

Moisture range	Tolerance	
	Direct comparison	Sample exchange
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.

**§801.7 Tolerances for near-infrared spectroscopy (NIRS) analyzers.**

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, Quality Assurance and Research 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 Office of the Federal Register, 800 North Capitol Street, NW., 7th Floor, Suite 700, Washington, DC 20408.

(a) *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.

(b) *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 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.

[59 FR 31506, June 20, 1994]

**§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 x 3/8 inch oblong .....	±0.2 percent, mean deviation from standard sieve using wheat.	±0.3 percent, mean deviation from standard sieve using wheat.
3/64 x 3/4 inch slotted .....	±0.3 percent, mean deviation from standard sieve using barley.	±0.5 percent, mean deviation from standard sieve using barley.
5.5/64 x 3/4 inch slotted .....	±0.5 percent, mean deviation from standard sieve using barley.	±0.7 percent, mean deviation from standard sieve using barley.
3/64 x 3/4 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:

§ 801.10

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 Tolerance for dividers.**

The maintenance tolerance for dividers used in performing official inspection services shall be ±1.0 percent, mean deviation from target value using wheat.

**§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, and the design or pattern of the equipment. Operational controls for mechanical samplers and related sample handling systems, including but not limited to pushbuttons and switches, shall be conspicuously identified as to the equipment or activity controlled by the pushbutton or switch.

(d) *Repeatability.* Official inspection equipment when tested in accordance with §§800.217 and 800.219 shall, within the tolerances prescribed in §§801.3 through 801.10, be capable of repeating its results when the equipment is operated in its normal manner.

(e) *Security.* Mechanical samplers and related sample handling systems shall provide a ready means of sealing to deter unauthorized adjustments, re-

moval, or changing of component parts or timing sequence without removing or breaking the seals; and otherwise be designed, constructed, and installed in a manner to prevent deception by any person.

(f) *Installation requirements.* Official sampling and inspection equipment and related sample handling systems shall be installed (1) at a site approved by the Service, (2) according to the manufacturer's instructions, and (3) in such a manner that neither the operation nor the performance of the equipment or system will be adversely affected by the foundation, supports, or any other characteristic of the installation.

**§801.12 Design requirements incorporated by reference.**

(a) *Moisture meters.* All moisture meters approved for use in official grain moisture determination and certification shall meet applicable requirements contained in the FGIS Moisture Handbook and the General Code and Grain Moisture Meters Code of the 1991 edition of the National Institute of Standards and Technology's (NIST) Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices." Pursuant to the provisions of 5 U.S.C. 552(a), the materials in Handbook 44 are incorporated by reference as they exist on the date of approval and a notice of any change in these materials will be published in the FEDERAL REGISTER.

The NIST Handbook is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20403. It is also available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

The following Handbook 44 requirements are not incorporated by reference:

- General Code (1.10.)*
  - G-S.5.5. Money Values, Mathematical Agreement
  - G-T.1. Acceptance Tolerances
  - G-UR.3.3. Position of Equipment
  - G-UR.3.4. Responsibility, Money-Operated Devices
- Grain Moisture Meters (5.56.)*
  - N.1.1. Transfer Standards
  - N.1.2. Minimum Test
  - N.1.3. Temperature Measuring Equipment