

CANADA LABOUR CODE
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: Westcoast Energy Inc.
Fort St-John, B.C.
Represented by: Mr. David I. McBride
Counsel

Interested Party: Occupational Safety and Health Committee
Represented by: Mr. Peter Novak
Employee Co-Chairperson

and

Canadian Pipeline Employees' Association
Represented by: Mr. Russel Travis
Chairman

Mis-en-Cause: Mr. Brent Storey
Safety Officer
National Energy Board

Before: Mr. Serge Cadieux
Regional Safety Officer
Labour Canada

A visit of the work site where a serious pipeline related accident occurred took place on April 14, 1993. All parties were represented during the visit. Mr. Stan Utz, one of the two employees present on the day of the accident, carried out a simulation of the events that occurred on that day. An oral hearing was held the following day in Fort St-John, B.C..

Background

The events that resulted in serious injuries to Mr. Dale London, a Westcoast Energy Inc.'s employee are thoroughly described by the safety officer in his field investigation report. The report details the numerous steps followed by the two maintenance employees on the day of the

accident. It is not necessary for the purpose of this decision to narrate the safety officer's investigation report. The summary that he prepared should be sufficient to provide an overview of the incident. It reads as follows:

"On 2 December 1992, a serious pipeline-maintenance related accident occurred on Westcoast Energy Inc.'s right-of-way near Fort St. John, British Columbia. The accident occurred when two WEI employees were attempting to launch a mechanical pipeline pig¹ ("pig") in the sending barrel² of the WEI 26 inch outside diameter (O.D.) B.C. Trunk Line. The employees, after having already placed the pig in the sending barrel to launch it, reopened the sending barrel's closure to check a leak which had been noticed around the barrel opening. The sending barrel closure had been opened for a short period of time, when the pig suddenly ejected from the sending barrel. The pig struck a WEI employee at approximately waist level and due to the pressure behind the pig when it ejected, caused serious multiple injuries to the employee's left hip area. The employee's left leg was subsequently amputated just below the abdomen."

The investigation of the safety officer revealed that the immediate cause of the accident was the failure by the two maintenance employees to open the rear blowdown valve³. This valve is located approximately seventy five feet away from the sending barrel's closure and must be open to relieve the internal pressure in the barrel assembly once it has been valved off. There was a common agreement amongst the parties at the hearing that the accident would, in all likelihood, not have occurred had this valve been opened before opening the pigging barrel door. This would have allowed de-pressurization of the pigging barrel to atmospheric pressure.

In addition to the above, Mr. Utz also testified that they knew they should also have been wearing the breathing apparatus during pigging operations but elected not to use it for no other reason than complacency.

After analyzing carefully every step of the accident, the safety officer concluded that Westcoast Energy Inc. was nonetheless in contravention of the Canada Labour Code, Part II and the pursuant Canada Occupational Safety and Health Regulations (see APPENDIX A for Legislation Quoted throughout this document). A written direction (APPENDIX B) was given to Westcoast Energy Inc. on December 10, 1992. The direction identifies six specific contraventions and directs Westcoast Energy Inc., under subsection 145(1) of the Code, to terminate each contravention by a specific date. Westcoast Energy Inc. has requested a review of the direction and has submitted that each item of the direction should be rescinded.

¹ A term describing a disc device that is used to clean the internal pipe surface of a pipeline. The pig used at the site of the accident is a double ended construction of two rubber or polycan material discs, fastened on each end of a pipe section to flanges.

² Sending and receiving pig barrels. These are much the same construction. It is essentially an opening on the end of a pipeline fitted with an access door for inserting or retrieving a pig. It is valved off from the rest of the pipeline so that launching or pulling can be done at atmospheric pressure.

³ A small valve and pipe attachment which is used to depressurize the pig barrel so that opening of the barrel can be done safely.

NOTE: Before proceeding with analyzing and deciding each item of the direction, I believe a clarification of the concept generated by the use, in the Code, of the word "prescribe" is necessary. Those provisions of the Code referred to in the direction, for example paragraphs 125(q) and (v), which specify some of the duties of the employer, incorporate this misunderstood concept which has permeated the direction of the safety officer.

USE OF THE WORD PRESCRIBE

The word "prescribe" is interpreted in subsection 122(1) of the Code to mean "prescribe by regulations of...the Governor in Council, in any other case;". In the case before me, the regulations are the Canada Occupational Safety and Health Regulations (the "Regulations").

Since the word prescribe, which is found in the duties of the employer at section 125 of the Code, is used in the expressions "in the prescribed manner" or "in the prescribed manner or circumstances" or also "prescribed safety material, equipment, devices and clothing", to name only a few, one must therefore look at the Regulations to determine the extent of the obligation of the employer towards his employees.

If the Regulations are silent on, for example, the manner to comply with a duty which would require the employer to comply with the duty "in the prescribed manner", then one could argue that absent a prescribed manner, there is no obligation to the employer to comply with the duty as specified. On the other hand if there exists a provision in the Regulations which describes the method or the steps to follow to comply with that duty, then the obligation of the employer in that case would be to the extent established by the Regulations.

For the purpose of this decision and taking into consideration the submissions of the parties, where a duty of the employer must be complied with as "prescribed", I will identify the corresponding provision of the Regulations, if one exists, to determine the extent of the obligation of the employer. If no such provision exists, then I will conclude that the employer has not committed an infraction which could be corrected by a direction issued under subsection 145(1) of the Code.

Decision

ITEM #1 OF THE DIRECTION

This item reads as follows:

- "1. Two employees conducting pigging operations at the sour gas facility did not utilize respiratory protection devices when warranted and thus placed Westcoast Energy Inc. in contravention of paragraph 125(v) of the Canada Labour Code, Part II and subsection 12.7(1) of the Canada Occupational Safety and Health Regulations;"

Mr. McBride has argued that both employees were provided with appropriate breathing apparatus, that the equipment was with them at the time of the incident, that they received the necessary training in using the equipment and that Westcoast Energy Inc.'s procedures specifies it is MANDATORY for the employees to use the breathing apparatus.

In view of this evidence, I am satisfied that Westcoast has complied with subsection 12.7(1) of the Regulations as referred to in the direction. That provision merely requires the employer to provide a respiratory protective device as specified therein. I need not dwell on this topic any longer.

However, section 12.1 of the Regulations requires that every person exposed to a hazard and who is granted access to a work place uses the equipment prescribed. That equipment is the equipment provided in accordance with subsection 12.7(1) of the Regulations which, it has been shown, has been provided by Westcoast Energy Inc. to the employees.

Section 12.1 of the Regulations is authorized by paragraph 125(v) of the Code. This latter provision renders the employer responsible to ensure that every person, which include his employees, to whom he grants access to the work place, which is under his control, uses in the prescribed circumstances and manner the prescribed equipment.

The prescribed circumstances are described by paragraphs 12.1(a) and (b) of the Regulations and correspond, in the instant case, to pigging operations on a pipeline transporting sour gas. The prescribed manner is described in subsection 12.7(2) of the Regulations. The employees have been given training in the proper use of the respiratory equipment and I accept, in the absence of evidence to the contrary, that the employer has met the requirement of that provision.

The thrust of paragraph 125(v) of the Code is for Westcoast Energy Inc. to ensure that its employees use the respiratory protective equipment as prescribed. In my view, Westcoast Energy Inc. has failed to comply with that requirement.

Westcoast Energy Inc. has trained its employees in the use of the equipment. It has also provided the prescribed equipment and has stipulated in its pigging operations procedures that the use of the equipment is mandatory. The company has however not taken any steps to ensure that its employees use the equipment. There is no indication that the company carries out spot checks or any other inspection to verify compliance with its written policy and there is no indication of what the consequence is, in terms of disciplinary or other types of measures, for failing to comply with the policy. I am of the view that since the company controls the work place and the operations, it is responsible for everything that happens, or should happen, at work sites under its control.

The safety officer has established during his investigation that it is common practice for the two employees conducting pigging operations not to wear their breathing apparatus when launching or receiving a pig. This is an unacceptable practice.

Mr. Utz has acknowledged and accepted his share of responsibility for not wearing his mask when working with sour gas. The safety officer has testified that he considered giving Mr. Utz a direction to ensure he uses the breathing apparatus in the future to protect himself from harmful

exposure. However, the safety officer refrained from doing so mainly because he felt that, ultimately, the employer has the general responsibility to ensure the safety and health of his employees at work.

While I am of the view that a direction can and, in some cases, should be given to an employee, I agree with the decision of the safety officer in the instant case.

There is no evidence before me which would convince me that the employer has complied with his duty, other than providing an initial training to the employees in the use of the equipment and requiring its use through written procedures, to ascertain that the employees actually use their safety equipment.

In addition to the above, it is also my understanding, following the demonstration of the pigging operation and the various comments made at that time, that the employer was aware, or should have known, that his employees did not use the protective respiratory equipment supplied. This practice, I am led to believe, was common knowledge. In my view, in allowing this practice to continue unquestioned and unchallenged, Westcoast Energy Inc.'s falls short of assuming its responsibility under the Code.

For all the above reasons, I hereby vary the first item of the direction by replacing it with the following two paragraphs:

1. Two employees conducting pigging operations at the sour gas facility did not utilize respiratory protection devices when warranted.

This conditions is in contravention of paragraph 125(v) of the Canada Labour Code, Part II and subsection 12.1 of the Canada Occupational Safety and Health Regulations.

ITEM #2 OF THE DIRECTION

This item of the direction reads as follows:

- "2. Westcoast Energy Inc.'s general procedure covering the launching of pipeline pigs at sending barrel assemblies fails to reference the procedure to follow in the event that a pig launch has to be aborted, thus contravening paragraph 125(q) of the Canada Labour Code, Part II;"

This item of the direction fails to reference a corresponding provision of the Regulations. Such a provision is necessary in the instant case given the use of the expression "in the prescribed manner". The powers given to me under subsection 146(3) of the Code authorizes me to vary the direction by specifying the proper provision of the Regulations, assuming one exists.

Westcoast Energy Inc. has submitted that it has written procedures for the launching and receiving of pipeline pigs in a proper and safe manner. This submission is supported by the various procedures entered as evidence from Westcoast's Training Manual. The training manual covers

the various aspects for pipeline pigging from general information about pipeline pigging to the more specific procedures for **Pipeline Pig Launching at Sending Barrels** as well as for **Pipeline Pig at Receiving Barrel Assemblies**.

The direction of the safety officer informs us that Westcoast general pigging procedure "fails to reference the procedure to follow in the event that a pig launch has to be aborted". It has been established that Westcoast has procedures for the launching and receiving of pigs. It has further been established that thousands of pigs have been launched successfully using these procedures. The safety officer also acknowledged at the hearing that aborting a pig launch is essentially the same as receiving a pig and that employees are really only retracing their steps when aborting a pig launch, a procedure they have followed in numerous occasions.

While subparagraph 10.17(2)(b)(ii) of the Regulations was cited as possibly being of some relevance in the instant case, that provision does not specify that a procedure to abort a pig launch is required. Rather, it requires "Instruction and training with respect to ...procedures to follow for the proper and safe use of the assembly of pipes". The emphasis is on instruction and training. Furthermore, that provision does not require written procedures.

Since the direction is issued under subsection 145(1) of the Code, I must identify the proper provision of the Code and Regulations being contravened, in the instant case, to support and substantiate the direction. I find I am unable to do so. Consequently, I must acknowledge that Westcoast is not in violation of any provision of the Regulations by not having such a specific procedure.

I do not conclude from the above that the absence of a procedure to abort a pig launch does not place the employee in a situation of risk. I am merely observing that the absence of such a procedure does not constitute an infraction which can be corrected under subsection 145(1) of the Code. Furthermore, since the safety officer purported to act under this latter provision, I cannot look at whether the safety officer could have acted under subsection 145(2) of the Code. To do so, I would have to substitute my decision for that of the safety officer and, if needed, issue directions, a power which is not entrusted upon the Regional Safety Officer when acting under section 146 of the Code.

For all the above reasons, I hereby rescind item #2 of the direction.

ITEM #3 OF THE DIRECTION

This item of the direction reads as follows:

- "3. Westcoast Energy Inc.'s general procedures covering the launching and receiving of pipeline pigs at sending barrel and receiving barrel assemblies are not site specific and therefore do not provide, in the prescribed manner, each employee with the precise information and instructions required to safely carry out pigging procedures which can vary from site to site, thus contravening paragraph 125(q) of the Canada Labour Code, Part II;

Mr. McBride has argued that there are no Regulations "that prescribes that pipeline pigging procedure be developed on a "site specific" basis. Westcoast has general pigging and training procedures which are designed to ensure the proper and safe use and operation of pipeline pigs at all locations on the pipeline system."

Again, I must concur with the employer respecting this item of the direction. There exists no specific provision in the Regulations requiring the development of such procedures. Also, there is no evidence explaining the type of variations between pipeline stations and the specific reasons that would render the current general pigging procedures inadequate or inappropriate for those sites. In my view, since the safety officer has investigated and actually seen only one site, the direction should only cover that site. In the absence of information relating to the respective sites and because there exists no specific requirement in the Regulations respecting site specific procedures, I am of the view that this item of the direction should be rescinded as well.

For all the above reasons, I hereby rescind item #3 of the direction.

ITEM #4 OF THE DIRECTION

This item of the direction reads as follows:

- "4. All valves at the site failed to have a means of valve function identification to provide, in the prescribed manner, each employee with the information required to identify each valve's function and associate it to a schematic drawing which accompanies the general procedures covering the launching and receiving of pipeline pigs at sending and receiving barrels thus contravening paragraph 125(q) of the Canada Labour Code, Part II."

As for the previous two items of the direction, this item of the direction references the same paragraph 125(q) of the Code which subjects it to a prescribed manner. Nowhere does the legislation specify a means to identify the function of a valve and neither does it require it to be associated with a schematic drawing of the general procedures. It is manifestly in the best interest of all parties that such information be readily available. However, the direction is given under subsection 145(1) of the Code, which can only exist if a contravention is detected. I cannot identify a specific provision of the Regulations that would make it an infraction not to have the information as directed.

If the safety officer had strong evidence that this information was essential to the safety and health of the employees, he could have directed the employer, under subsection 145(2) of the Code, to take measures to protect those employees. However, the safety officer acted under subsection 145(1) of the Code and, consequently, he must identify the proper provision of the Code and the Regulations that were contravened. There are no such provision and therefore, no contravention.

For all the above reasons, I hereby rescind the fourth item of the direction.

ITEM #5 AND #6 OF THE DIRECTION

These items of the direction read as follows:

- "5. The chain connection between the bleeder valve on the pigging barrel and the door of the pigging barrel, which is an integral part of the bleeder valve as a safety device and prevents the opening of pigging barrel door without removing the bleeder valve, was not in place and thus makes this safety device ineffective.

This condition is in contravention to paragraph 125.1(b) of the Canada Labour Code, Part II and subsection 10.16(b) of the Canada Occupational Safety and Health Regulations.

6. The chain connection between the bleeder valve on the former blowdown vent and its closure, with respect to the blowdown vent situated farthest from the sending barrel, was not in place and thus makes this safety device ineffective. The chain is an integral part of the bleeder valve as a safety device and prevents the opening of the closure without removing the bleeder valve.

This condition is in contravention to paragraph 125.1(b) of the Canada Labour Code, Part II and subsection 10.16(b) of the Canada Occupational Safety and Health Regulations."

Mr. McBride has explained that the bleeder valves become easily plugged, from exposure to wet sour gas which contains liquid hydrocarbons, and impossible to clean such that they do not function to alert employees of gas in a pipe. A plugged bleeder valve has been introduced as evidence at the hearing. It is Westcoast's contention that the bleeder valve was disconnected because it gave the employees a false sense of safety by relying on the device which may be plugged. This could lead employees to erroneously conclude that the barrel is at atmospheric pressure.

I am not questioning the wisdom of Westcoast Energy Inc. for taking this initiative. However, by rendering the bleeder valve ineffective, employees had to rely on other less effective and less reliable manual methods to determine whether the barrel was free of gas and pressure. This practice is unacceptable as it does not ensure the safety and health of the maintenance employees at work.

I have noticed during my visit of the accident site that pressure gauges were installed close to the bleeder valves as replacement safety devices following the investigation of the safety officer. The gauges may provide employees with a visual account of the residual pressure in the line on both sides of the pig. I say "may" because the gauges appear to suffer from the same defect of the bleeder valves: they can become plugged and give false readings.

I believe that until such time that a more sophisticated and reliable control and/or safety device can be developed and installed on the receiving and sending barrels, alternate safety devices such as pressure gauges will serve a safety purpose. They provide a minimum confidence respecting the remaining pressure in the barrel during pigging operations. They should however be used with caution and in conjunction with other methods. Proper instruction and training should also be given to complement that safety feature.

The first paragraphs of items #5 and #6 of the direction provide an accurate description of the situation seen by the safety officer respecting bleeder valves. To ensure that reliable safety devices are installed on the sending and receiving barrels, I will vary the direction by adding the following sentence at the end of the first paragraph of each item i.e. *Furthermore, no other reliable control or safety device was installed in replacement of the bleeder valve assembly.* It should be noted that the word "reliable" is only added for clarity purposes as this quality is implied in any control or safety device.

Also, the authority in the Code for paragraph 10.16(b) of the Regulations is not paragraph 125.1(b) of the Code, as noted in both items of the direction, but paragraph 125.1(a) of the Code. Paragraph 125.1(a) of the Code applies because the purpose, in the instant case, of the valves and other control and safety devices is to control the release, and therefore the concentrations, of the hazardous substance i.e. the sour gas, being transported by the pipeline to ensure that any work done on the pipeline is carried out safely.

We should also remember that the purpose of the Code and the pursuant Regulations is to prevent accidents and injuries to health of employees. The operational requirements of a pipeline are of interest only to the extent that the equipment used in this industry affects the safety and health of employees at work. The equipment must be safe under all conditions. To that extent, paragraph 125(t) of the Code could also find application. However, this issue has not been considered in this case.

For all the above reasons, I hereby vary items #5 and #6 of the direction in the following manner:

- "5. The chain connection between the bleeder valve on the pigging barrel and the door of the pigging barrel, which is an integral part of the bleeder valve as a safety device and prevents the opening of pigging barrel door without removing the bleeder valve, was not in place and thus makes this safety device ineffective. Furthermore, no other reliable control or safety device was installed in replacement of the bleeder valve assembly.

This condition is in contravention to paragraph 125.1(a) of the Canada Labour Code, Part II and subsection 10.16(b) of the Canada Occupational Safety and Health Regulations.

6. The chain connection between the bleeder valve on the former blowdown vent and its closure, with respect to the blowdown vent situated farthest from the sending barrel, was not in place and thus makes this safety device ineffective. The chain is an integral part of the bleeder valve as a safety device and prevents the opening of the

closure without removing the bleeder valve. Furthermore, no other reliable control or safety device was installed in replacement of the bleeder valve assembly.

This condition is in contravention to paragraph 125.1(a) of the Canada Labour Code, Part II and subsection 10.16(b) of the Canada Occupational Safety and Health Regulations."

Decision rendered on June 4, 1993

Serge Cadieux
Regional Safety Officer

LEGISLATION QUOTED

Canada Labour Code, Part II

124. Every employer shall ensure that the safety and health at work of every person employed by the employer is protected.

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

- (q) provide, in the prescribed manner, each employee with the information, instruction, training and supervision necessary to ensure the safety and health at work of that employee;
- (t) ensure that the machinery, equipment and tools used by the employees in the course of their employment meet prescribed safety standards and are safe under all conditions of their intended use;
- (v) ensure that every person granted access to the work place by the employer is familiar with and uses in the prescribed circumstances and manner all prescribed safety materials, equipment, devices and clothing;

125.1 Without restricting the generality of section 124 or limiting the duties of an employer under section 125 but subject to such exceptions as may be prescribed, every employer shall, in respect of every work place controlled by the employer

- (a) ensure that concentrations of hazardous substances in the work place are controlled in accordance with prescribed standards;
- (b) ensure that all hazardous substances in the work place are stored and handled in the manner prescribed;

126.(1) While at work, every employee shall

- (a) use such safety materials, equipment, devices and clothing as are intended for the employee's protection and furnished to the employee by the employer or as are prescribed;

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.

(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 officer specifies
 - (i) to take measures for guarding the source of danger, or
 - (ii) to protect any person from the danger; and
- (b) the safety officer may, if the officer considers that the danger cannot otherwise be guarded or protected against immediately, issue a direction in writing to the employer directing that the place, machine or thing in respect of which the direction is made shall not be used or operated until the officer's directions are complied with, but nothing in this paragraph prevents the doing of anything necessary for the proper compliance with the direction.

146.(3) The regional safety officer shall in a summary way inquire into the circumstances of the direction to be reviewed and the need therefor and may vary, rescind or confirm the direction and thereupon shall in writing notify the employee, employer or trade union concerned of the decision taken.

Canada Occupational Safety and Health Regulations

10.17(2) The employee education program referred to in subsection (1) shall include

- (b) the instruction and training of each employee who operates, maintains or repairs an assembly or pipes referred to in section 10.16 with respect to
 - (ii) the procedures to follow for the proper and safe use of the assembly of pipes

10.16 Every assembly of pipes, pipe fittings, valves, safety devices, pumps, compressors and other fixed equipment that is used for transferring a hazardous substance from one location to another shall be

- (b) fitted with valves and other control and safety devices to ensure its safe operation, maintenance and repair.

12.1 Where

- (a) it is not reasonably practicable to eliminate or control a safety or health hazard in a work place within safe limits, and
- (b) the use of protection equipment may prevent or reduce injury from that hazard,

every person granted access to the work place who is exposed to that hazard shall use the protection equipment prescribed by this Part.

12.7(1) Where there is a hazard of an airborne hazardous substance or an oxygen deficient atmosphere in a work place, the employer shall provide a respiratory protective device that is listed in the NIOSH Certified Equipment List as of October 1, 1984, dated February, 1985, published by the National Institute for Occupational Safety and Health.

(2) A respiratory protective device referred to in subsection (1) shall be selected, fitted, cared for, used and maintained in accordance with the standards set out in CSA Standard Z94.4-M1982, Selection, Care and Use of Respirators, the English version of which is dated May, 1982, as amended to September, 1984 and the French version of which is dated March, 1983, as amended to September, 1984, excluding clauses 6.1.5, 10.3.3.1.2 and 10.3.3.4.2(c).

DIRECTION

In the Matter of the Canada Labour Code

Part II (Occupational Safety & Health)

Direction to Employer Under Subsection 145.(1)

The undersigned Safety Officer, did, on the 4th day of December 1992, attend the workplace operated by Westcoast Energy Inc., Northern District, being an employer subject to the Canada Labour Code, Part II, at pipeline mile post O.O of the 26 inch O.D. B.C. Trunk Line, north of Ft. St. John, British Columbia the said workplace being sometimes known as mile post 73 of the Alaska Highway and having conducted an inspection and accident investigation at the said workplace as a result of a serious accident which occurred there on the 2nd day of December 1992; and being of the opinion that the following provisions of the Canada Labour Code, Part II, are being contravened;

1. Two employees conducting pigging operations at the sour gas facility did not utilize respiratory protection devices when warranted and thus placed Westcoast Energy Inc. in contravention of paragraph 125(v) of the Canada Labour Code, Part II and subsection 12.7(1) of the Canada Occupational Safety and Health Regulations;"
2. Westcoast Energy Inc.'s general procedure covering the launchi