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## 1.0 PURPOSE AND SCOPE

(5.1.1, 5.1.2.a, 5.1.2.b, 5.1.2.c, 5.1.3)

This standard provides requirements for third party (independent) specialized equipment inspections on boilers, pressure vessels, elevators and certain vehicle-mounted aerial lifts. The purpose of the inspections is to ensure the safety of personnel who are operating, working on or around, or inspecting this type of equipment.

This standard identifies the minimum inspection criteria for third party inspections consistent with the Code of Federal Regulation (CFR), American National Standards Institute (ANSI), and American Society of Mechanical Engineers (ASME) codes identified in Section 5.

This standard is applicable to organizations that have responsibility for the above-mentioned equipment.

The technical basis for the requirements in this standard, and approved deviations, can be found in RPP-RPT-28584, "Technical Basis Document for TFC-ENG-STD-17, "Third Party Inspections."

## 2.0 IMPLEMENTATION

This standard is effective on the date shown in the header.

NOTE: Deviations to any requirements of this standard shall be requested from the standard document owner. Approved deviations shall be documented in the accompanying Standard Basis Document RPP-RPT-28584.

## 3.0 STANDARD

A description of the requirements for third party inspections is identified in Figure 1 and the allowable grace periods for third party inspection items is identified in Figure 2.

## 4.0 DEFINITIONS

No terms or phrases unique to this standard are used.

## 5.0 SOURCES

### 5.1 Requirements

1. ANSI, SIA A92.2, "Vehicle-Mounted Elevating and Rotating Aerial Devices."
2. American Society of Mechanical Engineers.
  - a. SME, Section I, VI, and VIII.
  - b. ASME, A 17.2, "Safety Code for Existing Elevators and Escalators."
  - c. ASME, QEI-1, "Standard for the Qualification of Elevator Inspectors."
3. DOE O 252.1A, "Technical Standards Program."

## 5.2 References

1. 29 CFR 1910.67, "Vehicle-mounted elevating and rotating work platforms."
2. 29 CFR 1910.169, "Air receivers."
3. 29 CFR 1919, "Gear Certification."
4. 29 CFR 1926.306, "Air receivers."
5. 29 CFR 1926.453, "Aerial lifts."
6. National Board of Boiler and Pressure Vessel Inspectors (NBBI), American National Standards Institute (ANSI), NB-23, National Board Inspection Code (NBIC).
7. TFC-ENG-FAC SUP-C-23, "Equipment Identification and Data Management."

Figure 1. Third Party Inspection Requirements.

General Equipment Category	Item/Inspection Frequency Description	Inspection Frequency <sup>1</sup>	Inspector Certification and Qualification Requirements
Boilers <sup>2</sup>	External inspection and internal inspection as required by ASME Boiler & Pressure Vessel Code, Sections I, VI, and VIII.	12 months	Commissioned by National Board of Boilers and Pressure Vessels
Heating Boilers <sup>3</sup>	For vessels with an operating pressure greater than 15 psig (corrosive or non-corrosive service use), as required by ASME Boiler & Pressure Vessel Code, Sections I, VI, and VIII.	12 months	
Unfired pressure vessels <sup>4</sup>	Operating pressure 15 psig or less	24 months	Commissioned by National Board of Boilers and Pressure Vessels
	Vessels with volume less than 5 cubic feet	exempt	
	Electric domestic-type hot water heaters that satisfy the following criteria:	exempt	
	a. Listed by a national testing agency	exempt	
	b. Suitable size and capacity pressure relief/safety installed	exempt	
	c. Nominal water capacity of 120 gallons or less		
	d. Heat input 200,000 BTU/hr or less		
	e. Used to supply at 160 psig or less <b>and</b> 200°F or less		
Elevators	Periodic Inspections, as required by ASME A17.1 Safety Code for Elevators, Section 8.11.	6 months	Qualification requirements of ASME QEI-1
	Category One inspection, as required by ASME A17.1 Safety Code for Elevators, Section 8.11.	12 months	
	Category Three, as required by ASME A17.1 Safety Code for Elevators, Section 8.11.	36 months <sup>5</sup>	
	Category Five, as required by ASME A17.1 Safety Code for Elevators, Section 8.11.	60 months	
Vehicle-mounted Man-lifts	Vehicle-mounted man-lifts, elevating and rotating aerial devices (limited list) as required by ANSI SIA A92.2.	12 months	Current certificate of competency from WA State Dept. of Labor and Industry Safety Division

## Notes:

- <sup>1</sup> The schedule due date is based on the month the inspection was conducted.
- <sup>2</sup> Any directly fired pressure vessel used for any of the following purposes:
  - a. To produce steam or vapor at a pressure exceeding 15 psig.
  - b. To heat water or other liquid to a pressure exceeding 160 psig.
  - c. To heat water or other liquid to a temperature exceeding 250°F.
- <sup>3</sup> A steam boiler used to provide steam at a pressure not to exceed 15 psig, or hot water heating boiler or hot water supply boiler designed to operate at pressures not exceeding 160 psig and/or temperatures not exceeding 250°F, at or near the boiler outlet.
- <sup>4</sup> A closed vessel designed to operate at pressures exceeding 15 psig in which pressure is obtained from an external source or from an indirect application of heat, including steam or hot water coils, converters, or heat exchangers. Examples of unfired pressure vessels are electric hot water tanks, air receivers, and hot water storage tanks. User may request TPI of vessels sized less than 5 cubic feet.
- <sup>5</sup> Electric elevators and escalators are exempt from this requirement.

Figure 2. Grace Periods For Third Party Inspection Items.

General Equipment Category	Item/Inspection Frequency		Inspection Frequency <sup>1</sup>	Allowable Grace Period (based on industry best practice)
	Description			
Boilers Heating Boilers	External inspection and Internal inspection		12 months	30 days
			12 months	30 days
Unfired pressure vessels	Operating pressure greater than 15 psig (corrosive or non-corrosive service use)		24 months	60 days
	Operating pressure 15 psig or less		exempt	Not applicable (n/a)
	Vessels with volume less than 5 cubic feet		exempt	n/a
	Electric domestic-type hot water heaters that satisfy <i>all</i> of the following criteria:		exempt	n/a
	<ul style="list-style-type: none"> <li>a. Listed by a national testing agency</li> <li>b. Suitable size and capacity pressure relief/safety installed</li> <li>c. Nominal water capacity of 120 gallons or less</li> <li>d. Heat input 200,000 BTU/hr or less</li> <li>e. Used to supply at 160 psig or less <b>and</b> 200°F or less.</li> </ul>			
Elevators	Periodic Inspections, as required by ASME A17.1 Safety Code for Elevators, Section 8.11.		6 months	30 days
	Category One inspection, as required by ASME A17.1 Safety Code for Elevators, Section 8.11.		12 months	30 days
	Category Three, as required by ASME A17.1 Safety Code for Elevators, Section 8.11.		36 months	60 days
	Category Five, as required by ASME A17.1 Safety Code for Elevators, Section 8.11.		60 months	90 days
Vehicle-mounted Man-lifts	Vehicle-mounted man-lifts, elevating and rotating aerial devices (some types of devices omitted from this inspection, applicable items list is maintained by TPI Administrator)		12 months	30 days

Note:

<sup>1</sup> The scheduled due date is based on the month the inspection was conducted.