References


5 Regulation (EU) No 517/2014, Article 15 and Annex V.


7 Regulation (EU) No 517/2014, Annex V.

8 Regulation (EU) No 517/2014, Annex V.


12 Compare Regulation (EU) No 517/2014, Article 2(1) and (2) with Regulation (EU) No 517/2014, Annex I and II.


16 Regulation (EU) No 517/2014, Article 15(2)(c); see also Impact Assessment, p. 155 (“exporters of EU-produced products or equipment containing HFCs face a certain competitive disadvantage since the HFC needed for their products is included in the scope of a phasedown scheme”).


20 Preparatory Study, Annexes III and V; see also Impact Assessment, pp. 156-162.

21 See Preparatory Study, Annexes III and V.


23 Preparatory Study, Annex V, p. 247. Note: Maximum penetration rates were assigned for various low-GWP technologies for the years 2015, 2020 and 2030. These include cascade systems relying on a combination of hydrocarbons, CO2 or HFC-1234yf as well as transcritical CO2 systems. Together, those low-GWP technologies were projected to be able to satisfy 45% of demand for new installations in the EU in 2015, and 125% and 310% of demand for new installations in the EU in 2020 and 2030, respectively. Assuming linear growth in the market penetration of low-GWP technologies between 2015 and 2020, the earliest date for which a ban could have been adopted in this sector is 2019 and, for this reason, the Preparatory Study therefore recommended banning all new systems with a GWP of 150 or more from 2020 onwards. See Impact Assessment, p. 115.


See Preparatory Study, Annexes III and V.


Impact Assessment, p. 159

Preparatory Study, pp. 120-123; Impact Assessment, p. 208.

See Preparatory Study, pp. 50-58.

Regulation (EU) No 517/2014, Article 14; see also European Commission, Non-Paper on F-Gas Regulation Review: Covering HFCs Imported in Equipment in the Context of the HFC Phase-Down (undated) (11% in 2013 increasing to 18% in 2030); European Commission, Update of Non-Paper: Covering HFCs Imported in Equipment in the Context of an HFC Phase-Down (undated).


Regulation (EU) No 517/2014, Annex V.

Winfried Schwartz, Extra Note on HFCs with Very High-GWP in the Current F-Gas Legislation (6 May 2013), p. 3 (this can be mitigated by the use of recycled and reclaimed HFC-404A, depending on the actual development of a recycling and reclamation market).

Regulation (EU) No 517/2014, Annex V.


Preparatory Study, pp.154-155.

Regulation (EU) No 517/2014, Article 21(5).


Regulation (EU) No 517/2014, Article 16(5).


Regulation (EU) No 517/2014, Article 16(1).

Regulation (EU) No 517/2014, Article 16(2).


Regulation (EU) No 517/2014, Article 15(1).

Regulation (EU) No 517/2014, Article 25(2).

Regulation (EU) No 517/2014, Annex VI.

57 Regulation (EU) No 517/2014, Articles 16(5).
58 Regulation (EU) No 517/2014, Article 16(2).
59 Regulation (EU) No 517/2014, Articles 16(2) and 17.
60 Regulation (EU) No 517/2014, Annex VI.
61 See e.g. Gluckman Consulting, EU F-Gas Regulation Guidance Information Sheet 17: F-Gas Producers, Importers and Exporters (December 2014).
64 Regulation (EU) No 517/2014, Article 18(2).
69 Regulation (EU) No 517/2014, Article 12(9).
75 Regulation (EU) No 517/2014, Article 7(1).
76 Regulation (EU) No 517/2014, Article 7(2).
77 Regulation (EU) No 517/2014, Article 7(2).
78 Regulation (EU) No 517/2014, Article 12(1).
81 Regulation (EU) No 517/2014, Article 12(3).
82 Regulation (EU) No 517/2014, Article 12(3)
84 Regulation (EU) No 517/2014, Article 12(5).
87 Regulation (EU) No 517/2014, Article 12(13).
88 Regulation (EU) No 517/2014, Article 17(1).
95 Impact Assessment, pp. 112-121.
97 Regulation (EU) No 517/2014, Article 3(4)
98 Regulation (EU) No 517/2014, Article 3(1)-(2).
100 Regulation (EU) No 517/2014, Article 4(2).
102 Regulation (EU) No 517/2014, Article 4(2); see also Regulation (EU) No 517/2014, Article 2(11) (“Hermetically sealed equipment” is defined as “equipment in which all fluorinated greenhouse gas containing parts are made tight by welding, brazing or a similar permanent connection, which may include capped valves or capped service ports that allow proper repair or disposal, and which have a tested leakage rate of less than 3 grams per year under a pressure of at least a quarter of the maximum allowable pressure”).
103 Regulation (EU) No 517/2014, Article 4(2); see also Regulation (EU) No 517/2014, Article 2(11) (“Hermetically sealed equipment” is defined as “equipment in which all fluorinated greenhouse gas containing parts are made tight by welding, brazing or a similar permanent connection, which may include capped valves or capped service ports that allow proper repair or disposal, and which have a tested leakage rate of less than 3 grams per year under a pressure of at least a quarter of the maximum allowable pressure”).
104 Regulation (EU) No 517/2014, Article 3(3).
110 Regulation (EU) No 517/2014, Article 13(3); see also Article 11(3).
111 SKM Enviros, p. 61.
112 SKM Enviros, p. 61.
113 Winfried Schwartz, Extra Note on HFCs with Very High-GWP in the Current F-Gas Legislation (6 May 2013), p. 3.
114 Regulation (EU) No 517/2014, Article 8(1).
115 Regulation (EU) No 517/2014, Article 8(1); see also Regulation (EU) No 517/2014, Article 10.
117 Regulation (EU) No 517/2014, Article 10(11).
118 Regulation (EU) No 517/2014, Article 8(3).
119 Regulation (EU) No 517/2014, Article 8(3); see also Article 11(3).
120 Regulation (EU) No 517/2014, Articles 8(3) and 10(5); see also Commission Regulation (EC) No 307/2008.
121 Regulation (EU) No 517/2014, Article 8(2).
122 Regulation (EU) No 517/2014, Article 6(1).
123 Regulation (EU) No 517/2014, Article 6(2).
125 Regulation (EU) No 517/2014, Article 3(1)(general prohibition on intentional releases).
126 Regulation (EU) No 517/2014, Article 8(2).
127 Regulation (EU) No 517/2014, Article 10(11).
128 Regulation (EU) No 517/2014, Article 10(1)-(4).
129 Regulation (EU) No 517/2014, Article 10(2).
130 Regulation (EU) No 517/2014, Article 19(3)(e) and (8).
131 Regulation (EU) No 517/2014, Article 10(9).
134 Regulation (EU) No 517/2014, Article 6(2).
135 Regulation (EU) No 517/2014, Article 6(3).
139 Regulation (EU) No 517/2014, Article 25(1).
140 Regulation (EU) No 517/2014, Article 10(1) and (4).
141 Regulation (EU) No 517/2014, Article 10(5).


146 Regulation (EU) No 517/2014, Article 10(2).


149 Regulation (EU) No 517/2014, Article 10(9).

150 Regulation (EU) No 517/2014, Article 10(1).

151 Regulation (EU) No 517/2014, Article 10(10).

152 Regulation (EU) No 517/2014, Article 9 see also Directive 2012/19/EU.