



c/o SCM Opta Information Intelligence

July 11th, 2016

Hamilton Fire Department  
Community and Emergency Services Department  
1227 Stone Church Road East  
Hamilton, ON  
L8W 2C6

Attention: Dave Cunliffe, Fire Chief

### Fire Underwriters Survey – City of Hamilton

Fire Underwriters Survey (FUS) is a national organization that represents more than 90 percent of the private sector and casualty insurers operating in Canada. Program subscribers are provided data from Fire Underwriters Survey regarding public fire protection for fire insurance statistical and underwriting evaluation.

Fire Underwriters Survey conducted an assessment of each area of the City of Hamilton's fire defenses primarily for fire insurance grading and classification purposes. The following letter provides a brief description of the grading process and results.

The Public Fire Protection Classification (PFPC) is a numerical grading system scaled from 1 to 10 that is used by Commercial Lines<sup>1</sup> insurers. Class 1 represents the highest grading possible and Class 10 represents an unrecognized level of fire protection, or fire protection beyond 5 km by road travel distance from the nearest responding fire station. The PFPC grading system evaluates the ability of a community's fire protection programs to prevent and control major fires that may occur in multi-family residential, commercial, industrial, and institutional buildings, as well as course of construction developments.

Fire Underwriters Survey also assigns a second grade for fire protection entitled Dwelling Protection Grade (DPG). The second grading system assesses the protection available for small buildings such as single-family dwellings and is used by Personal Lines<sup>2</sup> insurers.

The DPG is a numerical grading system scaled from 1 to 5. Class one (1) is the highest grading possible and five (5) indicates little or no fire protection is present; Class 5 also represents fire protection beyond 8 km by road travel distance of a responding fire station. This grading reflects the ability of a community to handle fires in small buildings such as single family dwellings and semi-detached dwellings.

The recent fire insurance classification assessment indicates that Dwelling Protection Grades (DPG – Personal Line Insurance) for all Fire Stations maintained and/or improved their current classifications from the last assessment completed in 2002.

1 Commercial Lines: A distinction marking property and liability coverage written for business or entrepreneurial interests (includes institutional, industrial, multi-family residential and all buildings other than detached dwellings that are designated single-family residential or duplex) as opposed to Personal Lines.

2 Personal Lines: Insurance covering the liability and property damage exposures of private individuals and their households as opposed to Commercial Lines. Typically includes all detached dwellings that are designated single family residential or duplex.

<b>Western Canada</b> 3999 Henning Drive Burnaby, BC V5C 6P9 1 (800) 665-5661	<b>Ontario</b> 175 Commerce Valley Drive West Markham, ON L3T 7P6 1 (800) 268-8080	<b>Quebec</b> 1611 Cremazie Boulevard East Montreal, QC H2M 2P2 1 (800) 263-5361	<b>Atlantic Canada</b> 238 Brownlow Avenue, Suite 300 Dartmouth, NS B3B 1Y2 1 (800) 639-4528
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Pertaining to Public Fire Protection Classifications (PFPC – Commercial Lines), the assessment noted downgrades to the various Fire Stations final classifications from a PFPC 1 to a PFPC 2 or PFPC 3. There are currently no other communities in Ontario which have earned or maintained a PFPC 1. Likewise, there are no communities in Ontario currently rated as PFPC 2, with the exception of Hamilton Fire Department. With various enhancements to fire prevention programs, it is possible that the majority of Hamilton Fire Stations could achieve a Public Fire Protection Classification of Class 2.

Fire Underwriters Survey measures the ability of the fire department and water supply against the level of built risk within the community. The measurement is not usually determined by the most significant risk, but is generally the value which is representative of the fire potential of most large properties in the municipality, but may exclude several of the largest properties not considered usual to the community. This measurement allows FUS to benchmark the level of risk present in any given community and local response districts. Once risk levels have been benchmarked, FUS then measures the capacity to respond and provide loss mitigation and property protection through fire suppression.

The assessment completed by the Fire Underwriters Survey indicates that the City of Hamilton scored well in most grading items under the Fire Department, Water Supply, as well as Emergency Communications grading categories. Of particular note, Hamilton Fire Department scored well in most Fire Stations as it pertains to the measured Fire Force Available (Firefighting Resources), as well as available apparatus to respond. Likewise, categories reviewed pertaining to Training and Qualifications left minimal credit points for improvement of classifications. Areas where available credit points persist include Pre-Incident Planning (referred to as *Tacticals* by Hamilton Fire Department), as well as In-service Life Safety and Hazard Identification inspections.

An area of primary concern regarding the downgrade of Public Fire Protection Classification is the significant amount of available credit points within the overall assessment which are attributed to Fire Prevention/Public Education Activities. This is a common occurrence amongst many Fire Services in Canada, as most of the resources provided to protect communities from fire are allocated to fire suppression operations, equipment and activities. Fire Safety Control has become an increasingly heavily weighted portion of the fire insurance grading system. This is the result of statistical data showing that communities employing effective programs in the area of Fire Prevention and Public Education have significantly reduced fire related losses.

A substantial degree of safety to life and property protection from fire should be provided by provincial and municipal control of hazards. Control can be best accomplished by the adoption and enforcement of appropriate codes and standards for manufacturing, storage and use of hazardous materials and for building construction, as well as through appropriate training, advisory and education programs to the public.

Most significant grading items within the Fire Safety Control revolve around the frequency of inspections of the varying occupancies found within the City of Hamilton. The City of Hamilton's inspection frequencies are compared to the FUS Benchmark. Provided below are the recommended frequency of inspections associated with achieving maximum credit points under the Fire Safety Control grading category.

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**Fire Underwriters Survey**  
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Occupancy	FUS Benchmark
Assembly (A)	6 months
Institutional (B)	12 months
Single Family Dwellings (C)	12 months
Multi-unit Residential (C)	6 months
Hotel / Motel (C)	6 months
Mobile Homes & Trailers (C)	6 months
Seasonal/Rec. Dwellings (C)	6 months
Commercial (D & E)	12 months
Industrial (F)	3 to 6 months

Hamilton Fire Department along with the City of Hamilton have been reviewed in the effectiveness of their practices with regard to Fire Safety Control, Fire Prevention and Public Education. From the perspective of improving fire insurance classifications, increases in Fire Prevention/Public Education are generally considered the most cost effective way to improve fire insurance classifications while also reducing the risk of fire by educating the public and enforcing fire safety measures in various occupancies found throughout the City.

Increasing the frequency of inspections while continuing to meet legislative requirements of the *Fire Prevention and Protection Act 1997*, *The Ontario Fire Code* and *OFMEM Public Safety Guidelines* should be a priority of the Fire Prevention/Public Education division of Hamilton Fire Department. In order to improve frequency of inspections, additional resources in the form of Fire Prevention Inspectors and Public Educators will likely be necessary. Increasing the frequency of inspections can be aided by the addition of in-service crews/companies completing Life Safety and Hazard Identification assessments related to smaller and less technical occupancies (provided adequate training is administered). This will allow Fire Inspectors to focus on larger risks such as vulnerable occupancies, multi-unit residential, industrial, commercial, and institutional as well as assembly occupancies.

Please contact our office if there are any questions or comments regarding the intent or content found throughout this letter.

Robert Aguiar  
Senior Public Fire Protection Specialist  
Fire Underwriters Survey

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