



City of Richmond

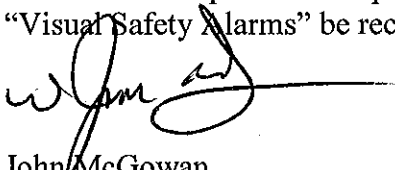
Report to Committee

To: Community Safety Committee
From: John McGowan
 Fire Chief, Richmond Fire-Rescue
Re: Visual Safety Alarms

Date: April 26, 2010
File: 09-5100-01/2010-Vol
 01

Staff Recommendation

That the staff report dated April 26, 2010 from the Chief Fire Prevention Officer, entitled "Visual Safety Alarms" be received for information.



John McGowan
 Fire Chief, Richmond Fire-Rescue
 (604-303-2734)

Att. 1

FOR ORIGINATING DEPARTMENT USE ONLY					
ROUTED TO:		CONCURRENCE		CONCURRENCE OF GENERAL MANAGER	
Building Approvals		Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>
Facility Maintenance & Building Services		Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>
REVIEWED BY TAG		YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>
		YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>

Staff Report

Origin

This report examines the need for legislation that requires visual fire alarm systems in relation to BC codes and the City of Richmond's ability to influence code changes, and update Council on the recent changes to the BC Fire Code regarding smoke alarms (see Attachment 1).

Analysis

General Overview of Applicable Codes and Referenced Standards:

National Building Code of Canada

This publication forms the basis for, and is adopted with limited changes to reflect local issues and concerns as the BC Building Code.

BC Building Code (BCBC)

This is the governing legislation that sets the minimum standard for all new construction in the Province of British Columbia with the exception of the City of Vancouver. Local governments have very limited authority to require anything more than what is required in this minimum standard. Any variance is subject to an authorising review by the Building and Safety Standards Policy & Research Division of the Provincial Government. This government agency has historically not approved most local government bylaws that would require builders to exceed the BC Building Code.

In general terms, to gain approval, a local bylaw that sought to exceed the BC Building Code would need to demonstrate that some local conditions existed, and were such that the Code did not provide the minimum functional and objective level of life safety intended by the Code.

Can/ULC S524 – 01 (Underwriters Laboratories Canada - Fire Alarm Installation Standard)

This document is referenced in the BC Building Code and cross-referenced to the National Building Code as the approved standard for the installation of fire alarm systems in BC and Canada.

BC Fire Code

This is the companion document to the BC Building Code that governs the ongoing maintenance and use of existing buildings in the province of British Columbia. Recently announced changes to the BC Fire Code will require that every existing building containing a dwelling unit must have smoke alarms installed by May 1, 2010. This change includes all existing suites and single family homes which were formerly exempted. Owners of existing buildings built before 1979 may install battery operated smoke alarms if the cost of hard wiring is prohibitive. This code amendment will increase public safety and reduce deaths, injuries and losses from fires.

What the Codes and Standards Require

The BC Building Code requires visual alarm devices (strobes) to be installed in limited circumstances that include:

- A building or portion thereof intended for use primarily by persons with hearing impairment.
- In any floor areas where there is excessive background noise (<87dBA), where the occupants use ear protection devices, or where they are isolated in rooms or booths or other areas that prevent the audible fire alarm from being heard.
- And in assembly occupancies where music or other performances could exceed 100dBA.
- Apartments and Condominiums intended primarily for seniors housing are required to be pre-wired for supplemental visual alarms devices (pre-wired special outlet boxes with cover plates for future strobe lights).

In public spaces, the BC Building Code anticipates and relies on people to help alert others, and therefore does not require visual warning systems in all public areas. In some public buildings such as hotels, motels, and school dormitories, where the hearing impaired may be sleeping, the BC Building Code requires a percentage of rooms be equipped with visual alarms.

However, it is also important to remember that the BC Building Code is explicitly not intended to be applied retroactively to existing buildings that have already been approved for occupancy.

General Discussion

It is clearly desirable as a society to make any and all reasonable accommodations for the hearing impaired and to provide for their safety. The BC Building Code requirements for visual alarm devices for buildings and areas intended for use by persons of hearing impairment would seem to address this. However, there are many circumstances where this might not occur. For instance, if a residential building is constructed and approved and afterwards a hearing impaired person moves in, the Code does not require any remedial action to provide visual alarm features for that person or persons.

It might be possible to alter or install visual devices to supplement the existing audible alarm in such cases; however, it would at that point be up to the affected individual, and the landlord or strata common to work out who would be responsible to pay for this.

In newer buildings, this could be a fairly inexpensive process; however, in some existing buildings the costs could be prohibitive or reduce the chances of such a retrofit. A recent Human Rights decision in Ontario requiring a hotel to retrofit visual alarm devices in all suites instead of the 10% the Ontario Building Code required, could also have implications at the national level.

In single family homes, the common smoke alarm can be inexpensively replaced or supplemented with combination audible/visual alarm units.

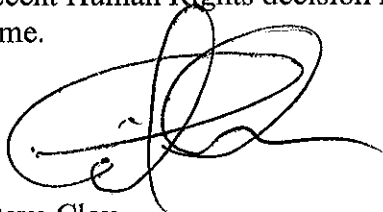
On a personal level, persons with hearing impairment can also purchase inexpensive portable devices that are sound activated and will cause a strobe light to flash when an audible fire alarm is activated. It must be understood that such devices do not form part of the fire alarm system and their reliability is not certifiable.

Financial Impact

None.

Conclusion

The BC Building Code provides a reasonable level of life safety for accommodating the hearing impaired in public buildings. There is also technology available for the hearing impaired to take actions toward improving their own safety both at home, and when they travel. Whether the recent Human Rights decision in Ontario will require revisions to BC codes is unclear at this time.

A handwritten signature in black ink, appearing to read 'Dave Clou', with a large, stylized flourish extending to the right.

Dave Clou
Chief Fire Prevention Officer
(604-303-2707)

DJC:dc