
Overview

This standard is about controlling tunnel safety systems. It includes monitoring the systems, such as that addressing air flow and quality, power distribution and drainage. It also includes identifying and taking the necessary actions to ensure that these address changing conditions within a tunnel.

Maintaining the health and safety of all of those using the tunnel is of paramount importance.

There is one element:

- 1 Control tunnel safety systems

Performance criteria

You must be able to:

- P1 monitor traffic in and around the tunnel using the appropriate systems correctly, in line with your organisation's procedures
- P2 operate the safety systems correctly to maintain the health, safety and welfare of road-users within the tunnel
- P3 monitor safety systems and equipment correctly, including those maintaining the flow and quality of air, power and drainage, and address where relevant any deviations from accepted readings in line with your organisation's procedures
- P4 report problems and faults in the use of safety systems and equipment, where these occur, promptly and accurately, in line with your organisation's procedures
- P5 identify correctly activities and incidents within the tunnel which require a response, identifying and implementing the relevant corresponding actions relating to the tunnel safety systems promptly
- P6 interpret correctly and report incidents accurately, promptly and calmly to the relevant person(s)

Knowledge and understanding

You need to know and understand:

Legal and organisational requirements

- K1 current, relevant legislation, policies, schemes and procedures, including your organisation's standards and performance indicators, in relation to controlling safety systems within tunnels and their implications for your area of operations
- K2 health and safety requirements relating to traffic management within tunnels
- K3 how to use and monitor the tunnel and the performance of the tunnel safety systems in accordance with your organisation's requirements
- K4 your level of authority and the actions necessary should these be exceeded, including the tunnel management hierarchy within your area of operations

Addressing risk scenarios associated with tunnels

You need to know and understand:

- K5 potential risk scenarios which could occur in and on the approaches to the tunnel(s) within your area of operations, including scenarios relating to vehicle and non-vehicle related incidents, fires, chemical spillages, traffic congestion, vehicle loads, weather hazards and planned maintenance
- K6 safety system response procedures for addressing fires and chemical spillages occurring in and on the approaches to the tunnel(s) within your area of operations, and your role and responsibilities associated with these procedures
- K7 the safety systems and equipment for dealing with potential risk scenarios which could occur in and on the approaches to the tunnel(s) within your area of operations
- K8 procedures for managing the safety systems in the tunnel(s) within your area of operations where there is total power failure, and also where there is a failure of the normal power supply and reliance is made upon a standby source

Managing road traffic in a tunnel

You need to know and understand:

- K9 the road network and associated infrastructure associated with the tunnel(s) in your area of responsibility
- K10 partner organisations involved in maintaining safety systems within the tunnel(s) in your area of responsibility, and their principal roles and responsibilities
- K11 safe access and egress routes for vehicles and personnel within the tunnel(s) in your area of responsibility
- K12 available alternative routes for road users unable to use the tunnel(s)

within your area of operations

- K13 speed limits in and on the approaches to the tunnel(s) within your area of operations, and the rationale for these
- K14 lighting requirements in and on the approaches to the tunnel(s) within your area of operations and how these are managed
- K15 ventilation requirements relating to normal and congested traffic conditions within the tunnel(s) in your area of operations, and your role and responsibilities associated with these requirements
- K16 drainage and pumping arrangements within the tunnel(s) in your area of operations, and your role and responsibilities associated with managing these

Managing incidents in a tunnel

You need to know and understand:

- K17 the importance of undertaking risk assessments of incidents, the associated factors to consider when such incidents occur in and on the approaches to tunnels, and how to do this
- K18 the purpose of a command structure, and its importance and functions in relation to incident management
- K19 how to communicate within a command structure
- K20 how to identify when to hand over responsibility and the correct procedures for doing so
- K21 evacuation procedures for the tunnel(s) within your area of operations and your role and responsibilities associated with these procedures

Use of technology

You need to know and understand:

- K22 the importance of assessing the impact of the performance of tunnel safety systems, including the criteria to be checked
- K23 the importance of checking that tunnel safety systems are functioning and of identifying and reporting any faults in the systems

SFJJA202

Control tunnel safety systems

Developed by	Skills for Justice
---------------------	--------------------

Version number	1
-----------------------	---

Date approved	March 2009
----------------------	------------

Indicative review date	March 2014
-------------------------------	------------

Validity	Current
-----------------	---------

Status	Original
---------------	----------

Originating organisation	Skills for Justice
---------------------------------	--------------------

Original URN	SfJ JA202
---------------------	-----------

Relevant occupations	Public Services; Public Service and Other Associate Professionals
-----------------------------	---

Suite	Traffic Management
--------------	--------------------

Key words	traffic management, tunnel safety
------------------	-----------------------------------