



CMRL is ensuring safety exits for commuters taking the underground metros | EXPRESS

Cross passage between tunnels to ensure safety

by C Shivakumar

Chennai: As the work on underground passage for metro rail is gaining pace, Chennai Metro Rail is ensuring that the safety of passengers are given priority as it is constructing a cross passage between two tunnels to help commuters, in case of any eventuality.

Chennai Metro Rail General Manager (construction) V Somasundaram told *City Express* that the tunneling works were being done, ensuring the safety of commuters in the underground stretch.

The world has witnessed several tunnel fires such as the Mont Blanc tunnel fire in 1999 and the one at Swiss St Gotthard tunnel in 2001. These have raised concerns about fire safety in tunnels globally resulting in many countries adopting codes for exit routes in tunnels, including a minimum distance between points of escape to the ground surface. If a project includes two parallel tunnels, cross passages linking both tunnels can be provided. In case of any eventuality, the commuters can move to safety through the cross passage and walk to the next station.

Experts feel these cross passages must be free of smoke in order to provide a visual indication of safe evac-

uation paths to escaping passengers, to protect them while they are traversing the cross-passages, and to ensure that the non-incident tunnel is kept clear of smoke.

Somasundaram said metro rail was building a cross passage every 250 metres. He added that the distance between both the stations was 1.5 km and in case of an eventuality, a commuter would walk for about 700 metres.

In the United States, the main standard that gives guidance on the requirements for spacing of cross passages in railway tunnels is around 750 metres. For twin bore tunnels, cross passages may be used in lieu of emergency exit stairways to the surface and shall not be farther than 244 metres apart. The cross passages should be protected with fire door assemblies having a fire protection rating of 1-1/2 hours with a self-closing fire door.

In the United Kingdom, the distance between cross passages should not exceed 100 metres while in Germany, the corresponding distance between emergency exits must not be greater than 300 meters on an average. In France the maximum distance between two stations or fire brigade access points is 400 metres.