



**MINUTES
DISTRICT OF PORT HARDY
COMMITTEE OF THE WHOLE MEETING
TUESDAY JULY 10, 2018
COUNCIL CHAMBERS, MUNICIPAL HALL
7360 COLUMBIA STREET**

PRESENT: Mayor Hank Bood, Councillors Pat Corbett-Labatt, Dennis Dugas, Rick Marcotte, Fred Robertson, John Tidbury and Leightan Wishart

ALSO PRESENT: Allison McCarrick, CAO; Heather Nelson-Smith, Director of Corporate Services; Lynda Sowerby, Director of Financial Services

REGRETS: Abbas Farahbakhsh, Director of Operational Services

MEDIA: None **MEMBERS OF THE PUBLIC:** None

COW 2018-031
APPROVAL OF
AGENDA AS
PRESENTED

A. CALL TO ORDER

Mayor Bood called the meeting to order at 6:30pm.

B. APPROVAL OF AGENDA

Moved/Seconded/Carried

THAT the agenda for the Committee of the Whole meeting of July 10, 2018 be accepted as presented.

C. DELEGATION

1. Eric C. Bradley, P. Eng., Bradley Refrigeration Consultants Ltd.
(via telephone) re: Don Cruickshank Memorial Ice Arena Refrigerant Review.

Mr. Bradley advised his report is a review of the different refrigerants that are commonly used for arena refrigeration and more specifically for the Don Cruickshank Memorial Ice Arena.

Discussion with Council included:

- The characteristics of Freon, carbon dioxide and low charge ammonia refrigerants.
- Greenhouse gas factors.
- Characteristics and costs of each refrigerant.
- Actual vs perceived risks.
- Converting existing arena to low charge ammonia system.

Based on the information available, the recommendation is that an ammonia refrigerant be considered for the following reasons:

- Lower risk with a low charge system.
- Lowest first cost.
- Long life of the equipment.
- Highest energy efficiency.
- Zero impact on ozone depletion.

The new technology for ammonia plants uses plate and frame chillers to reduce the ammonia charge. The plate and frame chiller uses titanium and stainless steel materials with an all welded construction to eliminate corrosion and joint failures.

The low charge ammonia systems differ from the old systems where the charge is reduced from 800 lbs. to 75 lbs. for a single ice surface. With the reduced charge and improved ventilation systems, this has made the ammonia ice plants safer than in the past.

The estimated cost of converting the existing ammonia plant to a new low charge ammonia plant is estimated at \$600,000.

Discussion included:

- A low charge ammonia system is more energy efficient than the current system.
- Heat recovery is available with the low charge ammonia system at 100% but freon systems don't usually provide 100% heat recovery.
- Phased replacement with a low charge ammonia system is possible.
- Risk assessment and training.
- Fire department responsibilities.
- Safe distances from the incident with current system up to 500 feet.
- Low charge ammonia can be disbursed in 60 seconds and the safe distance from charge is the edge of the building.
- The switch can be activated from outside of the ammonia room.

Council members thanked Mr. Bradley and his informative presentation.

D. ADJOURNMENT

COW 2018-032
ADJOURNMENT

MOVED

THAT the Committee of the Whole adjourn.

Time: 6:57 pm

CORRECT

APPROVED

Original signed by:

DIRECTOR
OF CORPORATE SERVICES

MAYOR