessary for performance of the uncoupling function. 	231.30(g) 231.30(g)(1)(i) 231.30(g)(1)(ii) 231.30(g)(1)(iii) 231.30(g)(1)(iv) 231.30(g)(2)	
Hand Brake	<p>All freight locomotives ordered on or after August 1, 2002, or placed in service for the first time on or after April 1, 2004, shall be equipped with a hand or parking brake that is:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Capable of application or activation by hand. <input type="checkbox"/> Capable of release by hand. <input type="checkbox"/> Capable of holding the unit on a 3% grade. <input type="checkbox"/> The date of the last inspection shall be either entered on F 6180-49A or suitably stenciled or tagged on the locomotive. <p>All passenger locomotives except MU locomotives, shall be equipped with a hand or parking brake that can:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Be applied or activated by hand. <input type="checkbox"/> Be released by hand. <input type="checkbox"/> Hold the loaded unit on the maximum grade anticipated by the operating railroad. 	232.105(b) 232.105(b)(1) 232.105(b)(2) 232.105(b)(3) 232.105(c) 238.231(h)(1) 238.231(h)(1)(i) 238.231(h)(1)(ii) 238.231(h)(1)(iii)	

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Misc.	<input type="checkbox"/> Inspect all components to ensure compliance with the regulations. <input type="checkbox"/> Check for any sharp or protruding objects or areas on the equipment that may create a safety concern or personal injury. <input type="checkbox"/> Check for potential pinch points at all safety appliance arrangements. <input type="checkbox"/> Check to ensure that all brackets used solely to support a safety appliance are mechanically fastened. The use of weld on brackets is prohibited. <input type="checkbox"/> Check to ensure compliance with all applicable federal regulations . <input type="checkbox"/> Verify coupler height 31½ inch minimum, 34½ inch maximum ~ allow up to, but no more than one inch over the maximum height for settling of new truck components. <input type="checkbox"/> When additional safety appliances are used (e.g. ladders, handholds, etc.), the dimensions, location and manner of application shall conform to appropriate regulatory requirements.	231.31(a)(1)	
Digital Photos	<input type="checkbox"/> General Arrangement Photo Sheet ~ No Deviations Noted (six photos minimum, A & B ends, each corner at 45 degree angle) <input type="checkbox"/> Deviation Photo Sheet ~ Deviations Noted: As many photos as necessary to fully depict, document and illustrate CFR deviations (e.g. 229, 231 & 232)		

* The CFR reference sections noted throughout the check list refers to the *actual* regulatory requirement.

Footnotes:

- 1 TB MP&E 98-18 Ladder treads, handholds of circular cross-section, 13/16 inch diameter and sill steps, 5/8 inch thick and 2 inches wide, when constructed of 6061-T6 aluminum alloy exceeds the current Federal Railroad Administration's requirements.
- 2 TB MP&E 98-68 ...The FRA will not take exception, if application of horizontal end handhold placement is measured from either the side of the locomotive or side of the end plate.

IMPORTANT NOTE: Equipment that is not adequately addressed in Part 231. For examples: There are no ladder requirements in §§231.29 or 231.30. However, if additional safety appliances are used on *any type of equipment*, (i.e., §231.18 Cars of special construction), they must meet the dimension, location, and a manner of application requirements. This logic holds true regardless of the equipment inspected. When applying §231.6 during a sample-car inspection on an auto rack, you will encounter components not mentioned in that section such as ladders, stenciling, end ladder clearance, etc. These additional components must meet the appropriate requirements. If there is any doubt, consult your regional specialist.

Public reporting burden for this information collection is estimated to average 60 minutes per response. This estimate includes the time for reviewing each page of the checklist. According to the paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is 2130-XXXX.