Chapter ATCP 92

WEIGHING AND MEASURING DEVICES

Note: Chapters Ag 51, 52, 115 and 120 as they existed on December 31, 1991 were repealed and a new chapter ATCP 92 was created effective January 1, 1992; Chapter Ag 52 was renumbered chapter ATCP 92 under s. 13.93 (2m) (b) 1., Stats., Register, April, 1993, No. 448.

ATCP 92.01 Definitions. In this chapter:

(1) "Computer head" means that portion of a motor fuel measuring device which automatically indicates the volume of fuel delivered and, at the applicable unit price, the total sale price of the motor fuel measured and delivered. This subsection does not apply after December 31, 1998.

(2) "Construction plan" means a set of detailed blueprints for the construction of a vehicle or livestock scale, including the construction of any scale pit, footings, base slabs, piers, end walls and approaches.

(3) "Department" means the state of Wisconsin department of agriculture, trade and consumer protection.

(4) "Livestock scale" means a scale designed to weigh livestock, but does not include a scale which is designed to weigh only one animal at a time.

(5) "Load receiving element" means that portion of a scale, such as a scale platform or deck, which receives the load to be weighed.

(6) "Motor fuel" means liquid used as fuel for internal combustion engines. This subsection does not apply after December 31, 1998.

(7) "Motor fuel half–pricing" means a method of computing the total selling price of motor fuel by setting the price per gallon on a motor fuel measuring device at one–half the per gallon selling price and, upon completion of delivery, multiplying the money amount of the total sale shown on the motor fuel measuring device by 2 in order to establish the total delivered price to be paid. This subsection does not apply after December 31, 1998.

(8) "Motor fuel measuring device" or "pump" means a device which measures and delivers motor fuel by definite volume and indicates automatically, at the applicable unit price, the total sale price of the motor fuel measured and delivered. This subsection does not apply after December 31, 1998.

(9) "Penny wheel conversion device" means any device used to modify the money value price computing range, in cents, of the right hand or penny wheel of a computer head to enable the motor fuel measuring device to compute and show in dollars and cents the full sale price of delivered quantities of motor fuel when the unit price exceeds $0.999 per gallon. "Penny wheel conversion device" includes adhesive conversion strips applied to the existing wheel, permanently imprinted substitute wheels, or any other devices used to modify money value graduations in cents per revolution of the penny wheel. This subsection does not apply after December 31, 1998.

(10) "Person" means an individual, corporation, partnership firm or association.

(11) "Pit neck" means that part of a scale pit, usually an extension of a scale pit wall, which encloses the end of the transverse lever of a lever–type weighing element, and which supports the indicating element.

(11m) "Portable vehicle scale" means any self–contained vehicle scale that is all of the following:

(a) Designed and engineered by the original manufacturer to measure weight accurately when used without a permanent concrete foundation or approach ramp.

(b) Equipped with lifting and positioning mechanisms that are built into the structure of the scale frame.

(c) Designed for use with approach bulkheads.

(d) Readily movable between job sites.

(12) "Retail" or "retail sale" means the sale of motor fuel directly to the consumer for use other than resale or further manufacturing or processing. This subsection does not apply after December 31, 1998.

(13) "Scale service company" means a person engaged in the business of selling, servicing or installing scales.

(14) "Vehicle scale" means a scale designed to weigh loaded or unloaded highway, farm or industrial vehicles, and includes above–ground scales, dump scales and portable scales.

(15) "Weighing element" means that portion of a scale that supports the load–receiving element and transmits to the indicating element a signal or force resulting from the load applied to the load–receiving element.

History: Cr. Register, December, 1991, No. 432, eff. 1–1–92; cr. (11m), am. (14), Register, December, 1995, No. 480, eff. 1–1–96.

ATCP 92.02 Weighing and measuring devices; general requirements. (1) Except as provided in this chapter, commercial weighing and measuring devices shall comply with the specifications, tolerances and other technical requirements set forth in the current edition of the National Institute of Standards and Technology Handbook 44 (Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices).

Note: See s. 98.03(2), Stats. The current edition of the National Institute of Standards and Technology Handbook 44 (Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices) is on file with the department, the secretary of state and the revisor of statutes. Copies may be purchased from the U.S. government printing office, Washington DC 20402–9325.

(2) Except as provided under sub. (3), no person may sell, offer for sale, use or distribute for use in this state a commercial weighing or measuring device unless that device is a type or model which the chief of the office of weights and measures of the national institute of standards and technology has certified as being in compliance with applicable standards set forth in the National Institute of Standards and Technology Handbook 44 (Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices).

(3) Subsection (2) does not apply to any of the following:

(a) A commercial weighing or measuring device that is first put into use in this state before January 1, 1997.

(b) A commercial weighing or measuring device that is designed, built or customized for a specific application at a single location.

(c) A commercial weighing or measuring device for which the national institute of standards and technology has yet to adopt testing and certification procedures, provided that the department authorizes the sale and use of that device in this state. A person

seeking department authorization shall apply to the department in writing. The application shall include relevant engineering and use specifications for the device, and shall document that the national institute of standards and technology has yet to adopt testing and certification procedures for that device. The department shall grant or deny authorization within 30 days after the department receives a complete application, including any supplementary information requested by the department.

(4) A commercial weighing or measuring device is no longer considered a type or model certified under sub. (2) if any of the following applies:

(a) Parts or components of a type specifically certified under sub. (2) are replaced with parts or components not certified under sub. (2).

(b) The device is repaired or remanufactured with parts or components that are inconsistent with the manufacturer's metrological design.

(c) The repair or remanufacture of the device causes the device to be in violation of any applicable standard under sub. (1).

(5) No person may misrepresent that a weighing or measuring device is a type or model certified under sub. (2).

History: Cr. Register, December, 1991, No. 432, eff. 1–1–92; renum. (into.) to (1), cr. (2) to (5), Register, December, 1995, No. 480, eff. 1–1–96.

ATCP 92.03 Vehicle and livestock scales. (1) PERMIT REQUIRED. No person may install or relocate a vehicle or livestock scale without a permit from the department. A permit application shall be made in writing on a form provided by the department, and shall include a construction plan. The application and construction plan shall document that the scale complies with the construction standards under sub. (3). The department shall grant or deny a permit application within 20 business days after a complete application and construction plan are filed with the department.

(2) CONSTRUCTION PLAN. Instead of filing a separate construction plan with each permit application under sub. (1), an applicant may file a master construction plan which applies to 2 or more applications, and may refer to that master plan in each individual application. If a proposed installation or relocation entails any deviation from the master plan, the individual permit application shall clearly describe every deviation.

(3) CONSTRUCTION STANDARDS. Except as provided under sub. (6) or (8), every vehicle scale and every livestock scale shall comply with the following construction standards:

(a) *Load–bearing piers.* The main load–bearing piers supporting a scale shall be constructed of reinforced concrete. The main load–bearing piers shall be poured so that they are monolithic with the scale walls, or shall be tied to the walls with 1/2 inch (1.2 cm) reinforcing rods.

(b) *Scale walls.* 1. The walls of every scale shall be constructed of reinforced concrete. The side walls of every scale, other than a livestock scale constructed prior to January 1, 1992, shall be not less than 12 inches (30 cm) thick. The end walls of every scale shall be not less than 16 inches (40 cm) thick, except that end walls of a livestock scale or above–ground scale shall be not less than 12 inches thick.

2. Throughout every scale wall, 1/2 inch (1.2 cm) reinforcing rods shall be placed vertically on no more than 12 inch (30 cm) centers, and horizontally on no more than 18 inch (45 cm) centers.

3. A vehicle scale end wall, if poured with seams or joints, shall be constructed with a step at the outer edge to provide support for the vehicle approach slab unless the approach slab consists of reinforced concrete which is poured monolithically with the end wall and joined to the end wall with reinforcing rods. The step shall extend for the entire length of the end wall, and shall be at least 6 inches (15 cm) wide and 6 inches (15 cm) deep.

(c) *Foundations.* 1. Load–bearing piers and scale walls shall rest on reinforced concrete footings which extend at least 12 inches (30 cm) below the frost line, or on a reinforced concrete base slab not less than 12 inches (30 cm) thick. Footings and slabs which support load–bearing piers or scale walls shall be constructed according to the manufacturer's engineering drawings, and shall be constructed to prevent frost heaving.

2. Scale pit floors and surfaces underlying above–ground vehicle scales shall be constructed of concrete, and shall be constructed so that they are well drained. The concrete floor or surface shall extend the full length and width of the scale. This subdivision does not apply to above–ground scales constructed prior to January 1, 1992.

3. A load–bearing concrete surface underlying an above–ground vehicle scale shall rest on a bed of compacted aggregate which is at least 6 inches (15 cm) thick under every portion of the load–bearing concrete surface, or on an alternative foundation constructed according to the manufacturer's engineering drawings. This subdivision does not apply to above–ground scales installed prior to January 1, 1992.

(d) *Top edge of scale wall.* The top inside edge of every scale wall shall be framed, for its entire length, with a structural steel angle iron coping. The angle iron shall be at least 2 inches (5 cm) by 2 inches (5 cm) by 1/4 inch (.6 cm), and shall be constructed with welded projections so that it can be anchored in the concrete at approximately 4 foot (1.2 meter) intervals.

(e) *Clearances around scales.* 1. In every scale pit, there shall be a clearance of not less than 6 feet (1.8 meters) between the finished floor line of the scale pit and the top edge of the pit coping, or a clearance of not less than 48 inches (1.2 meters) between the finished floor line of the scale pit and the bottom of the load receiving element, the bottom of the beam supporting the load receiving element, or the top of the fully electronic load receiving element. The clearance between the load receiving element and the coping of every scale pit wall shall be not less than 1/2 inch (1.2 cm) and not more than 3/4 inch (1.8 cm).

2. In every above–ground scale, there shall be a clearance of not less than 6 inches (15 cm) between the top surface of the base slab and the bottom of the load receiving element. This subdivision does not apply to above–ground scales constructed prior to January 1, 1992.

3. In a scale pit containing a lever–type weighing element, there shall be a clearance of at least 27 inches (70 cm) on one side of the transverse lever between the transverse lever and the pit neck wall.

(f) *Mechanical indicating elements; support.* Mechanical indicating elements, including weigh beams and dials, shall be placed on reinforced concrete footings or metal structural members which are sufficiently strong to prevent deflection.

(g) *Scale pit entrance.* Every scale pit shall include an entrance through which persons may enter the scale pit. The entrance shall take one of the following forms:

1. In a scale pit containing a lever–type weighing element, a square opening in the pit neck, with dimensions of at least 22 inches (58 cm) by 22 inches (58 cm).

2. An opening, at least 24 inches (60 cm) in diameter, in the scale platform.

3. An opening in the pit wall, not less than 36 inches (90 cm) wide. The top of the opening shall be no lower than the bottom of the weigh bridge, and the bottom of the opening shall be approximately even with the pit floor.

(h) *Approach surfaces.* Entry and exit approaches to a vehicle scale shall be at least as wide as the scale platform and at least 1/2 the length of the scale platform. Where it meets the end wall of a scale, each approach shall be supported on a step in the top of the end wall as provided under par. (b). Extending for the first 10 feet from the scale, each approach surface shall be on the same plane with the scale platform and shall be constructed of rein-

forced concrete, compacted asphaltic materials, steel grating or structural steel plate of sufficient strength to withstand all loads equal to the concentrated load capacity of the scale. The remainder of the approach surface shall be constructed of a durable material and shall have a slope of not more than 1:12 (vertical rise/horizontal run). The approach shall be constructed and maintained to drain away from the scale, to provide easy vehicle access to the scale, and to provide easy access by the department or a scale service company to test compliance with s. ATCP 92.02(1).

(i) *Livestock scales; test weight unloading platform.* A concrete test weight unloading platform shall be constructed and maintained next to every livestock scale. The test weight unloading platform shall be at least 10 feet (3 meters) long and 8 feet (2.4 meters) wide. The test weight unloading platform shall be on the same level and plane as the scale platform. The test weight unloading platform shall be situated so that a test truck can easily lower test weights onto the test weight unloading platform, and so that test weights can easily be moved from the test weight unloading platform to the scale platform.

(4) TOLERANCES. Vehicle and livestock scales installed or relocated under sub. (1) shall comply with acceptance tolerances under s. ATCP 92.02 throughout the period starting with the first date of use and ending 90 days after the department first receives notice under sub. (5) that the scale is in use. After that initial period, the scale shall comply with applicable tolerances under s. ATCP 92.02.

(5) REPORT OF INSTALLATION OR RELOCATION. If a person installs or relocates a vehicle or livestock scale, that person shall report the completed installation or relocation to the department within 5 days after the installation or relocation is completed. The report shall be filed in writing and shall include all of the following:

(a) The department permit number for the scale installation or relocation permit issued under sub. (1).

(b) The date of installation or relocation, and the location at which the scale was installed or to which the scale was relocated.

(c) The name of the scale manufacturer, the brand name of the scale, and the model or serial number of the scale.

(d) The capacity of the scale.

(e) The sectional capacity of the scale if the scale was constructed before January 1, 1989, or the concentrated load capacity of the scale if the scale was manufactured on or after January 1, 1989.

(f) A scale test report showing that the scale was tested and correct before it was put into use. The scale test shall comply with s. 98.25, Stats.

(g) A statement indicating whether the scale was sold in connection with the installation or relocation. If the scale was sold, the report shall include the name and address of the buyer and seller, and shall indicate the date of sale.

(6) PERMIT AUTHORIZING CONSTRUCTION VARIANCES. The department may, in its sole discretion, grant a variance from a construction requirement under sub. (3) if the department determines that the variance is justified by special circumstances. A person requesting a variance under this subsection shall submit an application and specific justification to the department in writing. The department may impose any conditions on the variance, including alternative construction requirements, which it considers necessary.

(7) REJECTION NOTICE. A department weights and measures inspector or a municipal weights and measures sealer may issue a rejection notice under s. 98.05 (2), Stats., prohibiting the commercial use of a vehicle or livestock scale which does not comply with this section.

(8) EXEMPTIONS. Subsections (1) to (7) do not apply to any of the following:

(a) A vehicle scale that is used for less than one year at the same location.

(b) Portable vehicle scales installed with all of the following:

1. Durable load bearing foundations that comply with the vehicle scale manufacturer's engineering drawings and specifications.

2. Durable vehicle approaches that provide adequate drainage away from the scale and easy access for the department or a scale service company to test compliance with s. ATCP 92.02(1).

3. Durable approach bulkheads that provide a barrier between the scale's weighing element, approach material and run off.

(c) A vehicle scale used exclusively for highway construction if that use is supervised by the state of Wisconsin department of transportation.

Note: Scales identified under sub. (8) are not exempt from s. ATCP 92.02, from licensing requirements under s. 98.16, Stats., or from the annual testing requirement under s. 98.25, Stats.

History: Cr. Register, December, 1991, No. 432, eff. 1–1–92; am. (1), (3) (h) 3., (c) 1. and 3., (e) 1. and 3., and (h), r. and recr. (8), Register, December, 1995, No. 480, eff. 1–1–96.

ATCP 92.04 Retail motor fuel measuring devices. (1) PENNYWHEEL CONVERSION DEVICES. (a) *Use authorized.* Pennywheel conversion devices may be used to indicate the delivered price of motor fuel on retail pumps which are not equipped with computer heads capable of computing and showing total delivered sale prices for motor fuel when the unit price exceeds $0.999 per gallon.

(b) *Graduations and numerals.* The graduations and numerals on a penny wheel conversion device shall be uniformly spaced, printed in contrasting colors which are clear and legible, and positioned on the penny wheel so that the zero indicator is in perfect alignment with zero indicators on the original equipment.

(c) *Installation.* A penny wheel conversion device shall be permanently installed on the penny wheel according to the manufacturer's instructions. The penny wheel conversion device shall be installed so that when the pump is reset to zero or deliveries are made, the consumer can readily determine the zero setting and total selling price of the delivered volume of motor fuel.

(d) *Price increments.* Penny wheel conversion devices designed to increase the price computing range of the penny wheel up to one dollar before returning to zero shall be graduated in increments of zero to 99 cents, with the decimal point on the total sale indicator panel being moved one place to the right to show the total delivered price in dollars and cents. Numbered increments shall be printed in multiples of 5 cents.

(e) *Accuracy.* The graduations of a penny wheel conversion device, when installed, shall be in mathematical agreement, within a tolerance of 2 cents, with the delivered quantity indication multiplied by the price per gallon.

(2) REMOTE CONSOLES. If a remote console readout is used in connection with a penny wheel conversion device installed on a motor fuel retail pump, the remote console shall not be used to determine the selling price. The total selling price and amount charged the consumer shall be determined by the amount computed on the pump display panel.

(3) MOTOR FUEL HALF–PRICING. Motor fuel half–pricing may be used to determine the delivered price of motor fuel on retail pumps which are not equipped with computer heads capable of computing and showing total delivered sale prices when the unit price exceeds $0.999 per gallon. When half–pricing is used, labels having figures or letters the same size as existing figures shall be affixed to the face of the motor fuel pump as follows:

(a) *Cents per 1/2 gallon.* A label which reads "cents per 1/2 gallon" shall be placed immediately beneath the unit price indication.

(b) *Full unit price per gallon.* A label indicating the full unit price per gallon shall be placed immediately beneath or adjacent to the "cents per 1/2 gallon" label under par. (a).

(c) *One–half total sale.* A label which reads "1/2 total sale" shall be placed immediately beneath the total price display.

(4) SUNSET DATE. This section does not apply after December 31, 1998.

History: Cr. Register, December, 1991, No. 432, eff. 1–1–92.

ATCP 92.05 Liquefied petroleum gas. (1) THERMOMETER AND THERMOMETER WELL SPECIFICATIONS. (a) Every meter used for the liquid measurement of liquefied petroleum gas sold or delivered to consumers shall be equipped with a thermometer well. The well shall extend into the flowing liquid either in the liquid chamber of the meter or in the meter inlet or discharge line immediately adjacent to the meter.

(b) The thermometer well shall be constructed so as to permit insertion of a mercury in glass Fahrenheit thermometer which has one–degree graduations, spaced at least 0.04 inch apart.

(2) MANUAL VOLUME CORRECTION. (a) When liquefied petroleum gas is sold or delivered to consumers by liquid measurement through use of a liquid meter that is not equipped with an automatic temperature compensating mechanism, then its volume shall be corrected to a temperature of 60° F. through use of the volume correction factor table set forth in par. (b). To correct measured volume to volume at 60° F., determine the temperature of the liquid after midpoint in the delivery from the thermometer referred to in sub. (1) find the observed temperature in the temperature column in the table, refer to the appropriate column for the product delivered, read the volume conversion factor opposite the observed temperature, and multiply the volume delivered as indicated by the meter by the factor to obtain the volume at 60° F.

(b) *Volume*correction factor table.

Temperature	Propane	Butane
–20	1.115	1.080
–19	1.113	1.079
–18	1.112	1.078
–17	1.111	1.077
–16	1.110	1.076
–15	1.109	1.075
–14	1.108	1.074
–13	1.107	1.073
–12	1.105	1.072
–11	1.103	1.071
–10	1.102	1.071
–9	1.101	1.070
–8	1.100	1.069
–7	1.098	1.068
–6	1.096	1.067
–5	1.094	1.066
–4	1.092	1.065
–3	1.091	1.065
–2	1.090	1.064
–1	1.089	1.063
0	1.088	1.062
1	1.087	1.061
2	1.086	1.060
3	1.084	1.059
4	1.083	1.058
5	1.081	1.057
6	1.080	1.055
7	1.079	1.054
8	1.078	1.053
9	1.076	1.052
10	1.075	1.051
11	1.073	1.050
12	1.072	1.049
13	1.071	1.048
14	1.070	1.047
15	1.068	1.046
16	1.067	1.045
17	1.066	1.044
18	1.065	1.043
19	1.063	1.042
20	1.062	1.041
21	1.060	1.040
22	1.059	1.039
23	1.057	1.038
24	1.056	1.037
25	1.054	1.036
26	1.053	1.036
27	1.051	1.035
28	1.050	1.034
29	1.048	1.033
30	1.047	1.032
31	1.045	1.031
32	1.044	1.030
33	1.042	1.029
34	1.041	1.028
35	1.039	1.026
36	1.038	1.025
37	1.036	1.024
38	1.035	1.023
39	1.033	1.022
40	1.032	1.021
41	1.030	1.020
42	1.029	1.019
43	1.027	1.018
44	1.026	1.017
45	1.024	1.016
46	1.022	1.015
47	1.020	1.014
48	1.019	1.013
49	1.017	1.012
50	1.016	1.011
51	1.014	1.010
52	1.013	1.009
53	1.011	1.007
54	1.010	1.006
55	1.008	1.005
56	1.007	1.004
57	1.005	1.003
58	1.003	1.002
59	1.001	1.001
60	1.000	1.000
61	.998	.999
62	.997	.998
63	.995	.997
64	.993	.996
65	.991	.994
66	.990	.993

Temperature	Propane	Butane
67	.988	.992
68	.986	.991
69	.984	.990
70	.983	.989
71	.981	.988
72	.980	.987
73	.978	.986
74	.976	.985
75	.974	.983
76	.973	.982
77	.971	.981
78	.970	.980
79	.968	.979
80	.967	.978
81	.965	.977
82	.963	.976
83	.961	.975
84	.959	.974
85	.957	.972
86	.956	.971
87	.954	.970
88	.952	.969
89	.950	.968
90	.949	.967
91	.947	.966
92	.945	.965
93	.943	.963
94	.941	.962
95	.939	.961
96	.938	.960
97	.936	.958
98	.934	.957
99	.932	.956
100	.930	.955

(3) SALES TICKETS. (a) When delivery of liquefied petroleum gas is made through a liquid meter equipped with an automatic temperature compensating mechanism, the word "gallon"or any abbreviation thereof shall not appear alone on the sales ticket but shall be immediately preceded or followed by the words"automatically corrected to 60° F." in the same size and style of type.

(b) When delivery of liquefied petroleum gas is made through a liquid meter not equipped with an automatic temperature compensating mechanism, the sales ticket shall show the delivered gallons, the temperature of the liquid at the time of delivery, the volume correction factor, and the corrected gallonage. Wherever a statement of corrected gallonage appears on the sales ticket the words "corrected to 60° F."shall appear immediately adjacent thereto.

(4) EXCEPTION. This section shall not apply to unit sales or deliveries made direct to mobile fuel tanks consisting of less than 100 gallons.

History: Cr. Register, March, 1960, No. 51, eff. 4–1–60; renum. from Ag 115.01 to 115.04 and am. (2) (a) and (4), Register, December, 1991, No. 432, eff. 1–1–92.