

# Corporate Report

NO: R080

COUNCIL DATE: April 18, 2005



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## REGULAR

TO: **Mayor &  
Council**                      DATE: **March  
29,  
2005**

FROM: **Fire Chief**                      FILE: **7380-01**

SUBJECT: **Fire Safety Legislation – Review**

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## RECOMMENDATION

1. Council Receive this report.
2. That Council direct staff to prepare the necessary by law and policy amendments and bring the necessary policy and bylaw amendment changes forward for adoption.

## INTENT

This report provides results and recommendations of a review of the City's current fire safety legislation. This review was undertaken to ensure that legislation in our community is reasonable, efficient, effective and in harmony with Council's policies and the goals of the City's Official Community Plan. The report provides recommendations that pursue best practices and the means to address corporate immunity through policy amendments.

The following legislation and policy is included in the review:

- (a) Fire Prevention By-law #10771
- (b) Council Policy R472, Inspection Frequencies
- (c) Fireworks By-law #4200
- (d) Business License By-law #13680
- (e) Smoke Alarm By-law #12136
- (f) Surrey Security and Fire Alarm By-law #13168
- (g) Surrey Municipal Ticket Information Utilization By-law #12508
- (h) Surrey Waterworks Regulation By-law #2932
- (i) Surrey Oil Burner Compressed Gas System and Gasoline Storage Tank Permit and Inspection By-law #5127
- (j) Fire Limit By-law #10538

- (k) Surrey Mobile Homes and Trailer Regulation and Control By-law #6142
- (l) Engineering Department, (m) Design Criteria Manual Parks, Recreation and Cultural Facilities By-law #13480

## PREAMBLE

Studies of fire safety tell us that it is impossible to completely eliminate the incidence of uncontrolled fires in our City. Human error or criminal intent, systems failure, and natural events will continue to cause fire despite our best efforts. Therefore, it is most prudent to examine the most effective ways to reduce the incidence of fire and reduce harm caused by fire to people, property and the environment. Unfortunately, design of fire safety and prevention programs have historically failed to include scientific methods of data collection, allowing for little subsequent analysis of their effectiveness outside laboratory conditions. This has not prevented North American communities from investing millions of dollars in fire protection systems based on hunches or pseudoscience. Reportably, this has produced little net effect on economic losses through fire (see Figure 1 below).



### **Figure 1**

The principal fire prevention tool used in Surrey, as required under the *Fire Services Act*, R.S.B.C. 1996; c. 144 (the "*Act*") is fire safety inspections. These inspections are performed regularly in public buildings. However, the majority of fires in Surrey start in residential structures that are exempted from mandatory inspections under the *Act*. Fire safety in homes is promoted through public education activities.

To date, the City's responsibility for liability with respect to community fire losses has been low and there has not been a need to review local fire safety legislation or our fire prevention division's organizational structure. Recently a law firm specializing in civil litigation noted that "*there appears to be a distinct increase in reported cases involving claims against local government for negligence in the provision of fire services*" [\[1\]](#), suggested a review was warranted.

This review has revealed several Surrey by laws and policies that contain one or more of the following problems:

1. redundancy
2. assumption of responsibilities that are not being met
3. unacceptable financial liabilities
4. task requirements unattainable with out significant increase in resources available

Our goal is to provide a fire safety program that achieves public safety in consideration of best practices, while restricting responsibilities to attainable levels and keeping the consequent liabilities foreseeable, fundable and controllable.

## DISCUSSION

# Fire Prevention By law #10771

The *Act* ensures basic fire prevention is provided in a community; however, the *Act* is not comprehensive and does not require local governments to provide fire suppression. Therefore, pursuant to the *Local Government Act*, Council adopted the Fire Prevention By law in 1963 to address local needs for fire prevention and fire suppression.

In 1982, the *Act* adopted the B.C. *Fire Code Regulations* thereby addressing virtually all aspects of fire safety in a community. As a result many of our by laws that included fire safety regulations were duplicated.

In contrast, the *Act* requires Council to provide for a regular system of inspections of hotels and public buildings. The *Act* authorizes persons in addition to the Local Assistant to the Fire Commissioner to conduct the inspections. Since the Fire Chief and those persons designated by him are required by the *Act* to be Local Assistant Fire Commissioners.

## Recommended Changes

- Change the name of the Fire Prevention By law to Fire Service By law. The proposed name better reflects the purpose of the by law.
- Remove all sections of the fire prevention bylaw that are either redundant or duplicated.
- Revise out burning regulations to prohibit outdoor burning in its entirety except for the current agricultural provisions.
- Revise inspection fee requests and re-inspection fees from \$55 to \$100 and fire safety plan review from \$55.00 to \$100 and to \$250 for High Rise Buildings; the revised fees represent the actual cost to perform the service.
- A new fee of \$100.00 to an owner who fails provide legally required access for a scheduled inspection resulting from a previous no-access inspection attempt.
- A new fee of \$100.00 for Fireworks permit applications.
- A new provision to allow for the billing of owners to secure abandoned buildings pursuant to Section 2.4.6.1. of the BC Fire Code
- A new provision to allow for the billing of owners for the cost of equipment required to demolish, make safe or remove a building as a result of fire.
- A new provision to allow for the billing of owners to recover costs associated with Fire Department

operations at incidents that result from illegal activity or illegal burning.

## Fire Inspection Frequency

Fire department personnel conduct regular inspections of hotels and public buildings as required by the *Act*. The *Building Code*, through an occupancy approval from a Building Inspector, exists to ensure building occupants are protected from fires and the *Fire Code*, through inspections by Fire Inspectors, exists to ensure that the protection provided is maintained and improved as necessary. Originally, the *Act* specified fire inspection frequencies. In 1989 the *Act* was amended to:

*Allow a local government to establish a frequency of inspections based on a desired level of service and in consideration of their own existing resources. Through the development of their local "regular system of inspections" potential liability may be avoided and fire hazards identified and eliminated by a competent inspection process*<sup>[2]</sup>.

As a result Council Policy R472 was adopted in October of 1989, which required the Fire Department to inspect buildings such as hotels and apartments semi annually and other commercial occupancies annually.

Of the 808 fires in commercial buildings 1992-2002 inclusive, the date of the last inspection was available and applicable in 399 cases. The graph in Figure 2 below shows that where fires occur in buildings that are inspected regularly, 65% of them have been inspected within 12 months, 33% of them between 13 and 36 months and 2% over 36 months.



## **Figure 2**

This data is not entirely unexpected, as fire inspections are not primarily designed to prevent fires, but rather to ensure that safety systems are in place and operational, thereby reducing injuries and deaths due to fires. This goal has been achieved and maintained in Surrey. In the period 1992-2002, 808 commercial building fires resulted in only 31 injuries and no deaths. Inspection of fire safety systems is also intended to reduce property losses.

There is no established single best practice on fire inspection frequency in North America. Inspection frequencies vary widely from city to city. For example, in British Columbia in the early 1980's the inspection frequency was six times per year for hotels, apartments, and public halls. The San Francisco Fire Department inspects all buildings annually and the Ottawa Fire Department does not conduct regular fire safety inspections.

In Surrey the actual inspection frequency for buildings is primarily between six months and 48 months. Approximately 63% of the buildings were inspected within 12 months, 68% within 18 months, 76% within 24 months, 93% within 36 months and 99.9% within 48 months. Actual inspection frequencies have varied considerably over the period, mainly because of fluctuations in the number of personnel assigned to inspection

duties. Currently our achieved frequency is between 18 and 24 months, largely because of our utilization of fire suppression crews to perform inspections of lower complexity. This successful strategy was implemented in 1999, and we will be fine tuning our process to distribute more inspections to the crews over time in order to maximise this resource.

We recommend a lower the frequency of inspection stated in Council Policy to a level attainable within current resources, namely 24 months. This does not constitute a reduction in the level of service; rather, it matches the reality of inspection frequency under current conditions. Since the incidence of fire and degree of dollar loss in inspected buildings appears to bear little correlation to the frequency of inspection, the inspection frequency should be changed to one that can realistically be achieved using existing Fire Department resources. This would decrease our current liability, because Council's stated goals would be met.

The primary minimum requirements respecting fire safety in existing buildings and within the community at large are contained in the British Columbia Fire Code. The following paragraph is part of the "Guide to the use of the Code", and states:

*"Historically, building code and fire code requirements were developed to provide property protection, but current fire protection legislation gives increasing emphasis to matters affecting life safety. Life safety is a primary objective of the British Columbia Fire Code and property protection requirements are included for two reasons: they make a direct contribution to life safety, and for the purpose of controlling conflagrations or large loss fires because these events can have serious social and economical impact on the community".*

Amending the Frequency of Regular Inspections as indicated below will be more in line with the intent of the British Columbia Fire Code by concentrating resources on buildings where the threat to life safety is greatest, based on the numbers of occupants at risk .

## **Recommended Changes**

Amend the Frequency of Regular Inspections conducted in Hotels and Public Buildings identified in Policy No. R472, by adopting a new policy as follows:

*That each school, multi-residential building, care home and places of public assembly be inspected once every twelve (12) months, and all other buildings at least once every twenty-four (24) months.*

## **Smoke Alarm By-law # 12136**

The Smoke Alarm By-law was enacted in 1993 to improve the public's chances of escaping from a fire. Every structure in which a person sleeps in Surrey is required to have a smoke alarm. The by law is enforced on complaint only and



therefore a large number of older homes in the City still do not have smoke alarms (both owner occupied and rentals) as shown in Figure 3 below.

### **Figure 3**

The Fire Department would like to partner with other agencies and initiate a variety of campaigns to install the missing alarms; however, the Smoke Alarm By law requires that rental home smoke alarms must be wired-in as opposed to battery operated. A single wired in smoke alarm may cost as much as \$200 to purchase and install; a battery operated smoke alarm only \$10. This requirement makes it impossible for the Fire Department to deliver campaigns that would allow inexpensive battery operated smoke alarms to be installed to many occupiers of single family homes in the City.

### **Recommended Change**

Repeal the Smoke Alarm By-law

### **CONCLUSION**

Changes as suggested in this review will enable the Fire Chief to provide fire safety within the community through best practices. These changes also address corporate immunity through risk management, by aligning Council policies and Fire Department procedures with the requirements of the *Act*.

Len Garis

Fire Chief

[\[2\]](#) Ministry of Municipal Affairs, Recreation and Culture, Interpretive Guide – Criteria for Determining Frequency of Inspections, Feb. 1990