

Monitoring School Purpose Vehicle Safety

3.15 BACKGROUND

In conjunction with our audit of pupil transportation grants provided to school boards by the Ministry of Education, we determined that it was important to consider the Ministry of Transportation’s role in ensuring that pupil transportation is safe.

The responsibility for ensuring that student transportation services are safe is shared among several authorities, the respective responsibilities of which are set out in the following table.

| | Legislation | Responsibilities |
|----------------------------|----------------------------------|--|
| School Boards | civil liability | <ul style="list-style-type: none">ensuring safe design of bus routes, safe pick-up and drop-off procedures and locations, and safe behaviour on school purpose vehiclesenforcing provisions that deal with safety in contracts with bus operators |
| Ministry of Transportation | <i>Highway Traffic Act</i> (HTA) | <ul style="list-style-type: none">enforcing provisions of the HTA and associated regulations designed to ensure that school buses are mechanically fitensuring that school purpose vehicles are in compliance with the <i>Motor Vehicle Safety Act</i>enforcing driver licensing provisions of the HTAassisting police in investigating accidents that involve school buses |
| Transport Canada | <i>Motor Vehicle Safety Act</i> | <ul style="list-style-type: none">developing and maintaining safety standards for school purpose vehicles and investigating serious accidents |
| Police Forces | <i>Highway Traffic Act</i> | <ul style="list-style-type: none">enforcing compliance with road safety provisions of the HTA and investigating accidents |

The Ministry’s responsibilities with respect to school buses are carried out by the Carrier Safety and Enforcement Branch of the Ministry’s Safety and Regulation Division. The Branch has 65 staff at the Ministry’s head office in St. Catharines and 325 enforcement personnel at the Ministry’s 17 district offices. Enforcement personnel monitor an estimated 68,000 active commercial carriers with about 191,000 vehicles. Of these carriers, approximately 1,000 are school bus operators with an estimated 16,000 buses—the exact numbers of school bus operators and buses are not known as the Ministry does not have a separate classification for them.

The Branch's efforts to ensure that pupil transportation services are safe include inspections of school purpose vehicles for mechanical fitness, audits of vehicle maintenance facilities and checks to ensure that drivers have the required licences and properly maintain their logs on hours of work.

AUDIT OBJECTIVE AND SCOPE

Our audit objective was to assess whether the Ministry had established satisfactory systems and procedures to fulfil its statutory responsibilities with respect to operators of school purpose vehicles and to contribute to the safe transportation of students.

Our audit was performed 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.

We visited the Ministry's head office and the three district offices that were responsible for most of the areas covered by the school boards we had visited during our audit of the Ministry of Education's pupil transportation grants. Our observations and conclusions were based on criteria that were agreed to by the Ministry's senior management. Our work was conducted from January to June 2000.

The Ministry's Internal Audit Services Branch had not done any recent work on which we could rely to reduce the extent of our work.

OVERALL AUDIT CONCLUSIONS

The Ministry can and should strengthen its systems and procedures for ensuring that operators of school purpose vehicles comply with legislative and regulatory safety requirements. In particular, the Ministry did not regularly update its policies to reflect changing conditions and risks, nor had it developed processes to capture the information needed to ensure that: all school buses are subject to being selected for inspection; those operator facilities and inspection stations posing the highest risk of non-compliance are selected for audit; and enforcement personnel carry out their inspection and audit activities in accordance with ministry policies.

The Ministry had not sufficiently communicated the nature, extent and results of its enforcement activities to school boards and needed to coordinate efforts with them so that all safety risks are addressed and appropriate actions taken.

Overall Ministry Response

The Ministry is strongly committed to continuously improving the safety of all commercial vehicles operating in Ontario, including school buses and other school purpose vehicles. Over the last three years, the Ministry has established a regulatory regime for all commercial vehicles, including school

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buses, that is among the most comprehensive and stringent in North America. The success of the Ministry's school bus inspection program is demonstrated by the steady decline over the last few years of the out-of-service rates, the number of charges laid during inspections and, most importantly, collisions. We have also worked with the Ministry of Education and Transport Canada to consult and communicate with stakeholders on school bus safety issues.

Nevertheless, we do recognize that improvements can be made to the Ministry's monitoring/tracking systems for the bus inspection program to assist enforcement to better identify and target higher-risk school bus operations. Proposed changes to supporting management information systems will strengthen the Ministry's monitoring and reporting capability in this program area.

DETAILED AUDIT OBSERVATIONS

STRENGTHENING ENFORCEMENT PROCEDURES

One of the requirements of the *Highway Traffic Act* is that commercial carriers have their vehicles inspected and certified as to their mechanical fitness by ministry-licensed Motor Vehicle Inspection Stations (MVIS) every six months. (Large and mid-sized carriers are normally licensed to operate their own MVIS.)

The Carrier Safety and Enforcement Branch discharges its legislated responsibilities through its program of vehicle inspections, audits of carriers' facilities and audits of MVISs, which are carried out by enforcement staff at ministry district offices. Ministry statistics on collisions, pupil injuries and the rate of serious defects found during school bus inspections indicate a positive trend in pupil transportation safety and the mechanical fitness of school buses. However, as detailed below, we found several weaknesses in the Branch's audit and inspection processes with respect to school purpose vehicles that should be corrected to help ensure the continuation of this positive trend.

ESTABLISHING ASSURANCE OBJECTIVES

The Ministry carries out its program of audits and inspections in order to obtain assurance that operators of school purpose vehicles are complying with legislative and regulatory safety requirements. No audit or inspection process can deliver absolute assurance regarding compliance. There is always a risk that the process will fail to detect cases of non-compliance.

This risk is inversely related to sample size: the bigger the sample, the smaller the risk. However, larger samples increase audit and inspection costs. Therefore, setting the tolerable level of risk is a key strategic decision for any audit or inspection process as it determines the size of the sample and therefore the amount of work to be done. This creates a link between assurance objectives and the resources required to meet them.

However, we found that the Branch had not specified the assurance objective for its program of inspections and audits. Consequently, the amount of work done was a function of budget rather than the budget being a function of the amount of work necessary to meet safety assurance objectives. Establishing assurance objectives would help the Branch determine and defend its resource requirements.

DOCUMENTING AND REVIEWING METHODS

The Branch had not documented the assumptions and risk analyses on which its program of audits and inspections was based. This documentation would facilitate the periodic review of the Branch's audit and inspection methods and enable senior branch management to:

- assess whether the Branch's methods are appropriate and sufficient; and
- adjust their methods to reflect opportunities and risks introduced by advances in technology and systems or by changes in the transportation operating environment, such as increased pressures on school bus operators to reduce costs or shortages of trained drivers.

SAMPLE SELECTION

Effective sampling for inspection and audit activities requires that all buses and facilities are subject to being selected for inspection or audit. Thus, for example, school bus operators should not be able to reduce the chances of their least fit buses being inspected by assigning them to remote routes. However, we found that the Branch's sample selection procedures did not ensure that all school buses were subject to inspection.

We also found that both the efficiency and effectiveness of the Branch's sampling could be improved by using information technology to incorporate risk-related data into the selection process and thereby focus inspection/audit activities on the buses, facilities and MVISs that have the highest risk of non-compliance with safety legislation.

Collectively, the Ministry's various information systems—the Commercial Vehicle Operators Registration (CVOR) system, the vehicle licensing system, the driver licensing system and the MVIS licensing system—have much data that would help the Branch identify high-risk operators for inspection or audit. We noted, for example, that:

- District offices do not have reports that list all the school buses in their jurisdictions or that include risk-related data such as vehicle age. Such records would enable district offices and the Branch to ensure that all school buses operating in the province are subject to inspection and that inspection efforts are focused on the highest-risk vehicles and operators. However, the Branch does not have procedures and programs to extract the required data from the Ministry's systems.
- The details of vehicle inspections, such as the date of inspection, the date that the vehicle's MVIS certificate was issued and the licence number of the MVIS were not recorded on the CVOR system. Such data would enable the Branch to rank MVISs based on the number of defects found in recently certified vehicles and thereby help identify higher-risk MVISs. The data would also enable management to monitor whether enforcement officers are focusing their efforts on those higher-risk MVISs.

The Branch has a system, the Carrier Rating System (CRS), to assist in identifying unsafe commercial carriers for facility audits and other actions. The CRS assigns penalty points to

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carriers with respect to accidents, convictions for violations of the *Highway Traffic Act* and inspection violations, and it maintains a running point total for the latest 24 months. The CRS compares each carrier's points to an established standard for fleets of that size. A warning letter is sent when the accumulated points reach 35% of the standard, a facility audit is performed at 65%, and suspension and cancellation of a carrier's registration are considered at 100%.

However, the Ministry had not verified that the CRS standards were appropriate and working as intended for school bus operators. For example, we noted that none of the three facility audits of school bus operators that were conducted during 1999/2000 by the district offices we visited had been flagged for any action by the CRS, including that of one operator that scored poorly on its vehicle inspections and failed a subsequent facility audit. We also found that some inspections of school buses had not been recorded on the CRS. Incomplete information increases the risk that the CRS will fail to flag unsafe operators for action. In response to this problem, the Ministry implemented procedures for the CRS to contain all school bus inspection results from April 1, 2000 onwards.

REPORTING AND FOLLOW-UP

The reporting on inspections and audits related to school bus operators by district offices to branch management was not sufficient to enable management to ensure that enforcement personnel were adhering to the Branch's policies. We noted that branch management did not have information about such matters as the timing of inspections and audits throughout the year, the number of vehicles inspected for each MVIS and summary information on audits and inspections for each school bus operator. We also noted that the monitoring done by head office was insufficient to detect differences that existed in the sample selection methodology and inspection and audit practices among district offices. These differences had not been approved by branch management.

In addition, procedures had not been established to follow up on problems uncovered during facility audits. Consequently, the Branch did not have evidence that school bus operators had taken timely corrective action to resolve problems identified during facility audits.

Recommendation

To obtain reasonable assurance that school bus operators are complying with legislative and regulatory requirements, the Ministry should:

- **establish assurance objectives for its audit/inspection program and determine resource requirements based on these objectives;**
- **document and periodically assess whether its audit and inspection methods are appropriate and sufficient;**
- **make greater use of information systems technology to better focus audit and inspection activities on high-risk operators;**
- **establish reporting and monitoring procedures that allow management to ensure enforcement personnel throughout the province are conducting audit/inspection activities in accordance with the Branch's policies; and**

- establish follow-up procedures to verify that school bus operators take timely action to correct problems detected by audits of facilities and Motor Vehicle Inspection Stations (MVISs).

Ministry Response

The Ministry is pleased with the year-over-year reductions in bus-related collisions, fatality rates and out-of-service rates, as well as an increase in overall compliance rates. We are confident that our various programs, including inspection of over 2,800 school buses by ministry enforcement staff last year, are promoting a high level of compliance by school bus operators in Ontario. Buses placed out of service for critical defects have declined from 7% in 1997/98 to 5.6% in 1999/2000. Revisions to our information systems will enhance our ability to track and monitor these enforcement activities at a local level and to better identify high-risk operators.

The Ministry will reaffirm policy direction and procedural expectations with field staff. In addition, we will take steps to monitor staff activities through routine performance reviews. Specifically, the Ministry will consider a sampling protocol that will provide a high level of assurance that school bus operators are meeting their legal obligations. The Ministry will also periodically assess whether its procedures continue to be effective and efficient in light of changing conditions.

The Ministry will also take steps to obtain an inventory of school purpose vehicles and ensure that each ministry enforcement district has a record of vehicles in its area.

Last year, the Ministry obtained the legislative authority to require operators to provide proof that vehicle defects found during inspections have been corrected and is currently developing a defect repair verification system. The Ministry will consider employing a defect repair verification system for problems found during facility and MVIS audits as well. We also note that a carrier that fails an audit is rated “conditional” and remains conditional for a minimum of six months and until it is able to pass an audit. Ratings information is available to the public, and we feel that the negative impact of a conditional rating on marketing efforts acts as an incentive to comply with requirements.

ESTABLISHING A PROTOCOL FOR COOPERATION WITH SCHOOL BOARDS

Both school boards, with respect to their civil liability, and the Ministry, with respect to legislated requirements, have responsibilities for ensuring that school bus operators conduct their operations in a safe manner. Given this shared responsibility for safety, knowledge of the extent and results of compliance work done by the other party would assist both in minimizing the risk

of gaps in the overall safety framework. However, a protocol to share such information between school boards and the Ministry has not been developed.

At the three district offices we visited, we noted that there were no procedures to communicate the results of their vehicle inspections and facility audits to school board transportation managers. Only one of the district offices was aware of the 1982 directive on Ministry communication to school boards, which states that school boards should be notified when a vehicle used on their routes is pulled out of service as a result of a vehicle inspection and that the inspection reports may be forwarded to the boards. The other two offices did not notify boards about out-of-service vehicles, and staff at one of these offices stated that they would not give reports to school boards. However, the school board transportation managers we spoke with stated that they would find such information useful.

Similarly, although many school boards have established, through contracts, a right to audit the adequacy of the safety procedures of their carriers, none had procedures for sharing the results of such work with the Ministry's local district office. Also, school boards did not share with the Ministry the complaints about unsafe practices or driving that they receive from time to time.

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Recommendation

To better ensure that timely action is taken to enforce pupil transportation safety requirements, the Ministry should work with school boards to develop a protocol that sets out the expectations of each party and establishes procedures to coordinate activities and exchange the results of their work.

Ministry Response

The Ministry provides stakeholders with information about commercial vehicle safety requirements and its related programs and activities in a variety of ways. With respect to school boards specifically, the Ministry sent a letter to the Ministry of Education and public and Catholic school board associations encouraging boards to use safety ratings in selecting carriers for student transportation.

The Ministry will take immediate steps to improve the level of communication with school boards. The Ministry has written to the Ministry of Education and offered to discuss with the Ministry of Education and school boards:

- *linking relevant Web sites to provide quicker and easier access to school bus safety information;*
- *whether the Ministry can assist in reviewing/developing contract provisions that consider a carrier's safety record;*
- *sharing inspection/audit information;*
- *preparing articles and sharing information through relevant school board newsletters, trade media, and so forth; and*
- *whether school boards can provide useful information to the Ministry to better focus its enforcement resources.*