



INSPECTION OFFICER ORDER NO. BL – 001 – 2022

IN THE MATTER OF THE CANADIAN ENERGY REGULATOR ACT, AN ORDER UNDER SECTION 109

NAME OF PERSON(S)/COMPANY TO WHOM THIS ORDER IS DIRECTED

Trans Mountain Pipeline ULC (Trans Mountain) is a company conducting work associated with a regulated facility on or near a facility located between Strathcona County (near Edmonton), Alberta and Burnaby, British Columbia.

On or about 06-Dec-2022 at 16:00 the undersigned Canada Energy Regulator Inspection Officer conducted a compliance verification activity of/at Road 28 (Spread 5B) of the Trans Mountain Expansion Project.

RELEVANT FACTS

I, [REDACTED], designated as a CER Inspection Officer under subsection 102(1) of the Canadian Energy Regulator Act (CER Act), believe the following are the relevant facts relating to the issuance of this Order:

On 6 December 2022, the CER conducted an inspection where it was observed that welders and welders' helpers were welding in an area that project personnel had identified as a confined space. The contractor's confined space documentation for this location identified 'general dilution ventilation' without the use of respiratory protective equipment (RPE) as a control. At the time of the inspection, the CER noted that both contractor and Trans Mountain Expansion Project (TMEP) representatives were overseeing the welding activities and did not demonstrate they were aware of the requirement in the TEAM5B Exposure Control Plan-Welding Process to wear RPE. This process is further discussed below.

The CER observed that the welding was being conducted inside a high arch trench box, inside an excavation. The top and both sides of the welding area were partially enclosed, and the work area was filled with visible welding fume. Trans Mountain did not demonstrate to the CER that partial enclosure achieved sufficient general dilution ventilation to reduce or minimize welding fume concentration to below applicable Occupational Exposure Limit(s) in the workers' breathing zone.

On 7 December 2022 the CER was told by contractor representatives from 'TEAM5B' that an exposure control plan (ECP) was created in the summer of 2022. The inspection team was also told that workers were required to be fit tested and wear a P100 respirator during welding activities. The TEAM5B Exposure Control Plan-Welding Process dated 18 July 2022 states "A half mask respirator with a P100 Hepa Filter shall be considered the minimum acceptable level of respiratory PPE and shall be worn during all welding activities as the minimum protection from welding fumes." The CER noted that most of the workers in the confined space were not clean shaven, demonstrating that the proper use of a P100 respirator is not a common practice.

The CER notes that the 6 December 2022 observation is a repeat non-compliance for Trans Mountain with respect to RPE and welding activities. On several inspections conducted since March 2020 across the TMEP, the CER observed that workers performing or participating in welding tasks were not consistently using RPE where required. During those inspections, when CER questioned welders and participating workers about the use of RPE, answers varied from it's a personal choice, it was not a requirement, there was fresh air ventilation, and/or that definitive guidance is not provided to them to aid in their decision making.

The 'Health and Safety Management Plan TMEP' Document # 01-13283-GG-0000-HS-PLN-0001 R5 Appendix A Section 31: Respiratory Protection 31.1.2 states "Any Contractor potentially exposed to hazardous atmospheres or substances in excess of permissible exposure limits must have applicable respiratory protection."

Based on these observations, the CER IO is of the view that Trans Mountain's oversight did not result in reasonable care to ensure safety of persons, and in work being carried out in accordance with the construction safety manuals. Therefore, the CER is requiring the company to take the measures described below.

PROVISIONS OF ACT OR REGULATIONS THAT ARE ALLEGED TO BE CONTRAVENED - AND ARE CONTINUING - OR ARE LIKELY TO BE CONTRAVENED

1. GENERAL DUTY – REASONABLE CARE

Pursuant to section 94 of the CER Act, the holder of a certificate or permit must take all reasonable care to ensure the safety and security of persons, the safety and security of regulated facilities and abandoned facilities and the protection of property and the environment.

2. CONSTRUCTION INSPECTION

Pursuant to subsection 54(1) of the OPR, when a company constructs a pipeline, the company or an agent independent of any construction contractor retained by the company shall inspect the construction to ensure that it meets the requirements of the OPR and complies with the terms and conditions of any certificate or order issued by the Commission.

3. MANAGEMENT SYSTEM PROCESSES

Pursuant to paragraph 6.5(1)(f) of the OPR, a company shall establish and implement a process for developing and implementing controls to prevent, manage and mitigate the identified hazards, potential hazards and risks and for communicating those controls to anyone who is exposed to the risks.

Pursuant to paragraph 6.5(1)(g) of the OPR, a company shall establish and implement a process for identifying, and monitoring compliance with, all legal requirements that are applicable to the company in matters of safety, security and protection of the environment.

MEASURES TO BE TAKEN

Based on the facts references herein, the Inspection Officer has reasonable grounds to believe that there is or is likely to be a contravention of Parts 2 to 5 or section 335 of the CER Act, or for a purpose referred to in subsection 102(2) CER Act, the Inspection Officer may, by order, direct a person to

- a. stop doing something that is in contravention of Parts 2 to 5 or section 335 or cause it to be stopped;*
- b. take any measure that is necessary in order to comply with Parts 2 to 5 or section 335 or mitigate the effects of non-compliance;*
- c. stop doing something that may cause a hazard to the safety or security of persons, or damage to property or the environment or cause it to be stopped; or*
- d. take any measure that is necessary to prevent or mitigate the hazard to the safety or security of persons or damage to property or the environment.*

Trans Mountain is ORDERED pursuant to subsections 109(1) and 109(2) of the CER Act to:

- Take measures specified as per (b) and (d) above
- Stop doing something as per (a) and (c) above
- Suspend work associated with a facility, including a regulated facility, abandoned facility or ground disturbance until the hazardous or detrimental situation has been remedied to the satisfaction of an Inspection Officer or the order is stayed or rescinded

SPECIFIED MEASURES

Trans Mountain must meet all requirements set out in section 94 of the CER Act, paragraphs 6.5(1)(f) and 6.5(1)(g) of the OPR, and subsection 54(1) of the OPR as they relate to exposure to airborne contaminants that may be generated by the specific welding, burning, or related processes. As the TMEP has activities occurring in the Provinces of Alberta and British Columbia, it must ensure that Occupational Health and Safety requirements of those jurisdictions are adhered to, including BC OHS Regulation s.5.53-5.55 and the Occupational Health and Safety Code Alberta Regulation 191/2021 ABOSHS244(1).

Trans Mountain shall:




1. By 10 February 2023, provide to the Inspection Officer for review, an air monitoring study (Study) of pipeline welding fume exposure. The Study must demonstrate welders, support workers', and TMEP inspectors' breathing zone exposure levels on all sides of the pipe where routine pipe welding activities would occur. The Study must also assess breathing zone exposure levels of workers conducting and participating in the welding activities inside pipeline welding enclosures. Suggested (but not required) factors to consider in the Study:
 - a. Type of welding process (manual or automated), the size and thickness of pipe, duration of weld time, and material being welded;
 - i. Type of welding rod (include the applicable Safety Data Sheet)
 - b. Conditions at time of survey – ambient weather information, number of persons inside the enclosure, and details of the style of enclosure, whether the enclosure is partially or fully enclosed, and whether the enclosure has general ventilation or not.
2. By 10 February 2023, establish a minimum standard for RPE where an:
 - a. exposure assessment has not been conducted;
 - b. an ECP is not in place; and
 - c. an effective means of natural, mechanical or local exhaust ventilation is not practicable.
3. Whenever an ECP exists, ensure that it meets or exceeds the minimum standard for RPE established by Trans Mountain under measure 2 of this Order.
4. Effective immediately, ensure that Trans Mountain is carrying out oversight activities to enforce the 'Health and Safety Management Plan TMEP' Document # 01-13283-GG-0000-HS-PLN-0001 R5 Appendix A Section 31: Respiratory Protection 31.1.2 across the Project.
5. By 28 February 2023, conduct an analysis of its oversight model, as outlined in 'Health and Safety Management Plan TMEP' Document # 01-13283-GG-0000-HS-PLN-0001 R5, section 7.0: TMEP Roles and Responsibilities, and develop corrective and preventive actions based on the analysis to ensure that TMEP representatives are aware of and ensuring that these specified measures are being implemented.

EFFECTIVE DATE OF THE ORDER

This Inspection Officer Order takes effect immediately on 19-Dec-2022 at the time of delivery of the order to the person/company to whom it is directed. Nothing in this Order shall be construed as reducing, increasing, or otherwise affecting what may be required of the person/company to whom it is directed to comply with all applicable legislative or legal requirements.

COMPLIANCE WITH THIS INSPECTION OFFICER ORDER IS MANDATORY

Failure to comply with an Inspection Officer Order issued under section 109 of the CER Act is an offence under section 112 of the CER Act.

Inspection Officer		
	IO Designation Number	Signature
	19-Dec-2022	
	Date	Name (printed)
210-517 10 Ave SW Calgary AB T2R 0A8		

Please note that in compliance with the CER's Enforcement Policy, this Order will be posted on the CER's website.