

## § 56.14000

### VII Recommended Rules for Care of Power Boilers

(2) The National Board Inspection Code, a Manual for Boiler and Pressure Vessel Inspectors, 1979, published by the National Board of Boiler and Pressure Vessel Inspectors.

#### CHAPTER AND TITLE

- I Glossary of Terms
- II Inspection of Boilers and Pressure Vessels
- III Repairs and Alterations to Boiler and Pressure Vessels by Welding
- IV Shop Inspection of Boilers and Pressure Vessels
- V Inservice Inspection of Pressure Vessels by Authorized Owner-User Inspection Agencies

#### APPENDIX AND TITLE

- A Safety and Safety Relief Valves
- B Non-ASME Code Boilers and Pressure Vessels
- C Storage of Mild Steel Covered Arc Welding Electrodes
- D-R National Board "R" (Repair) Symbol Stamp
- D-VR National Board "VR" (Repair of Safety and Safety Relief Valve) Symbol Stamp
- D-VR1 Certificate of Authorization for Repair Symbol Stamp for Safety and Safety Relief Valves
- D-VR2 Outline of Basic Elements of Written Quality Control System for Repairers of ASME Safety and Safety Relief Valves
- D-VR3 Nameplate Stamping for "VR"
- E Owner-user Inspection Agencies
- F Inspection Forms

(c) Records of inspections and repairs shall be kept in accordance with the requirements of the ASME Boiler and Pressure Vessel Code and the National Board Inspection Code. The records shall be made available to the Secretary or his authorized representative.

(d) Sections of the ASME Boiler and Pressure Vessel Code, 1977, listed in paragraph (b)(1) of this section, and chapters and appendices of the National Board Inspection Code, 1979, listed in paragraph (b)(2) of this section, are incorporated by reference and made a part of this standard. These publications may be obtained from the publishers, the American Society of Mechanical Engineers, 22 Law Drive, P.O. Box 2900, Fairfield, New Jersey 07007, Phone: 800-843-2763 (toll free); <http://www.asme.org>, and the National Board of Boiler and Pressure Vessel Inspec-

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tors, 1055 Crupper Avenue, Columbus, Ohio 43229. The publications may be examined at any Metal and Nonmetal Mine Safety and Health District Office of the Mine Safety and Health Administration.

[50 FR 4054, Jan. 29, 1985, as amended at 71 FR 16667, Apr. 3, 2006]

### Subpart M—Machinery and Equipment

SOURCE: 53 FR 32521, Aug. 25, 1988, unless otherwise noted.

#### § 56.14000 Definitions.

The following definitions apply in this subpart.

*Travelway.* A passage, walk, or way regularly used or designated for persons to go from one place to another.

[53 FR 32521, Aug. 25, 1988, as amended at 69 FR 38840, June 29, 2004]

#### SAFETY DEVICES AND MAINTENANCE REQUIREMENTS

#### § 56.14100 Safety defects; examination, correction and records.

(a) Self-propelled mobile equipment to be used during a shift shall be inspected by the equipment operator before being placed in operation on that shift.

(b) Defects on any equipment, machinery, and tools that affect safety shall be corrected in a timely manner to prevent the creation of a hazard to persons.

(c) When defects make continued operation hazardous to persons, the defective items including self-propelled mobile equipment shall be taken out of service and placed in a designated area posted for that purpose, or a tag or other effective method of marking the defective items shall be used to prohibit further use until the defects are corrected.

(d) Defects on self-propelled mobile equipment affecting safety, which are not corrected immediately, shall be reported to and recorded by the mine operator. The records shall be kept at the mine or nearest mine office from the date the defects are recorded, until the defects are corrected. Such records shall be made available for inspection

by an authorized representative of the Secretary.

**§56.14101 Brakes.**

(a) *Minimum requirements.* (1) Self-propelled mobile equipment shall be equipped with a service brake system capable of stopping and holding the equipment with its typical load on the maximum grade it travels. This standard does not apply to equipment which is not originally equipped with brakes unless the manner in which the equipment is being operated requires the use of brakes for safe operation. This standard does not apply to rail equipment.

(2) If equipped on self-propelled mobile equipment, parking brakes shall be capable of holding the equipment with its typical load on the maximum grade it travels.

(3) All braking systems installed on the equipment shall be maintained in functional condition.

(b) *Testing.* (1) Service brake tests shall be conducted when an MSHA inspector has reasonable cause to believe that the service brake system does not function as required, unless the mine operator removes the equipment from service for the appropriate repair;

(2) The performance of the service brakes shall be evaluated according to Table M-1.

TABLE M-1

Gross vehicle weight lbs.	Equipment speed, MPH										
	10	11	12	13	14	15	16	17	18	19	20
Service Brake Maximum Stopping Distance—Feet											
0-36000 .....	34	38	43	48	53	59	64	70	76	83	89
36000-70000 .....	41	46	52	58	62	70	76	83	90	97	104
70000-140000 .....	48	54	61	67	74	81	88	95	103	111	119
140000-250000 .....	56	62	69	77	84	92	100	108	116	125	133
250000-400000 .....	59	66	74	81	89	97	105	114	123	132	141
Over 400000 .....	63	71	78	86	94	103	111	120	129	139	148

Stopping distances are computed using a constant deceleration of 9.66 FPS<sup>2</sup> and system response times of .5, 1, 1.5, 2, 2.25 and 2.5 seconds for each increasing weight category respectively. Stopping distance values include a one-second operator response time.

TABLE M-2—THE SPEED OF A VEHICLE CAN BE DETERMINED BY CLOCKING IT THROUGH A 100-FOOT MEASURED COURSE AT CONSTANT VELOCITY USING TABLE M-2. WHEN THE SERVICE BRAKES ARE APPLIED AT THE END OF THE COURSE, STOPPING DISTANCE CAN BE MEASURED AND COMPARED TO TABLE M-1.

Miles per hour	10	11	12	13	14	15	16	17	18	19	20
Seconds Required to Travel 100 Feet .....	6.8	6.2	5.7	5.2	4.9	4.5	4.3	4.0	3.8	3.6	3.4

(3) Service brake tests shall be conducted under the direction of the mine operator in cooperation with an according to the instructions provided by the MSHA inspector as follows:

(i) Equipment capable of traveling at least 10 miles per hour shall be tested with a typical load for that particular piece of equipment. Front-end loaders shall be tested with the loader bucket empty. Equipment shall not be tested when carrying hazardous loads, such as explosives.

(ii) The approach shall be sufficient length to allow the equipment operator to reach and maintain a constant speed between 10 and 20 miles per hour prior

to entering the 100 foot measured area. The constant speed shall be maintained up to the point when the equipment operator receives the signal to apply the brakes. The roadway shall be wide enough to accommodate the size of the equipment being tested. The ground shall be generally level, packed, and dry in the braking portion of the test course. Ground moisture may be present to the extent that it does not adversely affect the braking surface.

(iii) Braking is to be performed using only those braking systems, including auxiliary retarders, which are designed to bring the equipment to a stop under normal operating conditions. Parking