
MINISTRY OF THE SOLICITOR GENERAL AND CORRECTIONAL SERVICES

Office of the Fire Marshal

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The Office of the Fire Marshal (OFM) is part of the Public Safety Division of the Ministry of the Solicitor General and Correctional Services. Its primary function is to minimize the loss of life and property from fire by helping municipalities and fire departments improve their fire protection and prevention services.

The *Fire Protection and Prevention Act*, which came into force in October 1997, consolidated seven fire-safety-related statutes and established a new framework for the delivery of fire protection services.

Under the previous legislation, most municipal governments arranged for fire protection through local fire departments that operated independently of the OFM. Under the new Act, municipal governments must provide fire protection services in accordance with their needs and circumstances. As a minimum, public education on fire safety and certain components of fire prevention are required.

The Act makes it the responsibility of municipalities to assess community fire risks and provide fire protection services to address local needs and circumstances. Municipalities fund fire protection services and, as a result, they are responsible for establishing programs and setting outcomes. They are also responsible for policy decisions regarding the delivery of these services and the evaluation of the effectiveness of their programs.

The Act provides the Fire Marshal with the authority to monitor, review and advise municipalities respecting their provision of fire protection services and to make recommendations to municipal councils for improving the efficiency and effectiveness of those services. In addition, the Fire Marshal has responsibility for identifying municipalities where a serious threat to public safety exists. When a municipality fails to adhere to the recommendations made by the Fire Marshal to remedy or reduce a threat to public safety, the Minister may recommend to the Lieutenant Governor in Council that a regulation for corrective action be made.

As a result of the new roles and responsibilities that were mandated to the Fire Marshal under the Act, the OFM was in a period of restructuring in order to meet its mandate for monitoring and addressing serious threats to public safety. These changes included establishing systems and procedures for reviewing whether municipalities fulfil their mandated responsibilities, developing fire protection guidelines, conducting extensive fire evaluations and providing guidance, advice and assistance to municipalities on changes resulting from the new Act.

Through its administration of fire safety legislation, the OFM supports municipalities and fire departments with a variety of advisory, investigation, training and instructional programs. It also

conducts research and advises the Ontario government on standards and legislation relating to fire protection and fire prevention.

For the 1997/98 fiscal year, program expenditures were \$23 million, of which 70% was for staffing. The OFM had 220 staff as of March 31, 1998.

OBJECTIVES AND SCOPE

The objectives of our audit were to assess whether the Ministry had satisfactory systems and procedures in place to:

- measure and report on the effectiveness of the OFM's and municipal efforts to minimize the loss of life and property from fire; and
- promote compliance with fire safety legislation and efficient and effective municipal fire services.

Our audit was conducted in accordance with the standards for assurance engagements, encompassing value for money and compliance, established by the Canadian Institute of Chartered Accountants, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

The scope of our audit included interviews, review of relevant documents and tests at the OFM's head office in Toronto, three of its five regional offices and the Ontario Fire College in Gravenhurst. We also held interviews with several fire chiefs. Our audit was essentially completed in March 1998.

Over the past year, the OFM has been re-evaluating its programs and organizational structure to meet its new mandate under the Act and has implemented several changes as a result. We considered the impact of these recent and planned changes where appropriate in conducting our audit.

We did not rely on the work of the Ministry's internal auditors since they had not recently issued any reports specifically related to the OFM which would have allowed us to reduce the extent of our work.

OVERALL AUDIT CONCLUSIONS

The Office of the Fire Marshal was in the process of positioning itself to address its new mandate and responsibilities under the *Fire Protection and Prevention Act* which came into force in October 1997. Because the change is recent, the OFM has yet to completely develop satisfactory systems and procedures to measure and report on the effectiveness of provincial and municipal efforts to minimize the loss of life and property from fire.

The stated measures, which compared rates of accidental fires and fire deaths for current and previous years, though significant, were not sufficiently comprehensive to assess the effectiveness of municipal fire services or OFM programs. Improving those measures and comparing Ontario's fire losses and expenditures with those of other jurisdictions would allow

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for better assessment of the overall effectiveness of the myriad of fire protection and prevention programs provided by municipalities and the OFM .

Although, on an overall basis, OFM had satisfactory systems and procedures in place to promote compliance with fire safety legislation and efficient and effective municipal fire services, the following areas required improvement.

- The *Ontario Fire Code (Fire Code)* is a regulation under the *Fire Protection and Prevention Act* that sets out minimum fire safety standards for existing buildings, with the exception of hotels, which are covered by the *Hotel Fire Safety Act*. *Fire Code* or, where applicable, *Hotel Fire Safety Act* violations were identified in over 40% of fire safety inspections. More effort and new measures, including stringent enforcement and education, were needed to promote compliance by property owners with fire safety legislation.
- Systems were inadequate for assessing the extent, results and effectiveness of OFM and municipal inspection activities in order to identify common fire safety deficiencies and to ensure that higher risk properties are maintained at an acceptable fire safety standard.
- To eliminate an inefficient situation, the OFM should expedite the transfer of its responsibility for inspecting 2,200 hotels, nursing homes and homes for the aged to the municipalities.
- The OFM's efforts to improve municipal fire services and identify serious threats to public safety would be more timely and complete if the OFM better promoted the need for municipalities to periodically prepare master fire plans for its review.
- Statistics on fire losses would be more timely, relevant and efficiently maintained by improving electronic database systems and enforcing reporting requirements for fire departments. The extent to which fire setters were intoxicated had not been adequately established as a reporting requirement and, therefore, no significant awareness programs had been established to address intoxication as a fire safety issue.

DETAILED AUDIT OBSERVATIONS

MEASURING AND REPORTING ON PROGRAM EFFECTIVENESS

In our last audit in 1993, we determined that the OFM had only limited effectiveness measures and no system in place for monitoring and reporting on overall program effectiveness. The Ministry agreed to implement our recommendation to develop and use clearly defined program effectiveness measures in order to determine and report on goal achievement.

The *Fire Protection and Prevention Act* provides significant opportunities for the OFM and municipalities to improve Ontario's fire safety record and the effectiveness of its fire services. Benefits resulting from these opportunities would be best demonstrated using appropriate effectiveness measures.

For the 1997/98 fiscal year, the Ministry stated that its key performance measures were to reduce, or at least not to exceed, the average annual number of accidental fires which, based

on statistics from the previous five years, was approximately 20,000 fires resulting in 115 deaths.

In our opinion, the stated performance measures, although significant, were too limited to sufficiently demonstrate the effectiveness of fire safety programs. For example, injuries and property losses due to fire were not reported. It would also be useful to set targets for specific regions in Ontario so that program priorities could be better identified for regions with higher fire losses.

In addition, comparisons of Ontario's fire losses could be made with those of other jurisdictions in cases where such data are available. Such comparisons could be used to benchmark expectations for fire safety programs and to identify fire causality factors and effective programs used in other jurisdictions. For example, in 1996, the OFM made an ad hoc comparison of Ontario's average fire death rates between 1989 to 1991 with those of 19 other industrialized countries and determined that 13 countries had better performances than Ontario. Also, for 1995 four provinces in Canada had a lower fire death rate than Ontario.

The OFM places a high priority on public education, fire prevention, and firefighter safety and training, and considers these priorities inextricably linked with its ultimate goal of minimizing losses related to fire. However, the percentage of fires that were preventable through inspection and education was not measured and reported. The effectiveness of fire suppression on property loss from fire had not been determined. The extent of property owner compliance with fire safety legislation could also be reported using results from inspection activities and fire investigations.

In addition, performance measures and outcomes need to be established to measure the effectiveness of the OFM's promotion of efficient and effective fire services in Ontario and identification of municipalities where a serious threat to public safety exists; both of these responsibilities were mandated to the Fire Marshal by the new *Fire Protection and Prevention Act*.

Recommendation

In order to generate accurate and appropriate information for decision making and to minimize the loss of life and property from fire, the Ministry should improve the measurement and reporting of the effectiveness of the Office of the Fire Marshal's and municipalities' programs and efforts.

In addition, the Ministry should develop effectiveness measures for the oversight of municipal fire services recently mandated to the Fire Marshal by the *Fire Protection and Prevention Act*.

Ministry Response

The Office of the Fire Marshal agrees with this recommendation.

It is important to recognize that an estimated 2,600 lives have been saved since 1981 that would otherwise have been lost to fires in Ontario. This is a result of a number of factors including the enactment of the Ontario

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Fire Code, improved success with fire safety education and other improvements in fire prevention, including technological improvements.

The Office of the Fire Marshal does collect information on injuries and property losses and is prepared to report this information to the Ministry. The Office of the Fire Marshal intends to analyze fire loss information in greater detail to identify problem areas and to develop effective strategies to address them.

While the Office of the Fire Marshal is concerned with making definitive comparisons with other jurisdictions considering the variations in fire loss reporting methodology and the level of risk in other provinces, the Office of the Fire Marshal intends to research how comparisons with other jurisdictions may be done.

The Office of the Fire Marshal is presently creating a comprehensive database of municipal fire safety indicators (COMPUT) that will enable the Fire Marshal to analyze fire protection information for municipalities, including the identification of potentially serious threats to public fire safety.

In addition the establishment of the Fire Evaluation Section will improve data gathering from fire incidents so that the effectiveness of all fire safety activities may be more thoroughly assessed and provide essential information regarding the effectiveness of municipal fire protection services.

The Office of the Fire Marshal intends to continue revising its program reporting procedures to improve the measurement and reporting of the effectiveness of the Office of the Fire Marshal programs. The Office of the Fire Marshal will consider what measures should be instituted to report on the Office of the Fire Marshal's promotion of effective and efficient fire services and will report on the incidence of identified serious threats to public safety.

COMPLIANCE WITH FIRE SAFETY LEGISLATION

The *Fire Code* sets out minimum fire safety standards for existing buildings (with the exception of hotels) according to type of building, including requirements for fire safety plans, storage of hazardous materials and ensuring that building fire safety features and devices are maintained in good working order. As mentioned previously, fire safety standards for hotels are mandated by the *Hotel Fire Safety Act*. Subsequent references in this report to the *Fire Code* should be understood as also including the *Hotel Fire Safety Act* where applicable.

The legislation also provides for enforcement of fire safety standards by the OFM and fire departments, including powers to inspect, prosecute violations, and close buildings or take remedial action if considered necessary under the circumstances.

Municipal councils are responsible for setting out the general policies and responsibilities of their fire departments, including the levels of service to be provided. Local fire chiefs are responsible for day-to-day operations, including fire prevention activities, such as fire safety inspections to enforce compliance with the *Fire Code*. Fire departments conduct over 200,000 fire safety inspections annually.

At the time of our audit, the OFM was responsible for conducting fire safety inspections of approximately 2,200 hotels, nursing homes and homes for the aged. This responsibility was largely historical in nature, having evolved over time after significant fires occurred, and was not mandated by the *Fire Protection and Prevention Act*.

PROPERTY OWNER COMPLIANCE WITH FIRE SAFETY LEGISLATION

The *Fire Code* requires property owners to ensure that their premises are in compliance with fire safety standards. We concluded that more effective measures are needed to promote and enforce compliance by property owners with the *Fire Code*.

Where a hazardous fire condition is determined, an inspector may choose either to work with the property owner to obtain voluntary compliance or to prosecute the owner. However, using prosecution to obtain compliance can require substantial time and legal effort.

Notwithstanding that OFM statistics on inspection activities were incomplete or inaccurate (as discussed later in this report), we estimated, using available statistics, that over 40% of premises inspected were not in compliance with *Fire Code* requirements on first inspection. We also estimated that prosecutions were not used for enforcement by over 55% of fire departments we sampled. Prosecutions can encourage compliance with the *Fire Code*.

The OFM has recently initiated more stringent enforcement actions for its inspection activities.

- During 1997, the OFM conducted internal reviews of its inspection activities and found significant shortcomings, such as *Fire Code* deficiencies not being identified or overlooked by inspectors, overdue inspections and unauthorized time extensions provided to property owners to correct deficiencies. During our audit, corrective measures were being implemented to establish higher expectations and monitoring for due diligence by inspectors.
- For 1997, the OFM laid charges against 18 establishments. By the end of March 31, 1998, eight had been successfully prosecuted resulting in \$5,450 in fines collected. We were advised that enforcement in 1996 was minimal; however, no statistics were available.
- In March 1998, a directive was issued to inspectors instructing them to implement existing operating procedures for immediate prosecution for violations of a serious nature (such as locked exit doors and non-operational fire alarm systems) and for violations that were noted on previous inspection.

In addition, the OFM was in the process of reviewing the management systems for its inspection activity to improve reporting and monitoring.

Our discussions with OFM staff and fire chiefs indicated general agreement that more effort and new measures were needed to promote compliance by property owners with *Fire Code* requirements. Options discussed included: providing inspectors with power to issue summary convictions (tickets) for certain violations to streamline prosecutions; allowing municipalities

to retain revenues from fines to allow recovery of their costs; more vigilant enforcement by inspectors; and charging property owners for inspections. In addition, more education is needed to promote compliance by property owners with their legal obligations and to increase fire safety awareness and expectations by occupants.

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Recommendation

To improve compliance with fire safety legislation by property owners, the Office of the Fire Marshal should examine, in conjunction with other stakeholders, existing and new options for enforcement of the *Ontario Fire Code* and for education of property owners regarding their responsibility for fire safety.

Ministry Response

The Office of the Fire Marshal agrees with this recommendation.

The estimated non-compliance rate of 40% noted in the report is cause for concern. The Office of the Fire Marshal is in the process of improving its enforcement of fire safety regulations in properties inspected by the Office of the Fire Marshal and will continue to promote more effective Fire Code compliance and enforcement by the municipal fire service through courses at the Ontario Fire College, at regional seminars and through the distribution of guidelines. The Office of the Fire Marshal will work with its stakeholders to improve the rate of compliance and will explore means of improving compliance monitoring.

The government is undertaking a number of initiatives to improve enforcement and Fire Code compliance including providing municipal inspectors with the ability to issue Provincial Offences Act tickets for specific Fire Code violations. The Office of the Fire Marshal is encouraging municipalities to use frontline firefighters to improve the delivery of inspection and fire safety education in their communities, developing programs to educate property owners of their legal responsibilities for fire safety and educating the judiciary and Crown attorneys to improve support for prosecution efforts. Reduced tolerance of Fire Code violations, effective enforcement and active education of property owners should result in improvements in the rate of compliance.

INFORMATION ON INSPECTION ACTIVITIES

Our review of management reports prepared on OFM's inspection activities determined them to be unreliable because they were incomplete and inaccurate. In addition, the reports were not in a format that appropriately identified levels of compliance on re-inspections.

Deficiencies identified during inspections were not further assessed in order to focus future inspection activities on common deficiencies or to identify common deficiencies for further research and educational programs.

The OFM was in the process of reviewing the management systems for its inspection activities.

Most municipal inspection activity is driven by complaints, requests, and licensing requirements. Many fire departments have also initiated proactive inspection programs aimed at certain types of buildings. As a result, local discretion for fire prevention programs has created significant differences in levels of municipal fire safety inspection activities throughout the province.

The OFM's information on municipal inspection activities was too limited to determine the extent or results of municipal efforts. Although the OFM conducted an annual fire department survey of the number and general types of properties inspected as well as enforcement activity, that information was often not provided or incomplete. Information on common fire safety deficiencies was not requested.

We identified several areas where information on municipal inspection activities required improvement.

- Many municipalities have large manufacturing and processing industries, for example, chemical and oil refineries and storage, pulp and paper processing, and mining, that could pose significant fire safety risks if standards are not adequately maintained. Also, if fire safety standards are not maintained in residential institutions and large assembly buildings, the risk of fire casualties increases. The OFM did not have adequate information as to whether fire departments had appropriate systems and procedures in place to ensure that high risk properties were maintained at an acceptable fire safety standard.
- Although responsibility for fire safety in more than 900 hotels, nursing homes and homes for the aged which were previously inspected by the OFM had been transferred to municipalities over the last five years, there was no requirement for municipalities to periodically report to the OFM on the extent to which they had continued regular fire safety inspections. In our opinion, it would have been prudent for the OFM to ensure that inspections were continued for these properties due to the vulnerability of the occupants.
- During 1996, approximately half of all fire deaths occurred in buildings without a functioning smoke alarm. Recent *Fire Code* amendments require working smoke detectors in all residences, although many municipalities have had bylaws and education campaigns in place for many years to promote smoke detectors in homes. About one half of the municipalities we visited conducted inspections of residential premises, which is where the majority of fire deaths occur. We believe it would be useful to assess the effectiveness of residential inspection programs in reducing fire deaths and casualties.

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Recommendation

In order to generate accurate and appropriate information for decision making to minimize the loss of life and property from fire, the Office of the Fire Marshal should improve the quality of its information on fire safety inspections. It should then use the information obtained to help ensure that:

- higher risk properties are maintained at an acceptable fire safety standard;
- common fire safety deficiencies are identified to better focus preventive efforts; and
- best practices are identified and shared with other municipalities.

Ministry Response

The Office of the Fire Marshal agrees with this recommendation.

The Office of the Fire Marshal intends to provide additional guidance to municipalities to assess high risk properties and establish regular inspection programs or other programs to address these properties. The Office of the Fire Marshal intends to emphasize risk assessment and help municipalities identify the risks in their communities. Also, the survey of municipal fire departments will be amended to include information on risk assessment strategies and inspection targeting.

The Office of the Fire Marshal intends to re-evaluate the process for monitoring the inspection activities of fire departments that have accepted responsibility for Office of the Fire Marshal inspections to determine if adequate measures are in place to ensure an acceptable level of fire safety for the occupants.

The Office of the Fire Marshal will seek and analyze information from its stakeholders and its own data sources to identify common violations and the most effective inspection practices so that effective strategies can be developed and promoted to the fire service to improve compliance. In addition the Office of the Fire Marshal will continue to use opportunities such as seminars and conferences, Communiqué [a newsletter], the Ontario Fire Service Messenger magazine, the Office of the Fire Marshal website and the Municipal Fire Protection Guidelines to promote effective fire inspection and Fire Code enforcement practices.

INSPECTIONS CONDUCTED BY THE OFM

Over the last five years, the OFM has been actively pursuing the transfer of its inspection activities to those municipalities willing to accept the responsibility. So far, responsibility for fire protection services for more than 900 hotels, nursing homes and homes for the aged, representing about 30% of the OFM's original inspection activity for these properties, has been

transferred to more than 110 municipalities. We were advised that the OFM considers this activity to be a municipal responsibility and plans to continue its efforts to transfer the remaining inspection activities to municipalities on a voluntary basis.

The new Act requires municipalities to be responsible for direct delivery of fire protection and prevention services. Thus, fire prevention activities, including fire safety inspections, are a municipal responsibility, provided that municipalities have the capacity to undertake them.

At the time of our audit, a large majority of the remaining 2,200 properties that the OFM was inspecting were in large municipalities. This situation is inefficient since OFM inspects properties within areas already covered by fire department and *Ontario Building Code* inspectors.

We were advised that, despite the significant number of inspections already conducted by fire departments, many were unwilling to voluntarily assume OFM's inspection activities due to recent financial constraints. This situation has resulted in an inconsistency that benefits uncooperative municipalities.

Recommendation

In order to eliminate inefficiencies and to ensure that responsibilities under the *Fire Protection and Prevention Act* are clearly delineated, the Office of the Fire Marshal should expedite the transfer of responsibility for its remaining inspection activities to municipalities.

Ministry Response

The Office of the Fire Marshal agrees with this recommendation.

The Office of the Fire Marshal has developed a plan for the transfer of inspections to municipalities and intends to expedite implementation of this plan. This plan will be implemented after Regulations to the Hotel Fire Safety Act are incorporated by reference into the Ontario Fire Code on July 31, 1998.

MONITORING OF MUNICIPAL FIRE SERVICES

There are approximately 640 municipal fire departments in Ontario with total expenditures estimated at over \$650 million. These departments are staffed by over 9,000 full-time and 17,000 part-time and volunteer firefighters. In addition, there are approximately 90 fire departments under the Northern Fire Protection Program.

The OFM gathers information on municipal fire services from a variety of sources, including its annual fire department survey, fire loss reports submitted by fire departments, and informally through contacts made by OFM's field services staff.

The OFM had introduced several measures to improve its monitoring and support of municipal fire protection services. These included issuing guidelines to municipalities and developing a

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Comprehensive Fire Prevention Effectiveness Model to help them make informed assessments of their fire prevention and protection services.

The OFM had also initiated a project, named COMPUT, which, when completed, is intended to produce fire safety profiles of each municipality based on information obtained from fire loss records, the 1996 annual fire department survey and other information on municipalities. The fire safety profiles are intended to help identify municipal characteristics that result in high and low fire risk and establish benchmarks that municipalities can use to compare their fire prevention and protection services with those of other similar communities.

MASTER FIRE PLANS

Awareness of community fire risks and appropriate fire protection and prevention measures requires a sound knowledge of community characteristics. National standards for fire departments, recent OFM guidelines and the Comprehensive Fire Prevention Effectiveness Model all stress the need for fire departments to research and identify all possible community fire risks along with their potential impacts.

National standards and OFM guidelines also recommend that municipalities, in conjunction with their fire departments, prepare master fire plans as strategic management tools for evaluating existing and potential fire risks and their potential impacts as well as identifying options for providing desired levels of fire protection.

The large number and diversity of municipal fire risks, potential impacts and fire department capabilities create a significant challenge for OFM oversight responsibilities. Encouraging all municipalities to prepare a master fire plan would help both the OFM and the municipalities identify areas for improving fire prevention and protection services as well as any serious threats to public safety. The OFM could review these plans to ensure that they were prepared to an acceptable standard, such that fire risks were identified, evaluated and appropriately minimized. The extent to which fire prevention activities were appropriate to a community could also be addressed during OFM's review of the plan.

However, at the time of our audit, the OFM did not know how many communities had up-to-date master fire plans and had not requested that information in its annual survey. Our interviews of six municipal fire chiefs determined that none of the six had a recent master fire plan.

Recognizing the importance of master fire plans, the OFM had recently prepared similar plans for the over 100 unorganized communities receiving assistance through the Ministry's Northern Fire Protection Program.

Recommendation

The Office of the Fire Marshal should more actively encourage and promote the need for municipalities, in conjunction with their fire departments, to periodically prepare master fire plans and should review those plans to help ensure that they provide timely and relevant information for assessing the adequacy of municipal fire services and fire prevention activities. These reviews could also be used to help determine the existence of any serious threats to public safety as well as situations requiring corrective actions.

Ministry Response

The Office of the Fire Marshal agrees with the recommendation. Implementation, however, faces some challenges.

Master fire plans for all municipalities would be an asset in evaluating fire safety, including serious threat issues, and in achieving effective municipal fire service delivery. However, the Office of the Fire Marshal is concerned that master fire planning, along with other recent pressures, may place an onerous burden on the volunteer fire service.

The review by the Office of the Fire Marshal of all master fire plans would place a burden on the Office of the Fire Marshal that is it is not capable of meeting with present resources. The Office of the Fire Marshal believes that continuing to encourage master fire planning activities and providing support will enable many municipalities to create master fire plans and make planning an integral part of their departments' management strategies.

The Office of the Fire Marshal intends to make the development of a guideline for master fire plans a high priority. Also, the Office of the Fire Marshal is giving consideration to developing a master fire planning course at the Fire College. The Office of the Fire Marshal will monitor the number of fire departments that have developed master fire plans and will evaluate the effectiveness of this approach.

ANNUAL SURVEY

Under the Act, it is the duty of the Fire Marshal to develop and maintain statistical records and conduct studies in respect of fire protection services. The Act requires fire chiefs to report to the Fire Marshal any matters related to fire protection services as may be specified by the Fire Marshal. In addition, the Minister may make a regulation requiring any person to furnish such statistical and other information to the Fire Marshal as he or she considers necessary.

The annual fire department survey requests information on inspection and enforcement activities, public education and fire suppression capabilities. The 1996 survey also requested information on building stock, population and municipal funding for use in the COMPUT project. The 1996 survey was sent to over 700 fire departments and communities with a request to respond by October 10, 1997.

The OFM has typically received a low rate of response to its annual surveys. For the 1996 survey, only 15% of fire departments and communities responded by the due date. Additional effort using OFM's field services staff was necessary to improve the response rate. As of mid-March 1998, the response rate had increased only to 35% and included most large fire departments.

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Recommendation

The Office of the Fire Marshal should remind municipalities and their fire departments of their duty under the *Fire Protection and Prevention Act* to provide timely information on the fire protection and prevention services in their communities, or, alternatively, the Ministry should consider a regulation to more specifically mandate responses to the Office of the Fire Marshal's annual survey.

Ministry Response

This recommendation is consistent with the intentions of the Office of the Fire Marshal. The Office of the Fire Marshal will use its communication vehicles, including Communiqué and the Ontario Fire Service Messenger, to remind municipalities of their duty and to encourage thorough responses to municipal fire service surveys.

The Office of the Fire Marshal recognizes the need for a high response rate on surveys. However, mandating fire departments to respond may not be the most effective method of ensuring timely and accurate responses. The Office of the Fire Marshal needs to be sensitive to the impact of additional administrative demands on the volunteer fire service. The Office of the Fire Marshal is exploring increased involvement by field staff and the use of electronic data transfer to improve the response rate and accuracy of surveys from the fire service.

FIRE DEPARTMENT REPORTING PRACTICES

Our interviews with fire chiefs and OFM staff indicated that reporting by fire chiefs to their local municipal councils was generally limited to occurrence reporting and financial matters. A few fire chiefs also reported some performance measures to demonstrate their efficiency and effectiveness, usually in an annual report. For example, response times to fire scenes, per capita fire department costs, and per capita fire casualties and losses were noted.

More consistent and appropriate performance measures for local fire services would put the OFM, municipal councils and fire chiefs in a better position to evaluate the efficiency and effectiveness of local fire services. The annual survey could be used to obtain this information for sharing with municipalities.

Recommendation

To facilitate the monitoring of municipal fire services by the Office of the Fire Marshal, municipal councils and fire chiefs, the Fire Marshal should take measures to assist local fire departments to improve their performance measuring, benchmarking capabilities and reporting practices.

Ministry Response

The Office of the Fire Marshal intends to continue to develop the COMPUT database, the Comprehensive Fire Safety Effectiveness Model and the Municipal Fire Protection Guidelines to improve performance measuring and benchmarking capabilities. The Office of the Fire Marshal will work with stakeholders to explore means of improving fire service reporting practices. The Office of the Fire Marshal plans to identify and promote the best practices and will develop guidelines and management training programs to assist municipalities and the fire services to this end.

IDENTIFYING FIRE SAFETY CONCERNS

Fire investigations are essential to combat arson and to identify fire safety issues for improving legislation, fire safety protection and prevention activities, and public education programs.

Under the Act, the cause, origin and circumstances of any fire or explosion must be investigated, and records must be kept of every fire reported. Of the approximately 25,000 fires that occur annually, the OFM investigates approximately 1,100. Fires that meet OFM's criteria for investigation include all fatal fires, gaseous explosions, suspected arson, large fires and fires that result in widespread public concern. Fire departments are expected to investigate the remaining fires and are required under the Act to report all fires to the OFM using a standardized reporting format.

In addition, fire safety concerns may be identified by fire service associations, coroner's inquests, building officials, feedback received from the general public and issues being identified through the OFM's research mandate.

FIRE INVESTIGATIONS

In February 1997, the OFM initiated a five-year plan to enhance fire investigations. The plan included: more comprehensive investigations by OFM investigators for certain fires to evaluate building fire suppression systems, fire department performance and human behaviour during fires; certifying all OFM fire investigators; and improving the capacity of fire departments to investigate fires to ensure that all fires not required to be investigated by the OFM are adequately investigated. During our audit, the OFM was in the process of implementing this plan.

Internal policies for OFM fire investigators require that a preliminary report be submitted within five days after attending the fire scene. Investigators must also review each outstanding investigation at least once every three months to monitor progress regarding any outstanding matters such as obtaining forensic results. When all such matters have been followed up, the investigator completes a final report to close the investigation.

An internal review conducted by the OFM in October 1997 determined that several investigators had significant backlogs of uncompleted investigations. Efforts were underway during our audit to eliminate the backlog and introduce new reporting procedures to better monitor progress on investigations.

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FIRE LOSS REPORTING

In addition to reporting fires, fire departments are required to report to the OFM all other emergency responses, such as false alarms, rescues and medical calls. As a result, over 285,000 reports are received each year.

Several areas were identified for improving fire loss reporting.

- Two separate database systems were in place for fires investigated by OFM investigators and for fire loss reports received from fire departments; each system used different reporting codes and separate administrative staff. Duplications and inefficiencies have resulted.
- Previous legislation required fire departments to report fires within three days of being notified of an occurrence. Recent changes to the Act did not include a reporting deadline. Inadequate systems were in place to monitor timely reporting by fire departments. For example, three large fire departments did not submit fire loss reports for 1996 until at least February 1998. We were advised that outstanding reports for the 1997 year could not be easily determined. For 1995 reports, the most recent complete year for the database, no written follow-up was made to the approximately 40 fire departments that had not submitted reports to confirm that they had not had any fire occurrences.
- Approximately 27 fire departments send reports to the OFM in electronic format, which represents about a third of all reports. The more than 700 remaining fire departments, including some from large municipalities, submit paper reports requiring OFM staff to manually enter information into the database.

In addition, we noted that fire loss reporting codes and procedures and investigation reporting procedures did not adequately identify the extent of intoxication from alcohol and drugs as a circumstance contributing to the cause of fires and fire casualties. Current reporting requires intoxication to be reported only for victims who die or sustain injuries from fires. Intoxication of a fire setter is not considered a cause of fire. Instead, the action resulting in fire ignition is normally reported as the cause, for example, careless smoking or leaving cooking unattended.

During our interviews, some fire chiefs advised us that alcohol intoxication was a significant factor contributing to fires. Since no statistics were gathered on the extent to which fire setters who did not sustain injuries were intoxicated, the OFM was unable to provide us with this information. However, available statistics do indicate alcohol impairment in approximately 15% of 1995 fire death victims. Nonetheless, we noted that no significant awareness programs had been established to address intoxication as a fire safety issue.

Recommendation

To ensure that fire loss reporting is timely, relevant and efficient, the Office of the Fire Marshal should:

- **work toward having only one comprehensive database for fire loss reporting by fire departments and Office of the Fire Marshal fire investigations;**

- introduce measures to ensure that fire departments submit fire loss reports in a timely manner, preferably using an electronic reporting format;
- ensure that fire departments and Office of the Fire Marshal investigators report the extent to which intoxication by alcohol and drugs was a circumstance contributing to fires.

The Office of the Fire Marshal should also consider whether awareness programs to address intoxication as a fire safety issue are warranted.

Ministry Response

The Office of the Fire Marshal agrees with the intent of this recommendation.

The Office of the Fire Marshal intends to consolidate its electronic databases for fire loss reporting. The newly restructured Applied Research, Monitoring and Data Distribution section has been made responsible for improving fire loss reporting.

The Office of the Fire Marshal will work with its municipal fire service stakeholders to pursue means to reduce the delays in fire loss reporting. While the Office of the Fire Marshal will continue to encourage fire departments to submit reports electronically, this must be done with the recognition that the information technology resources of many municipalities are limited and that many will not yet have the necessary capability.

The Office of the Fire Marshal is concerned with the impact of alcohol and drug intoxication on fire losses. However, reporting the extent to which alcohol and drug intoxication contributed to fire losses is extremely difficult. Despite the difficulties, the Office of the Fire Marshal is taking action on the issue of intoxication and fire safety. This includes making the fire service aware of the issue through training sessions and by developing and distributing public service announcements. Recently public service announcements regarding the Office of the Fire Marshal's concern with drug and alcohol intoxication and fire safety were sent to 200 media outlets for broadcast to the public. The Office of the Fire Marshal will explore means of evaluating the effectiveness of these education initiatives.

The Fire Marshal will also raise this issue with the Fire Marshal's Fire Safety Council and seek its assistance.

OUTSTANDING FIRE SAFETY CONCERNS

We concluded that the OFM had satisfactory systems and procedures for monitoring various sources for significant fire safety concerns.

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During our audit, the OFM was in the process of seeking implementation of changes, including legislative amendments, for several significant fire safety concerns identified as a result of certain fires over the last few years. For example, recommendations resulting from a coroner's inquest of deaths from a 1995 fire identified the need to improve fire safety standards for residential care facilities with vulnerable occupants. A large fire in 1997 at a recycling and waste handling facility also resulted in the OFM identifying several fire safety concerns for these facilities. In both of these cases, action has been taken to fully or partially address many of the concerns raised, and working groups were established to assess the impact and implementation of recommended changes.

In addition, several fire safety issues pertaining to the operation of airports (such as passenger rescue, the lack of fire fighting of interior aircraft fires, and the adequacy of fire protection at small airports) and nuclear-powered electricity generating stations (such as fire prevention activities) have been publicly identified. Neither of these facilities are generally considered to be within OFM's jurisdiction. However, since municipal firefighters would likely be required to respond to fire and safety related incidences at these facilities, the OFM was in the process of monitoring progress and/or participating in efforts to remedy these concerns.

OTHER MATTER

Our audit was greatly assisted by several internal assessments made by OFM staff over the last year of its programs and activities to identify areas for improving efficiency. We also made additional suggestions in a letter to management for better managing human and physical resources and for improving internal controls in specific areas. We were provided with satisfactory management responses and action plans to address these suggestions.