

CHAPTER 7600
DEPARTMENT OF PUBLIC SERVICE
COMMERCIAL SCALES

7600 6800 NBS HANDBOOK 44
 INCORPORATED BY REFERENCE
 7600 7200 ANIMAL AND LIVESTOCK SCALE
 7600 7210 SCALES, SENSITIVITY
 REQUIREMENT

7600 7500 VEHICLE AND LIVESTOCK SCALE
 APPROACHES
 7600 7700 SUBMISSION OF PLANS
 7600 7750 PROTECTION FROM
 ENVIRONMENT
 7600 7900 SCALE PITS

7600.6800 NBS HANDBOOK 44 INCORPORATED BY REFERENCE.

NBS Handbook 44 1985, Specifications, Tolerances, and other Technical Requirements for Weighing and Measuring Devices, as adopted by the 69th National Conference on Weights and Measures and published by the United States Department of Commerce, National Bureau of Standards, (Washington, D.C., Nov. 1984) is incorporated by reference subject to the following exceptions:

A. If NBS Handbook 44 1985 contains any provisions contrary to the laws of Minnesota or the rules of the Minnesota Department of Public Service, Minnesota law and department rule govern.

B. The final sentence of NBS Handbook 44 1985, section 2 (scale code), specification S.1.8.3., is deleted.

NBS Handbook 44 is located at the Minnesota State Law Library, 117 University Avenue, Saint Paul, Minnesota and is not subject to frequent change.

Statutory Authority: *MS s 239 06*

History: *10 SR 998*

7600.7200 ANIMAL AND LIVESTOCK SCALE.

Subpart 1. **Tolerances.** The basic maintenance tolerance is one pound per 1,000 pounds of test load (0.1 percent). The acceptance tolerance is one-half of the basic maintenance tolerance.

Subp. 2. **Shift test tolerance.** A shift test must be conducted on animal and livestock scales. The maximum test load is one-fourth of the scale capacity. A scale may be approved if the sum of the indicated errors for two load-bearing readings in the same section is within tolerance.

Subp. 3. **Section, defined.** "Section" means a pair of main load-bearing points arranged so that the vertical plane passing through the centers of both points is perpendicular to the longitudinal axis of the scale platform.

Statutory Authority: *MS s 239 06*

History: *10 SR 998*

7600.7210 SCALES, SENSITIVITY REQUIREMENT.

For a scale not equipped with a balance indicator, but with a minimum graduated interval less than ten pounds, the sensitivity requirement is three times the value of the minimum graduated interval or 15 pounds, whichever is less.

Statutory Authority: *MS s 239 06*

History: *10 SR 998*

7600.7500 VEHICLE AND LIVESTOCK SCALE APPROACHES.

Subpart 1. **Before January 1, 1986.** A vehicle scale shall have at least 12 feet or a distance equal to one-third of the deck length, whichever is greater, of straight hard surface driveway on either end of the scale not over one-third inch per foot out of level of platform. The first six feet on both ends shall be constructed of reinforced concrete.

7600.7500 COMMERCIAL SCALES

46

Subp. 2. **After December 31, 1985.** For vehicle and livestock scales installed after December 31, 1985, each end of the scale must have a straight, paved approach which meets the following requirements:

A. Approaches must be at least as wide as the scale platform and at least ten feet long or one-third of the scale platform length, whichever is greater.

B. The first ten feet of each approach must be a reinforced concrete approach panel, one end of which rests on an extension of the scale foundation end wall. The remaining length of each approach may be concrete or asphalt.

C. Approaches should be sloped down from the scale platform. Maximum slope allowed is one-third inch per foot. Approaches must not be sloped up from the scale platform.

D. For above-ground scales, the foundation end walls must have wing wall extensions or the sides of the approaches must be paved so that fill material cannot fall under the scale platform.

Statutory Authority: *MS s 239.06*

History: *10 SR 998*

7600.7700 SUBMISSION OF PLANS.

Subpart 1. **Scales installed by buyer.** For scales needing assembly or foundation construction by the buyer, the manufacturer must provide to the buyer complete plans, drawings, and instructions for assembling and installing the scale and for building the foundation. If potential rule violations are anticipated, the Weights and Measures Division may require the buyer to submit plans to the division before construction.

Subp. 2. **Above-ground vehicle and livestock scales.** The buyer of an above-ground vehicle or livestock scale must submit complete plans and drawings of the scale and foundation to the Weights and Measures Division before installation of the scale. The drawings must show the existing grade level at the scale site. The division shall approve scales for commercial use only if the plans comply with the requirements of this chapter or if a variance is issued under the requirements of part 7600.9800.

Statutory Authority: *MS s 239.06*

History: *10 SR 998*

7600.7750 PROTECTION FROM ENVIRONMENT.

Subpart 1. **Outdoor scales.** The Weights and Measures Division shall require special environmental protection for an outdoor scale if the division finds that the scale is adversely affected by weather or other environmental factors. Environmental protection includes:

A. belting or other suitable material to cover the clearance around the scale platform;

B. wind skirts, wind walls, or effective foundation heating for above-ground scales;

C. an improved drainage system or sump pump for pit-type scales;

D. special shielding or weatherproofing of the scale indicator;

E. a complete building to protect the scale from the weather;

F. modifications, shielding, and other special measures to protect electronic scales from radio frequency interference and electromagnetic interference.

Subp. 2. **Fertilizer scales.** Hopper, tank, and mixer scales used for weighing dry or liquid bulk fertilizer must be completely enclosed in a building.

Statutory Authority: *MS s 239.06*

History: *10 SR 998*

7600.7900 SCALE PITS.

Subpart 1. **Generally.** Vehicle and livestock scales installed after December 31, 1985, must be installed on a reinforced, poured concrete foundation. Scales may be installed in a pit or on a slab above grade level. In either case, the foundation footings must extend below the local frost line. The foundation must be designed to support the weight of the scale and the anticipated maximum load on the scale without significant settling or cracking. Weighing element stands or bases must be securely bolted to the foundation. Space between a stand or base and the foundation must be filled with nonshrinking grout.

Subp. 2. **Pit-type scale foundation.** A pit-type vehicle or livestock scale foundation must meet the following requirements:

A. The walls, floors, footings, and weighing element support piers must be reinforced, poured concrete.

B. The clearance between the bottom of the weighbridge or other main structural member and the surface of the pit floor must be at least 48 inches.

C. For outdoor scales, the pit floor must have an effective drain system so that the pit floor remains reasonably dry and clean.

D. For outdoor scales, the tops of the pit walls must be above the existing grade level so that water will drain away from the scale.

Subp. 3. **Above-ground scale foundation.** An above-ground vehicle or livestock scale foundation must meet the following requirements:

A. The slab foundation must be poured integrally or interlocked with piers located directly below the scale load-bearing points.

B. The foundation must have end walls to prevent fill material from interfering with scale operation.

C. Where platform construction techniques allow, the surface of the foundation slab must be sloped down from the longitudinal centerline to each side to prevent dirt accumulation under the platform.

D. The clearance between the bottom of the weighbridge or other main structural member and the slab surface must be at least six inches for vehicle scales and at least 12 inches for livestock scales.

E. The scale platform, structural members, and foundation surfaces must be designed to allow access for cleaning under the scale platform and around all weighing elements.

F. For outdoor scales, the entire slab surface must be above the existing grade level so that water will drain away from the scale.

G. An effective heating system must be installed in the slab to prevent ice and snow accumulation under the platform and on the end walls.

H. An above-ground scale must be installed on a foundation slab above the existing grade level or in a pit which conforms to the requirements of subpart 2. Other methods of installation will not be approved.

Statutory Authority: *MS s 239 06*

History: *10 SR 998*

7600.8000 [Repealed, 10 SR 998]