

**Chapter 16-659 WAC**  
**WEIGHTS AND MEASURES—LIQUEFIED PETROLEUM GAS**

Last Update: 6/15/98

**WAC**

16-659-002 Purpose.  
16-659-010 Liquefied petroleum gas.

**DISPOSITION OF SECTIONS FORMERLY CODIFIED IN THIS CHAPTER**

16-659-001 Promulgation. [Order 1142, § 16-659-001, filed 2/27/70, effective 4/1/70; Order 1103, § 16-659-001, filed 12/23/68, effective 2/1/69; Order 1036, filed 11/14/66, effective 12/15/66.] Repealed by WSR 98-13-073, filed 6/15/98, effective 7/16/98. Statutory Authority: RCW 19.94.340 and [19.94].390.

**WAC 16-659-002 Purpose.** The department of agriculture promulgates this chapter to implement the provisions of RCW 19.94.340. The provisions allow the director to issue reasonable rules as necessary to assure that the amounts of commodities sold are determined in accordance with good commercial practice and are determined and represented to be accurate and informative to all interested parties.

[Statutory Authority: RCW 19.94.340 and [19.94].390. WSR 98-13-073, § 16-659-002, filed 6/15/98, effective 7/16/98.]

**WAC 16-659-010 Liquefied petroleum gas.** (1) Liquefied petroleum gas shall be sold or exposed for sale at retail only by avoirdupois weight, specified in pounds; liquid measure, specified in gallons; or vapor, specified in cubic feet.

(2) When sold by weight or by liquid measure or in units of cubic feet, it shall be dispensed and sold only by the use of such devices that conform to the requirements set forth in *National Institute of Standards and Technology Handbook 44*, edition specified in chapter 16-662 WAC.

(3) Liquefied petroleum gas sold or delivered to a consumer by liquid measure shall be corrected to a temperature of 60 F with an automatic correction device, or the quantity delivered shall be corrected to a temperature of 60 F in accordance with the volume correction factor table for liquefied petroleum gases set forth in subsection (6) of this chapter. When the delivery is made through a meter automatically corrected for temperature, the retail sales ticket shall show the meter adjusted gallons delivered and state that the temperature correction was made automatically. When the delivery is made through a meter not corrected automatically, the retail sales ticket shall show the metered gallons delivered and the temperature of the liquid at the time of delivery, the volume correction factor and the corrected gallonage: Provided, That this section shall be applicable to new equipment, equipment that has changed ownership or equipment used in the state of Washington for the first time after the effective date of this section. This subsection shall be applicable to all other equipment and with respect to the manual issuances of sales tickets as of January 1, 1969. This subsection shall not apply to unit sales or deliveries made direct to fuel tanks on trucks and automobiles operated on highways, or to containers of less than 200 pound water capacity.

(4) If a device is equipped with an automatic temperature compensator, this shall be connected, operable, and used at all times. Such automatic temperature compensator may not be removed, nor may a compensated device be replaced with an uncompensated device, without the

written approval of the weights and measures authority having jurisdiction over the device. Nothing in this subsection shall prohibit the removal of a meter or temperature compensator for repair providing notice of such removal for repair shall be given the weights and measures office in Olympia within three working days.

(5) (a) Containers, including I.C.C. cylinders, with water capacity less than 200 pounds, shall be charged and sold by weight or by metered measure, except containers excluded by law or regulation. The tare weight of the container and the net weight of the contents shall be plainly and conspicuously marked on the outside of the container or on a label firmly attached thereto. This subsection shall not be construed to require the net weight to be labeled on a container that is being filled at the time of sale. Tare weight shall not be construed to include the valve protecting cap which shall be removed when weighing. When liquefied petroleum gas is sold by refilling of a container the vendor shall give the purchaser full credit for the unused liquid remaining in the container being refilled. When liquefied petroleum gas is sold by an exchange of containers the vendor shall specify conspicuously on a label firmly attached to the container the following: Tare weight of the container, the net weight of the contents and the name and address of the facility where the tank was filled. The address shall include the street address, city, state and zip code. Tare weight shall not be construed to include the valve protecting cap. The cap shall be removed when weighing.

(b) A delivery ticket shall be issued at the time of filling and shall set forth the exact amount of liquefied petroleum gas dispensed in terms of weight or if converted to gallons the weight factor used in such conversion. Any service charge shall be shown separately on the delivery ticket but may be included in the total price.

(c) When sold by weight, the tare weight, any unused portion and/or the net weight shall be determined only on devices that are adequately protected from wind and weather conditions that will assure normal accuracy.

(6) Volume correction factor table.

Specific Gravity at 60 F/60 F

[CODIFICATION NOTE: THE GRAPHIC PRESENTATION OF THESE TABLES HAS BEEN VARIED SLIGHTLY IN ORDER THAT THEY WOULD FALL WITHIN THE PRINTING SPECIFICATIONS FOR THE WASHINGTON ADMINISTRATIVE CODE. THE FOLLOWING TABLE WAS TOO WIDE TO BE ACCOMMODATED IN THE WIDTH OF THE WAC COLUMN. THE TABLE AS CODIFIED HAS BEEN DIVIDED INTO TWO TABLES COVERING THE "SPECIFIC GRAVITY AT 60 F/60 F." PART ONE IS FOR 0.500, 0.5079, 0.510, 0.520, 0.530, AND 0.540. PART TWO IS FOR 0.550, 0.560, 0.5631, 0.570, 0.580, AND 0.5844.]

[PART 1—0.500, 0.5079, etc.]

Degrees Fahr	Propane					
	0.500	0.5079	0.510	0.520	0.530	0.540
VOLUME CORRECTION FACTORS						
-15	1.112	1.109	1.107	1.102	1.097	1.093
-10	1.105	1.102	1.100	1.095	1.091	1.087
- 5	1.098	1.094	1.094	1.078	1.085	1.081
0	1.092	1.088	1.088	1.084	1.080	1.076
2	1.089	1.086	1.085	1.081	1.077	1.074
4	1.086	1.083	1.082	1.079	1.075	1.071
6	1.084	1.080	1.080	1.076	1.072	1.069
8	1.081	1.078	1.077	1.074	1.070	1.066
10	1.078	1.075	1.074	1.071	1.067	1.064
12	1.075	1.072	1.071	1.068	1.064	1.061

Degrees Fahr	0.500	Propane 0.5079	0.510	0.520	0.530	0.540
VOLUME CORRECTION FACTORS						
14	1.072	1.070	1.069	1.066	1.062	1.059
16	1.070	1.067	1.066	1.063	1.060	1.056
18	1.067	1.065	1.064	1.061	1.057	1.054
20	1.064	1.062	1.061	1.058	1.054	1.051
22	1.061	1.059	1.058	1.055	1.052	1.049
24	1.058	1.056	1.055	1.052	1.049	1.046
26	1.055	1.053	1.052	1.049	1.047	1.044
28	1.052	1.050	1.049	1.047	1.044	1.041
30	1.049	1.047	1.046	1.044	1.041	1.039
32	1.046	1.044	1.043	1.041	1.038	1.036
34	1.043	1.041	1.040	1.038	1.036	1.034
36	1.039	1.038	1.037	1.035	1.033	1.031
38	1.036	1.035	1.034	1.032	1.031	1.029
40	1.033	1.032	1.031	1.029	1.028	1.026
42	1.030	1.029	1.028	1.026	1.025	1.023
44	1.027	1.026	1.025	1.023	1.022	1.021
46	1.023	1.022	1.022	1.021	1.020	1.018
48	1.020	1.019	1.019	1.018	1.017	1.016
50	1.017	1.016	1.016	1.015	1.014	1.013
52	1.014	1.013	1.012	1.012	1.011	1.010
54	1.010	1.010	1.009	1.009	1.008	1.007
56	1.007	1.007	1.006	1.006	1.005	1.005
58	1.003	1.003	1.003	1.003	1.003	1.002
60	1.000	1.000	1.000	1.000	1.000	1.000
62	0.997	0.997	0.997	0.997	0.997	0.997
64	0.993	0.993	0.994	0.994	0.994	0.994
66	0.991	0.990	0.990	0.990	0.991	0.992
68	0.986	0.986	0.987	0.987	0.988	0.989
70	0.983	0.983	0.984	0.984	0.985	0.986
72	0.979	0.980	0.981	0.981	0.982	0.983
74	0.976	0.975	0.977	0.978	0.980	0.980
76	0.972	0.973	0.974	0.975	0.977	0.978
78	0.969	0.970	0.970	0.972	0.974	0.975
80	0.965	0.966	0.967	0.969	0.971	0.972
82	0.961	0.963	0.963	0.966	0.968	0.969
84	0.957	0.959	0.960	0.962	0.965	0.966
86	0.954	0.956	0.956	0.959	0.961	0.964
88	0.950	0.952	0.953	0.955	0.958	0.961
90	0.946	0.949	0.949	0.952	0.955	0.958
92	0.942	0.945	0.946	0.949	0.952	0.955
94	0.938	0.941	0.942	0.946	0.949	0.952
96	0.935	0.938	0.939	0.942	0.946	0.949
98	0.931	0.934	0.935	0.939	0.943	0.946
100	0.927	0.930	0.932	0.936	0.940	0.943
105	0.918	0.920	0.923	0.927	0.932	0.935
110	0.907	0.911	0.913	0.918	0.923	0.927
115	0.897	0.901	0.904	0.910	0.915	0.920
120	0.887	0.892	0.894	0.900	0.907	0.912

To convert from measured volume at another temperature to net volume at 60°F: Measure the volume and temperature. Determine the gravity at 60°F. Refer to the column corresponding to this gravity and read the

volume conversion factor opposite the observed temperature. Multiply the observed volume by this factor to obtain the volume at 60°F.

[PART 2—0.550, 0.560, etc.]

Degrees Fahr	iso-Butane					N-Butane
	0.550	0.560	0.5631	0.570	0.580	0.5844
VOLUME CORRECTION FACTORS						
-15	1.089	1.084	1.083	1.080	1.077	1.075
-10	1.083	1.079	1.078	1.075	1.072	1.071
- 5	1.077	1.074	1.073	1.070	1.067	1.060
0	1.073	1.069	1.068	1.066	1.063	1.062
2	1.070	1.067	1.066	1.064	1.061	1.060
4	1.068	1.065	1.064	1.062	1.059	1.058
6	1.065	1.062	1.061	1.059	1.057	1.055
8	1.063	1.060	1.059	1.057	1.055	1.059
10	1.061	1.058	1.057	1.055	1.053	1.051
12	1.059	1.056	1.055	1.053	1.051	1.049
14	1.056	1.053	1.053	1.051	1.049	1.047
16	1.054	1.051	1.050	1.048	1.046	1.045
18	1.051	1.049	1.048	1.046	1.044	1.043
20	1.049	1.046	1.046	1.044	1.042	1.041
22	1.046	1.044	1.044	1.042	1.040	1.040
24	1.044	1.042	1.042	1.040	1.038	1.037
26	1.042	1.039	1.039	1.037	1.036	1.036
28	1.039	1.037	1.037	1.035	1.034	1.034
30	1.037	1.035	1.035	1.033	1.032	1.032
32	1.035	1.033	1.033	1.031	1.030	1.030
34	1.032	1.031	1.030	1.029	1.028	1.028
36	1.030	1.028	1.028	1.027	1.025	1.025
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40	1.025	1.024	1.023	1.023	1.021	1.021
42	1.023	1.022	1.021	1.021	1.019	1.019
44	1.020	1.019	1.019	1.018	1.017	1.017
46	1.018	1.017	1.016	1.016	1.015	1.015
48	1.015	1.014	1.014	1.013	1.013	1.016
50	1.013	1.012	1.012	1.011	1.011	1.011
52	1.101	1.009	1.009	1.009	1.009	1.009
54	1.007	1.007	1.007	1.007	1.006	1.006
56	1.005	1.005	1.005	1.005	1.004	1.004
58	1.002	1.002	1.002	1.002	1.002	1.002
60	1.000	1.000	1.000	1.000	1.000	1.000
62	0.997	0.998	0.998	0.998	0.998	0.998
64	0.995	0.995	0.995	0.995	0.996	0.996
66	0.992	0.993	0.993	0.993	0.993	0.993
68	0.990	0.990	0.990	0.990	0.991	0.991
70	0.987	0.988	0.988	0.988	0.989	0.989
72	0.984	0.985	0.986	0.986	0.987	0.987
74	0.982	0.983	0.983	0.984	0.985	0.985
76	0.979	0.980	0.981	0.981	0.982	0.982
78	0.977	0.978	0.978	0.979	0.980	0.980
80	0.974	0.975	0.976	0.977	0.978	0.978
82	0.971	0.972	0.973	0.974	0.976	0.976
84	0.968	0.970	0.971	0.972	0.974	0.974
86	0.966	0.967	0.968	0.969	0.972	0.972
88	0.963	0.965	0.966	0.967	0.969	0.969
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94	0.954	0.957	0.958	0.959	0.962	0.962
96	0.952	0.954	0.955	0.957	0.959	0.960
98	0.949	0.952	0.953	0.954	0.957	0.957
100	0.946	0.949	0.950	0.952	0.954	0.955
105	0.939	0.943	0.943	0.946	0.949	0.949
110	0.932	0.936	0.937	0.939	0.943	0.944
115	0.925	0.930	0.930	0.933	0.937	0.938
120	0.918	0.923	0.924	0.927	0.931	0.932

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**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.