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## **Eurovent comments to the second Stakeholder meeting on 7 May 2020 and to the Discussion Document for 2nd Stakeholder Meeting (v1.1) on Non-Residential Aspects**

### **Background**

The second Stakeholder meeting on the review of VU Regulation (1253/2014) and VU Energy Labelling Regulation (1254/2014) was held on 7 May 2020. It was preceded by the publication of Discussion Document (v1.1). The document summarized the results of the work for Phase 1 of the Review Study, comprising the Technical Analysis (Phase 1.1) and the update of the Preparatory studies (Phase 1.2).

Eurovent welcomes the tabled proposals for revisions. We believe they bring significant improvements and take into account the suggestions made by stakeholders.

In this paper, Eurovent presents additional comments on Non-Residential aspects to the subjects addressed in the course of stakeholder meeting and to proposals for revisions included in the Discussion Document

### **1. Definition Ventilation Unit (par. 2.1 in the Discussion Document)**

The proposed definition to be used in the revised VU Regulation reads:

*'ventilation units (VU)' means an electricity driven appliance equipped with at least one impeller, one motor and a casing and intended to replace indoor air with outdoor air, when the indoor air is utilized/polluted due to presence of human beings and their use of the building including emissions from building materials, decorative and interior product and equipment.*

In the opinion of Eurovent members, this wording may still rise doubts whether Ventilation Units for both industrial process (main purpose) and human presence air in the scope of the regulation. Thus, we believe this should be put more specific.

To make the definition explicit, we propose to consider the following sentence:

*'ventilation unit' means an electricity driven machine equipped with at least one impeller, one motor and an enclosing casing intended to replace indoor air with outdoor air in indoor spaces intended for human occupancy*

### **2. Clarification toxic environment (par. 2.2)**

The proposed amendment text reads

*'Units exclusively specified as operating in toxic, highly corrosive or flammable environments or environments with abrasive substances' and are exclusively designed for **abstract** of air from such an environment ~~without any purpose of ventilation~~ (e.g. an extract air unit for a laboratory fume hood or a technical extraction system of a machinery).*

Eurovent suggests using word '**extract**' instead of '**abstract**' and delating 'without any purpose of ventilation'.

The justification is that laboratories are sometimes ventilated by extraction of air through a fume cupboard. Purpose here is also ventilation of the occupied laboratory space in which the fume cupboards are located. The extraction then has a double function:

- Extraction of toxic air in the fume cupboard when chemical experiments are conducted.
- Extraction of supplied air in the occupied room where people work.

### 3. AHUs, primarily used for air heating and/or cooling (par. 3.1)

The following text is proposed:

*'This Regulation shall not apply to AHUs that are primarily used for air heating and/or cooling, having also a connection to the outdoor (i.e. a ventilation function) with a supply/exhaust air flow rate in regular heating operation (whenever using heat recovery) below 10% of the total declared air flow rate.'*

Eurovent support this proposal, but we claim that the related comment in the discussion document that may be used in a future FAQ should be amended as follows:

"..maximum outdoor air intake during heating season is always below 10% of the total airflow (recirculation + outdoor) of the unit. ~~In summer season however,~~ Higher outdoor airflows may be used for ventilative free cooling purposes. ..."

This would better clarify that outdoor airflows can only be increased for free cooling, and not only in summer season (free cooling may also be needed during the transitional season).

### 4. VUs exclusively for dehumidification and de-chlorination of spaced (par 3.3)

Eurovent suggestion is to extend the proposed text with a clear statement that swimming pool application are covered the scope of the Regulation.

*'This Regulation shall not apply to ventilation units which are exclusively intended for dehumidification and/or de-chlorination of spaces that are not designed for human occupancy. **This exclusion does not apply to swimming pool applications'***

### 5. UVUs not classified as range hoods but used in commercial kitchen hoods (par. 3.4)

Eurovent reiterates the previous position that both unidirectional and bidirectional ventilation units exclusively designed for the kitchen process should be excluded from the Regulation scope. Thus, we propose to implement the following definition:

*'This Regulation shall not apply to UVUs **and BVUs** equipped with at least one impeller, one motor and a casing, exclusively designed for operation in a commercial kitchen ventilation hood AND not covered in the scope of Commission Regulation EU 66/2014.'*

### 6. Minimum requirements HRS efficiency - Parallel track (par. 6.2)

Eurovent supports the alternative proposal for setting application-specific minimum requirements on  $n_{t,nrvu}$  and  $SPF_{int,limit}$ . However, in the opinion of Eurovent members this approach should not be limited to so called 'bespoke' products but available for all VUs, as soon as the actual operating conditions are specified. Differentiation between standard and tailor-made units should not be introduced.

Requirements for all units must be identical. Data can be presented differently, either via a selection tool which presents the conformity on the specific duty point or if this selection tool is not available, graphs indicating in which area (in relation with the point of operation) the product complies with the regulation.

Dr Christoph Kaup (Trier University) has made several suggestions for improving the minimum requirements for heat recovery efficiency and  $SFP_{int-limit}$  and relate them to the climate, operating time and indoor temperature. Eurovent appreciates this approach and welcomes the inclusion of climate. However, we believe that the revised Regulation should retain its purpose as a Product Regulation, and the influence of operation mode (operating time and indoor temperature) should not be considered.

Thus, Eurovent is developing a modified proposal, still based on based on Dr Kaup’s approach but presuming the fixed operating time and indoor temperature.

The proposal will be shortly submitted as a separate Eurovent Position Paper.

**7. Filters and minimum requirements  $SFP_{int-limit}$  (par. 6.3)**

Eurovent supports the proposal for adjusting the formula for  $SPF_{int-limit}$  and introducing  $F_{sup}$  and  $F_{exh}$  values for respective filter classes, which in our opinion should be as follow:

Filter class EN 779	ISO ePM <sub>1</sub>	F SFP	ISO ePM <sub>2,5</sub>	F SFP	ISO ePM <sub>10</sub>	F SFP	ISO Coarse	F SFP
G4							≥ 60%	90
M5					≥ 50%	150		
M6			≥ 50%	170				
F7	≥ 50%	190						
F8	≥ 70%	230						
F9	≥ 80%	260						

Moreover, for supply air, the F factor should be counted separately for the first and second filtration stage (if applicable). In other words, if two-stage filtration is applied in a unit, the  $SPF_{int-limit}$  formula should be as follow:

$$SFP_{int-limit} = SFP_{HRS} + F_{sup1} + F_{sup2} + F_{exh}$$

**8. Filters and information requirements (par. 6.5)**

The information requirement concerning expected filter change intervals cannot be managed by the manufacturer of the VU. This depend on the pretended final pressure drop in the technical data (already available) the contamination of the air, operating hour which are both out of control of the manufacturer.

**9. Controls (par. 6.6)**

Eurovent acknowledges that an appropriate control system is necessary to ensure correct and energy efficient operation of a ventilation system. But we have doubts about the proposal to allow a reduction on limit values for  $SFP_{int-limit}$  for non-residential VUs with co-supplied smart controls. Instead, we still see advantages of setting minimum requirements for control systems in general. These may be implemented by including a control system in the definition of a ventilation unit:

*‘ventilation unit (VU)’ means an electricity driven appliance equipped with at least one impeller, one motor, a casing and a control system...’*

In parallel one could require minimum functions of this control system for all ventilation units.

In that case each ventilation unit would use the increase in overall efficiency due to controls.

There could be two scenarios of the control system delivery:

#### Option 1: The manufacturer of the VU equips the unit with controls

In that case the ventilation unit is fully manufactured as defined, the manufacturer has to ensure that everything complies to the regulation and the declaration of conformity has to be made by the manufacturer of the ventilation unit.

#### Option 2: The manufacturer of the VU delivers a unit without controls. The controls are integrated on site by a different company:

In that case the manufacturer of the unit delivers a unit which is only partly finished and therefore does not declare the conformity. As result the one who equips the control system on site gets the manufacturer of the ventilation unit as defined and has to ensure that everything complies to the regulation and the declaration of conformity has to be made by this person.

This procedure would ensure that the one who installs the controls must deal with the complete unit and all functions. As today's ventilation units are complex systems this is extremely relevant because implementing well-working controls requires a specific knowledge.

One should avoid ways where the manufacturer of the VU takes care of all data that are not in relation to the controls and the person that later equips the unit with controls takes care only on the controls.

Being mindful that the control system may be provided both by a NRVU manufacturer (factory delivered) or by another supplier (BAC contractor), we stress the Regulation must clearly lay down scope of liability for ensuring the compliance with minimum requirements for each party involved in the process of putting a VU into service.

### **10. BVU-Leakages (par. 6.7)**

Leakage of air in ventilation systems is, of course, wasteful but it can also adversely affect the indoor air quality; which is a corner stone of the legislation.

We believe that it is important that steps are taken to tighten legislation to reduce the energy wastage and improve our indoor air quality.

This has been a topic of discussion for many years but the discussion has not driven the required change in market behaviour and it is now time to act and include it in this important Regulation so that the quality of the products and the information given to customers is improved.

We can understand that many manufacturers do not have selection software capable of making the necessary calculations today and they may need time to develop such calculations. Perhaps we need to make it easier with a simplified calculation that could be valid for a period of time. Eurovent will offer suggestions for such a simplified method that does not require iteration. A concrete proposal will be submitted as a separate Eurovent Position Paper.

### **11. Other proposals**

With regard to other proposals in the document or discussed in the stakeholder meeting, Eurovent does not take a position or holds positions already presented in the previous papers.

## Eurovent and transparency

### When assessing position papers, are you aware whom you are dealing with?

Eurovent’s structure rests upon democratic decision-making procedures between its members and their representatives. The more than 1.000 organisations within the Eurovent network count on us to represent their needs in a fair and transparent manner. Accordingly, we can answer policy makers’ questions regarding our representativeness and decisions-making processes as follows:

<p><b>1. Who receives which number of votes?</b></p> <p>At Eurovent, the number of votes is never determined by organisation sizes, country sizes, or membership fee levels. SMEs and large multinationals receive the same number of votes within our technical working groups: 2 votes if belonging to a national Member Association, 1 vote if not. In our General Assembly and Eurovent Commission (‘steering committee’), our national Member Associations receive two votes per country.</p>	<p><b>2. Who has the final decision-making power?</b></p> <p>The Eurovent Commission acts as the association’s ‘steering committee’. It defines the overall association roadmap, makes decisions on horizontal topics, and mediates in case manufacturers cannot agree within technical working groups. The Commission consists of national Member Associations, receiving two votes per country independent from its size or economic weight.</p>
<p><b>3. How European is the association?</b></p> <p>More than 90 per cent of manufacturers within Eurovent manufacture in and come from Europe. They employ around 150.000 people in Europe largely within the secondary sector. Our structure as an umbrella enables us to consolidate manufacturers’ positions across the industry, ensuring a broad and credible representation.</p>	<p><b>4. How representative is the organisation?</b></p> <p>Eurovent represents more than 1.000 companies of all sizes spread widely across 20+ European countries, which are treated equally. As each country receives the same number of votes, there is no ‘leading’ country. Our national Member Associations ensure a wide-ranging national outreach also to remote locations.</p>

Check on us in the [European Union Transparency Register](#) under identification no. 89424237848-89.

### We are Europe’s Industry Association for Indoor Climate (HVAC), Process Cooling, and Food Cold Chain Technologies – thinking ‘Beyond HVACR’

Eurovent is Europe’s Industry Association for Indoor Climate (HVAC), Process Cooling, and Food Cold Chain Technologies. Its members from throughout Europe represent more than 1.000 companies, the majority small and medium-sized manufacturers. Based on objective and verifiable data, these account for a combined annual turnover of more than 30bn EUR, employing around 150.000 people within the association’s geographic area. This makes Eurovent one of the largest cross-regional industry committees of its kind. The organisation’s activities are based on highly valued democratic decision-making principles, ensuring a level playing field for the entire industry independent from organisation sizes or membership fees.

Eurovent’s roots date back to 1958. Over the years, the Brussels-based organisation has become a well-respected and known stakeholder that builds bridges between the manufacturers it represents, associations, legislators and standardisation bodies on a national, regional and international level. While Eurovent strongly supports energy efficient and sustainable technologies, it advocates a holistic approach that also integrates health, life and work quality as well as safety aspects. Eurovent holds in-depth relations with partner associations around the globe. It is a founding member of the ICARHMA network, supporter of REHVA, and contributor to various EU and UN initiatives.