(Effective March 15, 2024)

WAC 51-54A-4900 Fixed guideway transit and passenger rail systems.

4901.1 Scope NFPA 130. General. Fixed guideway transit and passenger rail systems shall be in accordance with NFPA 13, as modified below.

4901.2 NFPA 130 Section 3.3.44.2. Add new definition as follows:

3.3.44.2 Traction power sub station (TPSS): A TPSS is an electrical substation consisting of switchgear transformers/rectifiers, emergency trip equipment, and other systems that converts AC electric power provided by the electrical power industry for public utility service to DC voltage to supply light rail vehicles with traction current.

4901.3 NFPA 130 Section 5.4.4 Modify NFPA 130 Sections 5.4.4.1 and 5.4.4.1.1 to read as follows:

5.4.4.1 An automatic sprinkler system shall be provided throughout enclosed stations.

EXCEPTIONS:
1. Traction power substation (TPSS) when located in a transformer vault designed in accordance with the NFPA 70.
2. Other high voltage equipment located in a transformer vault designed in accordance with the NFPA 70 when approved by the fire code official.
3. Fire command centers, communication room(s), and signal rooms when protected with clean agent fire suppression and separated from other spaces with two-hour fire rated construction.
4. Other operational critical rooms when protected with clean agent fire suppression and separated from other spaces with two-hour fire rated construction, when approved by the fire code official.

5.4.4.1.1 An automatic sprinkler system shall be provided in areas of open stations used for concessions, markets, storage areas and similar areas with combustible loadings, and in trash rooms, electrical rooms, mechanical rooms, machinery rooms, communication rooms, and other enclosed rooms.

EXCEPTIONS:
1. Stations at grade with less than 1,500 sq. ft. of ancillary area/ancillary space.
2. Fire command centers, communication room(s), and signal rooms when protected with clean agent fire suppression and separated from other spaces with two-hour fire rated construction.
3. Other operational critical rooms when protected with clean agent fire suppression and separated from other spaces with two-hour fire rated construction, when approved by the fire code official.

5.4.4.2 Sprinkler protection shall be permitted to be omitted in areas of open stations separated from the station by a distance of 20 feet.

4901.4 NFPA 130 Section 5.4.5. Modify NFPA 130 Sections 5.4.5.1 as follows:

5.4.5.1 Class I standpipes shall be installed in enclosed stations in accordance with International Fire Code Section 905 except as modified herein.

4901.5 NFPA 130 Section 5.4.6. Modify NFPA 130 Sections 5.4.6 as follows:

5.4.6 Portable fire extinguishers in such number, size, type, and location in accordance with the International Fire Code Section 906.

5.4.6.1 Portable fire extinguishers are not required in public areas of at-grade stations.

4901.6 NFPA 130 Section 5.4.7. Modify NFPA 130 Section 5.4.7 as follows:

5.4.7 Emergency ventilation shall be provided in enclosed stations in accordance with Chapter 7 and the International Building Code Section 909.

4901.6 NFPA 130 Section 5.2.2. Modify NFPA 130 Section 5.2.2.2 as follows:

5.2.2.2 Construction types shall conform to the requirements in the International Building Code, Chapter 6, unless otherwise exempted in this section.

Table 5.2.2.1

Minimum Construction Requirements for New Station Structures

Station Configuration	Construction Type†
Stations erected entirely above grade and in a separate building:	
Open stations	Type IIB
Enclosed stations	Type IIA
Stations erected entirely or partially below grade:	
Open above grade portions of below grade structures*	Type IIA
Below grade portions of structures	Type IB
Below grade structures with occupant loads exceeding 1000	Type IA

* Roofs not supporting an occupancy above are not required to have a fire resistance rating.
† Construction types are in accordance with the International Building Code.

4901.7 NFPA 130 Section 5.2.2. Modify NFPA 130 Section 5.2.4.3 as follows:

5.2.4.3 Ancillary spaces. Fire resistance ratings of separations between ancillary occupancies shall be established as required for accessory occupancies and incidental uses by the International Building Code and in accordance with ASTM E119 and ANSI/UL 263.

4901.8 NFPA 130 Section 5.2.5. Modify NFPA 130 Section 5.2.5.4 as follows:

5.2.5.4 Materials used as interior finish in open stations shall comply with the requirements of the International Building Code, Chapter 8.

4901.9 NFPA 130 Section 5.3.1. Modify NFPA 130 Section 5.3.1.1 as follows:

5.3.1.1 The provisions for means of egress for a station shall comply with the International Building Code, Chapter 10, except as herein modified.

4901.10 NFPA 130 Section 5.3.2. Add a New Section to NFPA 130 Section 5.3.2.2.1 as follows:

5.3.2.2.1 Where station occupancy is anticipated to be greater than design capacity during a major event the operating agency shall initiate approved measures to restrict access to the station, when required by the fire code official, to ensure existing means of egress are adequate as an alternate to account for peak ridership associated with major events.

4901.11 NFPA 130 Section 5.3.4. Modify NFPA 130 Section 5.3.2.4(1) as follows:

(1) The occupant load for that area shall be determined in accordance with the provisions of the International Building Code as appropriate for the use.

4901.12 NFPA 130 Section 5.3.3. Modify NFPA 130 Section 5.3.3.4 as follows:

5.3.3.4 Travel distance. For open stations the maximum travel distance on the platform to a point at which a means of egress route leaves the platform shall not exceed 100 m (325 ft.). For enclosed stations the travel distance to an exit shall not exceed 76 m (250 ft.).

4901.13 NFPA 130 Section 5.3.5. Modify NFPA 130 Section 5.3.5.3(2) as follows:

(2)* Travel speed - 14.6 m/min (48 ft./min) (indicates vertical component of travel speed).

5.3.5.4 Escalators shall not account for more than one-half of the egress capacity at any one level.

4901.14 NFPA 130 Section 5.3.5. Delete NFPA 130 Section 5.3.5.5.

4901.15 NFPA 130 Section 5.3.7. Modify NFPA 130 Section 5.3.7 as follows:

5.3.7* Doors, gates, security grilles and exit hatches.

5.3.7.2.1 Security grilles are allowed when designed and operated in accordance with the International Building Code.

4901.16 NFPA 130 Section 5.3.9. Modify NFPA 130 Section 5.3.9 as follows:

5.3.9* Horizontal exits. Horizontal exits shall comply with the International Building Code Section 1026.

4901.17 NFPA 130 Section 5.3.11. Modify NFPA 130 Section 5.3.11 as follows:

5.3.11.1 Illumination of the means of egress in stations, including escalators that are considered a means of egress, shall be in accordance with the International Building Code Section 1008.

5.3.11.2 Means of egress, including escalators considered as means of egress, shall be provided with a system of emergency lighting in accordance with the International Building Code Section 1008.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 22-13-093, 23-12-107, and 23-20-027, § 51-54A-4900, filed 6/14/22, 6/7/23, and 9/25/23, effective 3/15/24.]

(Effective March 16, 2024)

WAC 51-54A-4900 Fixed guideway transit and passenger rail systems.

4901 Scope NFPA 130.

4901.1 General. Fixed guideway transit and passenger rail systems shall be in accordance with NFPA 130, as modified below.

4901.2 NFPA 130 Section 3.3.44.2. Add new definition as follows:

3.3.44.2 Traction power sub station (TPSS): A TPSS is an electrical substation consisting of switchgear transformers/rectifiers, emergency trip equipment, and other systems that converts AC electric power provided by the electrical power industry for public utility service to DC voltage to supply light rail vehicles with traction current.

4901.3 NFPA 130 Section 5.4.4 Modify NFPA 130 Sections 5.4.4.1 and 5.4.4.1.1 to read as follows:

5.4.4.1 An automatic sprinkler system shall be provided throughout enclosed stations.

EXCEPTIONS:
1. Traction power substation (TPSS) when located in a transformer vault designed in accordance with the NFPA 70.
2. Other high voltage equipment located in a transformer vault designed in accordance with the NFPA 70 when approved by the fire code official.
3. Fire command centers, communication room(s), and signal rooms when protected with clean agent fire suppression and separated from other spaces with 2-hour fire rated construction.
4. Other operational critical rooms when protected with clean agent fire suppression and separated from other spaces with 2-hour fire rated construction, when approved by the fire code official.

5.4.4.1.1 An automatic sprinkler system shall be provided in areas of open stations used for concessions, markets, storage areas and similar areas with combustible loadings, and in trash rooms, electrical rooms, mechanical rooms, machinery rooms, communication rooms, and other enclosed rooms.

EXCEPTIONS:
1. Stations at grade with less than 1,500 sq. ft. of ancillary area/ancillary space.
2. Fire command centers, communication room(s), and signal rooms when protected with clean agent fire suppression and separated from other spaces with 2-hour fire rated construction.
3. Other operational critical rooms when protected with clean agent fire suppression and separated from other spaces with 2-hour fire rated construction, when approved by the fire code official.

5.4.4.2 Sprinkler protection shall be permitted to be omitted in areas of open stations separated from the station by a distance of 20 feet.

4901.4 NFPA 130 Section 5.4.5. Modify NFPA 130 Sections 5.4.5.1 as follows:

5.4.5.1 Class I standpipes shall be installed in enclosed stations in accordance with International Fire Code Section 905 except as modified herein.

4901.5 NFPA 130 Section 5.4.6. Modify NFPA 130 Sections 5.4.6 as follows:

5.4.6 Portable fire extinguishers in such number, size, type, and location in accordance with the International Fire Code Section 906.

5.4.6.1 Portable fire extinguishers are not required in public areas of at-grade stations.

4901.6 NFPA 130 Section 5.2.2. Modify NFPA 130 Section 5.2.2.2 as follows:

5.2.2.2 Construction types shall conform to the requirements in the International Building Code, Chapter 6, unless otherwise exempted in this section.

Table 5.2.2.1

Minimum Construction Requirements for New Station Structures

Station Configuration	Construction Type†
Stations erected entirely above grade and in a separate building:	

Station Configuration	Construction Type†
Open stations	Type IIB
Enclosed stations	Type IIA
Stations erected entirely or partially below grade:	
Open above grade portions of below grade structures*	Type IIA
Below grade portions of structures	Type IB
Below grade structures with occupant loads exceeding 1000	Type IA

* Roofs not supporting an occupancy above are not required to have a fire resistance rating.
† Construction types are in accordance with the International Building Code.

4901.7 NFPA 130 Section 5.2.2. Modify NFPA 130 Section 5.2.4.3 as follows:

5.2.4.3 Ancillary spaces. Fire resistance ratings of separations between ancillary occupancies shall be established as required for accessory occupancies and incidental uses by the International Building Code and in accordance with ASTM E119 and ANSI/UL 263.

4901.8 NFPA 130 Section 5.2.5. Modify NFPA 130 Section 5.2.5.4 as follows:

5.2.5.4 Materials used as interior finish in open stations shall comply with the requirements of the International Building Code, Chapter 8.

4901.9 NFPA 130 Section 5.3.1. Modify NFPA 130 Section 5.3.1.1 as follows:

5.3.1.1 The provisions for means of egress for a station shall comply with the International Building Code, Chapter 10, except as herein modified.

4901.10 NFPA 130 Section 5.3.2. Add a New Section to NFPA 130 Section 5.3.2.2.1 as follows:

5.3.2.2.1 Where station occupancy is anticipated to be greater than design capacity during a major event the operating agency shall initiate approved measures to restrict access to the station, when required by the fire code official, to ensure existing means of egress are adequate as an alternative to account for peak ridership associated with major events.

4901.11 NFPA 130 Section 5.3.4. Modify NFPA 130 Section 5.3.2.4(1) as follows:

(1) The occupant load for that area shall be determined in accordance with the provisions of the International Building Code as appropriate for the use.

4901.12 NFPA 130 Section 5.3.3. Modify NFPA 130 Section 5.3.3.4 as follows:

5.3.3.4 Travel distance. For open stations the maximum travel distance on the platform to a point at which a means of egress route leaves the platform shall not exceed 100 m (325 ft.). For enclosed stations the travel distance to an exit shall not exceed 76 m (250 ft.).

4901.13 NFPA 130 Section 5.3.5. Modify NFPA 130 Section 5.3.5.3(2) as follows:

(2)* Travel speed - 14.6 m/min (48 ft./min) (indicates vertical component of travel speed).

5.3.2.4 Where an area within a station is intended for use by other than passengers or employees, the following parameters shall apply:

1. The occupant load for that area shall be determined in accordance with the provisions of the IBC NFPA 101 as appropriate for the use.

2. The additional occupant load shall be included in determining the required egress from that area.

3. The additional occupant load shall be permitted to be omitted from the station occupant load where the area has independent means of egress of sufficient number and capacity.

5.3.3.4 Travel distance. For open stations the maximum travel distance on the platform to a point at which a means of egress route leaves the platform shall not exceed 100 m (325 ft.). For enclosed stations the travel distance to an exit shall not exceed 76 m (250 ft.).

5.3.5.4 Escalators shall not account for more than one-half of the egress capacity at any one level.

4901.14 NFPA 130 Section 5.3.5. Delete NFPA 130 Section 5.3.5.5.

4901.15 NFPA 130 Section 5.3.7. Modify NFPA 130 Section 5.3.7 as follows:

5.3.7* Doors, gates, security grilles and exit hatches.

5.3.7.1 The egress capacity for doors and gates in a means of egress serving public areas shall be computed as follows:

1. Sixty people per minute (p/min) for single leaf doors and gates.

2.* 0.0819 p/mm-min (2.08 p/in.-min) for biparting multileaf doors and gates measured for the clear width dimension.

5.3.7.2.1 Security grilles are allowed when designed and operated in accordance with the International Building Code.

4901.16 NFPA 130 Section 5.3.9. Modify NFPA 130 Section 5.3.9 as follows:

5.3.9* Horizontal exits. Horizontal exits shall comply with the International Building Code Section 1026.

4901.17 NFPA 130 Section 5.3.11. Modify NFPA 130 Section 5.3.11 as follows:

5.3.11.1 Illumination of the means of egress in stations, including escalators that are considered a means of egress, shall be in accordance with the International Building Code Section 1008.

5.3.11.2 Means of egress, including escalators considered as means of egress, shall be provided with a system of emergency lighting in accordance with the International Building Code Section 1008.

4901.18 NFPA 130 Section 5.4.7. Modify NFPA 130 Section 5.4.7 as follows:

5.4.7 Emergency ventilation shall be provided in enclosed stations in accordance with Chapter 7 and the International Building Code Section 909.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 23-23-106, § 51-54A-4900, filed 11/15/23, effective 3/16/24; WSR 22-13-093, 23-12-107, and 23-20-027, § 51-54A-4900, filed 6/14/22, 6/7/23, and 9/25/23, effective 3/15/24.]