



FIRE AND LIFE SAFETY REPORT

1.0 JURISDICTION

This Fire and Life Safety Report will be carried out in conjunction with the construction of the new buildings and boat shelters to be constructed at 950 Stanley Park Drive, Vancouver, BC and will be submitted for acceptance by the Authority Having Jurisdiction, the Vancouver Port Authority.

The relevant Code is the National Building Code and the National Fire Code. Both are silent on Moorage Facilities and neither references NFPA 303. In the absence of any regulations, it is proposed that the design and construction complies with then City of Vancouver Building By-Law which has specific requirements for such facilities. The City of Vancouver Fire & Rescue will likely be the emergency response team for any fire at this facility.

2.0 NFPA 303 REQUIREMENTS

2.1 Electrical Requirements

All electrical will confirm to C22.1-18 – Canadian Electrical Code, Part 1 (24th Edition), Safety Standards for Electrical Installations.

2.2 Additional Requirements per NFPA 303

NFPA 303 5.3.3: All electrical services shall be located at least 300mm (12 in.) above the deck of a fixed pier but not below the electrical datum plane.

NFPA 303 5.4.3: Maximum Voltage is 250V phase to phase unless specifically engineered and approved by the AHJ.

NFPA 303 5.4.5: Service equipment and main panel must not be installed in wet locations unless listed for wet locations.

NFPA 303 5.12.1: Where receptacles intended to supply shore power to boats are installed, receptacles shall comply with the requirements in 5.12.1 through 5.12.1.3.

NFPA 303 5.15.1: Electrical equipment enclosures installed on piers above deck level shall be supported by structural members independent of any conduit connected to them.

NFPA 303 5.17: Hazardous (classified) locations – applicable if there is dispensing of fuels at or near the moorage.

NFPA 303 5.18.1: Insulation integrity tests shall meet the requirements of Section 110.7 of NFPA 7-, National Electrical Code.

The above-mentioned are highlights of electrical requirements referenced by NFPA 303. Please consult NFPA 303 in its entirety.



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3.0 PROVISIONS FOR FIRE DEPARTMENT

3.1 Access Routes

The fire department will have access to the fenced piers; this will not be changed. Appropriate means of access such as a lockbox will be provided to the fire department.

3.2 Portable Fire Extinguishers

Fire extinguishers will be provided in all areas of the building in accordance with the City of Vancouver Fire By-Law. Specifically, one listed, 2A5BC-rated, multi-purpose, dry chemical unit per 556 m² (6,000 ft²) will be provided at the pier so that the travel distance to the extinguisher will not be greater than 23m.

3.3 Detection System

3.3.1 Fire detection devices and installation shall be in accordance with NFPA 72, National Fire Alarm and Signaling Code

3.3.2 Fire detectors shall be installed in the following interior or covered locations such as (5) Areas used for enclosed or covered storage of vessels and (6) Areas used for enclosed or covered maintenance of vessels.

3.4 Standpipe System

A 64mm diameter hose connection standpipe system will be provided to conform to NFPA 14 where the hose lay distance from the fire apparatus exceeds 150 ft. (45m). The exact locations of the 2-1/2" hose connections shall be per NFPA 14, Sentence 5-3.2. Refer to NFPA 303 Section 6.4.4 to 6.4.7 for exceptions.

Exceptions:

6.4.4. Hose Racks, hoses, and standpipe cabinets shall not be required on piers and bulkheads.

6.4.5. Standpipe systems, where installed, shall be in accordance with NFPA 14 except for provisions identified in 6.4.4 through 6.4.7.

6.4.6. Manual standpipes shall be permitted.

6.4.7 Flexible connections shall be permitted on floating piers where acceptable to the authority having jurisdiction.

Existing hose cabinets may be kept but need not be up to the upgrades since they are exempted under NFPA 303. It is recommended that the hose connections be upgraded to 2-1/2" unless specifically relaxed by the Fire Department due to existing conditions and not retroactive upgrading is required under the current VBBL.



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3.5 Emergency Lighting and Power

Emergency lighting to an average level of 10 lx will be provided within all exits. None of the exits are inside and enclosed spaces. It is not the intention of the Code to require exterior emergency lighting; therefore, any upgrading will be on a voluntary basis.

4.0 BERTHING AND STORAGE

Berthing and storage shall conform to NFPA 303, Chapter 7. Each berth shall be arranged such that a boat occupying the berth can be removed in an emergency without the necessity of moving other boats. Access to all piers, floats and wharves shall be provided for municipal fire-fighting equipment.

Electrical lighting shall be provided to ensure adequate illumination of all exterior areas, piers and floats. Such electrical lighting shall not interfere with navigation or aids to navigation. Only listed 120/240V ac electrical equipment shall be operated unattended,

5.0 CONCLUSION

The reconstructed area will conform to Part 11 of the VBBL and NFPA 303 where referenced by the Bylaw. The facility will not be used for maintenance or refueling of the boats but only for wet storage. There will be some maintenance work involving lifters (machine) to lift boats out of the water; however, no work will be done on these boats and no one shall live on any of these boats.

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