

# Background study for Review Fan Regulation 327/2011

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for Eurovent

Brussels, 5 June 2014

# Context

- VHK is partner in consortium for Ecodesign / Labelling review studies
- assigned to study for review Regulation 327/2011
- start 23 April 2014

# Aim of review study

- Article 7 of 327/2011:
  - review of Regulation no later than 4 years (approx. 30 March 2015 < 1 year to CF meeting)
  - in particular assess feasibility of reducing number of fan types
  - also assess whether the scope of exemptions can be reduced, including allowances for dual use fans
- plus other relevant issues / topics
  - jet fans, test boundaries

# Work plan

- Communication platform (website, email list)
  - manufacturers
  - market surveillance
  - other?
- Tasks:
  - reduction of fan types possible?;
  - reduction of exemptions possible?;
  - assess adequacy of allowance for dual use fans;
  - requirements for jet fans? (plus impacts);
  - assess adequacy of market surveillance;
  - other information relevant for review (impact 327/2011?).

study website online: 27 May 2014  
at 4 June 2014 already 100+  
registered stakeholders

however, only 2 Member  
States, no market surveillance

# Timing

Activity	Month														
month	0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	+11	+12	...	+18
indicative month	Apr '14	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan '15	Feb	Mar	Apr	...	Oct
Reporting				1 <sup>st</sup> IR				disc. docs		2 <sup>nd</sup> IR					FR
Other activities		kick-off web site				1 <sup>st</sup> SH mee ting			2 <sup>nd</sup> SH mee ting			CF mee ting?	technical assistance		

IR = Interim report (1+2)

FR = Final Report

SH = Stakeholder meeting (1+2)

CF = Consultation Forum meeting (indicative)

# T1 - Reduce (differentiated minimum requirements for) fan types

- 20 different requirements calculated , and then two tiers

Fan type	blade config.	housing	p <sub>static</sub>	p <sub>total</sub>
Axial			≤ 10 kW > 10 kW	≤ 10 kW > 10 kW
Centr	FC/rad.		≤ 10 kW > 10 kW	≤ 10 kW > 10 kW
	BC	w.o. housing	≤ 10 kW > 10 kW	
		w. housing	≤ 10 kW > 10 kW	≤ 10 kW > 10 kW
Mixed flow			≤ 10 kW > 10 kW	≤ 10 kW > 10 kW
Cross flow				≤ 10 kW > 10 kW

# T2 - Reduce exemptions

- Excluded by article 1, item 2:
  - (i) motor fan  $\leq 3\text{kW}$ , (ii) fans in driers  $\leq 3\text{kW}$ , (iii) kitchen hoods  $< 280\text{ W}$
- Excluded by article 1, item 3:
  - (a) ATEX, (b) emergency use, (c) extreme operating conditions, beyond LVD, (d) replacement fans until 1 January 2015
- Excluded by article 2, item 17 “ventilation fans” from Annex I, tier 1 (2013) requirements:
  - fans in laundry and washer-driers  $> 3\text{ kW}$  electric input power
  - fans in indoor units of room AC ( $< 12\text{ kW}$  cooling power)
  - ICT products
- Excluded from Annex I, section 2: fans  $> 8000\text{ rpm}$ , specific ratio  $> 1.11$  (Art 2.1 max  $25\text{ kJ/kg}$ ), non-gaseous substances
- Annex II, section 3 (info) applies to all fans as of 1-1-2013

# T3 - Adequacy of dual use allowance

- Article 3, item 5: tier 1 → 10% reduction allowed, tier 2 → 5% reduction allowed
  - mis-use recorded? include market surveillance
  - if allowance needed → technical analysis required
    - sales, installed base?
    - average efficiency, input power and use?



# T4 - Requirements for jet fans

- currently included in scope (327/2011 FAQ)  
but performance measurement different
- to describe:
  - status of work on jet fan performance standards
  - if requirements defined → technical analysis needed
    - sales, installed base?
    - average efficiency, input power, use?
    - cost effects?

# T5 - Adequacy of market surveillance

- general problems (include manufacturers and notified bodies in consultation)
- specific problems related to large equipment?

# Other issues

- Assess impacts of 327/2011:
  - change in average efficiency of fans covered
  - review Best Available Technology?
  - costs of improvement of fans?
  - (added during *Madrid*: lifetime of products)
  - sales / installed base of fans covered?
  - impacts on manufacturers? (SMEs in particular)
- issues related to standards (revised ISO 5801?)

# Comments made during *Madrid* meeting (non-exhaustive)

- ISO 12759 is being revised – 1st meeting Toronto 30 March 2014, 2nd 15 July 2014 Schwabisch Hall
  - “EN ISO 12759” (ISO part from 2010) still in CEN TC156 WG17
- issue with levels for small fans as motor efficiency is lower (also linked to calculation of default motor efficiency). Also consider overlap with Lot 10 (covers 30 W and higher)
- issue with approach ‘final assembly’ and ‘not final assembly’ fans (‘not final’ performance measurement and calculation introduces bias/penalties)

# Upcoming steps

- Start 'agenda setting' – involve stakeholders
  - bilaterals/questionnaires/ surveys
- 1<sup>st</sup> report due in July 2014
  - assessment of fan performance (quantitative)
    - current scope incl. dual purpose
    - jet fans
  - first discussion on other topics (qualitative)
- 1<sup>st</sup> SH meeting in September 2014