

Annual Report

2010 2011

Office of the **Fire Marshal**

Message from the Fire Marshal

I have the honour to present the 2010-11 Annual Report of the Fire Marshal as directed by the Fire Safety Act.

This past year has seen a significant amount of activity in the Office of the Fire Marshal. With retirements, changes to staff and changes to the organizational structure, 2010-2011 was a time of change in the Division and one that continued on into next year.

Most significantly, a recent Auditor General's report made several recommendations to the department related to, among other things, the collection and reporting of statistics and data. The Office of Fire Marshal has accepted all of the recommendations and, at the time of this report, is in the process of implementing them.

This year's report compiles the activities and data from the past year collected from our records but does not reflect the Auditor General's report as it was submitted to the department in the 2011-2012 fiscal. Next year's annual report will outline all of the changes that have been implemented over the 2011-12 fiscal year. We also anticipate that the 2011-12 report will be a more complete picture of the activities of the Office of Fire Marshal as a result of the improvements to our reporting and records systems.

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 safe storage of flammable and combustible materials in the province. The office advises various levels of government on fire-related matters, including fire protection. The office is also responsible for the safe installation and usage of fuel gases and electricity.

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

Staff

In 2010-11, the OFM consisted of 15 staff.

This included:

- Fire Marshal
- 7 Deputy Fire Marshals located throughout the province
- Fire Service Program Coordinator
- Plans examiner/Fire Protection Engineer
- Plans examiner (.5 full time)
- Chief Electrical Inspector
- Chief Fuel Safety Inspector
- Fuel Safety Inspector - Northern
(Dartmouth north and east end of province)
- Fuel Safety Inspector - Southern
(Halifax south and west end of province)
- Building Code Coordinator
- Assistant Building Code Coordinator (.5 full time)

Activities

In May 2010, Fire Marshal Robert Cormier retired from the OFM after serving for 16.5 years in this position. Deputy Fire Marshal Frank Savage also retired in July 2010.

Deputy Fire Marshal Harold Pothier was appointed to the position of Acting Fire Marshal.

Senior staff met with colleagues from other jurisdictions to discuss best practices and national standards and code requirements. This included attending the Annual Canadian Fire Marshal Fire Commissioners Conference in Saint John, New Brunswick, the Underwriters Laboratories Canada Annual Advisory Committee Meeting in Toronto, the National Research Council of Canada in Ottawa, and the Standing Committee on Fire Protection in Montreal.

In July 2010, the Auditor General's Office began a performance audit of the OFM. The report was presented to government in May 2011 and the Department of Labour and Advanced Education committed to quickly addressing all 25 recommendations. For an update on the all of the activities in the OFM, visit www.gov.ns.ca/lae/publicsafety/ofm.asp

Core Functions

Over the course of 2010-11, the OFM has conducted fire inspections, fire investigations, reviewed building plans, and provided training to and for local fire chiefs throughout the province, industry and education to the general public. The following sections provide more detail.

Inspections

During 2010-11, the OFM conducted 761 fire inspections throughout the province:

- 308 Assembly Buildings
- 201 Institutional Buildings
- 176 Residential Buildings
- 28 Mercantile Buildings
- 1 Office Building
- 20 Industrial Buildings, and
- 30 Sprinkler System Installations.

As a result of these inspections, 57 Orders to Take Action were issued. 22 of these orders were a result of inspections that were carried out at various schools and 19 were issued to institutional buildings. Further, there were three charges for failing to comply to an order filed with the courts. Three fines, ranging from \$300-\$1,500, were also imposed by the court for failing to comply with a requirement of the Fire Safety Act.

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.

Investigations

In 2010-11, the OFM conducted 185 fire investigations.

Of note, was a significant increase in the number of fires within Cape Breton Regional Municipality. Interested stakeholders established a special committee to provide education material and the Cape Breton Regional Police formed a special task group to review several unsolved arson files. As a result of the efforts of the task force, several of the files resulted in successful prosecutions.

Investigations have shown that a significant number of injuries, fatalities and fire loss occur in residential buildings that lack properly installed and maintained smoke alarms. Discussions are underway to explore new ways to reduce this unnecessary risk.

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) greater than three stories, more than 600 meters square, or are used for a school, college or university and have an occupant load greater than 40 persons. The reviews confirmed that fire and life safety requirements are being followed. During 2010-11, the OFM conducted 116 reviews with 20 resulting in requests for alternate solutions to better comply with the standards.

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, residents in nursing homes with dementia have unique needs. Work is underway to provide a safer environment that will meet both the needs of the residents and the fire code requirements. Nova Scotia has adopted a guide that will address this issue until a national solution is developed by the National Research Council.

During the past year, the OFM 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. The departments took a proactive approach and voluntarily shut down all dust collection systems under their responsibility. They conducted a full review of dust collection systems and are implementing a multimillion 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 have been held with representatives from health care, correctional services, and fire service personnel.

The Arson Prevention Program for Children (TAPP-C) was offered throughout the province at the request of the courts, local police and fire services. In this program, young individuals who are fascinated by fire, or possibly experimenting with fire, are paired with a qualified individual in 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 reality of fire, with a major emphasis on fire safety. Eight individuals attended three separate training sessions where they had an opportunity to review fire safety requirements firsthand.

The OFM continues to provide training to healthcare personnel throughout the province. During the past year 26 sessions were held and provided participants the opportunity to review their fire safety plans, understand what is required of them should a fire occur, how they are to protect themselves and others in a fire situation, 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 from the effects of fire, and the proper use of the fire safety equipment provided in their facilities.

Courses on the Roles and Responsibilities of the Local Assistants to the Fire Marshal (fire chief) were held in Port Hastings, Truro, Bridgewater, and Annapolis Royal over the past year. During these courses, participants are provided with the information that is needed for them to successfully fulfill their duty as defined in the Fire Safety Act. Examples of the topics covered include properly assessing premises and conducting fire investigations. They are also provided information on the administrative requirements of other responsibilities such as fire reporting and approving members for firefighter licence plates.

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

The OFM also provided a grant \$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 police, fire, and paramedics. As a result, several participants in this program have indicated 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, assists in the development of training programs, and provides financial support and in-kind services. A representative from the OFM is a designated member of the Board of Directors, participating as an ex-official on the Board and attending their meetings.

Partnerships

The OFM participates in 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 where staff from the OFM serve as members:

- The Council of Canadian Fire Marshal and Fire Commissioners
- The Nova Scotia Fire Service Professional Qualification Board
- The Fire Safety Advisory Council
- The Fire Services 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 Inter-provincial Gas Advisory Council
- The Oil Burning Code Regulatory Advisory Council
- The Canadian Standards Association Canadian Electrical Code
- The Canadian Advisory Committee on Electrical Safety
- The Regulatory Electrical Authority Committee
- The National Research Council
- The Standing Committee on Fire Protection

Electrical Safety

Over the past year the OFM's Electrical Safety section has provided technical direction to the six municipal electrical inspection departments throughout the province. The OFM conducted audits on these departments through onsite visits and reviews of their inspection procedures to ensure compliance with the Electrical Act and Regulations.

The OFM has also been actively working with government, industry and other stakeholders on the review of the Electrical Act and Regulations. Once the review is complete, and the recommended changes have been approved by government, the Electrical Safety section will be relocated from the OFM to the Technical Safety Branch. This reorganization reflects the recent introduction of the Technical Safety Act that consolidates many of the regulations into one streamlined pieces of legislation.

Over the past fiscal, the Electrical Safety section has been actively involved in several large electrical projects that have, or are, occurring in Nova Scotia. These include the street lighting upgrades that are taking place throughout the province, the light energy retrofit program, and the new wind turbine plant.

Staff also represent the province on several national committees that are responsible for the development of national standards, ordinances, and policies that are adopted and enforced by the Province. This includes:

- the Canadian Electrical Code Committee,
- the Canadian Advisory Committee on Electrical Safety,
- the Electrical Regulatory Authority Committee, and
- the Canadian Standards Association and Underwriter Laboratory Council Advisory Committee.

In addition to these committees, technical direction and advice is provided to numerous government divisions, electrical industry service personnel, and the general public.

Fuel Safety Division

Last year, the Fuel Safety section issued 4,375 installation registrations, 4,301 permits for installations under 3 million btu/h and 74 Permits for installations over 3 million btu/h. In addition, 145 pieces of major equipment were converted to natural gas from other forms of energy. The natural gas system continues to grow at a steady rate in Halifax Regional Municipality and Amherst, with plans being made for expansion of the system into other areas.

The Chief Fuel Safety Inspector met with other jurisdictions at Interprovincial Gas Advisory Council meetings in St. Johns, Newfoundland, and CSA Code committee meetings for the *B139 Installation Code for Oil-burning Equipment*, *CSA B149.1 Propane & Natural Gas Installation Code*, and the *CSA B149.2 Propane Storage & Handling Code*.

The adoption of the *CSA B139 Installation Code for Oil-burning Equipment* under the *Fuel Safety Regulation*, and newly instituted Oil-Burner mechanics licence, resulted in a number of constructive information sessions with industry, contractors, and homeowners prior to these changes taking effect.

Early in the fiscal year 2011-2012, the Fuel Safety section will move from the OFM and join the Electrical Safety section in the department's Technical Safety Division.

Building Safety

The building industry in Nova Scotia employs more than 25,000 tradespeople and supports a substantial industry in professional services including architects, engineers, and interior designers.

The Building and Plumbing Codes address minimum requirements for fire, health, safety, accessibility, and structural sufficiency 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.

The Building Code Coordinator establishes policies, regulations, and programs for the regulation of construction for all buildings in Nova Scotia. An assistant code coordinator was added to help develop education materials, deliver training, and provide sound technical advice related to the code to stakeholders.

A training and education program was developed and delivered by staff in more than 20 municipalities across Nova Scotia. This program reached more than 2,200 building contractors, trades persons, and municipal building officials.

Looking Forward

This report details activities in 2010-11 based on the records and information that are currently available. The department is addressing deficiencies identified by the Auditor General in 2011 related to the division's reporting and recordkeeping systems.

2011-2012 will be year of challenges for the OFM. The reporting systems for internal and external users will be reviewed. Work will also begin on addressing all of the recommendations of the Auditor General's Report. As a result, the 2011-12 report will be a more complete representation of activities.

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 limiting the damage that can result. Minimizing this risk is shared effort, a responsibility that falls on every Nova Scotian.

Injuries from Fire

Property Classification	Igniting Object	Possible Cause	Injuries					
			Male Adult	Male Child	Male Firefighter	Female Adult	Female Child	Female Firefighter
Detached dwelling	Smokers articles	Unattended	1	0	0	0	0	0
Detached dwelling	Undetermined	Undetermined	0	0	0	1	0	0
Mobile home	Undetermined	Undetermined	1	0	0	0	0	0
Hotel inn lodge - alcohol lic	Smokers articles	Improper handling	1	0	0	0	0	0
Detached dwelling	Undetermined	Electrical failure	1	0	0	0	0	0
Multi-unit dwelling 2- 6 unit	Stove range-top burner	Improper handling	1	1	2	1	1	0
Detached dwelling	Hot ashes/embers/spark	Other	1	0	0	0	0	0
Detached dwelling	Undetermined	Arson	0	0	1	0	0	0
Detached dwelling	Space heater - portable	Improper handling	1	0	0	0	0	0
Detached dwelling	Stove range-top burner	Unattended	1	0	0	0	0	0
Detached garage	Wood stove	Used for purpose not intended	1	0	0	0	0	0
Detached dwelling	Candle	Unattended	0	0	0	1	0	0
Detached dwelling	71 smokers articles	Used/placed too close/combust	2	2	1	0	0	0
Detached dwelling	99 undetermined	Undetermined	0	1	0	0	0	0
Detached dwelling	Extension cord	Other - misuse	1	0	0	1	0	0
Multi-unit dwelling 2-6 unit	Smokers articles	Unattended	1	0	0	0	0	0
Detached dwelling	Blow torch/bunsen burner	Undetermined	0	1	0	0	0	0
Watercraft parts	Undetermined	Electrical failure	0	0	1	0	0	0
Multi-unit dwelling 2-6 unit	Undetermined	Undetermined	0	0	1	0	0	0
Gas distribution facility	Central heating/cooling	Mechanical	0	0	0	1	0	0
Apt. flat with business	Matches/Lighter	Arson	0	0	0	1	0	0
Detached dwelling	Stove range/burner	Unattended	0	0	0	0	1	0
Other residential	Other electrical	Undetermined	0	0	0	0	0	1
TOTALS			13	5	6	6	2	1

2010 2011

Deaths from Fire

Property Classification	Igniting Object	Possible Cause	Occupant					
			Male Adult	Male Child	Male Firefighter	Female Adult	Female Child	Female Firefighter
Mobile home	Undetermined	Under investigation	0	0	0	1	0	0
Detached dwelling	Undetermined	Undetermined	2	0	0	1	0	0
Mobile home	Circuit wiring/copper wire	Electrical failure	1	0	0	0	0	0
Mobile home	Smokers articles	Improper handling	1	0	0	0	0	0
Detached dwelling	Extension cord	Other misuse	0	1	0	0	0	0
Detached dwelling	Hot ashes/embers/sparks	Undetermined	0	1	0	0	0	0
TOTALS			4	2	0	2	0	0