

QUESTIONNAIRE ON SAFETY IN TUNNELS

PART A : REGULATIONS AND GENERAL DATA ON ROAD TUNNEL SAFETY

1. Are there any legislation, regulations, recommendations on safety in road tunnels in your country (dealing with geometry, infrastructure, equipment, signalling, operation, traffic, driver education and training, etc.)? If yes, please give details and provide all documents.

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2. Do you consider the above texts sufficient? If not, please give details.

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3. Is your authority considering any changes in the above texts? If yes, please give details and provide the current drafts.

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4. Is there any specific methodology for risk assessment and risk management for tunnels in your country? If yes, please provide details and documents.

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5. Does your country classify road tunnels, or envisage to do so in future, by the risk of accident associated with them? If yes, please provide details and documents.

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6. Please provide any existing data and statistics on fires, accidents, breakdowns in road tunnels in your country.

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EXPLANATORY NOTES

The present questionnaire on safety in road tunnels was approved by the Ad hoc Multidisciplinary Group of Experts on Safety in Tunnels at its first session of 10-11 July 2000. This questionnaire is also available in MS-EXCEL format on the Internet at the following address:
<http://www.unece.org/trans/main/itc/ac.7/2000-05.doc>.

Part A: REGULATIONS AND GENERAL DATA ON ROAD TUNNEL SAFETY

Part A requests information on your country's national legislation, regulations and general information on road tunnel safety. In addition to the answers provided under items 1 to 6, you may wish to send any other information you may deem appropriate, preferably in English or French.

Part B: DATA ON ALL ROAD TUNNELS LONGER THAN 1000 M

Part B contains two tables, Tables 1 and 2, requesting information on road tunnels longer than 1000 m. Table 1 relates to the whole tunnel and Table 2 relates to the tunnel's tubes.

Table 1: DATA RELATING TO THE WHOLE TUNNEL

In this table the column headers specify the items and questions on which data and information on the whole tunnel is requested. In addition, please use the codes specified below.

In columns 1 and 2, please use the internationally approved ISO two-letter names (see attached).

In column 4, please use: "MOT" for motorway; "EXP" for express road; "OR" for ordinary road.

In column 9, please use: "EXC" for excavated; "C/C" for cut and cover; "IMM" for immersed.

Please also feel free to provide any additional information on separate sheets.

Table 2: DATA RELATING TO THE TUBE(S)

Table 2 is subdivided into two main parts: one for the tube in case of a single-tube tunnel or for Tube No. 1 in the case of two-tube tunnels, and the other for Tube No. 2 in this latter case. Each line in Tables 1 and 2 corresponds to one tunnel. Additionally, each Tunnel Serial Number refers to the same tunnel in both Tables. Similarly to Table 1, the column headers specify the items and questions on which data and information is requested. In addition, please use the codes specified below.

In column 3 (2), please use: "OP" for In operation; "UC" for Under construction.

In column 8, please use the width at the height of the footway surface.

In column 11, please use: "NAT" for Natural, i.e. no man-made equipment changing the air-flow in the tunnel; "LONG" for Longitudinal; "S/T" for Semi-transverse; "TR" for Transverse; "OTH" for Other man-made equipment not fitting the other categories.

In column 13, please use:

- “A” for Automatic fire suppression system;
- “B” for Automatic incident / stopped vehicle detection;
- “C” for Close Circuit Television;
- “D” for Equipment to close the tunnel entrance (signs, barriers, others);
- “E” for Equipment to stop vehicles inside the tunnel (traffic lights, others, etc.);
- “F” for Exits (direct communication to outside, communications between tubes, emergency gallery, shelters / spacing between them);
- “G” for Extinguishers;
- “H” for Fire detection (temperature, smoke, flame, etc.);
- “I” for Fire ventilation (more details can be requested: if longitudinal, longitudinal airflow; if transverse and semi-transverse, exhaust flow and capacity to control longitudinal airflow);
- “J” for Power supply (uninterrupted power supply, double supply, generator);
- “K” for Radio re-broadcast (for emergency teams / for general public / mobile phones);
- “L” for Resistance to fire of equipment (power supply, ventilation, others);
- “M” for Resistance to fire of tunnel structure (which level: temperature-time curve + duration);
- “N” for Safety lighting (at ceiling, markers on sidewalls);
- “O” for Telephone;
- “P” for Variable message signs;
- “Q” for Water supply (for emergency teams only, for general public); and
- “R” for Other.

As to the information that cannot be inserted in the space available for the answers, you may send it on separate pages.

RETURN OF THE COMPLETED QUESTIONNAIRE

The completed questionnaire and any additional related information should be returned as soon as possible, but not later than **13 April 2001** to the following e-mail address: marie-noelle.poirier@unece.org. It may also be returned in hard-copy by mail or by fax, preferably with a diskette, to:

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COUNTRY CODES

The following list gives the ISO 3166-1/1997 alpha-2 codes for the countries represented in UN/LOCODE 1999, in alphabetical code order.

UE	UNITED ARAB EMIRATES	DZ	ALGERIA
AF	AFGHANISTAN	EC	ECUADOR
AG	ANTIGUA AND BARBUDA	EE	ESTONIA
AI	ANGUILLA	EG	EGYPT
AL	ALBANIA	EH	WESTERN SAHARA
AM	ARMENIA	ER	ERITREA
AN	NETHERLANDS ANTILLES	ES	SPAIN
AO	ANGOLA	ET	ETHIOPIA
AQ	ANTARCTICA	FI	FINLAND
AR	ARGENTINA	FJ	FIJI
AS	AMERICAN SAMOA	FK	FALKLAND ISLANDS (MALVINAS)
AT	AUSTRIA	FM	FED STATES OF MICRONESIA
AU	AUSTRALIA	FO	FAEROE ISLANDS
AW	ARUBA	FR	FRANCE
AZ	AZERBAIJAN	GA	GABON
BA	BOSNIA-HERCEGOVINA	GB	UNITED KINGDOM
BB	BARBADOS	GD	GRENADA
BD	BANGLADESH	GE	GEORGIA
BE	BELGIUM	GF	FRENCH GUIANA
BF	BURKINA FASO	GH	GHANA
BG	BULGARIA	GI	GIBRALTAR
BH	BAHRAIN	GL	GREENLAND
BI	BURUNDI	GM	GAMBIA
BJ	BENIN	GN	GUINEA
BM	BERMUDA	GP	GUADELOUPE
BN	BRUNEI DARUSSALAM	GQ	EQUATORIAL GUINEA
BO	BOLIVIA	GR	GREECE
BR	BRAZIL	GS	SGEORGIA & SSANDWICH ISLANDS
BS	BAHAMAS	GT	GUATEMALA
BT	BHUTAN	GU	GUAM
BU	BURMA (See MM MYANMAR)	GW	GUINEA-BISSAU
BW	BOTSWANA	GY	GUYANA
BY	BELARUS	HK	HONG KONG
BZ	BELIZE	HN	HONDURAS
CA	CANADA	HR	CROATIA
CC	COCOS (KEELING) ISLANDS	HT	HAITI
CD	CONGO, DEMOCRATIC REPUBLIC OF	HU	HUNGARY
CF	CENTRAL AFRICAN REPUBLIC	ID	INDONESIA
CG	CONGO	IE	IRELAND
CH	SWITZERLAND	IL	ISRAEL
CI	COTE D'IVOIRE	IN	INDIA
CK	COOK ISLANDS	IO	INDIAN OCEAN TERRITORY
CL	CHILE	IQ	IRAQ
CM	CAMEROON	IR	IRAN, ISLAMIC REPUBLIC OF
CN	CHINA	IS	ICELAND
CO	COLOMBIA	IT	ITALY
CR	COSTA RICA	JM	JAMAICA
CS	FORMER CZECHOSLOVAKIA	JO	JORDAN
CU	CUBA	JP	JAPAN
CV	CAPE VERDE	KE	KENYA
CX	CHRISTMAS ISLANDS	KG	KYRGYZSTAN
CY	CYPRUS	KH	CAMBODIA
CZ	CZECH REPUBLIC	KI	KIRIBATI
DE	GERMANY, FEDERAL REPUBLIC OF	KM	COMOROS
DJ	DJIBOUTI	KN	ST KITTS-NEVIS
DK	DENMARK	KP	KOREA, DEM PEOPLE'S REP
DM	DOMINICA	KR	KOREA, REPUBLIC OF
DO	DOMINICAN REPUBLIC	KW	KUWAIT

KY	CAYMAN ISLANDS	QA	QATAR
KZ	KAZAKHSTAN	RE	REUNION
LA	LAO PEOPLE'S DEMOCRATIC REP	RO	ROMANIA
LB	LEBANON	RU	RUSSIAN FEDERATION
LC	SAINT LUCIA	RW	RWANDA
LI	LIECHTENSTEIN	SA	SAUDI ARABIA
LK	SRI LANKA	SB	SOLOMON ISLANDS
LR	LIBERIA	SC	SEYCHELLES
LS	LESOTHO	SD	SUDAN
LT	LITHUANIA	SE	SWEDEN
LU	LUXEMBOURG	SG	SINGAPORE
LV	LATVIA	SH	ST HELENA
LY	LYBIAN ARAB JAMAHIRIYA	SI	SLOVENIA
MA	MOROCCO	SJ	SVALBARD AND JAN MAYEN
MC	MONACO	SK	SLOVAKIA
MD	MOLDOVA	SL	SIERRA LEONE
MG	MADAGASCAR	SM	SAN MARINO
MH	MARSHALL ISLANDS	SN	SENEGAL
MK	FORMER YUGOSLAV REP OF MACEDONIA	SO	SOMALIA
ML	MALI	SR	SURINAME
MM	MYANMAR (FORMER BURMA)	ST	SAO TOME AND PRINCIPE
MN	MONGOLIA	SV	EL SALVADOR
MO	MACAU	SY	SYRIAN ARAB REPUBLIC
MP	NORTHERN MARIANAS	SZ	SWAZILAND
MQ	MARTINIQUE	TC	TURKS AND CAICOS ISLANDS
MR	MAURITANIA	TD	CHAD
MS	MONTSERRAT	TF	FRENCH SOUTHERN TERRITORIES
MT	MALTA	TG	TOGO
MU	MAURITIUS	TH	THAILAND
MV	MALDIVES	TJ	TAJIKISTAN
MW	MALAWI	TM	TURKMENISTAN
MX	MEXICO	TN	TUNISIA
MY	MALAYSIA	TO	TONGA
MZ	MOZAMBIQUE	TP	EAST TIMOR
NA	NAMIBIA	TR	TURKEY
NC	NEW CALEDONIA	TT	TRINIDAD AND TOBAGO
NE	NIGER	TV	TUVALU
NF	NORFOLK ISLAND	TW	TAIWAN, PROVINCE OF CHINA
NG	NIGERIA	TZ	TANZANIA, UNITED REPUBLIC OF
NI	NICARAGUA	UA	UKRAINE
NL	NETHERLANDS	UG	UGANDA
NO	NORWAY	UM	US MINOR OUTLYING ISLANDS
NP	NEPAL	US	UNITED STATES
NR	NAURU	UY	URUGUAY
NU	NIUE	UZ	UZBEKISTAN
NZ	NEW ZEALAND	VA	VATICAN CITY STATE (HOLY SEE)
OM	OMAN	VC	ST VINCENT AND GRENADINES
PA	PANAMA	VE	VENEZUELA
PE	PERU	VG	VIRGIN ISLANDS, BRITISH
PF	FRENCH POLYNESIA	VI	UNITED STATES VIRGIN ISLANDS
PG	PAPUA NEW GUINEA	VN	VIET NAM
PH	PHILIPPINES	VU	VANUATU
PK	PAKISTAN	WF	WALLIS AND FUTUNA ISLANDS
PL	POLAND	WS	SAMOA
PM	ST PIERRE AND MIQUELON	YE	YEMEN
PN	PITCAIRN	YT	MAYOTTE
PR	PUERTO RICO	YU	YUGOSLAVIA (FED REP OF)
PT	PORTUGAL	ZA	SOUTH AFRICA
PW	PALAU	ZM	ZAMBIA
PY	PARAGUAY	ZW	ZIMBABWE
