

PART II
OCCUPATIONAL SAFETY AND HEALTH

Review under section 146 of the Canada Labour Code, Part II
of a direction issued by a safety officer

Applicant: Laidlaw Transit Ltd.
Markham, Ontario
Represented by: Monica Bell
Regional Director, Driver Development and Safety

Respondent: Canadian Union of Public Employees
Represented by Norm James,
President, Local 2177

Mis en cause: Mariana Grinblat
Safety Officer
HRDC

Before: Doug Malanka
Regional Safety Officer
Human Resources Development Canada

Background

Laidlaw Transit Ltd. requires their school bus drivers to conduct a safety circle check of their vehicles prior to operation. The safety circle check included a test sometimes referred to as a tire knocker or tire tap test. For the test, the Laidlaw driver would strike the top of the tire (i.e., the tread) with the blunt end of a hatchet and tell from the sound produced if the tire pressure was unacceptable low or flat.

The safety officer first observed the test on November 7, 1997, and did not see any hazard for employees provided they were properly trained on how to conduct the test. However, upon returning to her office and making inquiries, she subsequently decided that the use of the hatchet was a source of danger for the driver for two reasons. First, the safety officer felt that there was a danger for the driver when conducting the test, and later when driving the vehicle. As a result, she wrote to Ms. Monica Bell, Regional Director, Driver Development and Safety, on December 2, 1997, and, pursuant to paragraph 145.(2)(a), directed her to protect employees from the danger. Ms. Bell, requested a review of the direction and a hearing was held in Markham, Ontario, on Monday, February 16, 1998.

Hearing:

Ms. Bell representing Laidlaw and Mr. James representing Laidlaw employees informed me that they would not be calling any witnesses or submitting further documentation. Instead, they wished to submit arguments in support of Laidlaw's tire tap test procedure. Neither questioned the safety officer following her testimony.

Safety Officer Testimony

Prior to this hearing safety officer Mariana Grinblat submitted a copy of her direction and written report outlining the sequence of events and rationale that lead to her direction. The copy of the direction is attached, and her report, dated January 6, 1998, forms part of the file. It will not be repeated here.

Safety officer Grinblat testified that she observed Laidlaw's tire tap test in Markham, on November 10, 1997, at Ms. Bell's request. Later in the day she wrote to Ms. Bell to say that neither the Canada Labour Code, Part II, or the Canada Occupational Safety and Health Regulations dictates or addresses this type of testing. She expressed the view that, if the test is done safely it would not present a danger to the health and safety of employees present. She specified that all employees should be educated in the proper testing procedure.

Safety officer Grinblat told me that she had some lingering safety concerns following her letter to Ms. Bell, and so consulted with officials of the Ontario Ministry of Transport, other transport companies and other safety officers. She learned that a tool is available for conducting tire tap tests and also that her colleague, safety officer Rod Noel, had issued a direction to Charterways, Canadian Division, in 1994 concerning the use of an axe for conducting a tire tap test. The 1994 direction advised Charterways that an axe is not a suitable tool for testing tire pressure and was not designed or intended to be used for work other than cutting or chopping. The company was directed to protect its employees from the danger.

She concluded that there were two dangers related to using a hatchet to conduct the tire tap test. First, the hatchet could rebound or fly out of the driver's hand and strike the employee or another person. Secondly, the tire tap test does not measure tire pressure and a serious accident could occur if the tire pressure in a tire was low. For consistency, she decided to issue the same direction as that issued in 1994.

Employer Position

Prior to the hearing Ms. Bell provided this Office with a document outlining her reasons for requesting a review of the direction. The document forms part of the file and will not be reproduced here.

Ms. Bell reiterated that Charterways was purchased by Laidlaw and that the combined companies have approximately 60 branches across Canada with some 6000 drivers. One of the issues for her as Regional Director of Driver Development and Safety was to establish uniform training and test procedures across the company network.

She confirmed that she did not mention the 1994 Charterways direction to safety officer Grinblat because Charterways and Laidlaw were separate companies at the time of the 1994 direction, and their respective tire tests were not necessarily the same. For example, the axe used by Charterways at the time of the 1994 direction was considerably larger and heavier. She agreed that the use of such an axe could be hazardous.

Ms. Bell told me that, on November 10, 1997, she had a mechanic reduce the air pressure in the tires and allowed safety officer Grinblat to try the tire tap test for herself. In addition, she reviewed Laidlaw's maintenance program with the safety officer and showed her how drivers are trained to conduct the test. Safety officer Grinblat saw that drivers are instructed to stand in front of the wheel and to strike the tire tread so that there is no rebound towards themselves. She said she doubted that there was any variation in the procedure practice by Laidlaw drivers, with the possible exception of some drivers at Charterways.

With regard to the tire tap test tool mentioned by safety officer Grinblat, Ms. Bell said the tool is not universally used in the industry and that every company tends to have their own procedures and tools for the test. She explained that she has personally tested a tire tap tool and did not find it beneficial. According to her, the tire tap tool does not give the same distinctive sound as the hatchet when the tire is struck and the tire pressure is unacceptably low.

Finally, she confirmed that Laidlaw drivers do not use the hatchet to check for foreign objects between the wheels or to test the tailpipe, as indicated in safety officer Grinblat's direction.

Employee Position:

Mr. James stated that he is the President of CUPE Local 2177, a member of the safety and health committee and has worked at Laidlaw since 1978. During that time he was not aware of any accident related to the tire tap test in question.

Mr. James told me that the purpose of the tire tap test is not to determine tire pressure, but to give a driver some indication of an unacceptable low tire pressure which could include a flat tire. He added that it is important to include the tire tap test in a daily safety circle test because it is virtually impossible to visually detect an unacceptably low or flat tire on a dual wheel assembly. This is because the sound tire will support the other and mask a low or flat tire condition. He acknowledged that the tire tap test cannot tell the driver if the air pressure in the tire is lower than recommended, but said that a tire is not a danger until the air pressure is so low that it is detected by the tire tap test. Mr. James confirmed that, when a low tire pressure is detected by the tire tap test, the driver immediately has the tire examined by a trained mechanic.

He described the tire tap test procedure in general terms indicating that the driver is instructed to stand or crouch in front of the tire or tires and to strike only the top or tread of the tire. He assured me that if the test is conducted properly the hatchet could not rebound back towards the driver. He agreed that it could rebound back towards the driver if he improperly struck the side wall of the tire with the hatchet. This, however, would be contrary to their training.

Mr. James advised me that the tire tap test is normally conducted early in the morning when it can be raining or snowing and still dark. He testified that it would be onerous to measure tire pressure every day with a tire gauge and a flashlight because the driver would have to crawl under the vehicle to do the test. The yard could be wet, muddy, and snow covered. In addition, he reiterated that the tires are checked regularly by mechanics every 45 days, including tire pressure. He agreed with Ms. Bell that the hatchet is not used by Laidlaw drivers to check for foreign objects between the wheels or to test the tailpipe.

Mr. James said he had never used or seen a tire tap test tool. However, he was aware that drivers in other companies have used different tools such as crow bars or steel cinch bars.

He agreed that the use of an axe could cause back strain if it was too heavy or the axe handle too long. He estimated that the modified hatchets used by Laidlaw weigh approximately four pounds totally, and have a wooden handle approximately 12 to 16 inches long. He further indicated that the back side of the hatchet head is flat and that the blade has been ground and rendered permanently dull. Although he has had back problems in the past, he confirmed that he has never experienced back problems when using the Laidlaw modified hatchet in accordance with Laidlaw tire testing procedures.

In reply to my question, he answered that he has not experienced a tire failure while driving a bus, but speculated that a low tire could result in a tire fire if the condition went undetected.

Decision:

To render a decision in this case, I must consider both aspects of danger raised by safety officer Grinblat. That is, I must decide if, at the time of the safety officer's investigation, a danger existed to the driver while driving the vehicle, because the tire tap test is incapable of detecting correct tire pressure and a low tire could lead to a vehicular accident. I must also decide if, at the time of the safety officer's investigation, a danger existed to the driver while conducting a tire tap test as part of a safety circle test because the driver or another employee could be struck and injured by Laidlaw's modified hatchet.

With regard to the first issue, the safety officer stated during her testimony that it would be safer for the driver and passengers if the tire pressure was verified daily with a tire pressure gauge rather than using a tire tap test. However, there is no specific requirement in the Code or the Canada Occupational Safety and Health (COSH) Regulations that the tire pressure must be checked daily with a tire gauge. Instead section 14.20¹ of the COSH Regulations requires the

¹ Section 14.20 of the Canada Occupational Safety and Health Regulations reads as follows:

Inspection, Testing and Maintenance

14.20(1) Before motorized or manual materials handling equipment is used for the first time in a work place, the employer shall set out in writing instructions on the inspection, testing and maintenance of that materials handling equipment.

- (2) Instructions referred to in subsection (1) shall specify the nature and frequency of inspections, testing and maintenance.
- (3) The inspection, testing and maintenance referred to in subsection (1) shall be performed by a qualified person who
 - (a) complies with the instructions referred to in that subsection; and
 - (b) makes and signs a report of each inspection, test or maintenance work performed by the qualified person.

employer to set out in writing instructions for the inspection, testing and maintenance of materials handling equipment which would include a school bus. Section 14.20 also requires that the aforementioned instructions specify the nature and frequency of the inspections, tests and maintenance; that the inspection, testing and maintenance be performed by a qualified person; and that a report of the inspection, testing and maintenance be maintained at the workplace. It would be reasonable to expect that such an inspection, testing and maintenance program would, as a minimum, take into account testing procedures and schedules recommended by the manufacture, if any.

Instead of requiring the use of a tire pressure gauge for the tire test, section 14.20 of the COSH Regulations requires the employer to establish its own adequate tire inspection and maintenance program which Laidlaw has done. In this regard, I heard no evidence to demonstrate that Laidlaw's testing program, consisting of a daily tire tap test and tire inspection and pressure checks every 45 days, is insufficient to ensure the safe operation of their buses. In the absence of such evidence, and given that the use of a tire gauge is not specifically prescribed in the Code or the COSH Regulations, I can not find that the tire tap test portion of Laidlaw's test program for tires creates a danger for the driver or passengers while driving.

Furthermore, Mr. James testified that it is virtually impossible with dual wheel assemblies to visually detect a flat tire or one with unacceptably low air pressure. He also testified that an unacceptable low tire could cause a tire fire or other accident while driving the bus. This suggests to me that, in the absence of a daily tire pressure check with a gauge, the tire tap test instigated by Laidlaw is, at the least, a minimum safety test prior to use of a vehicle each day.

Having therefore decided that Laidlaw's tire tap test does not create a danger for the driver or passengers while driving, I must determine if, at the time of the safety officer's investigation, a danger existed for drivers while conducting the tire tap test as part of a safety circle test.

The safety officer testified that following her observation of Laidlaw's tire tap test in Markham, on November 10, 1997, she consulted with others. As a result of her findings she decided that it is improper to use the hatchet for conducting a tire tap test and, for consistency, issued the same direction as the one issued to Charterways in 1994.

However, I note from the evidence that there are significant differences between the two cases. First, the modified hatchet used at Laidlaw is lighter and smaller than the full size and fully functional axe that was used by Charterways in 1994. Secondly, the blade of the hatchet used at Laidlaw has been permanently dulled to render it incapable of cutting or chopping. Finally, Laidlaw employees are trained on the proper procedures for using the hatchet to conduct the tire tap test and for avoiding injury.

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- (4) A report referred to in paragraph (3)(b) shall
- (a) include the date of the inspection, testing or maintenance performed by the qualified person;
 - (b) identify the materials handling equipment that was inspected, tested or maintained; and
 - (c) set out the safety observations of the qualified person.
- (5) The employer shall keep at the work place at which the motorized or manual materials handling equipment is located a copy of
- (a) the instructions referred to in subsection (1) for as long as the materials handling equipment is in use; and
 - (b) the report referred to in paragraph (3)(b) for a period of one year after the report is signed.

With regard to the tire tap testing tool mentioned by the safety officer, my first inclination is to conclude that, if there is a tool specially designed for the test, then it should be used at the exclusion of any other tool. However, Ms. Bell and Mr. James replied that there is no consistent practice in that industry and that the tap tool is not universally accepted or used. This was somewhat corroborated by the safety officer who testified that she was unable to obtain a tire tap tool to bring to the hearing.

I also have Ms. Bell's testimony that Laidlaw's modified hatchet is more effective for determining if the pressure in a tire is unacceptably low than the tire tap testing tool because the hatchet emits a more distinctive sound. Given the potentially serious outcome if a tire is unacceptably low or flat, it seems to me that the ability to produce a distinctive sound is an important criteria for determining if a tool is acceptable for conducting a tire tap test. Based on the evidence presented, I am persuaded that Laidlaw's modified hatchet is an acceptable tool for this test.

With regard to the possibility of the driver or other employee been struck by the modified hatchet, Mr. James explained that the test procedure used at Laidlaw ensures that the hatchet will rebound in an arc away from the driver. This is what I believe the safety officer saw when she first observed the test on November 10, 1997, and advised Ms. Bell that the test would not present a danger to the health and safety of employees present if carried out as demonstrated.

These being the facts, I am satisfied by the preponderance of the evidence that the 1994 direction to Charterways does not apply in this case and that the safety officer Grinblat's initial assessment of the test was correct. That is, if the drivers are instructed and trained concerning the proper method of conducting the tire tap test and they only use Laidlaw's modified, lighter and smaller hatchet for the test, there is no danger for the driver or other employees while conducting the tire tap test.

For the above reasons, **I HEREBY RESCIND** the direction of safety officer M. Grinblat made pursuant to paragraph 145.(2)(a) and issued at North York on the 2nd day of December, 1997, to Laidlaw located in the province of Ontario.

Decision rendered on April 30, 1998.

Doug Malanka
Regional Safety Officer

IN THE MATTER OF THE CANADA LABOUR CODE
PART II - OCCUPATIONAL SAFETY AND HEALTH

DIRECTION TO THE EMPLOYER UNDER PARAGAPH 145(2)(a)

On November 17, 1997, the undersigned safety officer conducted an inspection in the work place operated by LAIDLAW TRANSIT LTD., being an employer subject to the Canada Labour Code, Part II, at 30 HERITAGE ROAD, MARKHAM, ONTARIO, the said work place being sometimes known as Laidlaw.

The said safety officer considers that the use of an axe as a tool for bus drivers to check tires as part of a vehicle circle check constitutes a danger to an employee while at work.

The employer requires that school bus driver's complete a circle check of their assigned vehicle prior to operation. Drivers are instructed to use the single blade axe provided in each bus as emergency/equipment, as a tool to check tire inflation by thumping with the blunt end of the axe. They are also instructed to thump between the rear wheels to check for foreign objects and to press on the tail pipe with the axe head to ensure it is secure.

An axe is not a suitable tool for this type of work and was not designed or intended to be used for work other than cutting or chopping. The blade could also present a hazard to the user when not used properly or if someone gets hit by it.

Section 124 of the Canada Labour Code - Part II states: "every employer shall ensure that the Safety and Health at work of every person employed by him is protected."

Therefore, you are HEREBY DIRECTED, pursuant to paragraph 145(2)(a) of the Canada Labour Code, Part II, to protect any person from the danger immediately.

Issued at North York, this 2nd day of December 1997.

M. GRINBLAT (MY)
Safety Officer
1712

To: LAIDLAW TRANSIT LTD.
30 HERITAGE ROAD
MARKHAM, ONTARIO
L3P 1M4

SUMMARY OF REGIONAL SAFETY OFFICER DECISION

Applicant: Laidlaw Transit Ltd., Markham, Ontario

Respondent: CUPE

KEY WORDS

School buses, tire maintenance and inspection schedules, dual wheel assemblies, low/flat tires, tire knocker/tap test, tire tap test tool, hatchet, rebound, danger.

PROVISIONS

Code: Paragraph 145.(2)(a)

SUMMARY

Laidlaw Transit Ltd. requires their school bus drivers to conduct a safety circle check of their vehicles prior to operation. The safety circle check included a test sometimes referred to as a tire knocker or tire tap test. For the test, the Laidlaw driver would strike the top of the tire (i.e., the tread) with the blunt end of a hatchet and tell from the sound produced if the tire pressure was unacceptable low or flat.

The safety officer observed Laidlaw's tire tap test on November 10, 1997, and later decided that the use of the hatchet was a source of danger for the driver for two reasons. The safety officer felt that there was a danger for the driver when conducting the test, and subsequently when driving the vehicle. As a result, she wrote to Ms. Monica Bell, Regional Director, Driver Development and Safety, on December 2, 1997, and directed her, pursuant to paragraph 145.(2)(a) of the Code, to protect employees from the danger. Ms. Bell, requested a review of the direction and a hearing was held in Markam, Ontario, on Monday, February 16, 1998.

The evidence in the case showed that that there is no specific requirement in the Code or the Canada Occupational Safety and Health (COSH) Regulations for drivers to check tire pressures with a gauge every day. Instead section 14.20 of the COSH Regulations requires employers to establish their own tire inspection and maintenance program which Laidlaw has done.

The Regional Safety Officer concluded that, in the absence of evidence to show that Laidlaw's tire testing program is insufficient to ensure the safe operation of their buses, he could not find that the tire tap test portion of Laidlaw's test program for tires creates a danger for the driver or passengers while driving.

He further noted that, because of the possibility of a tire fire or other accident caused by driving on an unacceptably low or flat tire, the tire tap test instigated by Laidlaw appears to be, at the least, a minimum safety test prior to use of a vehicle each day.

Having decided that the tire tap test does not create a danger for the driver or passengers while driving where the test is done in conjunction with the tire air pressure checks carried out with a gauge every 45 days, the RSO turned his attention to the safety officer's concern that there was a danger to employees while conducting the tire tap test.

Based on the evidence presented, the RSO decided that the 1994 direction to Charterways does not apply in this case and that the safety officer Grinblat's initial assessment of the test was correct. That is, if the drivers are instructed and trained concerning the proper method of conducting the tire tap test, and they use only the lighter, smaller and permanently dulled Laidlaw hatchet for the test, there is no danger for the driver or other employees while conducting the tire tap test.

For these reasons, the Regional Safety Officer (RSO) **rescinded** the safety officer's direction made pursuant to paragraph 145.(2)(a).