



City Auditor's Office

Fleet Operator and Public Safety Audit

March 2, 2022

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Table of Contents

Executive Summary	5
1.0 Background	7
2.0 Audit Objective, Scope and Approach	8
2.1 Audit Objective	8
2.2 Audit Scope	8
2.3 Audit Approach	8
3.0 Results	10
3.1 Planned Maintenance Scheduling	10
3.2 Vehicle and Replacement Plans and Reports	11
3.3 Commercial Vehicle Safety Association Inspections Completed by Fleet Services	12
3.4 Pre/Post Trip Inspections.....	12
3.5 Fleet Safety and Training Program.....	13
3.6 Operator Training and Skills Re-certification	14
3.7 Drivers Abstract Process	14
3.8 Drivers Hours of Service – Periodic Audits	15
3.9 Fleet Vehicle and Collision and Inspection Dashboards.....	16
4.0 Observations and Recommendations	18
4.1 Operator Permit Re-Certification.....	18
4.2 FS Internal Commercial Vehicle and Safety Association Inspection Process.....	19
4.3 Pre-/Post-Trip Inspection Forms.....	20
4.4 Drivers Hours of Service – Periodic Audits	21
4.5 FS’ Collision Dashboard.....	23

The City Auditor's Office conducted this audit in conformance with the *International Standards for the Professional Practice of Internal Auditing*.

Executive Summary

As an enabling service, Fleet Services (FS) supports City business units (BU) that are responsible for providing front-line services to citizens, such as Waste and Recycling, Roads, Water Services, and Parks. FS ensures that The City's fleet is operated safely and responsibly. This is achieved through appropriate maintenance and repairs of vehicles and equipment and operator safety and training. FS is responsible for The City's operator policies, providing operator training for City vehicles and equipment, and investigating collisions involving The City's approximate 4,600 certified operators. FS also manages legislative requirements including compliance with the National Safety Code and the Alberta Traffic Safety Act standards set out by Alberta Transportation.

The objective of this audit was to assess the design and operating effectiveness of key controls that support FS operator and public safety related to City Fleet operations. The audit focused on FS processes in operation from September 1, 2020 to August 31, 2021.

Overall, we determined that FS processes to manage operator and public safety risks are generally effective. To enhance the FS safety program, we raised recommendations to strengthen current safety compliance assessments, before and after vehicle usage controls, City operators' re-certification controls to ensure the necessary skills to safely operate City vehicles, and the development of a monitoring process to prevent dangerous fatigue-related incidents.

FS is effectively monitoring and scheduling planned maintenance activities of vehicles and equipment, both for light and heavy fleet, and addressing safety concerns through vehicle and equipment replacement plans. However, FS processes do not support the consistent documentation and communication of internal Commercial Vehicle Safety Association inspections results. The inspection documentation process is manual and may result in safety issues being unaddressed if vehicles requiring repair are missed due to paperwork not being filled out completely. There is also no process to inform an operator's direct supervisor or the associated shop of the results of the inspections. FS also does not have a process in place for identifying missing or inconsistently completed pre-/post-trip inspection forms to ensure the safety and readiness of the fleet.

FS has a defined process to ensure new hires meet City and provincial requirements to safely operate vehicles and equipment. Driver abstracts are pulled to ensure operators' provincial driver's licenses are valid. FS follows up on exceptions and takes corrective action as appropriate. Operators at The City are required to complete drivers' hours of service logs that comply with the Alberta Traffic Safety Act Regulation. However, FS processes do not support compliance with operator permit re-certification requirements. Approximately 20% of operators have an expired City operator permit creating a risk of non-compliance with the Alberta Traffic Safety Act requirements and a possible impact on The City's carrier safety fitness rating. Periodic audits of Driver's Hours of Service forms by FS are not occurring to identify and address instances of non-compliance with the Drivers' Hours of Service Regulations.

FS has developed a Collision and Inspection Dashboard to track and communicate information and actions on collisions and FS internal inspection between Fleet and the BUs and analyze safety trends. We observed that FS uses the data to generate reports on collisions. We made a recommendation to strengthen the accuracy of the data to support FS goals of reducing the number of avoidable collisions.

FS has agreed to all recommendations and has committed to set action plan implementation dates no later than June 30, 2023. The City Auditor's Office will follow up on all commitments as part of our ongoing recommendation follow-up process.

1.0 Background

As an enabling service, Fleet Services (FS) supports the Citizen Priority A Well-Run City through lifecycle management of vehicles, equipment, and components. This includes the acquisition, disposal, maintenance, and repair of assets, as well as engineering, manufacturing, and fleet safety governance.

FS' primary customers are City business units (BU) including Water Services, Waste and Recycling, Roads, Parks, and Recreation. Other external customers include government agencies and external utilities. FS' inventory is made up of 1,060 light-duty vehicles, 281 medium-duty vehicles, 578 heavy-duty vehicles and 1,759 equipment¹.

FS seeks to reduce City operator collisions and ensure that vehicles and equipment are replaced in a timely fashion to minimize risks to Calgarians as they move throughout the city. Specifically, FS is responsible for The City's driver/operator policies, providing operator training for City vehicles and equipment, and investigating collisions involving The City's approximate 4,600 certified operators.

FS also manages legislative requirements related to its commercial fleet, which includes the National Safety Code (NSC), the Alberta Traffic Safety Act, and the Occupational Health and Safety Act, Regulation and Code. As an operator of motor vehicles and equipment, The City is required to be registered as a provincially regulated commercial carrier. As a carrier, The City must comply with NSC standards set out by Alberta Transportation. This includes obtaining a Safety Fitness Certificate, which gives the organization permission to operate commercial vehicles in Alberta and having a written safety and maintenance program.

FS' Vehicle and Equipment Safety Manual acts as the written safety program which details the policies and responsibilities for operators based on defined criteria required to run a safety program. It also details maintenance requirements to operate the City fleet in a safe and proficient manner.

¹ Fleet 2020, Utilization SAVE initiative

2.0 Audit Objective, Scope and Approach

2.1 Audit Objective

The objective of this audit was to assess the design and operating effectiveness of key controls that support FS operator and public safety related to City Fleet operations.

2.2 Audit Scope

The scope of the audit included processes in operation from Sept 1, 2020 to August 31, 2021. This period includes the COVID-19 pandemic State of Local Emergency, which impacted controls, specifically Commercial Vehicle Safety Association (CVSA) inspections. Our assessment of controls considered COVID-19 pandemic temporary changes and adjustments.

Our scope was limited to reviewing only vehicle and operator processes that fall under the jurisdiction of FS. Other areas of The City within The City's carrier profile (Transit, Fire, Police Services) are not included in the audit scope as these safety programs are managed separately from FS.

2.3 Audit Approach

The audit approach focused on evaluating the design and operating effectiveness of the following key controls supporting operator and public safety:

Control	Control Description
Vehicles and Equipment	
1. Planned Maintenance Activities	Vehicle maintenance activities include yearly CVIPs that the Alberta Traffic Safety Act requires for vehicles over 11,249kg (heavy fleet) and maintenance of light/medium fleet based on utilization.
2. Vehicle and Equipment Replacement Plans	Lifecycle forecasts for vehicles and equipment based on critical failures, safety concerns, and maintenance costs.
3. Internal Inspections completed by FS	Random and periodic safety inspections conducted by FS to assess vehicle compliance with CVSA Standards.
4. Pre/Post Trip Inspections	Inspections are conducted before and after vehicle usage by operators to ensure compliance with National Safety requirements and ensure the safety and readiness of the fleet.
Operators	
5. FS Safety and Training Program	FS Program that defines National Safety Code and City requirements to operate the fleet.
6. Operator Training and Skills Re-Certification	Five-year re-certification requirement of City operators to ensure operators still possess the necessary skills to safely operate City vehicles.

Control	Control Description
7. Driver's Abstract Process	FS performs a yearly check on operator driving records to ensure operator's Provincial Driver's License remain acceptable.
8. Driver's Hours of Service Regulation Process	The process to ensure provincial maximum driving limits and minimum off-duty requirements are adhered to. These limits prevent dangerous fatigue-related incidents.
Dashboard	
9. FS Vehicle and Collision Dashboards	Dashboard used to track and communicate information and actions on collisions between FS and the BUs and analyze safety trends.

3.0 Results

Vehicles and Equipment

We observed that FS has established effective controls that support the scheduled maintenance of vehicles and equipment and monitoring of vehicle and equipment replacement plans. We made recommendations to strengthen the processes supporting periodic internal safety inspections conducted by FS to ensure compliance with NSC requirements and inspections conducted before and after vehicle usage by operators.

3.1 Planned Maintenance Scheduling

Scheduled maintenance of all FS vehicles acts as a preventative control to minimize the risk of an accident caused by a malfunctioning vehicle.

Heavy Fleet

Per the Alberta Traffic Safety Act, Vehicle Inspection Regulation 211/2006, public vehicles, or combinations of public vehicles that are registered with gross vehicle weights of 11,794 kg or more, must be mechanically inspected annually as part of the Commercial Vehicle Inspection Program (CVIPs) to ensure the safety of these vehicles while on the road.

When a vehicle is commissioned for service, FS enters all required information of the vehicle including CVIP dates into their vehicle management system (M5), a decal corresponding to the inspection certificate is then placed on the unit. FS generates a monthly report from M5 to schedule in units for preventative maintenance. We analyzed the July and August schedules and determined that out of 443 CVIPs scheduled in both months, all but four units (0.9%) were correctly scheduled. Out of the four units, two were errors in M5 that need to be corrected and two units were trailers that sat idle but were not used. FS had no concern that these units were being utilized by operators without a valid CVIP. Units with expired CVIPs may only be used if they are brought to a shop to have the CVIP completed.

Since June 2021, FS implemented a monthly compliance report which is run from M5 that identifies outstanding or overdue CVIPs. FS began using this report to correct CVIP data or follow up on outstanding CVIPs. We reviewed the overdue lists for the audit period and determined that, out of 40 units:

- 38% (15 units) were decommissioned.
- 33% (13 units) showed up on the overdue report. However, CVIPs were completed at the time we reviewed the report. These units showed as overdue because of errors in M5 data or they had been previously overdue, and the status was not updated.
- 13% (5 units) did not require a CVIP and were moved to the usage-based maintenance program.
- 8% (3 units) were not used by the BU. No CVIP had occurred for these units.
- 5% (2 units) were missing and were suspected to be decommissioned.
- 5% (2 units) had an associated BU that no longer exists. FS was following up with each unit to determine if it was still in service.

Overall, FS is effectively monitoring and scheduling CVIPs as appropriate, including following up on outstanding and overdue units. FS indicated that anything that is identified as an error should be reported in M5's issue and request log so it can be updated appropriately. We discussed with management an opportunity for FS to develop and implement procedures to ensure that any

errors or changes required for CVIPs from monthly overdue reports are appropriately updated in this log by FS staff.

Along with inputting CVIP information into M5, FS is required to log CVIP completions in Alberta's Transportation e-facilities website. We compared CVIP completion dates of seven units in M5 under FS's responsibility to those on the e-facilities website to ensure alignment and noted that the dates were entered correctly.

Light Fleet

We also reviewed the process to schedule in light fleet for preventative maintenance (PM). Recently, 1,100 light-duty fleet vehicles were moved from time-based PM to a use-based PM schedule as part of the Solutions for Achieving Value and Excellence (SAVE) initiative. The focus of this initiative is to increase customer satisfaction, reduce vehicle downtime, lower maintenance costs, increase efficient lifecycle management, and improve the productivity of maintenance staff. Specifically, this functions by lowering the time intervals for PM for the light fleet to every two years for vehicles that did not exceed usage limits. FS indicated they will continue to collect data to formulate the optimal maintenance program for the light fleet, which may also result in cost savings to The City.

3.2 Vehicle and Replacement Plans and Reports

Lifecycle forecasts for vehicles and equipment address the safety risk of critical failures.

FS uses their Capital Asset Management system and M5 to conduct analysis of maintenance costs for units and optimize vehicle and equipment replacement plans.

We reviewed the process for monitoring vehicle and equipment replacement plans to ensure units with safety concerns were addressed. Near the end of the lease or the end of a unit's useful life, the process to replace the old unit begins. Rather than automatically replacing an old unit with an identical newer unit, replacement options are evaluated. FS assesses safety information or potential hazards by:

- Reviewing the replacement request to determine if the old unit has potential safety concerns, even if the BU has not experienced or reported a safety incident;
- Reviewing information collected from operators regarding safety issues or potential safety issues with the unit;
- Assessing demonstrations of unit performance;
- Gathering information on reported safety incidents from other users, such as cities and municipalities; and
- Researching new models designed with new or improved safety features that could prevent incidents, accidents, and injuries.

If FS' safety assessment determines that a unit's operation safety could be improved, they present an analysis to the BU. The analysis includes information gathered from the processes mentioned above, as well as purchasing options, expected lifetime maintenance costs, and the expected impact on operator safety. While FS provided evidence that this process is working effectively, we discussed with management an opportunity to formally document this process for consistency and succession purposes.

Extended Life Units

We also reviewed the process of how FS monitors extended life units. In May 2021, FS began running a quarterly report from M5 which identifies units that require an extended life approval. Each unit is evaluated based on a usage point calculation. If an extension is approved, two additional years are added to the life of the unit. We analyzed a sample of ten units requiring extended life and noted that they had all been approved as appropriate.

3.3 Commercial Vehicle Safety Association Inspections Completed by Fleet Services

Inspections are completed by FS to improve the safe operation of vehicles by establishing a uniform review and enforcement process.

FS regularly completes internal inspections that comply with NSC requirements. These internal inspections are not a requirement by the Province; they were implemented by FS as a preventative process to reduce the risk that The City does not comply with Alberta Transportation CVSA requirements preventing a negative impact on The City's Carrier Profile and safety incidents from occurring.

We reviewed a sample of 30 inspections and associated work orders and determined that the inspection process is manual, and paper-driven, which resulted in manual errors occurring including missing associated work orders. There is also no escalation process to communicate the results of inspections to the operator's direct supervisor or shop of outcomes. FS indicated they are currently in the process of automating internal inspections. We recommended FS continue the development of an online process to document and communicate internal vehicle and operator inspections to reduce manual errors and ensure that all required individuals receive a copy of the inspection results so they can take appropriate action (Recommendation 2).

3.4 Pre/Post Trip Inspections

Inspections are conducted before and after vehicle usage by operators to ensure compliance with National Safety requirements and ensure the safety and readiness of the fleet.

FS' Vehicle and Equipment Safety Manual states operators must complete a pre-trip inspection before operating the City's fleet. The Commercial Vehicle Safety Regulation AR121/2009 also requires vehicles over 11,794kg to document and produce a pre-trip inspection report. Inspections are valid for the duration of an operator's shift only. The purpose of the pre-trip inspection is to prevent a person from operating a vehicle or any equipment that is in a condition likely to cause danger to persons or property. We reviewed a sample of 35 units and requested the pre/post-trip inspection forms for these units for a consecutive period to ensure forms were appropriately filled out. We received 33 of the 35 units forms requested. Overall, we concluded that:

- 39% (13 out of 33 units) had forms missing from the period requested. Forms were missing when the odometer readings were not aligned, i.e., odometer stoppage with odometer start readings for the period requested; this indicates that the units were used between trip records; and
- 15% (five of 33) had inconsistent forms (irregularities with recorded damage) or were not readable.

We recommended that FS design and communicate to BUs an expectation on compliance monitoring for pre/post-trip inspection forms (X505) (Recommendation 3). FS indicated they have requested automating pre/post-trip inspections as part of the new Common Telematics Operating System (CTOS) Platform which is out for tender. CTOS will provide The City of Calgary with a scalable technology solution to collect accurate and reliable telematics data from City-owned vehicles & equipment. It is a replacement to FS's current Common Fleet Operating System (CFOS).

We also reviewed the X505 Report Form and compared it to the NSC, Commercial Vehicle Safety Regulation AR121/2009, to ensure it includes all criteria required for compliance. We determined that overall, the X505 form aligns with NSC regulations.

Operators

We observed that FS has established effective controls to ensure that new hires meet the requirements to safely operate vehicles and equipment and pull driving records to ensure operators' provincial driver's licenses remain acceptable. We made recommendations to strengthen the processes supporting the re-certification requirement of City operators to ensure that they still possess the necessary skills to safely operate City vehicles and monitor provincial maximum driving hours of service limits to prevent fatigue-related incidents.

3.5 Fleet Safety and Training Program

FS has established a safety training program for new hires that defines NSC and City requirements to safely operate the fleet.

New Hires

FS Vehicle and Equipment Safety Manual (Safety Manual) outlines that all City Operators must meet or exceed requirements defined under the NSC for Motor Carriers to operate City fleet units. This process applies to all operator applicants, newly hired or current, including permanent full-time, part-time, on-call, or seasonal workers, or any other affiliates with The City of Calgary operating a City fleet unit for the first time. Requirements include:

- Passing a 15-question multiple-choice written knowledge exam.
- Completing the Operator Orientation Checklist and completing and signing a Fleet Safety and Training Operator's Application Form.
- Performing a standard vehicle pre-/post-trip inspection and achieving at least 80 percent to pass.
- Passing an on-road evaluation.
- Holding a valid license for the class of vehicles they are working with.
- Providing a three-year summary driver's abstract current within three months.

We reviewed a sample of five new hires during the audit period to determine if the above requirements were met. Our results indicated that four out of the five operators completed all new hire requirements. One of the operators did not have evidence that a pre-/post trip inspection was passed, however, all other requirements were completed. The process is working effectively. We discussed an opportunity with FS to review forms for completeness to eliminate possible future errors.

Unacceptable Driving Records

FS Safety Manual indicates that operator abstracts are to be pulled annually to determine if an operator has an unacceptable driving record. An unacceptable driving record consists of having eight demerits or more, and/or any of the following convictions listed below, including but not limited to:

- Failing to remain at the scene of an accident.
- Careless/dangerous driving.
- Failing to stop for a Peace Officer.
- Exceeding the speed limit by (a) 50 km/h or more or (b) double (2x) the posted speed limit, whichever is less.
- Driving with a suspended or disqualified Provincial Driver's License.

We selected a sample of 12 operators who had been deemed to reach an unacceptable driving record to determine if a Professional Driver Improvement Course or a Defensive Driving Course was completed in lieu of or in addition to the individualized training or the operator's permit was suspended if required. Appropriate recourse had been taken regarding all 12 operators.

3.6 Operator Training and Skills Re-certification

A five-year re-certification requirement of City operators to ensure operators still possess the necessary skills to safely operate City vehicles.

Operator Re-Certifications

FS' Safety Manual outlines that operators are required to re-certify their City Operator's Permit every five years. It is also a requirement under the Alberta Traffic Safety Act that registered owners of commercial vehicles have an ongoing program for evaluating driving skills for employees. FS has committed to completing operator re-certifications every five years to meet due diligence requirements. We reviewed FS records for all operators and determined that, as of October 1, 2021, 935 (20%) out of 4,614 operators had an expired City operator permit.

We also reviewed a sample of 14 operators who had a re-certification completed within the audit period to verify that the contents of the re-certification training were in line with the FS requirement. All operators' files were appropriately updated with re-certification information including completing required training. However, we could not determine if pre-trip evaluations were completed for seven out of 14 operators. We recommended that FS develop and implement an action plan to address outstanding re-certifications and develop and implement a process to review re-certification forms for completeness and accuracy prior to upload to the operator's file (Recommendation 1).

Vehicles and Equipment Re-Certifications

FS Safety Manual also indicates that FS should consult with business units to develop a risk matrix to determine which types of City fleet units require five-year recertifications. This is currently not occurring due to competing demands and priorities and a lack of buy-in from the BUs. We discussed this opportunity with FS who stated that they will revisit the feasibility of unit re-certifications and update their manual accordingly.

3.7 Drivers Abstract Process

FS performs a yearly check on operator driving records to ensure that operators' Provincial Drivers' Licenses remain acceptable.

FS requests driver's abstracts daily. On the first business day after the operator's date of birth, FS pulls the driver's abstracts. All Driver's Abstracts are reviewed and, if warranted, further investigation is conducted. If the operator's provincial driver's license is expired or suspended, the operator's supervisor and HR are notified via email, and The City operator's permit is immediately suspended. The permit is not reinstated until the operator can:

- Provide proof of a valid provincial driver's license to Fleet Safety and Training.
- At the operator's expense, provide a current and acceptable three-year driver's abstract to Fleet Safety and Training.

We reviewed a sample of ten driver's abstracts and noted that all ten had been appropriately pulled on the first business day after the operator's date of birth. Based on this sample we concluded that FS's process to pull driver's abstracts was designed and operating effectively.

Expired and Suspended Licenses

FS keeps a spreadsheet tracking all individuals with expired or suspended licenses identified from the abstract pulls. They also use PeopleSoft's Human Capital Management (HCM) Driver's License Data tab to update each operator's profile status. We reviewed the spreadsheet for 2020 and 2021 and noted there were 34 operators with expired licenses in 2020 and 21 with expired licenses in 2021. We followed up on a sample of five of these operators and noted the following:

- One of five had an updated license but had not updated FS with their driver's abstract, resulting in a new operator's permit not being issued.
- One of five was on leave and since returning has been on non-driving duties. This was not updated in HCM.
- One of five needed to provide a medical document with an updated abstract. However, they held a valid license.
- Two of five operators did not require them for their positions so were indicated as suspended, however this was not indicated in HCM.

FS is effectively following up on expired and suspended licenses yearly through the driver's abstract process. We discussed an opportunity with FS to develop standards for updating HCM to ensure clarity on reasonings for license suspensions and a process to follow up on expired licenses after the initial emails are sent to the operator and their direct supervisor.

48 Hour Release

In the event a City supervisor or Labor Relations representative requests an out-of-schedule operator's Drivers' Abstract for an operator, FS has defined a process to pull the operator's Drivers abstract within 48 hours. FS first must obtain a signed permission release from the operator. Once this is obtained the request is put into the next day's pulled files. Follow-up action occurs if required. FS provided four examples of when they had pulled a 48-hour abstract for employees. These provide evidence that this process is being utilized effectively.

3.8 Drivers Hours of Service – Periodic Audits

A compliance monitoring process to ensure adherence to provincial Hours of Service Rules and avoid collisions caused by driver fatigue.

FS Safety Manual outlines Drivers Hours of Service requirements for operators. Provincial hours of service regulations also define maximum driving limits and minimum off-duty requirements. These limits were created to prevent dangerous fatigue-related incidents. Operators at the City

are required to complete drivers' hours of service logs that comply with the Alberta Traffic Safety Act Regulation. They require operators to record daily shift start and shift end time including days off.

Drivers' hours of service are monitored through shift limits and sign-off by supervisors. We selected a sample of six operators and obtained copies of each operator's Drivers' Hours of Service Time Sheets (X545) to ensure they were appropriately filled out by the operator and reviewed by the operator's supervisor. We determined that:

- Five out six had no issues noted.
- One of six operators had 15.5 non-driving hours of service i.e., did not comply with Drivers' Hours of Service Regulations.

We noted that periodic audits of Driver's Hours of Service forms are not occurring by FS. These audits would identify and address instances of non-compliance. We recommended that FS design and implement a process to monitor compliance with Driver's Hours of Service Regulation (AR317/2002), including a process to address instances of non-compliance identified (Recommendation 4).

Dashboards

FS has developed a Fleet Vehicle and Collision Dashboard to track and communicate information and actions on collisions between FS and BUs to analyze safety trends. We made a recommendation to strengthen the accuracy of the data to support FS goals of reducing the number of avoidable collisions.

3.9 Fleet Vehicle and Collision and Inspection Dashboards

FS' collision and Inspection dashboard was launched in September 2021 to provide FS and its clients with up-to-date information on collision and inspection data and analyze safety trends. As the dashboard has been recently launched, we reviewed the design effectiveness of both dashboards.

Collisions

One of FS' SAVE initiatives involves reducing the number of avoidable collisions by 10% of current numbers in 2021 and 35% in 2022. FS intends to achieve this target with improved operator behaviour through enhanced reporting, accountability practices and targeted training to improve operator safety.

FS is using its dashboards as a mechanism to enhance reporting. Although the dashboards provide good information to BUs on collision data, we observed the dashboard's collision data reported for 2020 did not reconcile to the 2020 collision data file. FS is aware of data reporting issues and is working with Corporate Analytics & Innovation to correct the data. We recommended FS continue to work with Corporate Analytics and Innovation to address and correct current data accuracy issues (Recommendation 5), which will support the future operating effectiveness of the dashboard.

Inspections

This dashboard provides information to BUs on the status of FS internal inspections, supporting this preventative control. However, there is an opportunity for FS to work with BUs to develop expectations around the use of the dashboard. This may include developing performance

indicators or a process to look at defects periodically and develop action plans or potential solutions. FS is also in the process of working on training programs that can be closely aligned to the results of the dashboard. For example, they have begun developing training for cargo securement.

We would like to thank all staff from FS and other BUs we contacted for their assistance and support throughout this audit.

4.0 Observations and Recommendations

4.1 Operator Permit Re-Certification

FS processes do not support compliance with operator permit re-certification requirements.

The Alberta Traffic Safety Act – Alberta Regulation 314/2002 Commercial Vehicle Certificate and Insurance Regulation – Part 6 Section 40(1) (a-g) specifies the contents required of a safety program. Specifically, it indicates that the registered owner of every commercial vehicle who is required to operate the vehicle under the authority of a safety fitness certificate must establish, maintain, and follow a written safety program that addresses matters relating to the safe use and operation of commercial vehicles, including training for employees about safety laws and their application and an ongoing program for evaluating their driving skills; FS' Vehicle and Equipment Safety Manual outlines that operators need to re-certify their City Operator's Permit every five years.

We reviewed The City's records for all operators and determined that, as of October 1, 2021, 935 (20%) out of 4,614 operators had an expired City operator permit. The risk of not having operators appropriately re-certified is that FS does not comply with their training manual or Alberta Traffic Safety Act requirements. This could result in an impact on The City's carrier safety fitness rating and/or a fine from the Province.

FS indicated that Covid-19 has slowed down the completion of re-certifications. They have been focusing efforts on training new operators and conducting vehicle inspections. FS has also been working with the Learning Management System to turn on re-certification notifications which would flag to operators and FS who has outstanding re-certifications.

We also reviewed a sample of 14 operators who had a re-certification completed within the audit period to verify the contents of the re-certification training. We noted that for six out of 14 operators, documents had not been filled out by the Safety Training Officer indicating if these operators passed a pre-trip evaluation requiring an 80% pass rate. For one out of the 14 operators, documents indicated the pre-trip needed to be practiced, but there was no indication if they passed the pre-trip evaluation. If FS are required to produce this documentation in court or to the Province, they would be unable to demonstrate an individual completed required pre-trip training, which could result in fines or impact to the City's safety fitness rating.

Recommendation 1:

The Team Coordinator, Safety and Training:

- a) Develop and implement an action plan to address outstanding re-certifications; and
- b) Develop and implement a process to review re-certification forms for completeness and accuracy prior to upload to the operator's file.

Management Response:

Agreed.

Action Plan	Responsibility
<p>A) Develop and implement a method to notify and verify permit expiry/recertifications on a monthly basis. Operators and their supervisors should be notified of upcoming recertification date. If training is not booked/conducted, notification will be sent of permit suspension.</p> <p>B) Continue to work with LMS to address automatic recertification notifications through the system.</p> <p>C) Training forms to be reviewed for accuracy and completeness on training forms before being entered into LMS/HCM</p>	<p><u>Lead:</u> Team Leader, Safety and Training</p> <p><u>Support:</u> Team Coordinator Safety and Training and Business Support Administrator</p> <p><u>Commitment Date:</u> Item A: June 30, 2022 Item B: December 31, 2022 Item C: June30, 2022</p>

4.2 FS Internal Commercial Vehicle and Safety Association Inspection Process

FS processes do not support the consistent documentation and communication of internal vehicle and operator inspection results. FS' Safety and Training Manual indicates that all City of Calgary operators and vehicles are subject to random and periodic FS safety inspections. Safety and Training Officers conduct these inspections CVSA standards. Inspections are held in various safe locations within City limits, including but not limited to public roadways, City depots, landfills, and multi-use sites. The inspections act as a preventative process to reduce the risk that The City does not comply with Alberta Transportation CVSA requirements. Non-compliance with provincial CVSA inspections may result in The City being identified for further monitoring, penalties, or enforcement actions.

We reviewed a sample of 30 inspections and associated work orders and identified the following gaps in the documentation:

- 43% (13 of 30 inspections) were missing information (e.g., checkboxes not filled out to indicate the results).
- 20% (six of 30 inspections) were missing an operator's signature.
- 23% (seven of 30 inspections) were missing an associated work order for the unit. One out of these seven indicated it was decommissioned, however, the names didn't match.

The inspection documentation process is manual, and paperwork driven. Vehicles requiring repair may be missed if the paperwork is not filled out completely, resulting in potential unaddressed safety issues.

In addition, there is no process to inform an operator's direct supervisor or the associated shop of the results of inspections, and a lack of escalation process to communicate action items to the operator's supervisor. Operators are required to inform their immediate supervisor or shop directly of inspections outcomes.

FS is currently reviewing ways to automate the inspection documentation process, which may eliminate some of these manual errors. This new process would send email notifications to the operator’s supervisor and the associated shops of required corrective action.

Recommendation 2

The Team Coordinator, Safety and Training continue the development of an online process to document and communicate FS internal vehicle and operator inspections to reduce manual errors and ensure that all required individuals receive a copy of the inspection results so they can take appropriate action.

Management Response:

Agreed.

Action Plan	Responsibility
<p>A) Online Questionnaire developed by ESM will eliminate blank fields and standardize responses, allowing consistent data for analysis.</p> <p>B) Online tool will notify the operators supervisor as well as Fleet Maintenance of any deficiencies.</p> <p>C) Fleet Safety & Training will conduct education sessions in BU sections found to be out of compliance with vehicle inspections</p>	<p><u>Lead:</u> Team Leader Collisions and Compliance</p> <p><u>Support:</u> Team Coordinator Safety and Training; Project Specialist, CI Services; Team Coordinator, Fleet Maintenance Operations; Team Coordinator, WRS sites; and Team Leader Customer Service</p> <p><u>Commitment Date:</u> Items A&B: September 1, 2022 Item C: December 31, 2022</p>

4.3 Pre-/Post-Trip Inspection Forms

There is no process in place for identifying missing or inconsistently completed pre-/post-trip inspection forms (X505).

FS’ Vehicle and Equipment Safety Manual states operators must complete a pre-trip inspection before operating City fleet units. Inspections are valid for the duration of an operator’s shift only. The Commercial Vehicle Safety Regulation AR121/2009 requires vehicles over 11,794kg to document and produce a pre-trip inspection report. The minimum requirements of pre-trip documentation are:

- Legible;
- License number/unit number;
- Odometer or hubometer;
- Carrier name;
- Location inspected;
- Each defect or no defect;
- Date/time of the report;
- Name of the person inspecting; and
- Name and signature of driver or person inspecting.

It is illegal to operate a vehicle on a highway with any defect that violates legislation. If The City is found to have violated Commercial Vehicle Safety Regulation AR121/2009 (i.e., the operator is unable to produce a valid trip inspection report on demand), there could be a negative impact on The City’s carrier safety fitness rating and fines. There is also a risk to other drivers of operators having an unsafe vehicle on roadways.

We selected a sample of 35 units and requested the pre-/post-trip inspection forms for these units for a consecutive period, covering seven days for driven units and 30 days for units with a crane. We received 33 of the 35 units forms requested. We were informed that the remaining forms related to two units could not be located.

A review of the documentation concluded:

- 39% (13 out of 33 units) had forms missing from the period requested (seven Cranes, one unit from Parks, two units from Water, three units from Roads). Forms were missing when the odometer readings were not aligned, i.e., odometer stoppage with odometer start readings for the period requested; this indicates that the units were used between trip records; and
- 15% (five of 33) had inconsistent forms (irregularities with recorded damage) or illegible entries.

FS have not designed or communicated an expected process by which BU would monitor operator compliance with the pre/post-trip inspection documentation.

Recommendation 3

The Team Coordinator, Safety and Training design and communicate to BU an expected pre/post-trip inspection forms (X505) compliance monitoring process.

Management Response:

Agreed.

Action Plan	Responsibility
<p>A) Fleet Safety & Training to continue addressing pre-trip adherence during roadside inspections with deficiencies being sent to the operator’s supervisor.</p> <p>B) Fleet Safety & Training will conduct education sessions in BU sections found to be out of compliance with vehicle inspections.</p> <p>C) Fleet Safety & Training will develop a process for auditing business unit X505 forms on a periodic basis.</p>	<p><u>Lead:</u> Team Leader, Collisions and Compliance</p> <p><u>Support:</u> Team Coordinator Safety and Training and Team Leader, Safety and Training</p> <p><u>Commitment Date:</u> Item A: June 30, 2023 Item B: December 31, 2022 Item C: September 30, 2022</p>

4.4 Drivers Hours of Service – Periodic Audits

Periodic audits of Driver’s Hours of Service forms by FS are not occurring to identify and address instances of non-compliance with Drivers’ Hours of Service Regulations.

FS' Vehicle and Equipment Safety Manual indicates that FS is responsible for monitoring compliance with Alberta Traffic Safety Act Regulation 317/2002 Drivers' Hours of Service Regulation section 12. This includes performing periodic audits of the record-keeping system within each City business unit on an ongoing basis. Provincial Drivers' Hours of Service Regulations indicate that carriers should check their driver's logs as frequently as possible, this may vary according to the size of the company. Every driver should be checked at least once each year. The objective of internal monitoring is to ensure all drivers become fully compliant every day – not just to document each driver's performance. Provincial Hours of Service Regulations also indicate that drivers shall not during the driver's work shift: a) exceed 13 hours of driving time; or b) drive at any time after the driver has been on duty for 15 or more consecutive hours. Daily logs must be signed at the end of the driver's work shift to confirm that all information recorded in a log is accurate.

FS indicated that regular audits of the more than 4,600 operators at The City that would identify instances of non-compliance are not occurring due to resourcing. We reviewed a sample of six operators drivers' hours of service forms (X545) and determined that:

- Five of six operators had an X545 signed by their supervisor and complied with Drivers' Hours of Service regulations.
- One of six operators had 15.5 non-driving hours of service i.e., did not comply with Drivers' Hours of Service Regulations.

The Province expects that all carriers must be aware of and enforce work shift-driving limitations to ensure the safety of their operators and the motoring public. Fatigued operators pose a great risk to themselves and all motorists around them. Hours of service violations are included in the carrier's profile. Periodic audits would support The City in preventing an accumulation of violations that may result in the carrier being identified for further monitoring, penalties, or enforcement actions. Hours of service violations will also be shown on the operator's commercial driver abstract.

Recommendation 4

The Team Coordinator, Safety and Training design and implement a process to monitor compliance with Driver's Hours of Service Regulation (AR317/2002), including a process to address instances of non-compliance identified.

Management Response:
Agreed.

Action Plan	Responsibility
<p>A) Fleet Safety & Training is to develop a process to conduct a quarterly audit of Operators work hours.</p> <p>B) Operators and their supervisors found to be out of compliance will be educated on HOS policies and procedures. E-learning module is being developed to address training gap.</p> <p>C) A method to address repeated non-compliance will also be developed.</p>	<p><u>Lead:</u> Team Leader, Collisions and Compliance</p> <p><u>Support:</u> Team Coordinator Safety and Training; Vehicle & Equipment Coordinators; BU Staffing Coordinators; BU Supervisors</p> <p><u>Commitment Date:</u> Item A: September 30, 2022</p>

Action Plan	Responsibility
	Item B&C: June 30, 2022

4.5 FS' Collision Dashboard

FS' collision dashboard is not currently operating as an effective tool to support preventative safety initiatives and associated cost savings, as the dashboard does not report accurate and reliable data. An effectively designed dashboard provides current, accurate, and complete data that allows for trends to be identified, corrective action to be taken, and outcomes monitored to measure progress toward goals and objectives.

The City's SAVE initiative for FS Operation Management (C2020-1215) includes avoidable collision reduction target: reduce the number of avoidable collisions by 10% of current numbers in 2021 and 35% of current numbers in 2022, with associated cost savings. FS intends to achieve this target with improved operator behaviour through enhanced reporting, accountability practices and targeted training to improve operator safety.

The collision dashboard was launched in September 2021 with the aim of providing FS and its clients with up-to-date information on collision data.

We observed the dashboard's collision data reported for 2020 does not reconcile to the 2020 collision data file maintained by FS:

- 659 collisions are reported in the data file; however, the dashboard reports 672 collisions in 2020.
- Collision-cause categories displayed in the dashboard do not align with the categories in the data file. Some categories have been combined, in error, and labelled "unknown" cause.

FS is aware of data reporting issues; the collision-cause categories are not populating accurately in the dashboard and has requested the assistance of Corporate Analytics & Innovation to correct the collision categories and reporting issues. A timeline for the repair is not established.

FS plans to improve and expand the dashboard with value-added features such as collision data drill down by BU division and collision frequency by usage. There is also an opportunity for FS to collect data on unit types to support the assessment of safety performance by unit type/contribution to the SAVE initiative.

Recommendation 5

The Team Coordinator, Safety and Training:

- a) Work with Corporate Analytics and Innovation to address and correct current data accuracy issues;
- b) Develop and implement a process to regularly review collision data in the dashboard for completeness and accuracy; and
- c) Develop a plan with associated timelines to further expand the functionality of the dashboard.

Management Response:
Agreed.

Action Plan	Responsibility
<p>Collision-cause categories were corrected late Dec 2021. Legacy data may contain some discrepancies when compared to the dashboard, but all data from dashboard launch is accurate.</p> <p>Develop a process for reviewing the dashboard and implementing a method for addressing areas of concern with the associated BU section.</p>	<p><u>Lead:</u> Team Leader, Collisions and Compliance</p> <p><u>Support:</u> Team Coordinator Safety and Training; Team Leader, Safety and Training; Project Specialist, CI Services</p> <p><u>Commitment Date:</u> December 31, 2022</p>