

Operations Regulatory Compliance

Closed Report - CV1920-173 - 28 February 2020

Event Type

Field
Inspection

CV Event Number

CV1920-173

Selected Related Events

- CV1920-481

Project Companies

- Trans Mountain Pipeline ULC

Name of the Operating Company

Trans Mountain
Pipeline ULC

Rationale, Scope, and Additional Description

Burnaby and Westridge Terminals - Trans Mountain Expansion Project. Safety oversight of construction activities - worker safety [- Assess compliance with the OPR (Safety Management Program), CLC requirements and construction safety manuals/project specific safety plans.

Selected Province/Territory

- British Columbia

Start Date

2020-01-08

End Date

2020-01-09

Inspection Officer Number

- 2646
- 1137

Selected Disciplines

- Safety Management
- IAMC Observation

Tool Used:

- Corrected Non-compliance (CNC) (1)
 - Information Request (IR) (4)
-

This inspection was undertaken to verify compliance with the following legislative requirements:

- National Energy Board Act (NEBA)
 - National Energy Board Onshore Pipeline Regulations (OPR)
- Canadian Energy Regulator Act (CERA)
 - Canadian Energy Regulator Act (CERA)
- Canada Labour Code (CLC)
 - Canada Labour Code (CLC)
 - Canada Occupational Health and Safety Regulations (COHSR) 2016-06-14
- Standards
 - CSA Z662-19 - Oil and Gas Pipeline Systems
- Plans And Procedures
 - Project-specific Contractor/Project Safety Plan (CSP)
 - Trans Mountain Expansion Project Lower Mainland Project Specific Safety Plan

Selected Regulatory Instrument Numbers

Not Selected

Facility Details

Facility Types

Exploration and Production

Onshore

- Construction (Facilities)

Pipeline

- Terminal

Life-cycle Phases

- Construction

Additional Information

Selected Facilities

- WESTRIDGE MARINE TERMINAL (Facility)
- BURNABY (Facility)

Observations (No follow-up required)

General Observations - Burnaby Terminal

Date

2020-01-08

Discipline

Safety

Management

Categories

- Workplace Exposures and Protections
 - Safeguarding
 - Personal Protective Equipment
 - Industrial Sanitation and Personnel Facilities
 - Limits of Exposure
 - Hazard Assessment

- Materials Handling
 - Ropes, Chains and Slings
- Training and Competency
 - Training and Competency
- Permanent Structures
 - Housekeeping
 - Signage
- Noise Control
 - Signage
 - Monitoring/Evaluation

Facility

- BURNABY

Observations

- All workers and visitors are required to perform site-specific orientation and sign in before being granted access to the site.
- The site orientation addressed high risk activities appropriate for the site such as rolling objects and traffic management.
- A traffic management plan has been implemented to address the limited availability of road space and parking. The plan covers the requirements for testing and inspection of positive air shutoffs (PASO) on all diesel equipment. The traffic and haul map are updated daily.
- Dunnage is used to prevent pipe and spools from unintentional movement.
- Heavy equipment is subject to a 'daily vehicle inspection' (DVI) which includes emergency equipment, maintenance issues, positive air shut-off, and operator competency.
- Observations and interview of a vacuum truck and crew indicated:
 - Single hearing protection is worn and workers undergo annual audiometric testing,
 - FLHA is completed and signed off by a supervisor,
 - whip checks or cam locking connections are used for high pressure connections.
- Flammable materials were appropriately segregated and stored in cabinets.
- Rigging equipment is inspected annually and inspected before use.
- Workers used mechanical lifting devices for objects over 100 pounds. The limit for a single person lift is 50 pounds.
- Daily focus inspections are performed and documented. These inspections include craft representatives as part of their 'craft voice in safety' program.

Tool Used

No

Tool Used

General Observations - Westridge Marine Terminal

Date

2020-01-09

Discipline

Safety

Management

Categories

- Workplace Exposures and Protections

- Safeguarding
- Personal Protective Equipment
- Fire Protection
- Limits of Exposure
- Labels and Documentation
- Hazard Assessment
- Materials Handling
 - Overhead Cranes
 - Mobile Cranes and Hoisting Equipment
- Training and Competency
 - Training and Competency
- Permanent Structures
 - Stairs, Fixed Ladders and Access/Egress
 - Housekeeping
 - Signage
- Temporary Structures
 - Temporary Stairs, Ramps and Platforms
- Noise Control
 - Signage
 - Monitoring/Evaluation

Facility

- WESTRIDGE MARINE TERMINAL

Observations

- Site-specific orientation is provided to all workers and visitors before they can access the site.
- Workers were observed wearing appropriate PPE.
- Portable fire extinguishers were observed on mobile equipment and at fixed locations throughout the site.
- All workers are expected to complete a field level risk assessment daily and when conditions change.
- A traffic management plan is in place.
- A worker was observed using personal fall protection to access the top of a hydrovac truck. Upon interview, he adequately demonstrated a pre-use check of his harness, was able to recall elements of the safe work procedures for working at heights, and had recently taken fall protection training.
- The same worker was interviewed with respect to hearing protection. He wore single hearing protection and stated he underwent audiometric testing annually.
- Muster locations are clearly marked,
- Traffic across the Canadian Pacific rail tracks is strictly controlled with a full-time CP rail representative on site.
- Workers are required to wear personal flotation devices (PFDs) when working near or around the water.

Tool Used

No

Tool Used

IAMC Observation**Date**

2020-01-08

Discipline

IAMC

Observation

Categories

- General
 - General

Facility

- WESTRIDGE MARINE TERMINAL
- BURNABY

Observations

Additional Observation recorded by IAMC Indigenous Monitors participating in the CER Inspection (see attached document). Any compliance related observations that require specific regulatory follow-up have been recorded above.

The information requests at the end of the attached document have been referred to the Indigenous Monitoring and Advisory Committee's Issues Management System for proper follow up.

Tool Used

No

Tool Used

IAMC Observation**Date**

2020-01-08

Discipline

IAMC

Observation

Categories

- General
 - General

Facility

- WESTRIDGE MARINE TERMINAL
- BURNABY

Observations

Additional Observation recorded by IAMC Indigenous Monitors participating in the CER Inspection. Any compliance related observations that require specific regulatory follow-up have been recorded above.

Indigenous Monitor Observations**Date & time of visit:** 2020-01-08 9:00**Discipline:** Environmental Protection**Categories:**

- Workplace PPE
- Soils
 - Erosion control
 - Soil Handling
 - Chemical spills/drips
- Surface Water Management
 - Sediment and Turbidity
- Emergency spill
- Archaeological significance

Facility: Burnaby Tank Farm

Observations:

- Company environmentalist at opening meeting to answer questions about the surface water runoff and creeks.
- Companies monthly newsletter is shared with First Nations Communities, contacts are updated regularly to ensure they are current.
- Appropriate Personal Protective Equipment (PPE) was observed.
- All exposed soils had been hydro seeded. Hydro seeding done in November had sprouted.
- Any exposed soils that hadn't been hydro seeded were tarped or had erosion blankets in place.
- Stock piled soil was tarped
- Small engines had secondary containment in place.
- Parked machines had drip trays. New drip trays in place that let water pass through but catches oil. Machines parked longer than 30 minutes had wheels chocked.
- Ditches had clear flowing water.
- Unpaved roads were crossed ditched.
- 2 road sweepers were observed on site sweeping the paved roads.
- Ditches had check dams.
- Tertiary pond was observed. All ground water passes through the tertiary pond before it is allowed to leave site. The pond has controls in place that monitors the turbidity and how much and when the water leaves. The site is designed to act as an emergency catchment system in case of a spill.
- Machines had green stickers to indicate that machines were inspected for leaks prior to being allowed on site.
- Each holding tank has a large berm on the downhill side.
- Walked around zoom boom and looked for leaks, logbooks have been replaced by "DVI" Daily Visual Inspection forms. IM requested to have a hard copy of DVI form in opening meeting.
- Steel posts had mushroom caps.
- Multiple wind socks observed.
- A stake marked arch site was observed. It buffers the water entering the site. The buffer signifies any work to happen within the buffer requires an archaeologist is to be present.

Date & time of visit: 2020-01-09 9:00

Discipline: Environmental Protection

Categories:

- Workplace PPE
- Soils
 - Erosion control
 - Chemical spills/drips
- Surface Water Management
 - Sediment and Turbidity
- Emergency spill
- Recent fish kill

- Wildlife

Facility: Westridge Terminal

Observations:

- Appropriate Personal Protective Equipment (PPE) was observed. Double hearing protection was brought up for the hydro vac truck. Life Jackets are worn with in 3m of the water.
- CP rail goes through the work site and there is a CP rail spotter on site to signal when it is safe to cross.
- Silt fencing was observed along the entire work area to separate the land and water work sites.
- Small engines had secondary containment in place.
- Parked machines had drip trays. New drip trays in place that let water pass through but catches oil.
- Observed spill kit stations and spill kits on heavy machinery.
- Walked around vac truck to look for leaks.
- Turbidity Curtain is suspended in the water around each on/in-water work site and reaches down to within a meter of the ocean floor.
- Spoke with the company indigenous monitor
- Spoke with the company environmentalist, the recent fish kill, the bubble curtain, standard operating procedure and marine mammal monitors was discussed.
- The pile driver has a sound gauge to keep it compliant.
- No pile driving was observed on site during the inspection. Due to the recent fish kill there was mention of changes to the standard operating procedure. IM's requested a copy when that becomes available.
- A bubble curtain was observed on the deck of the barge. The bubble curtain is powered by large air compressors on the barge, they had specialty drip trays due to the size of the compressors.
- There was no marine mammal monitors on site during the inspection as there was no pile driving happening during the inspection.
- Eagles were observed and heard around the work site during the inspection. The eagles had remained in the area even after nest relocation.

Tool Used

No

Tool Used

Compliance Summary

CNC 1 - rigging sling

Date

2020-01-08

Discipline

Safety Management

Categories

- Workplace Exposures and Protections
 - Hazard Assessment

Facility

- BURNABY

Observations

A rigging sling with broken stitching was observed on a zoom boom at Burnaby Terminal. The sling was immediately removed from service and destroyed by a company representative.

Tool Used

Corrected
Non-compliance (CNC)

Legislative Requirement

National
Energy Board Onshore Pipeline Regulations (OPR)

Sections Of The Act**National Energy Board Onshore Pipeline Regulations (OPR)**

18. Construction Safety

(1) If a company contracts for the provision of services in respect of the construction of a pipeline, the company shall

- ✓ (c) take all reasonable steps to ensure that construction activities are conducted in accordance with the manual developed under section 20; and

Company Action Required

Remove the sling from service and destroy it to prevent future use.

Due Date

2020-01-08

IR 1 - hearing protection for vacuum truck operators**Date**

2020-01-09

Discipline

Safety Management

Categories

- Workplace Exposures and Protections
 - Personal Protective Equipment
 - Limits of Exposure

Facility

- WESTRIDGE MARINE TERMINAL

Observations

The project-specific safety plan requires single hearing protection for noise-exposed workers including hydrovac operators. The only activity identified as requiring double hearing protection is piling.

Tool Used

Information
Request (IR)

Legislative Requirement

National
Energy Board Onshore Pipeline Regulations (OPR)

Sections Of The Act**National Energy Board Onshore Pipeline Regulations (OPR)**

18. Construction Safety

(1) If a company contracts for the provision of services in respect of the construction of a pipeline, the company shall

✓ (c) take all reasonable steps to ensure that construction activities are conducted in accordance with the manual developed under section 20; and

Company Action Required

Provide evidence that noise exposure for hydrovac workers has been measured, and workers are not exposed to noise levels that exceed the limits listed in the Trans Mountain Expansion Project Lower Mainland Project Specific Safety Plan, *Hearing Conservation*. The response should include a summary of a noise measurement study for the affected workers.

Due Date

2020-02-21

IR 2 - manlifts

Date

2020-01-09

Discipline

Safety
Management

Categories

- Workplace Exposures and Protections
 - Hazard Assessment

Facility

- WESTRIDGE MARINE TERMINAL
- BURNABY

Observations

Several man lifts were observed at both Burnaby Mountain and Westridge Terminal.

Tool Used

Information
Request (IR)

Legislative Requirement

National
Energy Board Onshore Pipeline Regulations (OPR)

Company Action Required

Provide the safe work procedures for manlifts used at Burnaby and Westridge Marine Terminal expansion.

Due Date

2020-02-21

IR 3 - health and safety trends

Date

2020-01-09

Discipline

Safety
Management

Categories

- Workplace Exposures and Protections
 - Labels and Documentation
 - Hazard Assessment

Facility

- WESTRIDGE MARINE TERMINAL
- BURNABY

Observations

Document review evidenced health and safety performance indicators are collected. Missing was evidence these data are analyzed for trends in hazards, incidents, and near misses.

Tool Used

Information Request (IR)

Legislative Requirement

National Energy Board Onshore Pipeline Regulations (OPR)

Sections Of The Act

National Energy Board Onshore Pipeline Regulations (OPR)

6.5 Management System Processes

(1) A company shall, as part of its management system and the programs referred to in section 55,

- ✓ (s) establish and maintain a data management system for monitoring and analyzing the trends in hazards, incidents and near-misses;

Company Action Required

Provide the methodology in use which will help to identify potential trends when assessing health and safety data.

Due Date

2020-02-21

IR 4 - internal focus inspections

Date

2020-01-09

Discipline

Safety
Management

Categories

- Workplace Exposures and Protections
 - Labels and Documentation
 - Hazard Assessment

Facility

- WESTRIDGE MARINE TERMINAL
- BURNABY

Observations

The project specific safety plan contains requirements for internal inspections and audits conducted by the Contractor (pre-use, daily, weekly, monthly, and annually). The company has developed templates for focus inspections of high risk activities that will be performed by the Company independent of the construction contractor.

Tool Used

Information Request (IR)

Legislative Requirement

National Energy Board Onshore Pipeline Regulations (OPR)

Sections Of The Act**National Energy Board Onshore Pipeline Regulations (OPR)**

54. Construction Inspection

✓ (1) 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 these Regulations and complies with the terms and conditions of any certificate or order issued by the Board.

✓ (2) An inspection shall be performed by a person who has sufficient expertise, knowledge and training to competently carry out the inspection.

Company Action Required

Provide one sample of completed "Focus Inspections" for each activity. Provide the template to be used for those inspections yet to be utilized.

Due Date

2020-02-21

