

**F-Gas Regulation  
T&D Europe**

**Propositions of modifications regarding the 3<sup>rd</sup> draft of Council dated 26 June 2013**

**Brussels, 10 September 2013**

F-Gas Regulation 3 <sup>rd</sup> Council draft	T&D Europe proposition of modification	Comments from T&D Europe
<b>Article 1 Definitions</b>		
<u>12 'equipment <del>sealed upon installation</del> made leak-tight', means equipment in which all parts containing f-gases have been sealed during their manufacturing or during their installation by welding, brazing or a similar permanent connection, but which also include capped valves and capped service ports that allow for proper repair or disposal and which has a tested leakage rate of less than 3 grammes per year under a pressure of a least a quarter of the maximum allowable pressure;</u>	<u>12 'equipment <del>sealed upon installation</del> made leak-tight', means equipment in which all parts containing f-gases have been sealed during their manufacturing or during their installation by welding, brazing or a similar permanent connection, but which also include capped valves and capped service ports that allow for proper repair or disposal and which has a tested leakage rate of less than 0.1% per year at rated pressure</u>	T&D Europe is proposing a ratio in percentage because it is usual for leakage tests. An absolute leakage in mass units will need to define a leakage ratio for each size of equipment or compartment. 0.1% is a ratio defined in international standard IEC EN 62271-1 for permissible leakage rate for "sealed pressure system" switchgear that does not need any refilling during the whole life time (40 years or more).
<u>33 'leakage detection system' means a calibrated mechanical, electrical or electronic device for detecting leakage of fluorinated greenhouse gases, from products or equipment, which upon detection alerts the operator</u>	<u>33 'leakage detection system' means a calibrated mechanical, electrical or electronic device for detecting leakage of fluorinated greenhouse gases, from products or equipment, which upon detection alerts the operator</u>	Calibrated could mean to check periodically the calibration of the device. This is not possible for devices fixed on SF6 electrical switchgear. The calibration needs handling of SF6 with possible emission of gas or removal of the device from the switchgear for external calibration. In the worst case, the switchgear has to be taken out of service (outage of power)
<b>Article 3 Checking for leakage</b>		
<b>Article 3 (1)</b>		
Electrical switchgear with a tested leakage rate of	Electrical switchgear with a tested leakage rate of	Electrical switchgear sector has a very long

<u>less than 0.1% per year shall also not be subject to leak checks under this Article.</u>	less than 0.1% per year or sealed for life electrical switchgear which had been produced in accordance with EN 62271-1 or EN 60694 applicable at date of manufacture shall also not be subject to leak checks under this Article.	tradition in using international and european standards regarding tightness of equipment.
<u>(f) electrical switchgear</u>	(f) electrical switchgear where the gas is not contained in a sealed pressure system according to EN 62271-1 or EN 60694 at date of manufacture	Electrical switchgear sector has a very long tradition in using international and european standards regarding tightness of equipment.

**Article 3 (2)**

<p>The checks pursuant to paragraph 1 shall be carried out with the following frequency:</p> <ul style="list-style-type: none"> <li>(a) equipment that ... every 12 months;</li> <li>(b) equipment that ... every 12 months;</li> <li>(c) equipment that ... every six months</li> </ul>	<p>The checks pursuant to paragraph 1 shall be carried out with the following frequency:</p> <ul style="list-style-type: none"> <li>(a) equipment that ... every 12 months;</li> <li>(b) equipment that ... every 12 months;</li> <li>(c) equipment that ... every six months</li> </ul> <p>For electrical switchgear that contains SF6, checking for leakage is not required, if a leakage detection system is installed.</p>	<p>The purpose of a leakage detection system permanently installed and fixed on equipment is to give an indication, for example of a pressure drop. Then in that case, any additional leakage check will involve costs for no added value. T&amp;D Europe recommends that additional leakage check is not necessary when a permanent leakage detection system is installed on the equipment. Sealed pressure systems (MV) (leakage rate less than 0.1% per year) do not need any refilling during the lifetime (40 years or more). Then no periodical check is necessary. Additionally leakage check with portable device is not possible in MV and HV, as outage of power is required.</p>
<b>Article 4 Leakage detection systems</b>		
<b>Article 4 (1)</b>		
Operators of the equipment referred to in Article 3(1) containing fluorinated greenhouse	Operators of the equipment referred to in Article 3(1) containing fluorinated greenhouse	For electrical switchgear the detection systems are based on densimeters. They are permanently fixed on the equipment. Checking the detection

<p>gases <u>in quantities with a global warming potential</u> equivalent to 500 tonnes CO<sub>2</sub> or more, <u>in terms of global warming potential</u>, shall ensure that, [by 1 January 2017] the equipment is provided with a leakage detection system which alerts the operator of any leakage.</p> <p>Such <del>The</del> leakage detection systems shall be checked at least once every 12 months to ensure <u>their</u>s proper functioning</p>	<p>gases <u>in quantities with a global warming potential</u> equivalent to 500 tonnes CO<sub>2</sub> or more, <u>in terms of global warming potential</u>, shall ensure that, [by 1 January 2017] the equipment is provided with a leakage detection system which alerts the operator of any leakage.</p> <p>Such <del>The</del> leakage detection systems shall be checked at least once every 12 months to ensure <u>their</u>s proper functioning. Leakage detection systems, permanently fixed on electrical switchgear that contains SF6 shall be checked at the same frequency as all other vital parts of the system.</p>	<p>system itself would need to remove it first from the equipment and would provoke additional risk of leakages and emission of gas. Any handling of SF6 should be avoided if not necessary. That is why T&amp;D Europe proposes to check the detection system only when the vital parts (main electrical circuit) are checked,</p>
<p><b>Article 5 Record keeping</b></p>		
<p><b>Article 5 (1) (e)</b></p>		
<p>1. Operators of equipment <u>listed in Article 3(1)</u>, shall for each piece of <u>such</u> equipment ...</p> <p>... the measures taken to recover and dispose of the fluorinated greenhouse gases.</p> <p><del>This paragraph shall apply to operators of electrical switchgear that contains SF<sub>6</sub> and of the equipment referred to in Article 3(2).</del></p>	<p>1. Operators of equipment <u>listed in Article 3(1)</u>, shall for each piece of <u>such</u> equipment ...</p> <p>... the measures taken to recover and dispose of the fluorinated greenhouse gases.</p> <p><b>Only</b> paragraph (g) shall apply to operators of electrical switchgear that contains SF6</p>	<p>A comprehensive record keeping for each piece of equipment for MV and HV switchgear is not realistic and not achieving the objective to measure and reduce SF6 emissions.</p> <p>Paragraph (g) confirms the current reporting procedure for electrical switchgear containing SF6.</p>
<p><b>Article 8 Training and certification</b></p>		
<p><b>Article 8 (1) (a)</b></p>		
<p>Member States shall establish <del>training and</del></p>	<p>Member States shall establish <del>training and</del></p>	<p>Only tasks involving recovery of gas shall be subject to training and certification.</p>

<p>certification programmes <b>as required</b>, including evaluation processes, <del>for the following persons</del> and shall ensure that training is available for <del>the following</del> <b>persons individuals</b> carrying out the following tasks:</p> <p>(a) <del>persons who</del> installation, servicing, maintenance, repair or decommissioning of the equipment listed in the third subparagraph of Article 3(1)</p>	<p>certification programmes <b>as required</b>, including evaluation processes, <del>for the following persons</del> and shall ensure that training is available for <del>the following</del> <b>persons individuals</b> carrying out the following tasks:</p> <p>(a) <del>persons who</del> installation, servicing, maintenance, repair or decommissioning of the equipment listed in the third subparagraph of Article 3(1) insofar as these operations require handling of fluorinated gases.</p>	
<p><b>Article 9 Restrictions on the placing on the market</b></p>		
<p><b>Article 9 (3)</b></p>		
<p>(3) For the purposes of carrying out the activities referred to in Article 8(1) (a) to (c) <del>(d)</del> fluorinated greenhouse gases shall only be sold to and purchased by <del>undertakings and or persons</del> <b>parties</b> that hold the relevant certificates in accordance with Article 8.</p>	<p>Delete</p>	<p>This poses too many restrictions on trading. The question rises how “parties” i.e. trading people should be certified. Also, this is a new term besides “persons” and “undertakings”</p>
<p><b>Article 10 Labelling and product information</b></p>		
<p><b>Article 10 (2) (c)</b></p>		
<p>As of 1 January 2017, the quantity of fluorinated greenhouse gases contained in the product <b>or</b></p>	<p>As of 1 January 2017, the quantity of fluorinated greenhouse gases contained in the product <b>or</b></p>	<p>The designation of CO<sub>2</sub> equ. makes only sense for emissions, not for banked quantities. For</p>

<p><b><u>equipment or the quantity for which the equipment is designed</u></b>, expressed in weight and in CO<sub>2</sub> equivalent <u>and the global warming potential of those gases</u></p>	<p><b><u>equipment or the quantity for which the equipment is designed</u></b>, expressed in weight <del>and in CO<sub>2</sub> equivalent</del> <u>and the global warming potential of those gases</u></p>	<p>electrical switchgear, the international standards IEC EN 62271-200 and -203 prescribe the contents of the label specifying the quantity of SF6. Moreover European labelling Regulation 1494/2007 already exists and is sufficient.</p>
<p><b>Article 10 (4bis)</b></p>		
<p><u>Reclaimed fluorinated greenhouse gases must be labelled with an indication that the substance has been reclaimed and information on the batch number and the name and address of the reclamation facility.</u></p>	<p><u>Reclaimed fluorinated greenhouse gases must be labelled with an indication that the substance has been reclaimed and information on the batch number and the name and address of the reclamation facility.</u> This paragraph does not apply to SF6 for use in electrical switchgear. SF6 for use in electrical switchgear must be labelled with an indication of the International Standard EN 60376 defining the technical grade.</p>	<p>For SF6 in electrical switchgear, the necessary technical grade for use is defined since years in International Standards, with no difference between new or reclaimed gas, or a mixture of them. Labelling of reclaimed SF6 does not bring added value and maybe counterproductive, whereas the proposed additional labelling information would be more useful and practical.</p>
<p><b>Annex VII Data to be reported pursuant to Article 17</b></p>		
<p><b>Annex VII (5)</b></p>		
<p>Each undertaking referred to in Article 17(3) shall report on: (l) [the categories of the products or equipment; (m) the number of units;] (n) any quantities of each substance contained in the products or equipment.</p>	<p>Each undertaking referred to in Article 17(3) shall report on: <del>(l) [the categories of the products or equipment; (m) the number of units;]</del> (n) any quantities of each substance contained in the products or equipment.</p>	<p>For electrical switchgear, the only important information to know is the total quantity of SF6 that is placed on the market.</p>