

EUROPEAN FORUM OF ROAD TUNNEL SAFETY OFFICERS

Keeping the safety documentation updated

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INTRODUCTION

Following the recommendations of the European Directive 2004/54 on minimal safety requirements for road tunnel, tunnel managers have compiled a safety documentation.

According to article 2.1 of the annex II of said guideline 2004/54, the tunnel manager “shall compile a safety documentation and keep it permanently updated”.

Article 3.3 states that this report should be transmitted by the tunnel manager to the safety officer who “shall give his/her opinion on the opening of the tunnel to the public traffic”.

RETURN OF EXPERIENCE ON THE DOCUMENTATION IN SERVICE

The concept of safety documentation was established in 2000.

So far, the gained experience with several safety documentations for different tunnel operators revealed that:

- the safety documentation was not applied as an operational tool. The only document operationally used was the emergency plan;
- the safety documentation did not include all the tunnel management procedures.

START OF A SAFETY DOCUMENTATION EXAMPLE OF THE MONT BLANC TUNNEL

The main objectives in setting up the documentation were:

- provide a documentation built and shared by any operation services involved;
- establish from the beginning the way of keeping it continuously updated;
- provide the analysis resulting from the feedback experiences and show the anticipated proper operation of the system.

THE MONT BLANC TUNNEL SAFETY DOCUMENTATION

1. Tunnel description
2. Traffic forecast study
3. Specific risk investigation
4. Organisation description (operation & maintenance)
5. Emergency response plan
6. Description of permanent feedback of experience
7. Reports & analyses of significant incidents and accidents
8. List of safety exercises carried out & lessons learned
9. Opinion of the safety officer
10. Decision taken by the authority

EXPECTED UPDATES

1. Tunnel description
 - Equipment changes
 - Traffic rule's modifications (ADR 2009)
2. Traffic forecast study
 - Traffic statistics
3. Specific risk investigation
 - Specific scenarios, if any

EXPECTED UPDATES

4. Organisation's description

This part has been restructured with an introduction and new annexes as follows:

- Permanent cooperation agreement with GEIE/SDIS/RAVA
- Minimum operation's requirements (CME)
- Regular testing program
- Maintenance schedule
- Cleaning schedules
- Internal maintenance contract

The annual report is part of the update (including: minimum operation requirements, training, maintenance, tests).

EXPECTED UPDATES

5. Emergency response plan

Updated procedures

Updated flowcharts, schemes, etc.

Updated directories

6. Description of permanent experience's feedback

Changes, if any

EXPECTED UPDATES

7. Reports and analyses of significant incidents and accidents

Regularly updated tables using French classification as described in the French Decree from 18.04.2007:

- a: accidents with injuries;
- b: fires;
- c: other incidents, which required an unplanned tunnel closure. For incidents classified c, the tunnel manager shall decide whether to distinguish different categories.

EXPECTED UPDATES

./ Reports and analyses of significant incidents and accidents

2008	TIPOLOGIA DI EVENTO TYPE D'EVENEMENT					Tot.	INTERR. CIRCOL. (h.min.)	INTERVEN. INTERNI INTERVEN. INTERNES				SERV. PUBL.		VEIC. EVAC.	ATTIV. PFA
	a)	b)	c)					EST	EII	SPB	AS	Interv. tunnel [1]	Activ. secours [2]		
			Mot.tecn. Rais.tech.	Int.socc. Int.sec.	Varie Divers										
Gen./Jan.	0	0	8	24	5	37	8.16	25	12	9	0	0	5	1	0
Feb./Fév.	0	0	0	17	0	17	1.36	17	16	13	0	0	0	0	0
Mar./Mars	0	0	1	21	5	27	4.44	22	12	1	1	0	2	4	0
Apr./Avril	0	0	1	21	1	23	7.20	21	20	8	3	0	8	8	0
Mag./Mai	0	0	4	17	3	24	4.49	19	16	4	1	0	4	2	0
Giu./Juin	0	0	1	23	0	24	5.28	23	18	5	1	0	3	2	0
Lug./Juill.	0	0	1	34	3	38	6.24	34	20	15	5	0	7	10	0
Ago./Août	0	0	0	22	6	28	4.47	22	13	13	4	0	6	8	0
Sett./Sept.	0	0	0	15	2	17	4.24	17	7	2	0	0	3	5	0
Ott./Oct.	0	0	1	20	0	21	7.47	19	6	6	0	1	4	5	0
Nov./Nov.	0	0	1	13	0	14	3.46	13	5	5	0	0	3	1	0
Dic./Déc.	0	0	1	24	2	27	3.11	21	9	9	1	1	3	1	0
TOT.	0	0	19	251	27	297	62.32	253	154	90	16	2	48	47	0

EXPECTED UPDATES

./ . Reports and analyses of significant incidents and accidents

Lessons learned from experience should be based on:

- origin of the accident;
- how the organisation was performed;
- how the technical system was performed;
- user's behaviour.

Reports are discussed by a consortium that is part of the Safety Committee (the so-called directive's Inspection Entity).

EXPECTED UPDATES

8. List of safety exercises carried out and lessons learned

The complete list is updated.

The process is the same as for lessons learned from experience.

Reports are discussed by consortiums who are part of the Safety Committee (the so-called directive Inspection Entity).

EXPECTED UPDATES

9. Opinion of the Safety Officer

The safety documentation specifies the Safety Officer's tasks as follows:

- verify if the Safety documentation is kept updated;
- verify if it is fully implemented, for example with training programs, procedures, tests and maintenance procedures, reports on incidents and accidents.

The annual report should explicitly mention that the safety documentation was kept updated.

EXPECTED UPDATES

10. Decision made by the Authority

The Mont Blanc Tunnel Authority is the « Commission Intergouvernementale de Contrôle ». Its safety Committee is the so-called directive inspection entity.

Meeting protocols (CIG and inspection entity) are all included in the safety documentation, which also comprises meeting protocols of the various working groups within the safety commission (for example on incidents or on ventilation).

CONCLUSIONS

The 2008 version of the safety documentation does fully comply with the requirements of the European Directive. All preventive and curative measures for the user's safety implemented up to date are presented in the documentation. The update processes are also described in detail.

With approval of the Authority, the safety documentation has become the main information tool for every aspect regarding the management of the Mont Blanc tunnel.

CONCLUSIONS

The safety documentation is therefore now part of the safety policy for the Mont Blanc tunnel.

The continuous improvement process should go on.

An updated safety documentation appears to be a good communication tool in the hands of any tunnel manager.

Thank you for your attention

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