

**From:** "Johnston, Sadhu" <Sadhu.Johnston@vancouver.ca>  
**To:** "Direct to Mayor and Council - DL" <CCDTMACDL@vancouver.ca>  
**CC:** "City Manager's Correspondence Group - DL" <CMCG@vancouver.ca>  
"Bromley, Malcolm" <Malcolm.Bromley@vancouver.ca>  
"Kendall-Craden, Rena" <Rena.Kendall-Craden@vancouver.ca>  
**Date:** 10/19/2017 12:28:37 PM  
**Subject:** FW: Ammonia Usage and Procedures in Park Board Rinks  
**Attachments:** PB - GMO - Ammonia Usage and Procedures in Park Board Rinks - Board Briefing Memo- 2017-10-18.pdf  
ATT00001.htm

Greetings Mayor and Council

Please find attached and pasted below a memo from the Park Board GM's office to the Park Board Commissioners regarding ammonia safety practices at our rinks.

Please feel free to reach out to me or the GM's office if you have questions.

Best

Sadhu

**Sadhu Aufochs Johnston** | City Manager  
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Vancouver | BC V5Y 1V4  
604.873.7627 | [Sadhu.johnston@vancouver.ca](mailto:Sadhu.johnston@vancouver.ca)  
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**Subject: Ammonia Usage and Procedures in Park Board Rinks**

Dear Commissioners,

In light of recent, tragic events in Fernie we have had a number of media inquiries about the safety of our facilities and have called a media availability this afternoon with Donnie Rosa and our rink staff. In the event that you get inquiries from your constituents and communities, we thought it prudent to update you on our safety protocols in arenas.

We have eight indoor ice rinks: Britannia, Kerrisdale, Killarney, Kitsilano, Hillcrest, Sunset, Trout Lake and West End in Vancouver with approximately 500,000 patrons annually. They all use an ammonia refrigeration system. We are very fortunate in Vancouver to never have had a critical incident or injuries involving ammonia in our ice rinks insofar as our records indicate.

Ammonia is a greenhouse gas friendly natural refrigerant which has been used in refrigeration plants for over a century, and is commonly used throughout many industries including fish processing and breweries, as well as rinks. The options for refrigerant gases are mostly more hazardous as they are odourless and invisible heavier-than-air asphyxiants, as well as causing serious greenhouse gas impacts.

All ice rink refrigeration systems fall under the provincial governments BC Safety Authority (BCSA) who set standards, issue permits and inspect rinks annually. Regulations stipulate that trained staff be on site during operation of the refrigeration system. All rinks are required to have an alarm monitoring system and emergency procedures in place to detect and respond quickly to a breach in the system.

The Park Board has a Chief Engineer, or Maintenance Technician II, at each rink responsible for the safe operation of the ice rink and ammonia plant. Park Board maintenance staff receive support from Ian Harvey, Manager of Building Operations, as well as maintenance support from various trades. External contractors are also brought in from time to time to perform specialized work.

In 2014 we performed an extensive review of ice rink ammonia plant operations. As a result, each of our ice rinks has a unique set of Ice Rink Ammonia Plant (IRAP) binders that all ice rink maintenance staff are required to learn.

These binders include:

- #1 WorkSafe BC & BC Safety Authority compliance and safe operating procedures
- #2 Site specific emergency procedures
- #3 Standards and regulations
- #4 Material Safety Data Sheets
- #5 Training and administrative information
- #6 Testing, service reports and audits
- #7 Occupational Health and Safety standards
- #8 Pre-shut down and site meeting & archives

In addition to revised policies, procedures and staff training there have been a number of physical plant upgrades over the past few years, including; upgraded ammonia detection systems, sensors, construction of vestibules, signage. Staff are also trained and equipped with personal protective equipment such as personal ammonia sensors and emergency respirators.

Maintenance and Recreation staff (skating instructors, patrol, skate shop) review and practice ammonia alarm and evacuation procedures once per year, at minimum, during annual in-service training sessions. Staff are required to perform fire evacuations (real and drills) periodically throughout the year which are a similar response to ammonia leak evacuations.

We hope this information has been useful to you. We're happy to assist if you have any other questions.

Thank you,

Shauna Wilton  
Deputy General Manager - Vancouver Board of Parks and Recreation



October 18, 2017

MEMO TO : Park Board Commissioners

FROM : Shauna Wilton  
Deputy General Manager, Vancouver Board of Parks and Recreation

SUBJECT : **Ammonia Usage and Procedures in Park Board Rinks**

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Thank you,

A handwritten signature in black ink, appearing to read "Shauna Wilton".

Shauna Wilton  
Deputy General Manager - Vancouver Board of Parks and Recreation

Copy to: PB Senior Management Team  
PB Communications

