The utilization of recycled asphalts in France

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OUTLINE OF THE PRESENTATION

1- LAWS
2- CONSEQUENCES OF THE LAWS
3- HEALTH IMPACT

FRAMEWORK LAWS

Environment Round Table
(law 1 and 2)

- The aim of the environment Round Table is to define the key points of government policy on ecological and sustainable development issues for the coming five years.
- The law I and II consists to preserve biodiversity, natural environments, human health and non-renewable resources.

Road Work voluntary Agreement
March 25, 2009

What's that? Declination of the environmental Round Table Law in the field of Road work

Six signatories to this agreement:

- The National Federation of Civil Engineering (FNTP)
- The Professional Union of the earthwork industry (SPTF)
- The Union of Road Industry (USIRF)
- Syntec-Civil Engineering (Syntec Ingénierie)
- The French Ministry of ecology, sustainable development, Transport and Housing
- The Association of department of France (ADF)

Road Work Agreement
March 25, 2009

Ten Commitments

- Preserve biodiversity and natural environments,
- Preserve non-renewable resources and develop the use of recycled mix,
- Reduce water consumption during the earthworks,
- Creation of the Institute Of Roads, Streets and Infrastructure for Mobility (IDDRIM),
- Develop, research and disseminate innovation,
- Improve road safety, safety of workers and neighbourgh during the works,
- Reduce emissions of greenhouse gases and energy consumption,
- Increase the environmental performance of road,
- Promote local versions of the national Road Work Agreement
- Follow and evaluate commitments
Circular letter of the ministry of ecology  
February 9, 2009

Two recommendations

- Authorize the incorporation of 10% of recycled asphalt in the asphalt concrete without type testing (NF EN 13108)
- Integration, into government contract, of criteria which encourage the use of recycled asphalt.

Consequences of the Framework Laws

- The use of recycled asphalt improved between 2008 to 2011.

Writing of a technique guide for the utilization of recycled asphalt. 2 parts: material and type testing.

ASBESTOS USED IN PAVEMENT

- Why?
  - Best resistance to fatigue
  - Best resistance to the tracking

- Who?
  - SCREG, COMPOFLEX, MEDIFLEX, RUGOFLEX, DRAINOFLEX, BICOMPOFLEX

- How Many?
  - About 20 millions m² of asbestos
  - 1 à 2% asbestos in the coating

- Where?

Health problem during milling, planing, and sampling

COAL TAR

- The tar was used in France from 1850 to 1975. It is no longer used today.
- Health problems occur each time the tar is heated

Bituminous asphalt with medium level of PAH

- There is a threshold level value for the protection of the ground water (50 ppm)
- There is not a threshold level value for the health of the workers.
- The problematics is to find a threshold level value for the health of the workers (50, 100, 200 ppm of PAH in the bituminous asphalts?)

Working Group « Road Work – Health Impact »

Composition

- The National Federation of Civil Engineering (FNTP)
- The Union of Road Industry (USIRF)
- The French Ministry of ecology, sustainable, development, Transport and Housing
- The National Institute for research, health and Safety (INRS)
- The National Health Insurance fund (CNAMTS)
- The Professional Organisation specialized to building industry and civil engineering
- French Agency for Food, Environmental and Occupational Health and Safety (ANSES)
Working Group « Road Work – Health Impact »

Working group is divided in 3 tasks groups: Tasks Group

- Characterization: development of a method to assess the probability of presence of asbestos and tar in the pavement
- Formulation and Manufacturing: Write a material Safety Data Sheet for all coated mix
- Methodology: Propose methods for prevention for the interventions on roads or highways

Results expected late 2012