

Moisture range	Tolerance	
	Direct comparison	Sample exchange
Low .....	±0.15 percent moisture, mean deviation from standard moisture meter using Hard Red Winter wheat	±0.20 percent moisture, mean deviation from standard moisture meter using Hard Red Winter wheat
Mid .....	±0.10 percent moisture, mean deviation from standard moisture meter using Hard Red Winter wheat	±0.15 percent moisture, mean deviation from standard moisture meter using Hard Red Winter wheat
High .....	±0.15 percent moisture, mean deviation from standard moisture meter using Hard Red Winter wheat	±0.20 percent moisture, mean deviation from standard moisture meter using Hard Red Winter wheat

(b) The maintenance tolerances for GAC 2100 moisture meters used in performing official inspection services shall be:

(1) Headquarters standard meters. By direct comparison using mid-range Hard Red Winter wheat, ±0.05% mean deviation for the average of the Headquarters standard moisture meters.

(2) All other than Headquarters standard meters. By sample exchange using mid-range Hard Red Winter wheat, ±0.15% mean deviation from the standard meter.

[63 FR 34554, June 25, 1998]

**§ 801.7 Reference methods and tolerances for near-infrared spectroscopy (NIRS) analyzers.**

(a) *Reference methods.* (1) The chemical reference protein determinations used to reference and calibrate official NIRS instruments shall be performed in accordance with “Comparison of Kjeldahl Method for Determination of Crude Protein in Cereal Grains and Oilseeds with Generic Combustion Method: Collaborative Study,” July/August 1993, Ronald Bicsak, Journal of AOAC International Vol. 76, No. 4, 1993, and subsequently approved by the AOAC International as the Combustion method, AOAC International Method 992.23. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Director, Technical Services Division, Federal Grain Inspection Service, 10383 North Executive Hills Blvd., Kansas City, MO 64153-1394. Copies may be inspected at the above address or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-

6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(2) The chemical reference starch determination used to reference and calibrate official NIRS instruments shall be performed in accordance with the Corn Refiners Association Method A-20, Analysis for Starch in Corn, Second revision, April 15, 1986, Standard Analytical Methods of the Member Companies of the Corn Refiners Association, Inc. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Director, Technical Services Division, Federal Grain Inspection Service, 10383 North Executive Hills Blvd., Kansas City, MO 64153-1394. Copies may be inspected at the above address or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(b) *Tolerances*—(1) *NIRS wheat protein analyzers.* The maintenance tolerances for the NIRS analyzers used in performing official inspections for determination of wheat protein content shall be ±0.15 percent mean deviation from the national standard NIRS instruments, which are referenced and calibrated to the Combustion method, AOAC International Method 992.23.

(2) *NIRS soybean oil and protein analyzers.* The maintenance tolerances for the NIRS analyzers used in performing official inspections for determination of soybean oil shall be ±0.20 percent mean deviation from the national standard NIRS instruments, which are

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referenced and calibrated to the FGIS solvent oil extraction method; and for determination of protein content shall be ±0.20 percent mean deviation from the national standard NIRS instruments, which are referenced and calibrated to the Combustion method, AOAC International Method 992.23.

(3) *NIRS corn oil, protein, and starch analyzers.* The maintenance tolerances for the NIRS analyzers used in performing official inspections for determination of corn oil shall be ±0.20 percent mean deviation from the national standard NIRS instruments, which are referenced and calibrated to the FGIS solvent oil extraction method; for determination of protein content shall be ±0.30 percent mean deviation from the national standard NIRS instruments, which are referenced and calibrated to the Combustion method, AOAC International Method 992.23; and for determination of starch content shall be ±0.35 percent mean deviation from the national standard NIRS instruments,

which are referenced and calibrated to the Starch method, Corn Refiners Association Method A-20.

(4) *NIRS barley protein analyzers.* The maintenance tolerances for the NIRS analyzers used in performing official inspections for determination of barley protein content are 0.20 percent mean deviation from the national standard NIRS instruments, which are referenced and calibrated to the Combustion method, AOAC International Method 992.23.

[63 FR 35505, June 30, 1998, as amended at 69 FR 18803, Apr. 9, 2004; 71 FR 65373, Nov. 8, 2006]

**§ 801.8 Tolerances for sieves.**

The maintenance tolerances for sieves used in performing official inspection services shall be:

- (a) Thickness of metal: ±0.0015 inch.
- (b) Accuracy of perforation: ±0.001 inch from design specification.
- (c) Sieving accuracy:

Sieve description	Tolerance	
	Direct comparison	Sample exchange
.064× <sup>3</sup> / <sub>8</sub> inch oblong .....	±0.2 percent, mean deviation from standard sieve using wheat.	±0.3 percent, mean deviation from standard sieve using wheat
<sup>5</sup> / <sub>64</sub> × <sup>3</sup> / <sub>4</sub> inch slotted .....	±0.3 percent, mean deviation from standard sieve using barley.	±0.5 percent, mean deviation from standard sieve using barley
5 <sup>5</sup> / <sub>64</sub> × <sup>3</sup> / <sub>4</sub> inch slotted .....	±0.5 percent, mean deviation from standard sieve using barley.	±0.7 percent, mean deviation from standard sieve using barley
<sup>6</sup> / <sub>64</sub> × <sup>3</sup> / <sub>4</sub> inch slotted .....	±0.7 percent, mean deviation from standard sieve using barley.	±1.0 percent, mean deviation from standard sieve using barley

**§ 801.9 Tolerances for test weight apparatuses.**

The maintenance tolerances for test weight per bushel apparatuses used in performing official inspection services shall be:

Item	Tolerance
Beam/scale accuracy ....	±0.10 pound per bushel deviation at any reading, using test weights
Overall accuracy .....	±0.15 pound per bushel, mean deviation from standard test weight apparatus using wheat

**§ 801.10 [Reserved]**

**§ 801.11 Related design requirements.**

(a) *Suitability.* The design, construction, and location of official sampling and inspection equipment and related

sample handling systems shall be suitable for the official sampling and inspection activities for which the equipment is to be used.

(b) *Durability.* The design, construction, and material used in official sampling and inspection equipment and related sample handling systems shall assure that, under normal operating conditions, operating parts will remain fully operable, adjustments will remain reasonably constant, and accuracy will be maintained between equipment test periods.

(c) *Marking and identification.* Official sampling and inspection equipment for which tolerances have been established shall be permanently marked to show the manufacturer's name, initials, or trademark; the serial number of the equipment; and the model, the type,