Technical Assistance
Study for the Ventilation
Units Product Group

Minutes: First Stakeholder Meeting for Ventilation Units Study, 15 June 2015, Brussels, Belgium

Date and time:	15 June 2015, 10:00 to 16:30
Location:	**Centre Albert Borschette (CCAB), Room AB-2A - rue Froissart 36, 1040 Brussels**

Agenda:

10:00-13:00	1.Welcome and tour de table
	2. Unidirectional units/fans (e.g. box and roof fans)
	3. SFP_{int} and the draft transitional methods
13:00-14:00	Lunch break
14:00-16:30	4. Clarification on articles of the Regulation 1253/2014 and Delegated Regulation 1254/2014 (legal aspects)
	5. Questions received from stakeholders
	Concluding remarks – next steps

1. Welcome and tour de table

The European Commission (the Commission) welcomed the participants.

The Commission are working on publishing two different accompanying documents for Regulation 1253/2014 and Delegated Regulation 1254/2014 before the end of the year:

- *Commission communication* including a list of standards to be used for determining the different parameters of the regulations, and in case there are no such standards available, transitional methods to be used until harmonised standards are in place.
- *Implementing guidelines* accompanying the regulations including answers on frequently asked questions.

The project team from Danish Technological Institute presented themselves. Due to the large number of participants, it was decided not to do a general tour de table.

The Technical Assistance Study for The Ventilation Unit Product Group is about assisting the implementation of the two regulations, and it is therefore not a review study. The study output will be used as input to the *Commission communication* and the *Implementing guidelines*. The main focus at the first stakeholder meeting is the discussion document on unidirectional ventilation units and the transitional methods for SFP_{int}. The second stakeholder meeting, planned for November, will focus on questions and answers.

Due to the tight time schedule for the study, we urge stakeholders to be constructive and cooperate on clarifying the different identified issues.

Presentations will be published on the webpage www.ventilationunits.eu after the meeting.

2. Unidirectional units/fans (e.g. box and roof fans)

The project team presented the discussion document on definitions of unidirectional units that include a proposal on how to decide whether a ventilation product is considered to fall under Regulation 327/2011 (‘fans’) or under Regulation 1253/2014 (‘ventilation units’). The proposal uses the term ‘first layer’ for the housing enveloping the airstream first and the term ‘second layer’ for the casing enveloping the airstream next. The proposal considers a ventilation product with or without a housing (first layer) to be a fan only and a ventilation product with both a housing and a casing (second layer) to be a ventilation unit. Other proposals, such as the housing is ‘close to the fan’, are not precise enough.

The discussion following the presentation showed there is a need for a clear definition of these products. Most discussions dealt with Example 4 and Example 5 of the presentation. According to the proposal, the ventilation product of Example 4, called a 'box-fan', falls under Regulation 327/2011 when the layer enveloping the airstream is considered to be the housing. This implies tougher requirements for these products as compared to products falling under Regulation 1253/2014.

The comments from the stakeholders included:

1. The housing improves the efficiency.
2. Proposal on defining the casing as a rectangular box.
3. Could another approach be to look from 'outside (casing) to inside (fan)' instead of from 'inside (fan) to outside (outside)'. In other words, define what a ventilation unit is first.
4. If 'box fans' (Example 4) come under Regulation 327/2011 it will kill the market for these products.
5. If we buy and put a free-blowing fan (i.e. 'Plug fan') into a box and the combined product is under Regulation 327/2011, will it require both a test of the free-blowing fan and of the combined product?

Ad 1-3) The project team will look into the comments.

Ad 4) Please provide the project team with test results of 'box fans' that document this.

Ad 5) Basically, yes, but the project team will consider this as part of the overall evaluation of the comments. In case of a UVU, the fan efficiency must also be declared for the combined product, i.e. fan + casing

A comment from a stakeholder on the test conditions for fans equipped with a protection guard only:

6. They must always be tested as a fan and without a protection guard.

Stakeholders providing 'hybrid fans' for placing on roofs asked for:

7. Clarity on how to cope with this product group?

In relation to roof fans, a stakeholder asked:

8. How can we measure the leakage rate of roof fans?

Ad 6&8) The project team will come back on these issues.

Ad 7) The project team asked for input regarding the status of the standardisation work in progress for test of this product type.

3. SFP_{int} and the draft transitional methods

The transitional method on SFP_{int} was presented and generally accepted by the stakeholders. The proposal includes a method for direct measurement of the internal pressure losses and an alternative method for ventilation units where it is not possible (due to, e.g., compactness) to measure pressure losses inside the unit. It was emphasised that pressure losses according to the build in of the ventilation components are included. This also includes the parts of the casing known as *transition pieces* (to connect the ductwork).

Stakeholders asked for:

9. Guidelines on how to deal with ventilation units with better (finer) filters than specified or more filters. Would they be given a bonus?

The question must be seen in connection with Annex IX, *2. Filter corrections*. In general, ventilation units are tested for the reference configuration with new clean filters as specified. However, the project team will analyse further on this specific case.

Finally, the project team asked stakeholders to test ventilation units and determine SFP_{int} according to the proposed transitional methods, and provide the results for verification purposes of the methodology. The project team will provide instructions/specifications for the tests.

4. Clarification on articles of the Regulation 1253/2014 and Delegated Regulation 1254/2014 (legal aspects)

The Commission presented different questions and answers regarding the legal aspects of the regulation.

In addition, the stakeholders asked questions regarding:

10. Placing on the market/putting into service of products after 1 January 2016 that have been imported and custom cleared before 1 January 2016?

Ad 10) The preliminary answer from the Commission is that products sent to customers' warehouses or premises after 1 January 2016 must fulfil the Regulation 1253/2014

A follow up question from a stakeholder addressed the meaning of *final assembly*:

11. What if a customer buys one UVU for supply air from one supplier and another UVU for exhaust air from another supplier and combines/assembles them as they were a BVU.

Ad 11) The preliminary answer from the Commission is as follows. The responsibility of the suppliers can only be for the products they supply (the UVUs, in this example); nevertheless, a further legal entity (e.g. installer) could be responsible for the putting into service of the BVU. Clarity will be provided on this point.

The stakeholders asked questions on the scope and ventilation units for specific purposes:

12. Exhaust fans for machinery
13. Ventilation units for offshore facilities
14. Ventilation units for data centres

The Commission will address these questions and come back with answers.

5. Questions received from stakeholders

Four main issues were presented based on the input received from the stakeholders before the meeting. They included some preliminary considerations from the project team and drawings of different unit types and systems:

<u>Air handling units with heat pumps</u>

See also presentation on legal aspects (point 4.)

<u>Unidirectional units with recirculation</u>

Discussion on terminal units, run-around coils, and systems where terminal units have an in-built exhaust fan as well.

Bidirectional units with recirculation and/or bypass

Comment from a stakeholder: Multifunctional units (RVU-area) are considered in prEN 16573 including definitions of supply air, exhaust air and recirculation.

Declaring ventilation units for an area of operational points

Support for the idea from some stakeholders, but also opposition from other stakeholders who do not want the extra burdens of declaring the ventilation unit in more operational points. Other stakeholders thought that it should be mandatory to declare compact units in more operational points to be able to compare tailor-made and compact units.

The project team will continue to work on clarifying the scope and requirements on the many different unit types on the market.

A discussion on declaration of a ventilation unit as both RVU and NRVU took place. The intention of the RVU/NRVU terms is not to inform customers about the exact application of the ventilation units, rather they are a size or system definition of the products. The Commission made it clear that the declaration of a ventilation unit as both RVU and NRVU will require two different model identifiers (one for the RVU-declared product and one for the NRVU-declared product).

After that followed a session with specific questions from stakeholders that need clarification:

15. Who is responsible for the delivery of multispeed or variable speed drive as declared for a ventilation unit?
16. Are sensors for demand control to be included in the delivery of the ventilation unit?
17. Must UVUs with filters fulfil both requirements on SFPint and fan efficiency? This was not the intention!
18. For run-around coils are there any requirements on the medium if it is not only water?

19. The limit of 30 W for UVUs, at what operational point/condition is that to be measured/calculated?
20. For determination of internal leakage rate of rotary heat exchangers, does the pressures 100 Pa (RVUs) and 250 Pa (NRVUs) also apply?
21. Information requirements specify that non-ducted units have to inform about airflow sensitivity… +20 Pa/-20 Pa. Does this also apply to units with less than 30 W electric input power?
22. How do we declare the type of drive installed if it has more stages (speeds) and in addition a variable speed drive that can vary each stage?
23. In which languages must the information requirements of Annex IV/V be provided?
24. What is meant by *toxic* in the exemptions of the regulation?
25. There is a mistake in Article 2, *Definitions* (4) text about the pressure difference to be chosen from a set of values.
26. How to calculate mixing rate?

Some of the questions regarding testing will be addressed in the transitional methods. The answers to the other questions will need extra consideration.

Concluding remarks – next steps

Comments on the discussion document and the SFP_{int} explanatory note issued before the meeting as well as the presentations and discussions from the first stakeholder meeting are due on 3 July 2015. Please send by email to: ventilationunits@dti.dk

The second stakeholder meeting is scheduled to take place in November with questions and answers as the main topic of the agenda.

In relation to market surveillance of ventilation units, the Commission told that representatives from industry will be invited for a dedicated session on this at the next ADCO meeting (scheduled to take place in October/November), in order to share a document with suggestions on how to perform market surveillance activities for these products.