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Proposed Change 1727

Code Reference(s):	NPC20 Div.B 2.4.4.4. (first printing)
Subject:	Drainage Systems
Title:	Neutralization Tanks
Description:	This proposed change removes dilution as an acceptable method for the treatment of corrosive or acid waste to better protect the environment and plumbing infrastructure.
Related Code Change Request(s):	CCR 1628

This change could potentially affect the following topic areas:

- | | |
|--|--|
| <input type="checkbox"/> Division A | <input checked="" type="checkbox"/> Division B |
| <input type="checkbox"/> Division C | <input type="checkbox"/> Design and Construction |
| <input type="checkbox"/> Building operations | <input type="checkbox"/> Housing |
| <input checked="" type="checkbox"/> Small Buildings | <input checked="" type="checkbox"/> Large Buildings |
| <input type="checkbox"/> Fire Protection | <input type="checkbox"/> Occupant safety in use |
| <input type="checkbox"/> Accessibility | <input type="checkbox"/> Structural Requirements |
| <input type="checkbox"/> Building Envelope | <input type="checkbox"/> Energy Efficiency |
| <input type="checkbox"/> Heating, Ventilating and Air Conditioning | <input checked="" type="checkbox"/> Plumbing |
| | <input type="checkbox"/> Construction and Demolition Sites |

Problem

The National Plumbing Code of Canada (NPC) 2020 allows for both dilution and neutralization as methods to treat corrosive or acid waste before it is discharged into drainage systems. However, the use of dilution tanks has several disadvantages compared to neutralization, as dilution wastes water and energy, increases greenhouse gas emissions and contributes to the degradation of plumbing infrastructure.

Further, the option for dilution in the NPC is inconsistent with current practice. The preferred method is neutralization. Currently, the only available option for discharging corrosive waste into a city sewer is to follow local sewer use bylaws. Notably, the Canadian Model Sewer Use Bylaw prohibits dilution in Section 4 (Prohibition of Dilution).

Justification

The proposed change would remove dilution as an acceptable means of treating corrosive or acid waste to avoid contradiction with local sewer use bylaws and subsequent confusion for Code users. The change would bring NPC requirements for the treatment of such waste into alignment with those in the Canadian Model Sewer Use Bylaw and better protect plumbing infrastructure and the environment from harsh chemicals.

An acceptable pH range for waste water is specified in the Canadian Model Sewer Use Bylaw and local sewer use bylaws.

PROPOSED CHANGE

[2.4.4.4.] 2.4.4.4. ~~Neutralizing and Dilution~~Neutralization Tanks

- [1] 1) Where a *fixture* or equipment discharges corrosive or acid waste, it shall discharge into a ~~neutralizing or dilution~~neutralization tank that is connected to the *sanitary drainage system* through
- [a] a) a *trap*, or
 - [b] b) an indirect connection.
- (See Note A-2.4.4.4.(1).)
- [2] 2) ~~Neutralizing and dilution~~A neutralization tanks shall have a method for neutralizing the liquid it contains.

Impact analysis

This proposed change would result in more efficient and safer treatment of corrosive or acid waste, which would decrease operational and end use costs for municipalities.

The benefits of the use of appropriate and environmentally responsible methods to dispose of corrosive or acid waste also include water savings and a decreased need for energy to provide clean water to users.

Enforcement implications

Provincial or territorial authorities, municipal inspectors and authorities having jurisdiction, and other provincial, territorial or municipal service providers would need to monitor and enforce compliance with the revised requirement.

Who is affected

Designers, builders and authorities having jurisdiction.

OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISIONS

[\[2.4.4.4.\]](#) 2.4.4.4. ([\[1\]](#) 1) [F80-OS3.4]

[\[2.4.4.4.\]](#) 2.4.4.4. ([\[2\]](#) 2) [F43-OH5]

[\[2.4.4.4.\]](#) 2.4.4.4. ([\[2\]](#) 2) [F80-OH2.1]