

Annual Report

2011 2012

Office of the **Fire Marshal**

Message from the Acting Fire Marshal

I have the honour to submit the 2011–12 Annual Report for the Office of the Fire Marshal, as directed by the Fire Safety Act.

This past year the Office of the Fire Marshal has been very active from an operational and strategic perspective. Most significantly, the May 2011 Report of the Auditor General (Chapter 6, “Labour and Advanced Education”), made 25 recommendations aimed at enhancing the performance requirements of the Office of the Fire Marshal. The Department and the Office of the Fire Marshal have accepted all of the recommendations and have been working to address and implement them over the past year.

This annual report is a compilation of the activities and data collected from our records for the fiscal year April 1, 2011 through March 31, 2012.

Sincerely,

Harold J. Pothier
Acting Fire Marshal

Mandate

The Office of the Fire Marshal (OFM), under the authority of the Fire Safety Act, is responsible for the provision of fire safety in buildings and the safe storage of flammable and combustible materials across the province. The OFM advises various levels of government on fire-related matters, including fire protection. The OFM is also responsible for the safe installation and usage of electricity.

Ultimately, the OFM works with all of its partners to minimize the risk of fire and any related damage to property, injury, or loss of life across the province.

Staff

In 2011–12, the OFM consisted of 17 staff members, who filled the following positions:

- Fire Marshal
- 9 Deputy Fire Marshals located throughout the province
- Fire Services Coordinator
- Plans Examiner/Fire Protection Engineer
- Chief Electrical Inspector
- Building Code Coordinator
- Assistant Building Code Coordinator (.5 full time)
- Database Administrator
- Secretary

In addition, a Senior Project Director was assigned to lead the response to the Auditor General's report and work with the OFM in implementing the recommendations and moving the OFM forward.

Core Functions

Over the course of 2011–12, the OFM began addressing the Auditor General's recommendations, conducted fire inspections and fire investigations, reviewed building plans, and provided training for local fire chiefs and industry throughout the province, as well as education to the general public. The following sections provide more detail.

Audit

The Auditor General's Report, released in May 2011, made 25 recommendations related to deficiencies in four areas:

- 1 the management of information
- 2 monitoring fire inspection activities in municipalities
- 3 inspection, compliance, and enforcement
- 4 fire safety education

The report stated that the majority of identified issues were due to management not providing the proper level of oversight. A copy of the Auditor General's Report on the OFM is available on our website at: www.gov.ns.ca/lae/publicsafety/ofm.asp. Addressing all of the recommendations contained in the report is a priority of the Department of Labour and Advanced Education.

An action plan was put in place to address the issues and recommendations within two years. To ensure that the OFM was moving forward in an appropriate manner, an independent assessment of the OFM response and of the action plan and time line to complete the plan was carried out. A copy of the independent review can be found at www.gov.ns.ca/lae/publicsafety/ofm.asp.

In 2011, progress reports were posted to our website on a monthly basis to provide updates on the activities of the OFM. Quarterly reports began in 2012, with the report for the first quarter posted on March 31, 2012.

The OFM will continue to implement the necessary changes to ensure that the 25 recommendations in the Auditor General's Report have been met or exceeded. This work will continue into the next year and position us well for success in the future. Ongoing progress involves operational procedures and policy development, work with municipal stakeholders and Service Nova Scotia and Municipal Relations, and information technology.

Inspections

During 2011–12, the OFM conducted 1,437 fire inspections of facilities throughout the province, as follows:

- 728 assembly buildings
- 317 institutional buildings
- 295 residential buildings
- 8 mercantile buildings
- 12 office buildings
- 32 industrial buildings
- 45 sprinkler system installations

As a result of these inspections, 62 Orders to Take Action and 3 Orders to Vacate were issued.

The OFM, in cooperation with the Department of Education, continues to conduct audits of the fire safety inspections performed by the school boards. An audit consists of a site visit to 10 per cent of the schools within each school board. During these site visits, the records of the self-inspections are viewed and a walkthrough of the facility is completed to confirm what is documented. The results of the 2010–11 audit are retained by the Department of Education.

Investigations

In 2011–12, there were 1,317 fires reported to the OFM. The OFM investigated 158 of these fires. There was a reported insured dollar loss of \$26,457,152 and an uninsured dollar loss of \$1,078,702, for a total fire loss of \$27,535,854.

There were four reported fire fatalities and 22 fire-related injuries during the 2011–12 year. There were also 73 confirmed arson fires throughout this fiscal year. The OFM continues to work with local police agencies that are actively investigating these incidents.

Uninsured and Insured Losses

Insured Building Loss	\$ 18,898,648
Insured Contents Loss	\$ 7,558,504
Insured Loss Total	\$ 26,457,152
Uninsured Building Loss	\$ 932,244
Uninsured Contents Loss	\$ 146,458
Uninsured Loss Total	\$ 1,078,702
Uninsured & Insured Losses Total	\$ 27,535,854

Fatalities from Fire

Property Classification	Igniting Object	Possible Cause	Fatalities						TOTALS
			Male Adult	Male Child	Male Firefighter	Female Adult	Female Child	Female Firefighter	
Motor Vehicle Repair Garage	Undetermined	Under Investigation	1	0	0	0	0	0	1
Semi-Detached Dwelling	Circuit Wiring—Copper	Electrical Failure	1	0	0	0	0	0	1
Home for the Aged	Stove Range-Top Burner	Under Investigation	0	0	0	1	0	0	1
Multi-Unit Dwelling (2–6 Unit)	Stove Range-Top Burner	Unattended Stove	0	0	0	1	0	0	1
TOTALS			2	0	0	2	0	0	4

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Injuries from Fire

Property Classification	Igniting Object	Possible Cause	Injuries						TOTALS
			Male Adult	Male Child	Male Firefighter	Female Adult	Female Child	Female Firefighter	
Detached Dwelling	Undetermined	Under Investigation	1	0	0	0	0	0	1
Mobile Home	Undetermined	Undetermined	1	0	0	0	0	0	1
Multi-Unit Dwelling (13 plus)	Other Open Flame Tools/ Smoker	Improperly Discarded Item	0	1	0	0	0	0	1
Multi-Unit Dwelling (13 plus)	Cutting/Welding Equipment	Used/Placed Too Close/ Combust	0	0	0	0	0	0	0
Other Misc Structure/ Property	Cutting/Welding Equipment	Undetermined	4	0	0	0	0	0	4
Multi-Unit Dwelling (2-6 Unit)	Other	Arson	0	0	0	1	0	0	1
Detached Dwelling with Business	Undetermined	Arson	0	0	0	0	1	0	1
Detached Dwelling	Distribution Equipment/ Panels	Electrical Failure	0	0	1	0	0	0	1
Multi-Unit Dwelling (7-12 Unit)	Fireplace—Masonry	Maintenance Deficiency	0	0	0	0	0	0	0
Detached Dwelling	Undetermined	Undetermined	0	0	0	0	0	0	0
Multi-Unit Dwelling (2-6 Unit)	Stove Range-Top Burner	Unattended Burner	1	0	0	0	0	0	1
Detached Dwelling	Cord/Cable for Appliances	Short Circuit	0	0	0	0	0	0	0
Mobile Home	Stove Range-Top Burner	Unattended Burner	0	0	0	1	0	0	1
Detached Garage	Undetermined	Undetermined	0	1	0	0	0	0	1
Detached Dwelling	Wood Stove	Improper Handling	0	0	0	0	0	0	0
Detached Dwelling	Hot Ashes/Embers/Spark	Improper Storage	0	0	0	0	0	0	0
Multi-Unit Dwelling (2-6 Unit)	Smokers Articles	Improper Handling	0	0	0	0	0	0	0
Barn/Fowl or Animal Shelter	Undetermined	Under Investigation	0	0	0	0	0	0	0
TOTALS			7	2	1	2	1	0	13

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Possible Causes of Fires

Possible Cause	TOTAL
Undetermined	426
Other	109
Unattended	91
Electrical Failure	86
Creosote Buildup	86
Arson	73
Improperly Discarded	58
Maintenance/Installation Deficiency	66
Short Circuit	49
Youth Vandalism (Age 12-17)	41
Vandalism	37
Improper Handling/Storage	79
Mechanical Failure	34
Under Investigation	32
Used/Placed Too Close/Combust	32
Suspicious Fire	7
Construction/Design Deficiency	9
Children Playing (Age 1-11)	2
TOTAL	1317

Review of Building Plans

The OFM reviews building plans of assembly buildings (i.e., a building that is used for a gathering of persons for civic, political, travel, religious, social, educational, recreational or like purposes, or for the consumption of food or drink) that are greater than three stories in height, that are more than 600 metres square, or that are used for or by a school, college, or university and have an occupant load greater than 40 persons. The reviews confirm that fire and life safety requirements are being followed. In 2011–12, 54 plans were reviewed and 52 site visits conducted.

The OFM's Fire Protection Engineer has been actively involved in fire and life safety matters that have been identified as concerns of public interest. For example, there has been considerable emphasis placed on smoke movement in buildings. The OFM has been consulting with architects, designers, contractors, and other stakeholders to implement best work practices for fire-stopping penetrations of fire separations. By doing so, the movement of smoke can be contained to the immediate area. In 2011–12 the OFM also conducted 25 reviews of performance-based designs in conjunction with the plans review or as a separate review.

The OFM has worked with the Department of Transportation and Infrastructure Renewal, the Department of Education, and other stakeholders to address fire and life safety concerns related to dust collection systems. These departments took a proactive approach and voluntarily shut down all dust collection systems under their responsibility. They have conducted a full review of dust collection systems and are implementing a multi-million dollar upgrade and replacement program. This includes a review of the inspection and maintenance requirements for these systems.

Public Education

The OFM has conducted public education and training sessions throughout the year. Fire and life safety courses continue to be held with representatives from health-care, correctional services, and fire service personnel.

The Arson Prevention Program for Children (TAPP-C) was offered this fiscal year throughout the province at the request of the courts, local police, and fire services. In this program, young people who are drawn to fire or who could potentially experiment with fire are paired with qualified members of the fire service industry who will work with them in the young person's home and or at their local fire department. They are provided with a proven educational program that demonstrates the facts and realities of fire, with a major emphasis on fire safety. There are three training sessions held for each participant. Throughout 2011-12 there were ten young people enrolled in our TAPP-C program.

The OFM continues to provide training to interested stakeholders throughout the province. During the past year, 20 training sessions were held, providing participants with opportunities to review their fire safety plans and to understand what is required of them should a fire occur, how they are to protect themselves and others when faced with fire, and how to use a portable fire extinguisher should the need arise.

Training

The OFM continues to assist the Department of Justice in providing fire safety training and procedures for correctional workers. The Fire Equipment and Emergency Training (FEET) program ensures that correctional service staff are trained in fire safety, including how to respond to a fire, how to extinguish a fire, how to protect the occupants of a facility from the effects of fire, and how to use the fire safety equipment provided in their facilities. In all, there were 496 participants involved in this training.

A course on the Roles and Responsibilities of the Local Assistants to the Fire Marshal (fire chief) was held Lunenburg County. Participants were provided with the information needed to fulfill their duties as defined in the Fire Safety Act. Examples of the topics covered include properly assessing premises and conducting fire investigations. Participants were also provided with information on the administrative requirements pertaining to other responsibilities, such as fire reporting and approving members for firefighter license plates.

The OFM provided a financial grant of \$190,000 to the Nova Scotia Firefighters School, in Waverley, to assist the school in the operational cost of providing training to fire services in Nova Scotia. A grant of \$50,000 was also provided for replenishing consumable supplies required for Hazardous Material Response within the Province of Nova Scotia.

The OFM also provided a grant of \$2,000 to assist in the operation of "CAMP Courage," which provides young women with the opportunity to learn firsthand the purpose, function, and operation of emergency response agencies such as those for the police, fire services, and paramedics. As a result, several participants in this program have indicated that they plan to explore careers as emergency responders.

The OFM has been working with the Fire Inspectors Association of Nova Scotia, as part of a Memorandum of Understanding, to provide training programs and curriculum for its members. The OFM provides facilitators, assistance in the development of training programs, and financial support and in-kind services. A representative from the OFM is a designated member of the Board of Directors, participating ex officio on the Board and attending its meetings.

Partnerships

The OFM participates on numerous boards, committees, and councils. Meetings are held monthly, bi-monthly, quarterly, semi-annually, or annually. These meetings allow staff to participate in discussions and decisions that provide direction related to the implementation or revision of guidelines, standards, and codes.

The following is a list of some of the boards and committees that OFM staff serve on as members:

- The Council of Canadian Fire Marshals and Fire Commissioners
- The Nova Scotia Fire Service Professional Qualification Board
- The Fire Safety Advisory Council
- The Fire Services Advisory Committee
- The Nova Scotia Bravery Awards Committee
- The Fire Service Association of Nova Scotia
- The Nova Scotia Firefighters School
- The Fire Inspectors Association of Nova Scotia
- The Nova Scotia Building Code Advisory Committee
- The Underwriters Laboratory of Canada Advisory Committee
- The Oil Burning Code Regulatory Advisory Council
- The Canadian Standards Association: Canadian Electrical Code Committee
- The Canadian Advisory Committee on Electrical Safety
- The Regulatory Electrical Authority Committee
- The National Research Council Standing Committee on Fire Protection

Electrical Safety

During the past year the Electrical Safety Division of the OFM has administered and provided technical direction to the six electrical utilities throughout the Province. These utilities have also been audited during visits to their offices. The audits included a review of the utility's inspection procedures to ensure compliance to the Electrical Act and Regulations.

Staff participated on several national committees on behalf of the Province, including the committee for the Canadian Electrical Code, the Canadian Advisory Committee on Electrical Safety, the Electrical Regulatory Authority Committee, and a committee organized by the Underwriters Laboratories of Canada. These committees are responsible in most instances for the development of national codes and standards that are adopted and enforced by the Province.

The Electrical Safety Division of the OFM is working with industry and other stakeholders on new electrical legislation that will bring changes to the electrical industry. It is anticipated that this legislation will be presented during the 2013–14 fiscal year.

Staff provided technical direction and advice on electrical safety for the street lighting retrofit program and the new wind turbine plant in Trenton. The Electrical Safety Division of the OFM also provided advice and direction to various provincial government staff, to the electrical industry, and to the general public.

The Electrical Safety Division of the OFM was moved to the Technical Safety Division, another division within the Safety Branch of the Department of Labour and Advanced Education as of April 1, 2012.

Building Safety

The building industry in Nova Scotia employs more than 25,000 tradespeople and supports a substantial industry in services involving several professions, including those of architects, engineers, and interior designers. The design and construction industry contributes more than one billion dollars in new construction and the renovation of buildings annually to the economy of Nova Scotia.

The Building and Plumbing Code addresses minimum requirements for fire, health, safety, accessibility, and structural sufficiency, as well as resource conservation for energy and water resources, in the design and construction of all buildings in Nova Scotia. The codes adopted under the Building Code Act are administered and enforced by the municipalities and the OFM.

The Building Safety Division of the OFM establishes policies, regulations, and programs for the regulation of construction for all buildings in Nova Scotia. It develops education materials, delivers training, and provides stakeholders with sound technical advice on construction codes.

The Building Code Regulations are updated regularly to adopt all revisions and amendments to the National Building and Plumbing Codes. Consultations and educational seminars are conducted with the design and construction industry, materials and building systems manufacturers and suppliers, contractors, and general stakeholders to maintain awareness as the Codes are updated to stay abreast of new and innovative technologies.

Looking Forward

This report details activities in 2011–12 based on currently available records and information. The OFM continues to address the recommendations identified by the Auditor General, and

2012–13 will continue to be a year of challenges for the OFM. The reporting system for internal and external users is being reviewed, and recommendations are being made to improve efficiencies in these systems.

In the coming year, the OFM will continue to work towards fire and life safety requirements being maintained in all premises. While the risk of fires cannot be eliminated completely, all necessary measures must be taken to prevent them from occurring and to limit the damage that can result. Minimizing this risk is a shared effort, a responsibility that falls on every Nova Scotian. One of our main focuses this coming year will be to educate, promote, and enforce the Fire Code requirements for the installation of smoke alarms in all buildings.

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