

CHAPTER 85  
WEIGHTS AND MEASURES

[Appeared as Ch 14, 1973 IDR]  
[Certain rules renumbered 5/3/78]

All tolerances and specifications for the weights and measures division were adopted from the  
U.S. Bureau of Standards Handbook II, 44 published September 1949.  
[Prior to 7/27/88 see Agriculture Department 30—Ch 55]

WEIGHTS

**21—85.1(215) “Sensibility reciprocal” defined.** The term “*sensibility reciprocal*” is defined as to the weight required to move the position of equilibrium of the beam, pan, pointer or other indicating device of a scale, a definite amount.

This rule is intended to implement Iowa Code section 215.18.

**21—85.2(215) “Platform scale” defined.** Rescinded IAB 3/31/04, effective 5/5/04.

**21—85.3(215) For vehicle, axle-load, livestock, animal, crane and railway track scales.** Rescinded IAB 3/31/04, effective 5/5/04.

**21—85.4** Reserved.

**21—85.5(215) “Counter scale” defined.** A “*counter scale*” is a scale of any type which is especially adopted on account of its compactness, light weight, moderate capacity and arrangements of parts for use upon a counter, bench, or table.

**21—85.6(215) “Spring and computing scales” defined.** A “*spring scale*” is a scale in which the weight indications depend upon the change of shape or dimensions of an elastic body or system of such bodies.

**85.6(1)** A “*computing scale*” is a scale which, in addition to indicating the weight, indicates the total price of the amount of commodity weighed for a series of unit prices and must be correct in both its weight and value indications.

**85.6(2)** All computing scales shall be equipped with weight indicators and charts on both the dealer’s and customer’s sides.

**85.6(3)** Tolerances for both the spring scale and the computing scale shall not be greater than that for counter scales.

This rule is intended to implement Iowa Code section 215.18.

**21—85.7(215) “Automatic grain scale” defined.** The “*automatic grain scale*” is one so constructed with a mechanical device that a stream of grain flowing into its hopper can be checked at any given weight, long enough to register said weight and dump the load. The garner above the scale should have at least three times the capacity of the scale to ensure a steady flow at all times.

On automatic-indicating scales. On a particular scale, the maintenance tolerances applied shall be not smaller than one-fourth the value of the minimum reading-face graduation; the acceptance tolerances applied shall be not smaller than one-eighth the value of the minimum reading-face graduation.

However, on a prepacking scale (see D.11, D.12) having graduated intervals of less than one-half ounce, the maintenance tolerances applied shall not be smaller than one-eighth ounce and the acceptance tolerances applied shall be not smaller than one-sixteenth ounce.

This rule is intended to implement Iowa Code section 215.18.

**21—85.8(215) “Motor truck scales” defined.** “*Motor truck scales*” are scales built by the manufacturer for the use of weighing commodities transported by motor truck.

This rule is intended to implement Iowa Code section 215.18.

**21—85.9(215) “Livestock scales” defined.** “*Livestock scales*” are scales which are constructed with stock racks, or scales which are being used to weigh livestock.

This rule is intended to implement Iowa Code section 215.18.

**21—85.10(215) “Grain dump scales” defined.** “*Grain dump scales*” are scales so constructed that the truck may be unloaded without being moved from the scale platform.

The above-mentioned scales must be approved by the department. This approval being based upon blueprints and specifications submitted for this purpose.

This rule is intended to implement Iowa Code section 215.18.

**21—85.11(215) Scale pit.**

**85.11(1)** In the construction of a scale pit, walls must be of reinforced concrete. A slab floor must be installed in the pit. The floor must be at least 12 inches thick with a minimum of grade 40 reinforcement rod running into all piers and sidewalls, installed according to the manufacturer’s specifications. There shall be an approach at each end of the scale of not less than ten feet, and said approach shall be of reinforced concrete 12 inches thick on a level with the scale deck.

**85.11(2)** Electronic scales shall have a vertical clearance of not less than four feet from the floor line to the bottom of the I-beam of the scale bridge, thus providing adequate access for inspection and maintenance. The load-bearing supports of all scales installed in a fixed location shall be constructed to ensure the strength, rigidity and permanence required for proper scale performance.

This rule is intended to implement Iowa Code section 215.15.

**21—85.12(215) Pitless scales.** A person may install pitless electronic, self-contained and vehicle scales in a permanent location provided the following conditions for the construction are incorporated:

**85.12(1)** Scale installation applications and permits must be submitted to the department of agriculture and land stewardship the same as the pit scale installation, with specifications being furnished by the manufacturer, for approval.

**85.12(2)** Piers shall extend below the frost line or be set on solid bed rock; and they shall be of reinforced concrete.

**85.12(3)** A reinforced concrete slab the width of the scale, at least six inches thick, shall run full length under the scale. Slab and piers shall be tied together with reinforcement rod, with a minimum clearance of eight inches between floor and weighbridge.

**85.12(4)** Reinforced portland cement approaches at least 12 inches thick, ten feet long and as wide as the scale, shall be provided on each end in a level plane with the scale platform.

**85.12(5)** Scale shall be installed at an elevation to ensure adequate drainage away from scale.

**85.12(6)** Scale platform and indicator shall be protected from wind and other elements which could cause inaccurate operation of the scale.

This rule is intended to implement Iowa Code section 215.18.

**21—85.13(215) Master weights.** Master scale test weights used for checking scales after being overhauled must be sealed by the department of agriculture and land stewardship, division of weights and measures, as to their accuracy once each year. Said weights after being sealed are to be used only as master test weights.

This rule is intended to implement Iowa Code section 215.17.

**21—85.14(215) Scale design.** A scale shall be of such materials and construction that (1) it will support a load of its full nominal capacity without developing undue stresses or deflections, (2) it may reasonably be expected to withstand normal usage without undue impairment of accuracy or the correct functioning of parts, and (3) it will be reasonably permanent in adjustment.

**85.14(1) Stability of indications.** A scale shall be capable of repeating with reasonable precision its indications and recorded representations. This requirement shall be met irrespective of repeated manipulation of any scale element in a manner duplicating normal usage, including (a) displacement of

the indicating elements to the full extent allowed by the construction of the scale, (b) repeated operation of a locking device, and (c) repeated application or removal of unit weights.

**85.14(2) *Interchange or reversal of parts.*** Parts which may readily be interchanged or reversed in the course of normal usage shall be so constructed that their interchange or reversal will not materially affect the zero-load balance or the performance of the scale. Parts which may be interchanged or reversed in normal field assembly shall be (a) so constructed that their interchange or reversal will not affect the performance of the scale or (b) so marked as to show their proper positions.

**85.14(3) *Pivots.*** Pivots shall be made of hardened steel, except that agate may be used in prescription scales, and shall be firmly secured in position. Pivot knife-edges shall be sharp and straight and cone-pivot points shall be sharp.

**85.14(4) *Position of equipment, primary or recording indicating elements (electronic weighing elements).*** A device equipped with a primary or recording element shall be so positioned that its indications may be accurately read and the weighing operations may be observed from some reasonable "customer" position; the permissible distance between the equipment and a reasonable customer position shall be determined in each case upon the basis of individual circumstances, particularly the size and character of the indicating element; a window large enough should be placed in the building, and the installation should be so arranged as to afford an unobstructed view of the platform.

This rule is intended to implement Iowa Code section 215.18.

**21—85.15(215) *Weighbeams.*** All weighbeams, dials, or other mechanical weight-indicating elements must be placed on reinforced concrete footings or metal structural members. Concrete and metal must be of sufficient strength to keep mechanical weight-indicating elements in positive alignment with the lever system.

This rule is intended to implement Iowa Code section 215.18.

**21—85.16(215) *Beam box.*** Whenever a scale is equipped with a beam box, the beam uprights, shelf and cap must be made of channel irons or I-beams. The box covering the weighbeam may be constructed of wood or other material.

This rule is intended to implement Iowa Code section 215.18.

**21—85.17(215) *Beam rod.*** Rescinded IAB 3/31/04, effective 5/5/04.

**21—85.18(215) *Weight capacity.*** The amount of weight indicated on the beam, dial or other auxiliary weighing attachments shall not exceed the factory-rated capacity of the scale, and said capacity shall be stamped on the butt of the beam (fractional bar is not included).

**85.18(1) *Auxiliary attachment.*** If auxiliary attachment is used, the amount of the auxiliary attachment must be blocked from the beam.

**85.18(2) *Normal position.*** The normal balance position of the weighbeam of a beam scale shall be horizontal.

**85.18(3) *Travel.*** Rescinded IAB 3/31/04, effective 5/5/04.

**85.18(4) *Weighbeam.*** Rescinded IAB 3/31/04, effective 5/5/04.

**85.18(5) *Poise stop.*** Rescinded IAB 3/31/04, effective 5/5/04.

**85.18(6) *Pawl.*** Rescinded IAB 3/31/04, effective 5/5/04.

**85.18(7) *Nominal capacity, marking.*** Rescinded IAB 3/31/04, effective 5/5/04.

**85.18(8) *Uncompensated spring scales.*** A small capacity uncompensated spring scale shall be conspicuously marked to show that the scale is illegal for use in the retail sale of foodstuffs other than fruits and vegetables.

This rule is intended to implement Iowa Code section 215.16.

**21—85.19(215) *Provision for sealing coin slot.*** Provision shall be made on a coin-operated scale for applying a lead and wire seal in such a way that insertion of a coin in the coin slot will be prevented.

This rule is intended to implement Iowa Code section 215.18.

**21—85.20(215) Stock racks.** A livestock scale shall be equipped with a suitable enclosure, fitted with gates as required, within which livestock may be held on a scale platform; this rack shall be securely mounted on the scale platform and adequate clearances shall be maintained around the outside of the rack.

This rule is intended to implement Iowa Code section 215.18.

**21—85.21(215) Lengthening of platforms.** The length of the platform of a vehicle scale shall not be increased beyond the manufacturer's designed dimension except when the modification has been approved by competent scale-engineering authority, preferably that of the engineering department of the manufacturer of the scale, and by the weights and measures authority having jurisdiction over the scale.

This rule is intended to implement Iowa Code section 215.18.

**21—85.22(215) Accessibility for testing purposes.** A large capacity scale shall be so located, or such facilities for normal access thereto shall be provided that the test weights of the weights and measures official, in the denominations customarily provided, and in the amount deemed necessary by the weights and measures official for the proper testing of the scale, may readily be brought to the scale by the customary means; otherwise it shall be the responsibility of the scale owner or operator to supply such special facilities, including necessary labor, as may be required to transport the test weights to and from the scale, for testing purposes, as required by the weights and measures official.

This rule is intended to implement Iowa Code section 215.10.

**21—85.23(215) Assistance in testing operations.** If the design, construction or location of a large-capacity scale is such as to require a testing procedure involving special accessories or an abnormal amount of handling of test weights, such accessories or needed assistance in the form of labor shall be supplied by the owner or operator of the scale, as required by the weights and measures official.

This rule is intended to implement Iowa Code section 215.1.

**21—85.24(215) Beam scale.** One on which the weights of loads of various magnitude are indicated solely by means of one or more weighbeam bars either alone or in combination with counterpoise weights.

This rule is intended to implement Iowa Code section 215.18.

**21—85.25(215) Spring scale.** An automatic-indicating scale in which the counterforce is supplied by an elastic body or system of such bodies, the shape or dimensions of which are changed by applied loads. A "compensated" spring scale is one equipped with a device intended to compensate for changes in the elasticity of the spring or springs resulting from changes in temperature, or one so constructed as to be substantially independent of such changes; an "uncompensated" spring scale is one not so equipped or constructed. A "straight-face" spring scale is one in which the indicator is affixed to the spring without intervening mechanism and which indicates weight values on a straight graduated reading-face. (The use in a scale of metal bands or strips in lieu of pivots and bearings does not constitute the scale a "spring" scale.)

This rule is intended to implement Iowa Code section 215.18.

**21—85.26(215) Weighbeam or beam.** An element comprising one or more bars equipped with movable poises or means for applying counterpoise weights or both.

This rule is intended to implement Iowa Code section 215.18.

**21—85.27(215) Livestock scale.** For purposes of the application of requirements for SR tolerances and minimum graduations, a scale having a nominal capacity of 6,000 pounds or more and used primarily for weighing livestock standing on the scale platform. (An "animal scale" is a scale adapted to weighing single heads of livestock.)

This rule is intended to implement Iowa Code section 215.18.

## SCALES

**21—85.28(215) Wheel-load weighers and axle-load scales.** The requirements for wheel-load weighers and axle-load scales apply only to such scales in official use for the enforcement of traffic in highway laws or for the collection of statistical information by government agencies.

This rule is intended to implement Iowa Code 215A.3.

**21—85.29(215) Highway vehicle.** Rescinded IAB 3/31/04, effective 5/5/04.

**21—85.30 to 85.32** Reserved.

## MEASURES

**21—85.33(214A,208A) Motor fuel and antifreeze tests and standards.** In the interest of uniformity, the tests and standards for motor fuel, including but not limited to renewable fuels such as ethanol blended gasoline, biodiesel, biodiesel blended fuel, and components such as an oxygenate, raffinate natural gasoline and motor vehicle antifreeze shall be those established by the American Society for Testing and Materials (ASTM) in effect on October 1, 2006. Diesel fuel which does not comply with ASTM international specifications may be stored in Iowa only if the diesel fuel is stored at a terminal for the purposes of blending the diesel fuel with biodiesel so that the finished biodiesel blended product does meet the applicable specifications. In addition, a motor fuel that contains more than one-half of 1 percent of methyl tertiary butyl ether (MTBE) by volume shall not be sold, offered for sale, or stored in Iowa.

This rule is intended to implement Iowa Code sections 208A.5, 208A.6 and 215.18 and 2006 Iowa Acts, House File 2754.

**21—85.34(215) Tolerances on petroleum products measuring devices.** All pumps or meters at filling stations may have a tolerance of not over five cubic inches per five gallons, minus or plus. All pumps or measuring devices of a large capacity shall have a maintenance tolerance of 50 cubic inches, minus or plus, on a 50-gallon test. Add additional one-half cubic inch tolerance per gallon over and above a 50-gallon test. Acceptance tolerances on large capacity pumps and measuring devices shall be one-half the maintenance tolerances.

This rule is intended to implement Iowa Code sections 214.2 and 215.20.

**21—85.35(215) Meter adjustment.** If a meter is found to be incorrect and also capable of further adjustment, said meter shall be adjusted, rechecked and sealed. If a seal is broken for any cause other than by a state inspector, the department of agriculture and land stewardship shall be promptly notified of same.

**85.35(1)** Companies specializing in testing and repairing gasoline and fuel oil dispensing pumps or meters, shall be registered with the division of weights and measures, upon meeting requirements set forth by the department of agriculture and land stewardship.

**85.35(2)** In accordance with the contemplated revision of National Bureau of Standards Handbook 44-4th Edition, G-UR4.4 (Replacement of Security Seal), accredited repair and testing companies shall be authorized to affix a security seal, properly marked with the identification of such company.

**85.35(3)** If a meter is found to be inaccurate, "Repair and Placing in Service" card shall be left by the inspector.

**85.35(4)** After meter has been repaired and placed in service, the "Repair and Placing in Service" card must be returned to the Iowa Department of Agriculture and Land Stewardship, Weights and Measures Division.

This rule is intended to implement Iowa Code section 215.20.

**21—85.36(215) Recording elements.** All weighing or measuring devices shall be provided with appropriate recording or indicating elements, which shall be definite, accurate and easily read under

any conditions of normal operation of the device. Graduations and a suitable indicator shall be provided in connection with indications and recorded representations designed to advance continuously. Graduations shall not be required in connection with indications or recorded representations designed to advance intermittently or with indications or recorded representations of the selector type.

This rule is intended to implement Iowa Code section 215.18.

**21—85.37(215) Air eliminator.** All gasoline or oil metering devices shall be equipped with an effective air eliminator to prevent passage of air or vapor through the meter. The vent from such eliminator shall not be closed or obstructed.

This rule is intended to implement Iowa Code section 215.18.

**21—85.38(215) Delivery outlets.** No means shall be provided by which any measured liquid can be diverted from the measuring chamber of the meter or the discharge line therefrom. However, two or more delivery outlets may be installed, if automatic means is provided to ensure that liquid can flow from only one such outlet at one time, and the direction of flow for which the mechanism may be set at any time is definitely and conspicuously indicated.

This rule is intended to implement Iowa Code section 215.18.

**21—85.39(189,215) Weights and measures.** The specifications, tolerances and regulations for commercial weighing and measuring devices, together with amendments thereto, as recommended by the National Institute of Standards and Technology and published in National Institute of Standards and Technology Handbook 44 amended or revised as of July 1, 2007, shall be the specifications, tolerances and regulations for commercial weighing and measuring devices in the state of Iowa, except as modified by state statutes, or by rules adopted and published by the Iowa department of agriculture and land stewardship and not rescinded.

The National Institute of Standards and Technology (NIST) Handbooks 130 and 133: Weights and Measures Law, Packaging and Labeling, Method of Sale, Type Evaluation and Checking the Net Contents of Packaged Goods, and all supplements, as promulgated by the National Institute of Standards and Technology amended or revised as of July 1, 2007, are adopted in their entirety by this reference.

This rule is intended to implement Iowa Code sections 189.9, 189.13, 189.17, 215.14, 215.18 and 215.23.

**21—85.40(215) Inspection tag or mark.** If a meter is found to be inaccurate, an appropriate “inaccurate” card and a “repair and placing in service” card shall be left with the meter.

**85.40(1)** The “inaccurate” card is to be retained by the LP-gas dealer after repair.

**85.40(2)** The “repair and placing in service” card is to be forwarded to weights and measures division of the Iowa department of agriculture and land stewardship.

This rule is intended to implement Iowa Code section 215.5.

**21—85.41(215) Meter repair.** If the meter has not been repaired within 30 days the meter will be condemned and a red condemned tag will be attached to the meter.

This rule is intended to implement Iowa Code section 215.5.

**21—85.42(215) Security seal.** In accordance with the contemplated revision of National Institute of Standards and Technology Handbook 44, Gur. 4.4 (Replacement of Security Seal), accredited repair and testing companies shall be authorized to affix a security seal, properly marked with the identification of such company.

This rule is intended to implement Iowa Code section 215.12.

**21—85.43(215) LP-gas meter repairs.** Companies specializing in testing and repairing LP-gas meters shall be registered with the division of weights and measures as accredited repair and testing agencies upon meeting the requirements set forth by the department of agriculture and land stewardship.

This rule is intended to implement Iowa Code section 215.20.

**21—85.44(215) LP-gas delivery.** In the delivery of LP-gas by commercial bulk trucks (bobtail) across state lines, it shall be mandatory for all trucks delivering products to be equipped with a meter that has been either tested by the state of Iowa or that carries the seal of an accredited meter service and proving company.

This rule is intended to implement Iowa Code section 215.20.

**21—85.45(215) LP-gas meter registration.** The location of all LP-gas liquid meters in retail trade shall be listed, by the owner, with the department of agriculture and land stewardship.

This rule is intended to implement Iowa Code section 215.20.

**21—85.46(215) Reporting new LP-gas meters.** Upon putting a new or used meter into service in the state of Iowa, the user shall report to the weights and measures division.

This rule is intended to implement Iowa Code section 215.20.

**21—85.47** Rescinded, effective 11/27/85.

**21—85.48(214A,215) Advertisement of the price of liquid petroleum products for retail use.**

**85.48(1)** Nothing in this rule shall be deemed to require that the price per gallon or liter or any grade or kind of liquid petroleum product sold on the station premises be displayed or advertised except on the liquid petroleum metering distribution pumps.

**85.48(2)** Petroleum product retailers, if they elect to advertise the unit price of their petroleum products at or near the curb, storefront or billboard, shall display the price per gallon or liter. The advertised price shall equal the computer price settings shown on the metering pump.

**85.48(3)** Notwithstanding the provisions of subrule 85.48(2), cash only prices may be posted by the petroleum marketer on the following basis:

*a.* Cash only prices must be disclosed on the posted sign as “cash only” or similar unequivocal wording in lettering 3” high and ¼” in stroke when the whole number price being shown is 36” or less in height; or in lettering at least 6” high and ½” in stroke when the whole number price is more than 36” in height.

*b.* Cash prices posted or advertised must be available to all customers, regardless of type of service (e.g., full service or self-service); or grade of product (e.g., regular, unleaded, gasohol and diesel).

*c.* Cash and credit prices or discounts must be prominently displayed on the dispenser.

*d.* A chart showing applicable cash discounts expressed in terms of both the computed and posted price shall be available to the customer on the service station premises.

**85.48(4)** On all outside display signs, the whole number shall not be less than 6” in height and not less than 3/8” in stroke, and any fraction shall be at least one-third of the size of the whole number in both height and width.

**85.48(5)** The price must be complete, including taxes without any missing numerals or fractions in the price.

**85.48(6)** Price advertising signs shall identify the type of product (e.g., regular, unleaded, gasohol and diesel), in lettering at least 3” high and ¼” in stroke when the whole number price being shown is 36” or less in height, or in lettering at least 6” high and ½” in stroke when the whole number price is more than 36” in height.

**85.48(7)** A price advertising sign shall display, if in liters and may display if in gallons, the unit measure at least in letters of 3” minimum.

**85.48(8)** Directional or informational signs for customer location of the type of service or product advertised shall be clearly and prominently displayed on the station premises in a manner not misleading to the public.

**85.48(9)** The advertising of other commodities or services offered for sale by petroleum retailers in such a way as to mislead the public with regard to petroleum product pricing shall be prohibited.

**85.48(10)** Weights and measures motor vehicle fuels decals. All motor vehicle fuel kept, offered or exposed for sale or sold at retail containing over 1 percent of a renewable fuel shall be identified with a

decal located on front of the motor vehicle fuel pump and placed between 30" and 50" above the driveway level or in an alternative location approved by the department. The appearance of the decal shall conform to the following standards adopted by the renewable fuels and coproducts advisory committee:

*a.* The only two sizes of decals approved are the following:

- (1) A design of 1.25" by 4".
- (2) A design of 2" by 6".

*b.* All labels shall have the word "with" in letters a minimum of .1875" high, and the name of the renewable fuel in letters a minimum of .5" high.

*c.* The use of color, design and wording shall be approved by the renewable fuels and coproducts advisory committee. The coordinator may receive input from any party including the weights and measures bureau of the department in recommending the color, design, and wording. The advisory committee shall approve the color, design, and wording to promote the use of renewable fuels.

*d.* All black and white fuel pump stickers shall be replaced by approved colorful fuel pump decals effective July 1, 1995.

**85.48(11)** Ethanol blended gasoline classified as higher than E-10 shall have a visible, legible "for flex fuel vehicle only" sticker on the pump or pump handle.

**85.48(12)** and **85.48(13)** Rescinded IAB 3/11/09, effective 4/15/09.

**85.48(14)** Octane rating of fuel offered for sale shall be posted on the pump in a conspicuous place. However, no octane rating shall be posted on the pump for ethanol blended gasoline classified as higher than E-10.

**85.48(15)** Any gasoline labeled as "leaded" shall be produced with the use of any lead additive or contain more than 0.05 grams of lead per gallon or more than 0.005 grams of phosphorus per gallon. As used in this subrule, "lead additive" means any substance containing lead or lead compounds.

This rule is intended to implement Iowa Code sections 214A.3, 214A.16 and 215.18.

[ARC 7628B, IAB 3/11/09, effective 4/15/09]

**21—85.49(214A,215) Gallonage determination for retail sales.** The method of determining gallonage on gasoline or diesel motor vehicle fuel for retail sale shall be on a gross volume basis. Temperature correction or any deliberate methods of heating shall be prohibited.

This rule is intended to implement Iowa Code sections 214A.3 and 215.18.

**21—85.50(214,214A,215) Blender pumps.** Motor fuel blender pumps or blender pumps installed or modified after November 1, 2008, which sell both ethanol blended gasoline classified as higher than E-10 and gasoline need to have at least two hoses per pump.

This rule is intended to implement Iowa Code section 214A.2.

[ARC 7628B, IAB 3/11/09, effective 4/15/09]

**21—85.51** Reserved.

#### MOISTURE-MEASURING DEVICES

**21—85.52(215A) Testing devices.** All moisture-measuring devices will be tested against a measuring device which will be furnished by the department and all moisture-measuring devices will be inspected to determine whether they are in proper operational condition and supplied with the proper accessories.

This rule is intended to implement Iowa Code section 215A.2.

**21—85.53(215A) Rejecting devices.** Moisture-measuring devices may be rejected for any of the following reasons:

**85.53(1)** The moisture-measuring device tested is found to be out of tolerance with the measuring device used by the department by one of the inspectors so assigned by more than 0.7 percent on grain moisture content.

**85.53(2)** The person does not have available the latest charts for type of device being used.



**85.53(3)** The person does not have available the proper scale or scales and thermometers for use with the type of device being used.

**85.53(4)** The moisture-measuring device is not free from excessive dirt, debris, cracked glass or is not kept in good operational condition at all times.

This rule is intended to implement Iowa Code section 215A.6.

**21—85.54(215,215A) Specifications and standards for moisture-measuring devices.** The specifications and tolerances for moisture-measuring devices are those established by the United States Department of Agriculture as of November 15, 1971, in chapter XII of GR instruction 916-6, equipment manual, used by the federal grain inspection service; and those recommended by National Bureau of Standards and published in National Bureau of Standards Handbook 44 as of July 1, 1985.

This rule is intended to implement Iowa Code section 215A.3.

**21—85.55** Renumbered as 55.28(215), IAC 12/4/85.

**21—85.56** Renumbered as 55.29(215), IAC 12/4/85.

**21—85.57(215) Testing high-moisture grain.** When testing high-moisture grain the operator of a moisture-measuring device shall use the following procedure: Test each sample six times adding the six measurements thus obtained and dividing the total by six to obtain an average which shall be deemed to be the moisture content of such sample.

This rule is intended to implement Iowa Code section 215A.7.

**21—85.58 to 85.62** Reserved.

#### HOPPER SCALES

**21—85.63(215) Hopper scales.** A “hopper scale” is a scale designed for weighing bulk commodities whose load-receiving element is a tank, box, or hopper mounted on a weighing element; and includes automatic hopper scales, grain hopper scales, and construction material hopper scales.

**85.63(1) Installation.** A hopper scale used for commercial purposes shall be so located, or such facilities for normal access thereto shall be so provided that the test weights of the weights and measures official, in the denominations customarily provided, and in the amount deemed necessary by the weights and measures official for the proper testing of the scale, may readily be brought to the scale by customary means; otherwise it shall be the responsibility of the scale owner or operator to supply such special facilities, as required by the weights and measures official. The hopper scale shall have extended angle irons with hooks 14 inches from edge to hopper, in all four corners, to allow the inspector to hook his chain and binder to 500# weight (or 1000# weight) for testing.

**85.63(2) Method of hopper scale testing.** The method to be used in testing the scale for weighing accuracy shall be by the suspension of standard test weights at each corner of the weighbridge, suspended from a point as near as possible over the center of the main bearing. A suitable permanent device to which the suspension equipment may be connected shall be properly located and placed on each corner of the weighbridge. There is to be no obstruction, such as machinery, spouting or insufficient wall clearance, etc., that will interfere with the free suspension of the weights.

**85.63(3) Approved by department.** Newly installed hopper scales must be approved by the department; this approval shall be based upon blueprints and specifications submitted for this purpose.

This rule is intended to implement Iowa Code sections 215.10 and 215.18.

[IDR 1952, p.20, 1954, 1958, 1962]

[Amended 11/18/63, 9/14/65, 12/14/65, 11/21/66, 11/15/67, 8/30/68, 9/10/69,  
9/22/69, 9/15/70, 12/17/71, 3/15/73, 7/10/74]

[Filed 4/13/76, Notice 2/9/76—published 5/3/76, effective 6/7/76]

[Filed 10/14/76, Notice 9/8/76—published 11/3/76, effective 12/9/76]

[Filed 3/18/77, Notice 2/9/77—published 4/6/77, effective 5/12/77]

- [Filed 9/2/77, Notice 7/13/77—published 9/21/77, effective 1/1/78]
- [Filed 3/2/78, Notice 12/28/77—published 3/22/78, effective 4/26/78]
- [Filed emergency 7/13/79—published 8/8/79, effective 7/16/79]
- [Filed 11/20/81, Notice 10/14/81—published 12/9/81, effective 1/13/82]
- [Filed 5/7/82, Notice 3/31/82—published 5/26/82, effective 6/30/82]
- [Filed 6/4/82, Notice 4/28/82—published 6/23/82, effective 7/28/82]
- [Filed emergency 2/15/83—published 3/2/83, effective 2/15/83]
- [Filed 1/13/84, Notice 12/7/83—published 2/1/84, effective 3/7/84]
- [Filed 10/4/85, Notice 8/28/85—published 10/23/85, effective 11/27/85]
- [Filed 11/1/85, Notice 9/25/85—published 11/20/85, effective 12/25/85]
- [Filed 1/15/86, Notice 12/4/85—published 2/12/86, effective 3/19/86]
- [Filed emergency 7/8/88 after Notice 6/1/88—published 7/27/88, effective 7/8/88]
- [Filed emergency 11/27/89—published 12/13/89, effective 11/27/89]
- [Filed 4/13/90, Notice 12/13/89—published 5/2/90, effective 6/6/90]
- [Filed 12/24/90, Notice 7/11/90—published 1/23/91, effective 2/27/91]
- [Filed emergency 9/9/94—published 9/28/94, effective 9/9/94]
- [Filed emergency 12/30/94 after Notice 9/28/94—published 1/18/95, effective 12/30/94]
- [Filed 9/8/95, Notice 5/10/95—published 9/27/95, effective 11/1/95]
- [Filed 4/28/00, Notice 3/8/00—published 5/17/00, effective 6/21/00]
- [Filed 3/5/04, Notice 1/7/04—published 3/31/04, effective 5/5/04]
- [Filed 3/25/05, Notice 2/2/05—published 4/13/05, effective 5/18/05]
- [Filed emergency 11/3/06—published 11/22/06, effective 11/3/06]
- [Filed emergency 4/8/08—published 5/7/08, effective 4/8/08]
- [Filed ARC 7628B (Notice ARC 7370B, IAB 11/19/08), IAB 3/11/09, effective 4/15/09]