## FIRE AND LIFE SAFETY DURING CONSTRUCTION AND MAINTENANCE

Table 12.7.: Safe Work Practices	
ITEMS	REQUIREMENTS
7. UNDER GROUND OPERATIONS	<ul> <li>i. In addition to the specific requirements of this section, the provisions of all the sections of this chapter shall apply to the underground operations unless otherwise modified by this chapter.</li> <li>ii. Drainage systems shall be properly designed and installed to remove water from sprinkler discharge and fire hose streams.</li> <li>iii. Fire safety for existing, operating, fixed guideway underground transportation systems undergoing alteration or renovation shall be in accordance with NFPA 130, Standard for Fixed Guideway Transit and Passenger Rail Systems.</li> <li>iv. Means of egress for existing, operating, underground structures shall be in accordance with Chapter 3. Means of Egress.</li> </ul>
	<ul> <li>i. At each aboveground entrance, underground operations shall have a check-in/check-out system, supervised by a qualified individual at all times, that provides an accurate record of each person who is underground.</li> <li>ii. The location of the check-in/check-out system shall be within 7600 mm of the entrance and shall be easily identified.</li> <li>iii. Completed or unused sections of the underground facility shall be barricaded, properly marked and made off limits.</li> <li>iv. Compartmentation by means of the installation of fire and smoke barriers shall be at intervals that limit the extent and severity of the fire and that provide areas of refuge for occupants.</li> </ul> 3. WATER SUPPLY
	<ul> <li>i. A fire protection water supply system shall be provided as per Section 3.8.</li> <li>ii. No minimum water supply can be specified due to the wide range of construction types, sites, and sizes. However, unless combustibles are essentially nonexistent in the completed structure and occupancy, a minimum of 1893 L/min (500 gpm) should be provided. In most instances, the required supply is greater and the consultant's proposal shall be submitted to Civil Defence for approval.</li> <li>iii. The fire hose outlets shall be provided so that travel distance does not exceed 46 m.</li> </ul>
	<ul> <li>i. A written fire prevention, fire suppression and emergency evacuation plan shall be developed, maintained and kept current.</li> <li>ii. Special attention shall be given to rescue and smoke-venting procedures, to means of ingress/egress and to training and orientation of employees and visitors.</li> <li>iii. All personnel, including visitors, shall be trained in emergency and evacuation procedures and informed of the hazards prior to going underground.</li> </ul>

