

CANADA LABOUR CODE
PART II
OCCUPATIONAL SAFETY AND HEALTH

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

Applicant: Hudson General Aviation Services Inc.
Represented by: Mr. G. Morgan,
Manager, Operations

Respondent: I.A.M.A.W.
Represented by: Mr. H. Garcia
Co-chair, Health and Safety Committee

Mis-en-cause: Robert L Gass
Safety Officer
Human Resources Development Canada

Before: Douglas Malanka
Regional Safety Officer
Human Resources Development Canada

Background:

On January 11, 2000, an employee of Hudson General Aviation Services Inc., (Hudson) was struck and injured by a motorized belt loader¹ designated as unit # 15159. Safety officer Gass investigated the accident on January 13, 2000, and following his investigation, issued a oral direction to Hudson pursuant to subsection 145.(1) of the Canada Labour Code, Part II, (hereafter referred to as the Code or Part II). His oral direction ordered Hudson to ensure that the controls on belt loader # 15159 and other units of similar design are clearly identified, and to ensure that the original safety factor related to the parking brake² on unit # 15159 was maintained. The parking brake had been previously disconnected and replaced by a micro-switch³. He also ordered Hudson to ensure that belt loader # 15159 is chocked while in operation to prevent reverse movement of the belt loader. The safety officer confirmed his oral direction in writing the next day, January 14, 2000, and gave Hudson until January 28, 2000, to comply. See appendix.

¹ The term "belt loader" refers to the "Mobile Baggage and Cargo Conveyor - Model TC-886" manufactured by Criton Wollard Airport Equipment Company, Florida, USA.

² The terms "parking brake", "hand brake" and "emergency brake" were used interchangeably during the hearing. The manufacturer, Criton Wollard, refers to the device in their specification sheets as a "parking brake."

³ From testimony, a micro-brake is a braking system that is activated by depressing the foot brake pedal and activating a switch. The device maintains the hydraulic line pressure established in the normal hydraulic brake system, and all four wheels remain locked or braked against movement until the device is switched off.

Hudson later requested that item 3 of the direction, regarding the use of a wheel chock to prevent reverse movement of belt loader # 15159, be reviewed by a Regional Safety Officer and rescinded. A hearing was held in Toronto, Ontario, on May 17, 2000.

Safety Officer:

Safety officer Gass submitted a copy of his report and testified at the hearing. His report forms part of the file and will not be repeated here. However, I retain the following from his report and testimony.

From witness statements and Hudson's accident investigation report, safety officer Gass established that, on January 11, 2000, Hudson assigned four employees to unload cargo from the hold of an aircraft. The employees positioned belt loader # 15159 in front of the hold and began to unload luggage from the aircraft. The employees noticed that the engine idle speed (idle) of the belt loader was too high and consequently the conveyor belt on the unit was rotating too quickly. One of the employees decided to slow the engine idle speed by adjusting the throttle lever. When she moved what she thought was the throttle control lever from the neutral position to the position labeled "R", the belt loader traveled backwards and struck and injured one of the employees. She instinctively tried to return the lever to the neutral position, but instead moved it to the "F" position. The belt loader then lurched forward towards the airplane and the conveyor belt assembly just missed striking the legs of another employee working at the entrance of the aircraft cargo hold. She finally succeeded in returning what was later confirmed to be the automatic transmission control lever to its neutral position and the belt loader came to rest. Fortunately, only one employee was injured, and the injury to his right leg was minor.

During his investigation, safety officer Gass established that the parking brake on belt loader # 15159 was removed at the time of the accident, and that the labels for the throttle and automatic transmission control levers were worn away. He was not able to determine why the parking brake was removed, but learned from employees that it is a high maintenance item due to the snow and salt present on the ground during winter. He indicated that the parking brake on other belt loaders might have been similarly disconnected. Safety officer Gass said that a device called a micro-brake was installed on belt loader # 15159 in place of the parking brake. However, the manufacturer of the switch specified in its product description document that the micro-brake was not a replacement for the parking brake.

Safety officer Gass testified that Hudson's training records confirmed that the employee who had confused the two control levers and activated the wrong one had been instructed and trained on the equipment. However, he said that it was clear from his interview with her that she did not know how the control levers operated at the time of the accident. He further established that she had shifted the control lever from outside of the operator's compartment and that this was why her foot was not on the foot brake⁴ at the time she moved the control lever.

⁴ The terms "foot brake" or "brake pedal" refer to the foot control on the belt loader that the operator uses during normal operations to slow and stop the vehicle. The foot brake or brake pedal actuates the hydraulic 4-wheel split cylinder brake system on the belt loader.

Safety officer Gass also went to see similar types of belt loaders at two other airlines located at the airport. He observed that the control levers on these units were clearly labeled and the parking brakes were operative. Shortly thereafter, he issued his direction and, in item 3 of the direction, ordered Hudson to ensure that belt loader # 15159 is chocked to prevent reverse movement while the unit is in operation. He said that he initially considered making item 3 an interim requirement, but decided against this because he preferred to keep his direction simple and clear. In addition, the supervising mechanic at Hudson had told him that the restored parking brake might not hold if the idle was revved high. Hudson had to order parts for the repair and the safety officer was unable to verify this prior to issuing his direction.

Safety officer Gass disagreed with Mr. Morgan that the use of a chock to prevent reverse movement after the parking brake was restored would introduce a new hazard to the work. To the contrary, he felt the use of a chock added an additional safety factor. He held that this extra safety factor was justified because luggage must be handled promptly at airports and it was not exceptional to see defective vehicles being used before they are repaired. Safety officer Gass pointed out that the safety and health committee at Hudson had investigated the accident and recommended the use of dual chocks (chocks placed at the fore and aft wheel) as a corrective measure to the accident.

Applicant:

Mr. Morgan testified that he agreed with items 1 and 2 of the direction and that the belt loader should be returned to its proper working order. He also agreed that a rear wheel chock to prevent accidental reverse movement should be used as an interim measure until the safety factor of the parking brake was maintained. However, he disagreed that there was a need for a rear wheel chock after the unit was repaired.

He further held that requiring the permanent use of a rear wheel chock would add a hazard more significant than the benefit suggested by safety officer Gass. He explained that the current practice in the industry is to chock belt loaders against forward motion as soon as they are positioned in front of an aircraft. This is done to protect belt loader operators from being crushed when a unit is being reversed away from the aircraft. He explained that the operator compartments on belt loaders are completely open and if a unit was accidentally moved forward, the operator could be crushed between the belt loader and the aircraft. Once the belt loader is clear of the aircraft, the operator disembarks, stows the front chock and proceeds to the terminal in a forward direction. Mr. Morgan feared that if dual chocks were used on a permanent basis, employees would stow both chocks before the belt loader is reversed away from the aircraft. He said that this is exactly what he observed at other companies where dual chocks were used. He added that the manufacturer of the belt loader does not specify the use of chocks.

With regard to employee training, he testified that employees do a multitude of duties and are required to operate a variety of equipment. He confirmed that employees receive instruction and training on all equipment and that the emphasis is towards on-the-job training. He added, however, that considerable time may pass between the instruction and training and the employee's actual use of the equipment. He said that employees are encouraged to come forward for refresher training whenever they are uncertain how to operate a piece of equipment.

Respondent:

Mr. Garcia felt that the use of a rear wheel chock was unnecessary once the control levers were re-labeled and the parking brake and engine idle speed restored to original specifications. He observed, however, that the belt loaders at Hudson are quite old and tend to stall in winter unless the idle is increased. He wondered if chocks could prevent reverse movement of the belt loader when the idle is high. He opined that the wheel chock specified by safety officer Gass could add a safety factor and doubted that it would introduce a hazard as feared by Mr. Morgan. He added, however, that there is a lot to absorb during instruction and training and the use of a chock to prevent reverse movement would add more training procedures and possibly confuse employees.

Summations:

Mr. Morgan agreed that the interim use of a rear wheel chock is justified when the equipment is not functioning properly. He repeated that there is no need for a chock to prevent accidental reverse movement after the belt loader has been completely restored to manufacturer's specifications. He reiterated that item 3 of the direction should be rescinded because Hudson belt loaders have been repaired and because there is a potential for injury if the dual chocks are removed before a belt loader is reversed away from the aircraft. He held that Hudson's safety and health committee recommendation for the continued use of a rear wheel chock on all belt loaders simply imitated the direction issued by safety officer Gass.

Mr. Garcia reiterated that rear wheel chocks should not be necessary after belt loaders are restored to manufacturer's specification and employees are instructed and trained. However, he thought that the use of a rear wheel chock could add an additional safety factor and doubted that their use would create a hazard.

Decision:

Issue(s):

The issue before me is whether or not to confirm item 3 of the direction issued by safety officer Gass. Currently, item 3 requires Hudson to ensure that belt loader # 15159 is chocked to prevent reverse movement while in operation.

Applicable Legislation:

For deciding these questions, it is necessary to review the applicable provisions in Part II and the Canada Occupational Safety and Health Regulations (COSHRs). These include respectively:

Paragraph 125.(I) of the Code which reads:

"125. Without restricting the generality of section 124, every employer shall, in respect of every work place controlled by the employer,

(i) ensure that the vehicles and mobile equipment used by the employees in the course of their employment meet prescribed safety standards;... [My underline.]

The prescribed safety standards referred to in paragraphs 125. (i) are found in Part XIV, Materials Handling Equipment, of the COSHRs. In respect of item 3 of the direction these include section 14.15 and subsections 14.29(1), (2) and (3) which read as follows:

“14.15 All motorized materials handling equipment shall be fitted with braking, steering and other control systems that

- a) are capable of controlling and stopping its movement and that of any hoist, bucket or other part of the equipment; and*
- b) respond reliably and quickly to moderate effort on the part of the employee controlling them.”* [My underline.]

“14.29(1) Motorized or manual materials handling equipment that creates a safety of health hazard owing to a defect in the materials handling equipment shall be taken out of service until it has been repaired or modified by a qualified person;” [My underline.]

“14.29(2) Subject to subsection (3), any repair, modification or replacement of a part of any motorized or manual materials handling equipment shall at least maintain the safety factor of the materials handling equipment or part.” [My underline.]

“14.29(3) If a part of less strength or quality than the original part is used in the repair, modification or replacement of a part of any motorized or manual materials handling equipment, the employer shall restrict the use of the materials handling equipment to such loading and use as will ensure the retention of the original safety factor of the equipment or part.” [My underline.]

Rationale:

The facts in the case establish that the labels for the throttle and automatic transmissions control levers on belt loader # 15159 were not discernible and the parking brake on the unit had been removed and replaced with a micro-brake. Safety officer Gass therefore decided that Hudson was in violation of subsection 14.11⁵ in respect of the labels, and in violation of 14.29(2) because the micro-switch used by Hudson to replace the parking brake did not maintain the original safety factor of the parking brake. According to the manufacturer of the micro-switch, the switch was not designed to replace a parking brake. He directed Hudson to terminate the contraventions by January 28, 2000.

⁵ The evidence in the case was that the control levers were not clearly identified because the labels had been worn away. This suggests, therefore, that the control levers had been labeled at the time of manufacture. If this were the case, then there would be no violation of section 14.11. Instead, Hudson would be in violation of section 14.29(1) for not having taken belt loader # 15159 out of service until the defective labels were replaced. However, since Hudson only requested a review of item 3 of the direction, and I did not have proof that the labels were in place at time Hudson took delivery of the belt loader, I will not address this further.

In item 3 of his direction, he further directed Hudson to ensure that belt loader # 15159 is chocked to prevent reverse movement while it is in operation. He testified that he had considered making item 3 an interim measure until Hudson complied with items 1 and 2 of his direction. However, he decided against this because he wanted to keep his direction clear, and because he was uncertain that a restored parking brake could actually prevent reverse movement when the engine idle was high. Since he was unable to test the parking brake on belt loader # 15159 prior to his direction, he decided to specify the permanent use of a rear chock as an additional safety factor.

Hudson needed time to order and install parts to replace the parking brake on belt loader # 15159. To protect the immediate safety and health of employees, safety officer Gass considered ordering Hudson to remove the belt loader from service pursuant to subsection 145.(2) of the Code. Subsection 145.(2) reads:

“145.(2) Where a safety officer considers that the use or operation of a machine or thing or a condition in any place constitutes a danger to an employee while at work, (a) the safety officer shall notify the employer of the danger and issue directions in writing to the employer directing the employer immediately or within such period of time as the safety officer specifies

- (i) to take measures for guarding the source of danger, or*
- (ii) to protect any person from the danger; and... ”*

Instead he ordered Hudson to ensure that belt loader # 15159 is chocked to prevent reverse movement while in operation. He felt that this protected the immediate health and safety of employees until the safety factor of the parking brake was maintained, and addressed his concern that a restored parking brake might not be capable of arresting reverse movement of the belt loader when the engine idle was high. While his intent was to add a safety factor to mitigate the possibility that the increased engine idle speed might diminish the safety factor of the belt loader, the parties questioned whether the chock could actually achieve this, and whether the use of a chock on the rear wheel would introduce a new hazard into the work.

In addition to the practical concerns raised by the parties, I have the following legislative concerns relative to item 3 of the direction. First, subsection 14.29(1) specifies that, where any defect in the materials handling equipment creates a hazard to the safety and health of employees, the equipment must be taken out of service until it has been repaired or modified. Subsection 14.29(2) further specifies that any repair, modification or replacement of a part of a materials handling equipment must, at least, maintain the safety factor of the equipment or part. If, however, the repair, modification or replacement does not maintain the safety factor of the equipment or part, then subsection 14.29(1) applies and the unit must be removed from service until further repaired or modified. In the case of belt loader # 15159, the micro-switch did not maintain the original safety factor of the parking brake and Hudson was required by subsection 14.29(1) to remove it from service until the safety factor of the braking system was maintained.

With regard to the modification Hudson made to the engine idle speed setting during cold weather, safety officer Gass testified that he was unable to confirm, prior to issuing his direction, if this further diminished the safety factor of the belt loader. However, he was

satisfied that the risk was sufficient to warrant item 3 of his direction. In this regard, I note that subsection 145.(1) only requires that a safety officer be of the opinion that any provision of Code is being contravened in order to act. Subsection 145.(1) reads:

“145.(1) Where a safety officer is of the opinion that any provision of this Part is being contravened, the officer may direct the employer or employee concerned to terminate the contravention within such time as the officer may specify and the officer shall, if requested by the employer or employee concerned, confirm the direction in writing if the direction was given orally.” [My underline.]

However, the problem with specifying an additional safety factor to address a safety concern regarding the modification to the engine idle speed is that there is no authorization in subsection 14.29(2) for doing so. To the contrary, failure to comply with subsection 14.29(2) leads back to subsection 14.29(1) which specifies that the equipment be removed from service until repaired or modified by a qualified person. Only subsection 14.29(3) provides an alternative to the employer if the strength or quality of the original part is not maintained. In that subsection, the use of the materials handling equipment must be restricted, rather than be taken out of service.

In the case of the direction at bar, item 2 of the direction correctly directed Hudson to comply with subsection 14.29(2) of the COSHRs and ensure that the safety factor of the parking brake was maintained. However, there is no authority in subsection 14.29(2) to specify additional safety measures in respect of the parking brake or engine idle speed. Since I will have to vary the direction and delete item 3 of the direction, I encourage safety officer Gass to follow-up on the issue of engine idle speed since it remains unresolved. If, modifications made to the engine idle speed setting of belt loader # 15159, or units of similar design, diminish the safety factor in contravention with subsection 14.29(2), then the unit or units must be removed from service pursuant to subsection 14.29(1). If the parking brake is incapable of arresting accidental reverse movement of the unit when engine idle speed is within manufacturer’s specifications, then its design and construction is not in compliance with section 14.15 of the COSHRs. Having dealt with item 3 of the direction, there is another health and safety issue upon which I feel compelled to comment. In this regard, safety officer Gass mentioned that the employee who had activated the wrong control lever had no understanding of the controls on the belt loader, and that this was a significant contributing factor to the accident. While Hudson’s records show that she had received instruction and training as required by subsection 14.23(1) of Part XIV, Materials Handling, of the Canada Occupational Safety and Health Regulations (COSHRs), her actions demonstrate that the instruction and training was not amenable because it was not retained. Subsection 14.23(1) reads:

“14.23(1) Subject to subsection (2), every employer shall ensure that every operator of motorized materials handling equipment has been instructed and trained in the procedures to be followed for

- (a) its inspection;*
- (b) its fuelling; and*

(c) its safe and proper use, in accordance with any instructions provided by the manufacturer and taking into account the conditions of the work place in which the operator will operate the materials handling equipment.” [My underline.]

While some might interpret the wording in subsection 14.23(1) to mean one-time instruction and training, I suggest that such interpretation is not consistent with section 124 (General duty of Employer) of the Code. Section 124 of the Code reads:

“124. Every employer shall ensure that the safety and health at work of every person employed by the employer is protected.” [My underline.]

Mr. Morgan explained that Hudson employees must do a multiplicity of activities and operate a variety of equipment, and that the time between training and actual use of the equipment may be significant. This points all the more to the need for comprehensive employee instruction and training. I suggest that waiting for employees to self-identify when they are uncertain how to operate equipment is inconsistent with the legislation. At least two employees could have been seriously injured in this accident and I suggest that the employer has a duty under section 124 of the Code to ensure that the instruction and training of employees is current and sufficient.

In this regard, section 146 of the Code does not authorize me to issue a new direction. Since varying the direction to address employee instruction and training might be interpreted as exceeding my authority in section 146 to vary a direction, I will not do so. However, by this, I wish to put Hudson on notice that it is responsible for ensuring that its employees who operate motorized materials handling equipment are instructed and trained in accordance with subsection 14.23(1) of the COSHRs and section 124 of the Code. I also encourage safety officer Gass to follow-up on this matter since he raised it during his testimony.

Decision

For all the reasons covered herein, I HEREBY VARY the direction that safety officer Gass issued to Hudson General Aviation Services Inc. on January 14, 2000, pursuant to subsection 145.(1) of the Code by deleting item 3 of the direction.

Decision rendered July 19, 2001.

Douglas Malanka
Regional Safety Officer

IN THE MATTER OF THE CANADA LABOUR Code
PART II - OCCUPATIONAL SAFETY AND HEALTH
DIRECTION TO EMPLOYER UNDER SUBSECTION 145(1)

On January 13th, 2000, the undersigned safety officer conducted an inquiry in the work place operated by HUDSON GENERAL AVIATION SERVICES INC., being an employer subject to the Canada Labour Code, Part II, at PEARSON INTERNATIONAL AIRPORT, TORONTO, AMF, ONTARIO, the said work place being sometimes known as Terminal one.

The said safety officer is of the opinion that the following provisions of the Canada Labour Code, Part II are being contravened:

1. Paragraph 125(i) of the Canada Labour Code, Part II and subsection 14.11 of the Canada Occupational Safety and Health Regulations.

The employer failed to ensure that the controls of belt loader unit # 15159 and other units of a similar design are clearly identified.

2. Paragraph 125(i) of the Canada Labour Code, Part II and subsection 14.29(2) of the Canada Occupational Safety and Health Regulations.

The employer failed to ensure, after modifying the braking system on unit # 15159, that the original safety factor was maintained.

3. Section 124 of the Canada Labour Code, Part II.

The employer failed to ensure that unit # 15159 was chocked to prevent reverse movement while in operation.

Therefore, you are HEREBY DIRECTED, pursuant to subsection 145(1) of the Canada Labour Code, Part II, to terminate the contraventions no later than January 28th, 2000.

Issued at Toronto, this 14th day of January 2000.

Robert L. Gass
Safety Officer
2012

To: HUDSON GENERAL AVIATION SERVICES INC.
HUDSON GENERAL AVIATION SERVICES
PEARSON INTERNATIONAL AIRPORT
TORONTO AMF
ONTARIO

SUMMARY OF REGIONAL SAFETY OFFICER DECISION

Applicant: Hudson General Aviation Services Inc.

Respondent: I.A.M.A.W.

KEY WORDS

Belt loader; parking brake; supplemental safety device; wheel chocks; engine idle; labeling of control levers; maintenance of original safety factor; employee training.

PROVISIONS

Code: 124, 125(i), 145(1) & (2), 146

Regs: 14.11, 14.15, 14.23(1), 14.29(1), (2) & (3),

SUMMARY

On January 11, 2000, an employee of Hudson General Aviation Services Inc., (Hudson) was struck and injured by a motorized belt loader. A safety officer investigated the accident on January 13, 2000, and issued a direction to Hudson pursuant to subsection 145.(1) of the Canada Labour Code, Part II. His direction ordered Hudson to ensure the controls of belt loader # 15159 and units of similar design are clearly identified, and to maintain the original safety factor of the parking brake that had been disconnected and replaced by a micro-switch. Item 3 of the direction ordered Hudson to ensure that the unit is chocked while in operation. The safety officer confirmed his oral direction in writing the next day, January 14, 2000. Hudson requested that item 3 of the direction be reviewed by an Regional Safety Officer and rescinded. A hearing was held in Toronto, Ontario, on May 17, 2000.

Following his review, the Regional Safety Officer varied the direction to delete item 3. He reasoned that the micro-switch used to replace the parking brake on belt loader # 15159 did not comply with subsection 14.29(2) subsection. Consequently, 14.29(1) of the COSHRs applied and Hudson was required to take the unit out of service until the micro-switch was repaired or modified to maintain the original safety factor of the parking brake.

The Regional Safety Officer also reminded Hudson of its obligations to ensure that its employees who operate motorized material handling equipment are instructed and trained in accordance with subsection 14.23(1) of the COSHRs and section 124 of the Code.