

French national initiatives and participation in the EU harmonisation process

Dr. François MAUPETIT

Emissions and odours from materials 09/11/2011

PAGE 1



The situation in France

- No label on VOC and odours emissions from building products
- Voluntary initiatives failed in providing relevant information
 - → Environmental Product Declarations (EPD)
 - → Green buildings certification (HQE)
 - → National Environment and Health Action Plan (NEHAP):
 - AFSSET protocol (2006, 2009)

Emissions and odours from materials 09/11/2011



2007-2009: Grenelle de l'environnement

- Important action decided in 2007 by French Government
- All stakeholders represented for a consensus on major points regarding environment and environmental health
- Law n° 2009-967 (August 3, 2009): "Grenelle 1"
- Law n° 2010-788 (July 12, 2010): "Grenelle 2"

Emissions and odours from materials 09/11/2011

PAGE 3



"Grenelle 1" Law

- Law n° 2009-967 (August 3, 2009)
 - Article 40: regarding indoor air:
 - → Emissions from building, finishing and furnishing products will be labelled on a mandatory basis on January 1st, 2012
 - → CMR compounds category 1 and 2 will be banned in building, finishing and furnishing products
 - → Publication of a study on the opportunity to extend mandatory labelling of emissions to other indoor sources (e.g.: furniture, air fresheners, cleaning products)

Emissions and odours from materials 09/11/2011



"Grenelle 2" Law

- Law n° 2010-788 (July 12, 2010)
 - Article 180 (regarding indoor air)
 - → Modification of the French Environment Code: an Indoor Air Quality section is created
 - → Art. L. 221-10: Emissions from building, finishing and furnishing products will be labelled on a mandatory basis on January 1st, 2012. The list of concerned products will be detailed by a decree

Emissions and odours from materials 09/11/2011

PAGE 5



Schedule of the process

- 2008-2009: WG established by Ministry of housing
- December 23rd, 2009: Notification to European Commission (98/34/EC directive):
- End of 2010: Revision by French State Council
- March 23, 2011: Decree n° 2011-321
- April 19, 2011: Order



Emissions and odours from materials 09/11/2011



Decree n° 2011-321

- Decree n° 2011-321 (March 23, 2011) relating to the labelling of construction products, floorings, wall coverings, paints and varnishes regarding their volatile pollutant emissions
 - Products may only be made available on the market if they are accompanied by a label, applied to the product or its packaging, indicating their emissions of volatile pollutants, hereinafter referred to as "substances".
 - The list of substances and emission thresholds are defined in the corresponding Order.
 - Manufacturers, their authorised representatives or importers, are responsible for the information provided on the labels.

Emissions and odours from materials 09/11/2011

PAGE 7



Decree n° 2011-321

- · Concerned products:
 - → Floor, walls and ceiling coverings
 - →Claddings
 - → Insulation materials
 - → Doors and windows
 - → Products used for the installation or the preparation of above listed products
- Provisions of this decree will enter into force on:
 - → 1st January 2012
 - → 1st September 2013 for products already on the market before 2012

Emissions and odours from materials 09/11/2011



Order of April 19, 2011

- Order of April 19, 2011 relating to the labelling of construction products, floorings, wall coverings, paints and varnishes regarding their volatile pollutant emissions
 - · List of substances
 - 4 emission classes (thresholds values)
 - · Format of the label
 - · Methods for the characterization of emissions from building products

Emissions and odours from materials 09/11/2011

PAGE 9



Order of April 19, 2011

→ Substances and emission classes

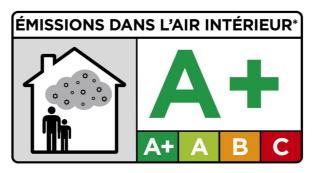
			emission classes			
Substances	CAS	standard	С	В	Α	A+
formaldehyde	50-00-0	ISO 16000-3	> 120	< 120	< 60	< 10
acetaldehyde	75-07-0	ISO 16000-3	> 400	< 400	< 300	< 200
toluene	108-88-3	ISO 16000-6	> 600	< 600	< 450	< 300
tetrachlorethylene	127-18-4	ISO 16000-6	> 500	< 500	< 350	< 250
xylene	1330-20-7	ISO 16000-6	> 400	< 400	< 300	< 200
1,2,4-trimethylbenzene	95-63-6	ISO 16000-6	> 2000	< 2000	< 1500	< 1000
1,4-dichlorobenzene	106-46-7	ISO 16000-6	> 120	< 120	< 90	< 60
ethylbenzene	100-41-4	ISO 16000-6	> 1500	< 1500	< 1000	< 750
2-butoxyethanol	111-76-2	ISO 16000-6	> 2000	< 2000	< 1500	< 1000
styrene	100-42-5	ISO 16000-6	> 500	< 500	< 350	< 250
TVOC		ISO 16000-6	> 2000	< 2000	< 1500	< 1000

Emissions and odours from materials 09/11/2011



Order of April 19, 2011

→ Labelling



* Information on the emission level of volatile substances into indoor air, presenting a risk of toxicity by inhalation, on a scale ranging from A+ (very low emissions) to C (high emissions) (text in French)

Emissions and odours from materials 09/11/2011

PAGE 11



Order of April 19, 2011



- → Methods for characterization of emissions
 - ISO 16000 series
 - CEN TC351 WG2 reference room:
 - Volume = 30 m³
 - AER = $0.5 h^{-1}$

Emissions and odours from materials 09/11/2011



Ministry webpage

http://www.developpe mentdurable.gouv.fr/Chapi tre-I-Mode-d-emploide-I.html

Emissions and odours from materials 09/11/2011

MINISTÈRE DE L'ÉCOLOGIE, DU DÉVELOPEMENT DURABLE, DES TRANSPORTS ET DU LOGEMENT

CONSTRUCTION, URBANISME, AMÉNAGEMENT ET RESSOURCES NATURELLES

Etiquetage des émissions en polluants volatils des produits de construction et de décoration serent munis d'une étique qui projeture, de jameire 2012, les produits de construction et de décoration serent munis d'une étique qui projeture, de la primer 2012, les produits de construction et de décoration serent munis d'une étique qui projeture, de la primer 2012, les produits de construction et de décoration serent munis d'une étique qui projeture, de la primer 2012, les produits de construction et de décoration de la consense par celte neuvel les réglementaires non les produits de construction et de les répondations de la primer 2012, les produits de construction son de la produit de la consense par celte neuvel les réglements et des produits de construction per le les répondations et les réglements de la produit de la construction de la produit de la produit de la produit de la construction de la produit de l

Last consuminations exposition ainsi or use information transparente qui pour a constitute un nouves critère de selection. Les maîtres d'ouvrage (collectivités notamment) pourront également prendre en compte la qualité de l'air intérieur comme critère dans leurs appeis d'effre pour la construction ou la rénovation de bătiments.

28 mai 2011 - CONSTRUCTION, URBANISME, AMÉNAGEMENT ET RESSOURCES NATURELLES

Sommaire :

Chapitre II: Mode d'emploi de l'étiquetage
Chapitre III: Industriels : comment appliquer la réglementation
Chapitre III: Etiquettes disponibles au Méléchargement

PAGE 13



Ban of CMR compounds category 1 and 2

- Order of April 30, 2009
 - Building and decoration products can be placed on the market if their emissions of CMR compounds are below 1 µg.m⁻³ after 28 days
 - · Standard methods: ISO 16000 series
 - Provisions entered into force on 1st January 2010
 - → trichloroethylene (CAS n° 79-01-6)

Emissions and odours from materials 09/11/2011



Ban of CMR compounds category 1 and 2

- Order of May 28, 2009 modifying order of April 30, 2009
 - → benzene (CAS n° 71-43-2)
 - → dibutyle phthalate (CAS n° 84-74-2)
 - → bis(2-ethylhexyle)phthalate (CAS n° 117-81-7)

Emissions and odours from materials 09/11/2011

PAGE 15



Participation in the EU harmonisation process

- → JRC Ispra initiative "Harmonisation framework for indoor materials labelling schemes in the EU"
 - · CSTB member of preparatory WG
 - · ANSES and CSTB members of the LCI WG
- → DG Enterprise EGDS Ad-hoc group "classes"
 - · Ministry of housing and CSTB members of the AHG

Emissions and odours from materials 09/11/201



Conclusions

- Voluntary actions (product labels, EPDs, green building certification, NEHAP initiatives) have not been successful in France for providing information on emissions of volatile compounds from building products
- Information will become available through a mandatory labelling process
 - · Based on international standards
 - Based on CEN TC351 ongoing work

Emissions and odours from materials 09/11/2011

PAGE 17



Already available in the best retail stores!



Emissions and odours from materials 09/11/2011