



4 Transportation and Infrastructure Renewal and Service Nova Scotia and Municipal Relations: Truck Safety

Summary

The Department of Transportation and Infrastructure Renewal safety, inspection and enforcement programs are not adequate to effectively mitigate the risk of a truck being involved in an accident. The effectiveness of Service Nova Scotia and Municipal Relations' commercial carrier safety fitness rating and audit program is compromised due to the lack of timely, complete and accurate information. We are concerned all carriers of greatest risk are not being identified for audit and consequently those with high safety infractions may not be adequately monitored.

Trucks account for approximately 20% of traffic on Nova Scotia highways. Due to the potential seriousness of accidents involving trucks it is important to the safety of Nova Scotia road users that programs be effective in reducing the likelihood of an accident to an acceptable level. The Department of Transportation and Infrastructure Renewal (TIR) works toward improving highway safety through various programs and initiatives including weighing and inspecting trucks and enforcement of applicable legislation. Service Nova Scotia and Municipal Relations (SNSMR) also plays an important role by delivering the commercial carrier safety fitness rating and audit program.

We found TIR management did not sufficiently control safety, inspection and enforcement program activities to ensure key factors contributing to truck accidents were adequately addressed and program objectives were achieved. Important information such as accident data and truck travel patterns were not routinely analyzed. The Division has no formal, written enforcement criteria or guidelines, and we found evidence of inconsistencies in enforcement. Important controls, such as weigh scale hours of operation, and the number and focus of truck inspections, were not operating as intended and not adequately monitored.

SNSMR's commercial carrier safety fitness rating and audit program identifies commercial truck and passenger carriers who pose the greatest risk to public safety. We found deficiencies with this system in identifying the riskiest carriers. This increases the risk those carriers will not be selected for audit. Carrier audits which were performed were completed in a timely manner and based on required standards. We noted instances of delays of more than one year in entering accident data and assigning it to a carrier profile, errors in assignment of fault for accidents and no at-fault determination for out of province accidents.



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Background

- 4.1 The Department of Transportation and Infrastructure Renewal (TIR) is responsible for truck safety and shares responsibilities for commercial vehicle safety with Service Nova Scotia and Municipal Relations (SNSMR) and the Nova Scotia Utility and Review Board (NSUARB). Commercial vehicles include trucks weighing in excess of 4,500 kilograms and public passenger vehicles. NSUARB public passenger vehicle safety responsibilities were examined and reported in Chapter 6 of our November 2008 Report.
- 4.2 The National Safety Code was developed to provide a comprehensive code of minimum performance standards for the safe operation of commercial vehicles. The initial Code was developed nationally and adopted by the Province in 1990. The Code includes standards for commercial vehicle maintenance and inspections, security of loads and carrier safety ratings. These standards are incorporated mainly into the provincial Motor Vehicle Act and regulations. Other legislation regulating commercial vehicles and carriers are the Public Highways Act and Dangerous Goods Transportation Act.
- 4.3 Responsibility for monitoring trucks travelling on Nova Scotia roadways is carried out by officers in the Vehicle Compliance Division of TIR. The Division operates fixed weigh scales located at Kelly Lake, Enfield, Canso Causeway and Amherst (inbound and outbound). All trucks greater than 3,000 kilograms must report to the scale houses when travelling on 100 series highways in Nova Scotia. Buses and recreational vehicles are not required to report in. Officers weigh and may inspect trucks reporting to the scale houses. Vehicle compliance officers, equipped with mobile weigh scales, typically patrol all other provincial roadways. There are 33 officers in the Division, supervised by three area coordinators and a manager.
- 4.4 The National Safety Code carrier safety fitness rating program was implemented by SNSMR in 2005. Under the program, the Department can assign safety demerit scores to commercial carriers based on carrier collision and conviction records, and inspection results. SNSMR's safety officers audit carriers who are deemed to be the highest safety risk based on their demerit score. SNSMR employs two officers, a coordinator and



two administrative staff to administer the program, in addition to their other responsibilities.

- 4.5 SNSMR maintains a carrier activity profile system (CAPS) to support the carrier safety fitness rating program. Carrier profile records show there were 16,793 vehicles registered to 4,862 commercial carriers as of December 31, 2008.

Audit Objectives and Scope

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- 4.6 In February 2009, we completed a performance audit at the Departments of Transportation and Infrastructure Renewal and Service Nova Scotia and Municipal Relations covering the period from 2006 to 2008. The audit was conducted in accordance with Section 8 of the Auditor General Act and auditing standards established by the Canadian Institute of Chartered Accountants.
- 4.7 The objective for this assignment was to determine whether truck safety, inspection, audit and enforcement programs are adequately designed and implemented to mitigate risks to public safety.
- 4.8 Our audit focused on truck safety activities at TIR's Vehicle Compliance Division and SNSMR's responsibilities for implementation of the National Safety Code carrier safety fitness rating program. Our audit did not include SNSMR's responsibilities for the administration of commercial vehicle licenses and motor vehicle inspections. Generally accepted criteria consistent with the objectives of the audit did not exist. Audit criteria were developed specifically for the engagement using both internal and external sources. Criteria were discussed with, and accepted as appropriate by, senior management of TIR and SNSMR.
- 4.9 Our audit approach included interviews with management and staff; examination of policies, files and other documentation deemed to be relevant; a review of systems; and testing of certain processes and procedures. Our analyses of the Departments' data are shown in the tables and charts throughout the report. Our audit did not include an assessment of the completeness of the data in the carrier activity profile system. We conducted audit fieldwork from November 2008 to February 2009.



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Significant Audit Observations

TIR Safety, Inspection and Enforcement Program

Conclusions and Summary of Observations

The safety, inspection and enforcement program as implemented is not adequate to effectively mitigate safety risks and needs improvement. We found little formal review and analysis of Division activities and inspection results to determine if the safety, inspection and enforcement program operated as intended and addressed identified risks to the public. The Division has no formal, written enforcement criteria or guidelines and we found evidence of inconsistencies in enforcement. Important controls such as weigh scale hours of operation and the number and focus of truck inspections were not operating as intended, and were not adequately monitored.

- 4.10 *Program management* – The Vehicle Compliance Division (Division) manages the province's fixed and mobile weigh scales, certain truck inspections and the enforcement program. The province is divided into 3 areas, each overseen by an area coordinator, reporting to the Division manager. The area coordinators supervise vehicle compliance officers in their area through frequent informal communication, staff meetings and review of officer inspection activities. The Division uses SNSMR's carrier activity profile system to record its program activities (see paragraph 4.41). We found little formal review and analysis of Division activities and inspection results to determine if the safety, inspection and enforcement program operated as intended and addressed identified risks to the public.
- 4.11 *Weigh scales* – Overweight trucks pose a risk to the driving public through excessive damage to roadways and a greater chance that the truck will be involved in an accident. The Division operates weigh scales, in part, to monitor for overweight trucks. Area coordinators schedule vehicle compliance officers to cover hours of operation at the scale houses. Management indicated the Division's goal is to have each scale house open 100 hours per week.
- 4.12 We determined the Division was not meeting the goal of 100 hours per week. We selected two months, February and September 2008, and analyzed the hours scale houses were open. In February, only two of five scale houses were open 100 hours per week and only one met the target in September (see the following table for detailed results). Management indicated staff shortages have prevented the Division from meeting this target.



Average Weekly Open Hours of Scale Houses			
Scale Location	February 2008 Number of Open Hours	September 2008 Number of Open Hours	Two Month Average Number of Open Hours
Kelly Lake	86	66	76
Enfield	81	102	91
Canso Causeway	110	76	93
Amherst Inbound	104	80	92
Amherst Outbound	53	27	40
Average – All Scales	87	70	78

Hours in blue indicate scale house met target of 100 open hours per week

- 4.13 Studies have shown, in the absence of 24/7 coverage, scale houses with unpredictable hours of operation are a more effective deterrent to truck weight and safety violations. Based on our testing, there was a predictable pattern to when scale houses in the province were open. We analyzed the work shifts at the scale houses for closure patterns during February and September 2008. We determined they were closed a total of 61 days during the test period. Thirteen days (21%) occurred during the week compared to 48 days (79%) on weekends. This did not include holidays, when all the scale houses were closed. Detailed results by scale house follow.

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Scale House Days Closed – February and September 2008				
Scale Location	12 am - 12 am (24 hrs)	10 pm - 12 am (2 hrs)	12 am - 6 am (6 hrs)	4 pm - 12 am (8 hrs)
Kelly Lake Weekdays		23	31	9
	12			
Enfield Weekdays	1	10	12	3
	9			1
Canso Causeway Weekdays		5	1	1
	5		4	
Amherst Inbound Weekdays		18	14	1
	10			1
Amherst Outbound Weekdays	12	9	15	3
	12			
Total Weekdays	13	65	73	17
	48		4	2
Grand Total	61	65	77	19



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- 4.14 In order to optimize hours when scale houses are open, management should know when trucks are most likely to travel on roadways and other travel patterns. Some of this information can be obtained from vehicle compliance officers since they monitor trucks reporting at scale houses. TIR collects traffic data electronically through road sensors, which it uses for highway planning purposes. While this data was available, the Division had not attempted to use it to determine truck traffic patterns and whether adjustments to scale house operating hours were necessary.
- 4.15 Vehicle compliance officers at scale houses also check trucks for safety violations. Management aims to have two officers on duty when the scale houses are open. If only one officer is on duty, the extent of checks and inspections that an officer can perform are limited. Based on our testing we noted only one officer was on duty most of the time. We examined scale house shift records from our sample period (February and September 2008). We found Enfield, at 36%, had the highest percentage of time with more than one officer working, compared to Amherst outbound with the lowest at 2%. Results for each scale house follow.

Percentage of Open Scale House Hours With More Than One Officer on Duty			
Scale Location	February 2008	September 2008	Two Month Average
Kelly Lake	15%	34%	25%
Enfield	36%	22%	29%
Canso Causeway	21%	3%	12%
Amherst Inbound	17%	12%	15%
Amherst Outbound	2%	22%	12%
All Scales Average	18%	19%	19%

- 4.16 The effectiveness of scale houses as a safety control to detect and deter truck safety violations was compromised because they were closed at predictable times (i.e., holidays and weekends) and only one officer was usually on duty. Truck operators with poor safety records could be encouraged to manipulate their schedules so they can drive past scale houses at times when they are generally closed.
- 4.17 An inherent weakness in operating fixed weigh scales is that truck operators may take alternate routes to bypass the scale houses. The Division addresses this risk by assigning officers, equipped with mobile weigh scale units, to patrol the roadways not covered by scale houses. These officers stop trucks if they have safety concerns and weigh trucks if there is reason to believe the truck is overweight.
- 4.18 Management acknowledged the more hours scale houses are open and officers are scrutinizing trucks, the more likely truck operators will comply with safety legislation. Management indicated vacancies, illness, vacations,



and restrictions in union agreements account for much of the understaffing and closure of scale houses.

- 4.19 *Inspections* – Vehicle compliance officers inspect trucks to ensure vehicles and drivers are in compliance with the Acts and regulations, and are operating safely. Inspections can involve examination of vehicle parts and systems, such as brakes, tires, and exhaust, as well as safety and security of loads and coupling devices. Examination of the driver's license, hours of work log, and other documents may also be included.
- 4.20 We analyzed inspection results from January 2007 to December 2008. We noted the most frequent inspection violations related to brake adjustments, brake systems, lamps, suspensions and tires.

Top 5 Out-of-Service and Defect Items from CVSA Level 1 Inspections – January 1, 2007 to December 4, 2008		
Item Checked	% Out-of-Service or Defect Noted	% Pass
Brake system	32%	68%
Lamps	24%	76%
Brake adjustment	19%	81%
Suspension	16%	84%
Tires	11%	89%

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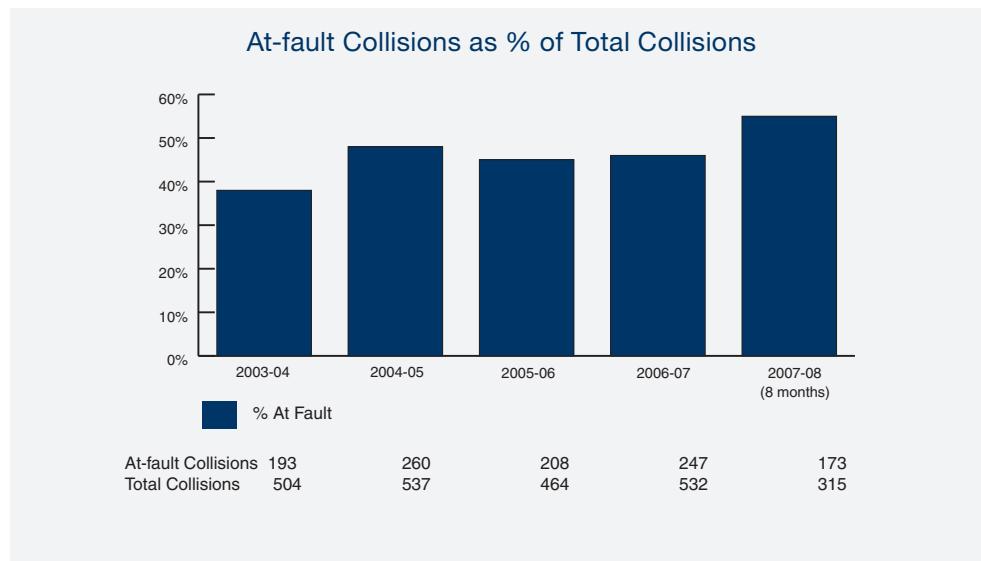
- 4.21 In addition, we analyzed the type and frequency of checks performed by officers during the same time period. We noted when a truck was stopped, officers most often checked driver's license, registration and insurance (67%); vehicle weight (59%); and current motor vehicle inspection (54%). Of total checks only 20% were targeted toward safety issues of the vehicle. We understand driver license checks are necessary for identification purposes and would expect them to be the most frequent item checked. We were still concerned there was little correlation between identified safety violations and priority of checks performed by officers.
- 4.22 A number of studies have shown that driver behaviour is a key contributing cause of accidents and driver fatigue is often a major factor. We noted only 15% of checks related to hours of service logs, which show how long a driver has been driving. We recognize a driver log book would not necessarily be a requirement for every truck stopped. However, we were concerned that a leading cause of truck accidents, such as driver fatigue, may not be adequately monitored.
- 4.23 *Industry outreach* – Trucking industry outreach activities include meetings and presentations designed to inform and educate truck drivers and carriers on the Division's responsibilities, trucking safety issues and legislative



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changes. The Division assigned responsibility for these activities to a vehicle compliance officer, in addition to staff training duties. This officer has since left the Division and management is evaluating how outreach and training responsibilities should be reassigned.

- 4.24 *Analysis of accident data* – Accidents involving trucks pose significant risk to public safety. Analysis of accident data could provide important information to management to help assess program effectiveness and whether resources have been allocated appropriately. We noted management performs limited analysis of such data, although the Department has reported a downward trend in the number of accidents between 2002 to 2006 involving commercial carriers resulting in death or serious injury.
- 4.25 We acknowledge accidents involving death is an indicator of program effectiveness. However, the carrier activity profile system provides additional data which should be reviewed regularly. For example, our analysis indicated the percentage of accidents where the commercial carrier was determined at fault has increased from 38.3% in 2003-04 to 54.9% in the first eight months of 2007-08. This trend warrants additional analysis by management. It may indicate the program was not effective in promoting safe operation by commercial carriers. Detailed results by year are as follows.



- 4.26 Improvements are necessary in how the Division is managed. Management control of program design, implementation and performance is critical to ensuring desired objectives are achieved. Management must ensure key safety risks are identified and assessed, and operational activities designed and implemented, to mitigate identified risks to an acceptable level. Meaningful and measurable performance measures to assess ongoing effectiveness of program activities should also be identified.



Recommendation 4.1

TIR should establish a formal risk management process. This process should include management's identification, assessment and response to key safety risks. The effectiveness of the safety, inspection and enforcement program in achieving desired outcomes should also be assessed on a regular basis.

- 4.27 *Officer performance* – Vehicle compliance officers are certified Commercial Vehicle Safety Alliance (CVSA) inspectors. This certification involves extensive training through a North America-wide program and qualifies inspectors to carry out detailed safety examinations of commercial vehicles and their drivers. To maintain certification, officers are required to complete a minimum of 32 Level 1 CVSA inspections per year. The Division set a target of 120 Level 1 inspections per officer each year in order to comply with a funding agreement between Service Nova Scotia and Municipal Relations and Transport Canada. The Division is meeting required CVSA inspection targets.
- 4.28 Officers are required to inspect trucks through daily checks. Daily checks are typically less comprehensive than CVSA inspections. The Division set a performance target of six checks and inspections per day (four prior to January 2008). We analyzed officer activity records for 2007 and noted, on average, officers performed the required number of checks (four) per shift. However, individually, 2 of 33 officers had not met the target. In 2008, on average, officers performed 5.3 checks per shift. Only 14 of 31 officers met the increased target (six). One officer had not met the target in either year. The above analysis excluded full days when officers were carrying out other required duties not recorded as a check or inspection.
- 4.29 When checks and inspections are not performed as required, the risk an unsafe driver or truck will not be detected is increased. To be effective, achievement of performance targets should be monitored regularly. If officers are not held accountable for their performance, they may be less motivated to meet required targets.

Recommendation 4.2

TIR should regularly monitor vehicle compliance officer performance in meeting required targets. Appropriate and timely action should be taken when targets are not met.

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- 4.30 *Enforcement* – The authority, roles and responsibilities for enforcement of the Acts and regulations are clearly documented. Vehicle compliance officers have the authority to issue tickets or take other enforcement action when they detect a violation. Officers use their judgment to determine the appropriate course of action, which ranges from persuasion and education, to warnings and tickets. Through the CVSA inspection program, officers



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have detailed guidance on when a vehicle or driver should be placed out of service. However, the Division has no written enforcement criteria and guidelines for determining appropriate responses when an officer encounters violations.

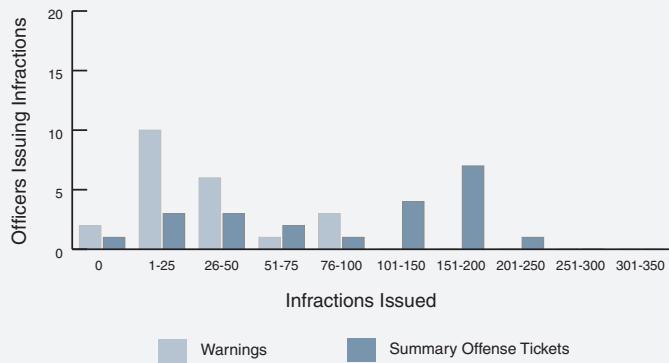
- 4.31 To determine enforcement consistency at the Division, we analyzed written infractions (warnings and tickets) from April 2006 to December 2008. We found a number of inconsistencies between scale houses. A total of 209 written infractions were issued by officers at Amherst inbound and 589 at Amherst outbound; compared to 1,508 at Canso Causeway; 1,417 at Enfield; and 1,028 at Kelly Lake. We acknowledge that the volume of truck traffic at each scale house and hours of operation would impact the number of written infractions issued but we believe the size of the discrepancies suggest a problem of inconsistent enforcement. The following table provides a breakdown by scale house for each year examined.

Scale Location	Written Infractions by Scale House			
	2006-07 Total Written (Officer Average)	2007-08 Total Written (Officer Average)	2008-09* Total Written (Officer Average)	Grand Total Written (Officer Average)
Kelly Lake	324 (81)	422 (106)	282 (71)	1,028 (86)
Enfield	530 (133)	588 (147)	299 (75)	1,417 (118)
Canso Causeway	588 (147)	524 (131)	396 (99)	1,508 (126)
Amherst Inbound	182 (61)	23 (8)	4 (1)	209 (23)
Amherst Outbound	242 (61)	173 (43)	174 (44)	589 (49)
All Scales Total (Officer Average)	1,866 (97)	1,730 (87)	1,155 (58)	4,751 (81)

* 8 month period from April 1, 2008 to December 4, 2008

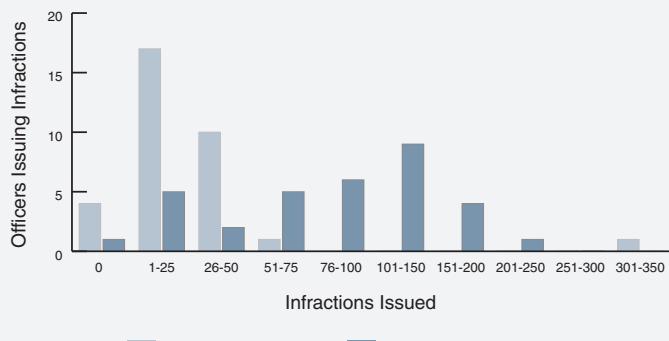
- 4.32 We also found significant differences in the number of written infractions issued by individual officers. One officer did not issue any during the period examined and two others issued none in 2008. In comparison, the highest total number of written infractions issued by an officer over the three year period examined was 1,082; yearly highs per individual ranged from 289 to 500 written infractions.
- 4.33 We stratified the number of warnings and summary offence tickets (SOTs) issued by officers over the last two fiscal years to determine if enforcement action taken has been consistent. The analysis showed an apparent lack of consistency, particularly in relation to SOTs issued, as there is a wide distribution across the officer population. As illustrated by the following graphs, 17 officers issued between one and 25 warnings while one issued over 300.

Written Infractions Issued by Vehicle Compliance Officers 2006-07



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Written Infractions Issued by Vehicle Compliance Officers 2007-08



- 4.34 Although management informed us officers are not required to issue a minimum number of tickets, our analysis indicated there were significant enforcement inconsistencies which should be investigated. If tickets are not issued when a situation warrants, this reduces the deterrent effect of enforcement and increases risk to public safety. Tickets are also an important factor in determining which carriers should be audited as part of the carrier safety fitness audit and enforcement program at SNSMR (see paragraph 4.41).
- 4.35 Established enforcement criteria and guidelines would help ensure fair, consistent and timely enforcement by outlining appropriate responses and enforcement options when violations are detected. Reliance on professional judgment alone may result in inconsistent enforcement of legislation and standards which may increase the risk to public safety.



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Recommendation 4.3

TIR should establish formal criteria and guidelines to assist officers in their enforcement activities. Procedures should be established to ensure criteria are followed.

- 4.36 *Policies and procedures* – The Vehicle Compliance Division does not have a comprehensive policy and procedures manual. Some policies and directives are issued directly to staff, while others are available on the Department's intranet website. A comprehensive policy and procedures manual provides guidance to staff and helps ensure officers are consistent in carrying out their duties.
- 4.37 We reviewed policy and guidance documents and noted cases where they were not comprehensive or required updating. For example, a weigh scale operations policy dated July 1999 was issued by SNSMR when the Vehicle Compliance Division was part of that Department. We were told this policy was still in effect. A number of other policies and directives were also issued prior to the Division's transfer to its current department.
- 4.38 Without clear direction and guidance, officers could be performing checks, inspections and enforcement in an inconsistent manner. Clear and comprehensive policies and procedures provide guidance to officers in carrying out their responsibilities and help improve consistency of performance. Consistent officer performance should help truck operators better understand safety requirements which increases the likelihood of compliance.

Recommendation 4.4

Policies and procedures at TIR should be reviewed on a regular basis and any gaps in policy should be addressed. Policies, procedures and other guidance should be filed in a systematic manner, such as in a manual, and be readily available to staff.

- 4.39 *Standards* – The National Safety Code is a comprehensive code of minimum performance standards for the safe operation of commercial vehicles. Commercial vehicles registered in Nova Scotia are regulated primarily through the Motor Vehicle Act and regulations. We reviewed this legislation to determine if current National Safety Code standards were incorporated. We noted the following instances where legislation has not been updated for the latest revisions to the standards.
 - Commercial vehicle driver's hours of work regulations have not been updated to reflect the revised national standards, issued in 2007, which are based on research into driver fatigue.



- Commercial vehicle trip inspection and records regulations have not been updated since 1990, and did not reflect the more recent National Safety Code trip inspection standard issued in 2008.
- 4.40 If legislation is not updated when National Safety Code standards change, the safety issues the standards were intended to address may not be adequately covered. This increases the risk to public safety. Management indicated there are enforcement difficulties due to the differences in the (federal) National Safety Code and provincial hours of work regulations.

Recommendation 4.5

TIR should take appropriate action to incorporate updated National Safety Code standards into legislation in a timely manner.

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SNSMR Audit and Enforcement Program

Conclusions and Summary of Observations

Information supporting the carrier safety fitness rating and audit program was not timely, complete or accurate. Such information deficiencies undermine the effectiveness of the program in its mandate to audit commercial truck and passenger carriers who pose the greatest public safety risk. We also found weaknesses in the structure of the audit report and the program design that reduced the likelihood of public passenger vehicle operators being selected for audit. Where carriers were identified for audit, these were completed in a timely manner and consistent with program requirements. Management needs information that is timely, complete, and accurate to ensure carriers that pose the greatest risk to public safety are identified for audit. Failure to do so may allow high risk carriers to continue to operate unsafe vehicles.

- 4.41 *Carrier activity profile system* – SNSMR maintains a carrier activity profile system (CAPS) to capture data and facilitate assignment of safety fitness ratings to commercial carriers. We used the data in CAPS to carry out our tests and analysis. Carrier safety ratings are based on demerit scores attached to carrier collision, inspection and conviction events, plus carrier safety audit results. Legislation requires that the riskiest 5% of carriers be identified. These carriers may be subject to audit through the program.
- 4.42 We were concerned CAPS may not have appropriately identified carriers for audit. Our analysis of the 4,401 carriers in the system as at December 4, 2008 showed only 41 carriers (0.9%) which were identified as the riskiest 5%. We expected to find 220 carriers - 5% of 4,401. SNSMR indicated they are investigating to determine why fewer carriers than expected were highlighted for audit.



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Recommendation 4.6

SNSMR should review its carrier activity profile system to ensure the riskiest 5% of commercial carriers are identified for audit. Necessary changes to the system should be implemented in a timely manner.

- 4.43 *Accident data in CAPS* – Timely, complete and accurate data is critical for CAPS to identify those carriers of highest risk. Accident data comes from reports filed with policing agencies and entered into the Province’s Registry of Motor Vehicle (RMV) system, which directly links to and updates CAPS. SNSMR staff review each accident report where they assign the accident to an individual carrier and determine if the carrier was at fault. At fault accidents impact the carrier’s demerit score rating for a 24 month period.
- 4.44 We examined 30 accident records for timeliness of review and entry to CAPS, and noted delays between 35 and 681 days, with an average of 343 days from the date of the collision to the date it was reviewed and assigned to the carrier profile. On average, 38% of the delay occurred between the time of the accident and entry into the RMV system. The majority (62%) of the delay occurred in the review and assignment to the carrier profile. Eighteen of 30 collisions were reviewed more than one year after the event. If the review and assignment of accident data is not timely, a carrier’s demerit score may not truly reflect their safety risk. A lower risk score decreases the likelihood of an audit.
- 4.45 From the 30 accident records, we examined 21 records with accidents in the past 24 months and did not agree with the at-fault determination in 2 cases. Both cases were discussed with staff who subsequently agreed with our assessment. We determined the impact on the demerit scores for the two carriers affected by the errors and noted in one case the impact was significant as the carrier was not considered for audit. At fault accidents are an important factor in determining the riskiest carriers. SNSMR staff consider many factors when determining fault (e.g., accident severity, accident description, other contributing factors). Reports filed with policing agencies do not note who was at fault. Determining fault is a subjective process with staff using their judgment and experience based on what is documented on the collision report.

Recommendation 4.7

SNSMR should review its process for recording accident data in CAPS to ensure it is timely and accurate.

- 4.46 Accidents in other provinces involving Nova Scotia registered carriers are reported electronically by those jurisdictions directly into CAPS. It is the responsibility of the reporting jurisdiction to determine fault for the accident. We examined a list of 1,255 accident records reported by other



jurisdictions and noted none of the records contained a determination of fault. The information provided by other jurisdictions was not sufficient for SNSMR staff to determine whether the Nova Scotia registered carrier was at fault. As a result, important accident data was not captured in CAPS.

- 4.47 SNSMR needs timely, complete and accurate data in CAPS in order for the carrier safety fitness rating and audit program to operate effectively. Missing data, such as incomplete accident information may result in those carriers posing the highest risk to public safety not being identified for audit.

Recommendation 4.8

SNSMR should communicate its information needs to external parties and take appropriate action when information is not received.

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- 4.48 *Carrier safety fitness audits* - SNSMR's commercial carrier safety fitness rating and audit program involves assigning a safety fitness rating and auditing those commercial carriers with the highest safety risk, based on their demerit score. Carrier audits primarily involve examination of a sample of vehicle maintenance and driver records but do not include vehicle inspections. Auditors analyze the records for evidence maintenance issues identified during CVSA, pre-trip and other inspections have been addressed. Driver files and associated hours of service logs are also reviewed for existence and appropriateness. In addition, conviction and collision information included in the carrier profile is discussed with the carrier during the audit.
- 4.49 Verification (follow-up) audits are conducted on carriers where conditional safety ratings were assigned during a previous audit. SNSMR's policy is verification audits will not be conducted within six months of the previous audit to allow carriers time to implement corrections. We determined a large majority of these audits are conducted within a year of the six-month date from the previous audit. We also determined failure rates from verification audits decline to 28% from 68% failure on initial audits. The use of summary offense tickets (SOTs) increases with repeat audit failures; from 0.29 SOTs per failed initial audit, to 2.13 SOTs per failed subsequent verification audit.
- 4.50 When their schedules permit, auditors also conduct randomly scheduled audits. Carriers are selected for audit by administrative staff, randomly by county. The established demerit score system is not used in the selection process. This means the next riskiest carriers are not necessarily selected within the geographic area visited.



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Recommendation 4.9

SNSMR should employ the carrier demerit score system to assign audit priority, to the extent possible, when selecting carriers for audit within targeted geographical areas.

- 4.51 Overall, we found the audits are conducted in accordance with National Safety Code Standard 15. However, we noted an implementation weakness. Carrier safety officers record audit results directly in the carrier profile system and print a report for the carrier. The standard audit report generated by the system does not allow officers to provide sufficient detail on compliance issues noted. The onus is on the carrier to understand the issues as presented. This limits the usefulness of the audit report to the carrier. If compliance issues detected during an audit are not clearly communicated to a carrier, there is an increased risk issues will not be appropriately addressed.

Recommendation 4.10

SNSMR should improve its carrier safety fitness audit report to make it more useful to carriers as a reference document on identified compliance issues, and to better reflect the work performed by carrier safety officers.

- 4.52 *Program scope* – Our November 2008 audit of public passenger vehicle safety at the Nova Scotia Utility and Review Board (NSUARB) noted there were 293 carriers with 2,621 public passenger vehicles (paragraph 6.4). Our audit tests of public passenger vehicle safety at NSUARB found that 63% of vehicles inspected had deficiencies. We are concerned there could be a gap in monitoring of carrier maintenance systems between the NSUARB and Service Nova Scotia and Municipal Relations.

- 4.53 Public passenger carriers are less likely to be audited under the program as they are not subject to the same safety and inspection processes as other commercial carriers. Public passenger vehicles are not required to report to scale houses, nor are they subject to roadside stops by TIR's vehicle compliance officers. Public passenger vehicles are safety inspected twice a year by NSUARB inspectors, but the results are not reflected in their carrier profile in CAPS. SNSMR audit records show eight audits on five public passenger carriers were completed between April 2007 and December 2008. We are concerned monitoring of public passenger carriers is not sufficient under the carrier safety fitness audit program.

Recommendation 4.11

SNSMR should determine requirements necessary for appropriate assessment of public passenger carriers and take necessary steps to facilitate obtaining the information.

RESPONSE:
TRANSPORTATION
AND
INFRASTRUCTURE
RENEWAL

Response: Transportation and Infrastructure Renewal

This is to acknowledge the Department has received the Transportation and Infrastructure Renewal and Service Nova Scotia and Municipal Relations Truck Safety Audit Summary completed by the Auditor General March 2009.

The summary presented has been reviewed by staff and we are pleased with the completeness and accuracy of the information presented. The summary includes a number of recommendations and in response I offer the following:

Recommendation 4.1

TIR should establish a formal risk management process. This process should include management's identification, assessment and response to key safety risks. The effectiveness of the safety, inspection and enforcement program in achieving desired outcomes should also be assessed on a regular basis.

Response: The Department agrees with the recommendation and will develop a formal risk management process within the 2009/2010 fiscal year.

Recommendation 4.2

TIR should regularly monitor vehicle compliance officer performance in meeting required targets. Appropriate and timely action should be taken when targets are not met.

Response: The Department agrees with the recommendation and will put in place a monitoring process within the next nine (9) months.

Recommendation 4.3

TIR should establish formal criteria and guidelines to assist officers in their enforcement activities. Procedures should be established to ensure criteria are followed.

Response: The Department agrees with the recommendation and will continue to develop Policies and Procedures through the existing Policy and Procedure Committee. As policies and procedures need to be added, they will be reviewed by the Committee and existing policies and procedures will be reviewed on an annual basis by the Committee. As there are a number of old policies and procedure and review and updating will be done on a priority basis to be established within the next nine (9) months.

Recommendation 4.4

Policies and procedures at TIR should be reviewed on a regular basis and any gaps in policy should be addressed. Policies, procedures and other guidance should be filed in a systematic manner, such as in a manual, and be readily available to staff.

RESPONSE:
TRANSPORTATION
AND
INFRASTRUCTURE
RENEWAL

Response: The Department agrees with the recommendation and will continue to work with the Policy and Procedure Committee to review and develop policies when required on a regular basis. All policies which are now developed or reviewed by the Committee are included in TIR Manual 23 which is accessed through the Department's Intranet for all TIR employees to review.

Recommendation 4.5

TIR should take appropriate action to incorporate updated National Safety Code standards into legislation in a timely manner.

Response: The Department agrees with the recommendation and will take the appropriate action needed to provide updates to legislation in a timely manner.

Thank you for the opportunity to comment on the Auditor General's Report.

RESPONSE:
SERVICE NOVA
SCOTIA AND
MUNICIPAL
RELATIONS

Response: Service Nova Scotia and Municipal Relations

The Department appreciates the opportunity to provide comments on the review of the Commercial Vehicle Safety Program. A strategic goal of the Department is to continually review and modernize all programs under its mandate. The adopted recommendations contained in this report will be a step in our continuous improvement.

General Comments

A new modernized motor vehicle application was implemented on April 23, 2008. Significant staff effort was required in the design and build of the system which consequently impacted the entry of data into the system. Additional resources have been assigned to the data entry and a significant reduction in backlog has been achieved and continues.

Ensuring that our data is timely, accurate, and complete is of prime concern to the Department. The Department also relies on other Departments/Agencies and jurisdictions for data. The Department continues to work to positively influence the quality and frequency of data exchange.

Responses to Recommendations:

Recommendation 4.6

SNSMR should review its carrier activity profile system to ensure the riskiest 5% of commercial carriers are identified for audit. Necessary changes to the system should be implemented in a timely manner.

We accept this recommendation. Work commenced on February 24, 2009 to determine why the number of carriers identified by the automated system did not match the design target of 5%.

Recommendation 4.7

SNSMR should review its process for recording accident data in CAPS to ensure it is timely and accurate.

We accept this recommendation, recognizing the importance of timely and accurate data. The Department relies on external agencies for collision information. Within Nova Scotia, this data is captured and forwarded by Police Agencies on behalf of the Registrar. Externally, the data is forwarded by Canadian Motor Vehicle Jurisdictions through an electronic network. The above noted electronic network will soon be expanded to include collision data from the US Federal Motor Carrier Safety Agency.

RESPONSE:
SERVICE NOVA
SCOTIA AND
MUNICIPAL
RELATIONS

The Department will continue to work with external partners to ensure that data is sent in a timely and accurate manner. Internally, the Department will work to streamline data entry and will review process changes to enter carrier collision data in an improved timely manner. Additional resources have been and will continue to be assigned to data entry to ensure timeliness.

Recommendation 4.8

SNSMR should communicate its information needs to external parties and take appropriate action when information is not received.

The Department supports the communication of information needs to external parties. Most Canadian jurisdictions include data from other Canadian and US jurisdictions in their carrier safety systems and need the same level of data quality and timeliness.

The Department has strong relationships with other jurisdictions and a key piece of information ‘missing’ noted in the AG Report was the assignment of ‘at fault’ in a collision. Many jurisdictions do not assign fault to a collision, so it’s not an action over which the Department has influence. However, the Department has and will continue to identify that this is an information need and to reinforce that with other jurisdictions

While the AG Report notes a missing piece of data in some instances as the National Safety Code number, the Department notes that the National Safety Code number is not required if the plate number is recorded properly. Given that the plate number is many fewer digits/characters, there is far less risk of error in data entry using that number.

Recommendation 4.9

SNSMR should employ the carrier demerit score system to assign audit priority, to the extent possible, when selecting carriers for audit within targeted geographical areas.

The Department does employ the carrier demerit score system to assign audit priority. However, the Department further believes that selecting carriers without point accumulation (random) is also important as the exposure to compliance activities varies within the province.

Recommendation 4.10

SNSMR should improve its carrier safety fitness audit report to make it more useful to carriers as a reference document on identified compliance issues, and to better reflect the work performed by carrier safety officers.

The Department agrees with this recommendation and changes to the report are now complete.

Recommendation 4.11

SNSMR should determine requirements necessary for appropriate assessment of public passenger carriers and take necessary steps to facilitate obtaining the information.

The Department agrees in principal with the recommendation. Inspection information must be forthcoming from NSUARB inspectors in order to implement this recommendation. Discussions with NSUARB and TIR have been initiated which will lay the foundation for the capture of this information.

RESPONSE:
SERVICE NOVA
SCOTIA AND
MUNICIPAL
RELATIONS