

# **EUROPEAN FORUM OF ROAD TUNNEL SAFETY OFFICERS**

**4 & 5 November 2009**

**TRAINING OF OPERATIONAL STAFF and EMERGENCY  
SERVICES  
MAINTENANCE OF TUNNEL STRUCTURE**

What does specify this directive ?

- Verifying that operational staff and emergency services are trained and they shall take part in the organisation of exercises hold at regular intervals ;
- Verifying that the tunnel structures are maintained and repaired.

The law n°2006 – 1354 and its « arrêté » of 8 November 2006 has transposed the European Directive.

- Verifying that training programs are established and implemented for the operational staff and emergency services ;
- Verifying that the procedures of maintenance and repair of the structure and the equipments of works are established and implemented.

First observation : the French interpretation is slightly different.

- Training of operational staff and emergency services : the French law only talks about the existence and the implementation of the training programme
- Procedures of maintenance and repair of the structure: the French law, as previously, only talks about the maintenance programme.

## On the A8 in the South East of France

### 1. Training of operational staff and emergency services

- Determining the concerned actors :
  - Operators ;
  - Fire-brigades ;
  - Police ;
  - Rescue teams;
  - Breakdown mechanic.

- Gathering following information :
  - Organisation of the management of every services ;
  - Allocated budget to training ; and determining who is responsible for this budget ;
  - Determining staff who are implicated according to their activity and role ;
  - Listing the training process
    - Which kind of training : theoretical, practical method, shadowing, workplace adaptation;
    - What are attestation process : evaluation of staff by their line managers ; exams (knowledge testing) ; length of training validity ( renewal).
    - How is attestation formalized : attestation book.

- Following through training :

Ensuring by indirect means that staff have attended obligatory training course and ensuring the relevant documents are being carried by the staff and management in question.

- Recommendations (Advice)

- Possibly the Tunnel Safety Officer can write some recommendations with the difficulty of determining a limit.

## 2. Maintenance of tunnel structures

### ■ Gathering the list of equipments

- For example : ventilation fans, lighting, monitoring and alarm systems, cctv, radio, phone, , scada, generators, cable networks, ...

### ■ Verifying types of maintenance task :

- Routine visual / audio inspection checks ;
- Routine test procedures ;
- Minor preventive maintenance tasks ;
- Major preventive maintenance tasks ;
- Major over haul / refurbishment



- Verifying the three classic theoretical philosophies :
  - Run to fail either or without hot or cold standby ;
  - Planned preventive ;
  - Predictive.

- The work I did for the verification of training of operational staff was important :
  - You have to meet every managers ;
  - You must obtain all the documents (it is not easy sometimes)
  - Which recommendations can we do ?
  
- Maintenance of tunnel structure :
  - This work is very difficult and we need to be specialist in every technology (is it possible ?) ;
  - My work was to obtain the maintenance plan and verify if it is implemented.