Canada Energy Regulator | Régie de l'énergie du Canada

Canada

Operations Regulatory Compliance

Closed Report - CV1920-163 - 7 April 2020

Event Type
Field
Inspection

CV Event Number
CV1920-163

Project Companies

- Trans Mountain Pipeline ULC

Name of the Operating Company
Trans Mountain
Pipeline ULC

Rationale, Scope, and Additional Description
Field inspection of the Burnaby and Westridge Terminals focused on environmental protection. The scope of the inspection includes works relating to the following: - Westridge Marine Terminal (OC-065, MO-042-2019). - Burnaby Terminal (OC-065, AO-002-XO-T260-010-2019). - Burnaby Terminal Facility Piping Relocations (XO-T260-003-2017). - Decommissioning of Facility Piping at Burnaby Terminal (MO-066-2018).

Selected Province/Territory

- British Columbia

Start Date
2020-02-20

End Date
2020-02-21

Inspection Officer Number

- 2194
- 2654

Selected Disciplines

- Environmental Protection
- IAMC Observation

No Tool Used

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)

- Standards
    - CSA Z662-19 - Oil and Gas Pipeline Systems

- Plans And Procedures
    - Project-specific Environmental Protection Plan (EPP)
        - Westridge Marine Terminal Environmental Protection Plan for the Trans Mountain Pipeline ULC Trans Mountain Expansion Project March 2018 Rev 5 687945
    - Project-specific plan or procedure
        - Environmental Protection Plan for the Trans Mountain Pipeline ULC Burnaby Terminal Facility Piping Relocation Project May 2018 Rev C 664818
    - Project-specific plan or procedure
        - Facilities Environmental Protection Plan for the Trans Mountain Pipeline ULC Trans Mountain Expansion Project September 2019 Rev 6
    - Project-specific plan or procedure
        - Volume 7 Resource Specific Mitigation Tables Westridge Delivery Lines Trans Mountain Expansion Project July 2019 Rev 6 687945

Selected Regulatory Instrument Numbers

- OC-065
- MO-042-2019
- XO-T260-003-2017
- MO-066-2018

Facility Details

Facility Types

Pipeline

- Terminal

Life-cycle Phases

- Construction

Additional Information

Selected Facilities

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

Observations (No follow-up required)

Westridge Marine Terminal

Date
2020-02-20
Discipline
Environmental Protection
Categories

- Soils and Soil Productivity
    - Biosecurity
- Surface Water Management

    - Containment and Drainage Structures

- Water Bodies - Fish-bearing
    - Erosion
    - Sedimentation/Turbidity
    - Disturbance
    - Chemical Spills/Releases

- Wildlife
    - Destruction/Loss of Habitat

- Housekeeping
    - Waste Management

- Training and Documentation
    - Inspections

- Socio-economic
    - Effects on Communities (including indigenous)
    - Traditional Land and Resource Use
    - Heritage Resources

Facility

- WESTRIDGE MARINE TERMINAL

Observations
Westridge Marine Terminal

Activities occurring at the Westridge Terminal include:

- Preparing to divert the unnamed channel
- Building up the walls in advance of increasing road width
- Road backfill behind lock blocks
- East side hydroseeding and coconut matting installation for sediment and erosion control
- Sheet piling on the foreshore
- Piling on the loadout structures
- Hydro vac at foreshore for line locating and soil mixing
- Mating being placed for access
- Civil work on manholes
- Lock block install for anchor install

General

- Company representatives stated that they have a "no spill" policy which includes anything that hits the ground (that is not water) gets cleaned up, reported into a database and is tracked. The Spill Contingency Plan was discussed with the inspection team and company representatives indicated they had a 125 mL hydraulic spill on the foreshore the previous day. The inspection team requested to review the report to ensure procedures were followed. Inspection team had no concerns with the report and requirements were aligned with the Spill Contingency Plan.
- During the inspection, a very small sheen was observed on the lower (asphalt) road. Company representatives immediately notified staff to begin the corrective action including the clean-up process using spill pads and granular material. They suspected it was diesel coming from an over flow vent on one of the trucks hauling soil. Company representatives indicated it was inspected in the yard before arriving on site. CER Inspector reviewed a copy of the spill report for this spot spill on 6 March 2020 and was satisfied with the report with no concerns or follow-up required.
- Observed the nesting deterrent in the previously used bald eagle nest adjacent to the southeast boundary. Company representatives indicated the Bald Eagle pair have returned again this year

and are building a nest somewhere in the area. They stated a biologist has been surveying the site regularly trying to identify the nesting location. Once the nest site is identified the biologist will develop a Bald Eagle Management Plan if required.
- Company representatives informed the inspection team of the "Green Sticker Program" where equipment is fully inspected and checked for leaks and cleanliness prior to arriving onsite. A green sticker is applied to the equipment after the inspection and is documented into a database. The inspection team reviewed an equipment inspection report for a generator with a green sticker observed onsite. The report was complete with multiple photographs attached.
- A vehicle station was observed on site which included windshield washer fluid and compressed air for personnel to use if needed.
- Secondary containment trays designed for use in wet climates were observed abundantly in appropriate positions.
- Spill kit stations were observed in multiple locations around the terminal which included fire extinguishers, spill kit supplies in drum barrels, and posted Environmental Incident Response and Reporting Protocol information sheets.
- Garbage was segregated and stored in proper bins that were labeled general waste, cardboard, and used absorbent pads.
- Company representative stated all trash including porta-potties are removed from the terminal on a barge and that all materials are taken to an approved designated off-site facility. Inspection team observed a barge removing porta-potties from the terminal.
- Met with the company representative Aboriginal Monitor (AbM) to discuss general activities occurring on the project.
- Company representatives indicated that an environmental component has been added to the regular safety meetings at the Westridge Marine Terminal to discuss any issues and to raise environmental awareness.

Bird Deterrents and Dolphin Pile Cap Mitigations

- Bird deterrents including reflective tags and spikes on posts were observed on each section of the of the Westridge Marine Terminal security fence surrounding the terminal in the water. Company representatives stated that the deterrents were very effective and birds have not been observed on the fence for months. Company representatives indicated the EI and AbM conduct weekly inspections of the fence and that 24 hour security personnel on site would submit a report if anything was observed on the fence. The EI indicated that if observations indicated that the mitigations were no longer effective, the mitigations would be evaluated internally. Water taxis are also continually patrolling the area.
- The three gull fatalities associated with the dolphin piles and the associated mitigation measures were discussed with company representatives. They stated the fatalities occurred when there was a very high influx of birds in the area and indicated caps are put on the dolphin piles if no activity is scheduled to occur within 24 hours. They also said communication between staff is very frequent and they regularly discuss the cap requirements.
- The CER provided Trans Mountain with updated ECCC and CWS contact information for bird mortality reports. Trans Mountain indicated they will use these contacts going forward.

Heritage Resource Discovery Contingency Plan

The Westridge Marine Terminal Environmental Protection Plan (EPP) states: All project activities will occur on reclaimed foreshore lands with the exception of a small portion of land located between the railway and shoreline. The company representatives stated the current land use at this facility site is industrial with some previously disturbed and undisturbed lands. They indicated an archeological monitor was on site during the excavation under the Canadian Pacific Railway as required. The Heritage Resource Discovery Contingency Plan was discussed and the company representatives appeared to understand the procedure and protocol requirements if a discovery was made.

- Company representatives stated archeological assessments were completed at the portal of the tunnel and resource specialists including the AbM would be on site during the excavation and tunneling activities.

Water Management and Treatment/Erosion and Sediment Control

- Multiple methods of erosion and sediment control were observed throughout the terminal including hydroseeding and coconut matting, polyethylene sheeting, straw wattles, sediment fence and berms. Straw was used for a short term method, polyethylene sheeting was used for a medium term and hydroseeding and coconut matting was used for long term erosion control measures. There were no erosion and sediment control issues observed on site and sandbags were observed at the bottom of slopes.
- The slope where the S6 diversion pipe is to be installed was cleared but not grubbed yet and company representatives indicated that this approach was to maintain stability and avoid potential erosion issues.
- A turbidity curtain to contain suspended solids was observed around the sheet piling at the foreshore surrounding the in-water construction activities. Company representatives stated continuous turbidity monitoring was completed during rip rap removal and during sheet piling activities. One sample is taken before piling and one sample is taken during to ensure levels remain within the guidelines.They indicated the curtains were 7 to 10 meters deep.
- Westridge Marine Terminal has two 400 gallon water treatment plants onsite to filter the stormwater and surface water. Sumps were built to collect the diverted water onsite before being pumped into the water treatment system.
- Company representatives stated the concrete plant and drill operations were not working and were down for mechanical repairs. The grout line appeared to have adequate secondary containment including sediment fence and an excavated ditch lined with sandbags. They also indicated all concrete work would be isolated from the marine environment using secondary containment and hoses.

DB General Barge

- Inspection team received a site specific safety orientation for the DB General.
- Crews were working on installing dolphin piles to build a loading platform for loadouts. Company representatives stated welding, sandblasting and coating activities occur on the barge. Rebar was installed and concrete will be poured to stabilize the platform structure. Company representatives indicated concrete trucks will be loaded onto a barge with secondary containment as part of these future works.
- Company representatives indicated a vibratory method of pile installation was used to reduce the intensity of underwater noise and pressure emitted to the marine environment where feasible. Impact hammering was used in conjunction with a bubble curtain around the full wetted length of the pile to reduce underwater noise. The Noise Management Plan was discussed and appears the company is following the appropriate procedures and policies.
- A specialized noise monitor was onsite recording underwater noise and pressure levels outside of the bubble curtain within 10 m of the driven pile throughout impact pile driving activities. The aluminum bubble curtains are placed around the pile and are separated by 10 meters for the entire length of pipe. Company representatives stated underwater divers inspect the bubble curtain every time it is used to ensure it is functioning correctly. Company representatives indicated air pumped though the system reach between 800 to 1000 PSI and is monitored through flow meters which is recorded in a manifold log.
- On March 1st, underwater sound thresholds change for the Burrard Inlet Fish Window as outlined in the DFO Authorization *Fisheries Act* 19-HPAC-00753. Company representatives indicated staff are made aware of the changes by having a countdown with how many days were remaining until noise restriction requirements changed. Company representatives informed the IO's after the inspection that on 27 February 2020, an Environmental Toolbox meeting was held by the superintendents and foremen to discuss the changes with staff at the Westridge Marine Terminal. The Environmental Toolbox Memo was provided to the inspection team.
- Waste materials were contained in labeled bins and the general housekeeping on the barge was good.
- Fully stocked spill container kits were observed on the barge and all potentially leaking equipment had secondary containment.

- Inspection team observed the hydraulic impact and vibratory hammers. The connection hoses have paint marks on them indicating they are tightly sealed and company representatives stated they are checked regularly.
- Company representatives indicated only one piling activity had occurred in the last two months on 12 February 2020. In the field, the inspection team viewed the required checklist to confirm that it was completed and the underwater noise logs from both hydrophones was recorded. Noise levels recorded during the piling were below the maximum required level of 209.5 dB thresholds for injury to finfish during the least risk window (August 16 to February 28).
- Company representatives indicated they were working within the approved daytime working hours and not past 7 pm.

DB Columbia Barge

- After boarding the barge, the Inspection team received an onsite safety orientation identifying the site specific safety hazards.
- A marine mammal monitor was observed looking for wildlife within the marine mammal exclusion zone during pile driving operations. The monitor appeared to be positioned in a location where the entire exclusion zone could be surveyed. Company representatives stated if any marine mammals were observed within the respective exclusion zones, impact pile driving would be suspended until after the marine mammal had left the exclusion zone for 30 minutes as stated in the EPP.
- Sheet piling activities occurred while the Inspection Team was onsite and secondary hearing protection was worn by everyone on the barge as required.
- Company representatives stated the bubble curtain used at this location consisted of compressed air pumped through a 2 inch hose with holes placed on the sea bottom. A noise monitor representative was observed and appeared to be recording and monitoring underground noise levels. Procedures to stop sheet piling (if noise levels exceeded the required limits) was discussed with company representatives and responses aligned with the contingency plans set in place.
- Company representatives indicated a fish salvage was conducted once the cells are isolated prior to any construction activities.
- Spill kits were observed on the barge and secondary containment was in place at appropriate locations as required.

Tool Used
No
Tool Used

Burnaby Terminal

Date
2020-02-21
Discipline
Environmental Protection
Categories

- Soils and Soil Productivity
  - Erosion Control
  - Soil Handling
  - Chemical Spills/Releases
  - Restoration
- Surface Water Management
  - Containment and Drainage Structures
  - Surface Water Management Plan

- Water Bodies - Non-Fish-bearing
  - Chemical Spills/Releases
  - Sedimentation/Turbidity
  - Erosion
  - Use/Overuse/Flow
- Vegetation
  - Vegetation Control
  - Invasive Plant Management
  - Species of Concern
- Air Quality
  - Dust Control/Monitoring
- Noise
  - Noise Control/Monitoring
- Housekeeping
  - Waste Management
- Socio-economic
  - Effects on Communities (including indigenous)
  - Traditional Land and Resource Use
  - Heritage Resources

Facility

- BURNABY

Observations
At Burnaby Terminal, all observations during the day were observed to be compliant and consistent with mitigations in the EPP.
General

- General housekeeping including garbage, staking, and fencing in all areas of the terminal at the time of the inspection was observed to be in compliance with the requirements listed in the EPP.
- Fire extinguishers were on equipment as well as stations throughout the terminal. All fire extinguishers inspected were compliant.
- Spill kits were plentiful at the time of the inspection. A removable tag was observed on one of the spill kits sealing the lid to indicate to personnel that it was fully stocked with materials.
- Secondary containment trays designed for use in wet climates were observed abundantly under stationary equipment and machinery.
- Weeds and plant management practices were discussed on site.
- *Roell's botherella moss* was discussed on site. Company representatives indicates that no such moss is present at the site, as confirmed with previous sweeps conducted by a specialist.
- The east area of the terminal is being excavated for future tank bays and pipeline racks.
- A green sticker was on all equipment observed, indicating it was checked for leaks and cleanliness before arriving onsite.
- Signage was plentiful and located at environmentally sensitive features, and topsoil and subsoil piles.
- A truck cleaning station was set up at the entry of the site for personnel to inspect all trucks and hoses for leaks and drips before coming onto the site. Truck tires were washed at the wheel wash station before exiting the site to maintain clean roads outside of the project.
- Water trucks and street sweepers were observed spraying down and cleaning the roads to maintain cleanliness as well as dust control.
- Fire water pond was enclosed with a chain-link fence and had visible signage and life preservers.
- A weather station was observed at the south side perimeter.

Water Management and Treatment/Erosion and Sediment Control

- The water outflow pipe in the southwest end of the property was observed. Water quality testing was discussed at this area. Company representatives indicated that a continuous water quality system to test turbidity levels was in place, with additional samples taken on a weekly and as-needed basis, as per permit requirements. This water outflow area is one of three similar outflows situated around the site at key areas. Company representatives indicated turbidity exceedances above acceptable levels are reported to the BC Ministry of Environment.
- The Tertiary Containment Area (TCA) was observed and its purpose and functionality were discussed on site. A boom was observed resting on the bottom of the pond in a low water area. Company representatives indicated the boom would be removed when water levels are higher.
- Water treatment and water management measures were observed and discussed on site. Company representatives indicated they are using contingency layers to manage water including sumps and tanks. Swales and diversions were observed diverting water around the project to flow into a water treatment system. Company representatives also stated the water is filtered through a screen and clarifier but if it is still too turbid it would automatically get filtered through the system again.
- Water management measures (for example culverts, check dams, wattles, hoses, bales, tackifier on soil piles) were observed to have been implemented at the site in appropriate fashion at the time of the inspection.
- At the Eagle Creek Tributary, grubbing was not yet completed as an ESC measure. Company representatives indicated the grubbing would be completed at a later stage of construction, with a culvert system planned in order to maintain the protection of water quality. This approach appeared to be working well at the time of the inspection.
- Company representatives indicated Eagle Creek Tributary and Silver Creek Tributary will eventually be enclosed in a culvert along the north side ditch.
- Previously disturbed slopes were hydro-seeded with coconut matting installed. Company representatives stated they were converting over to an organic biodegradable coconut matting material without plastic.

Noise Mitigations

- A microphone recording station near the south side perimeter to monitor noise levels was observed as well as a sound wall to mitigate the off-site receptor 'Burnaby E'.
- On site discussions regarding noise included the topics of receptors and associated mitigations.

Wildlife

- Wildlife exclusion fencing was observed near the TCA area and an abundance of waterfowl was observed on the pond.
- Wildlife signage was observed near watercourse BC-7852. A discussion regarding wildlife mitigation procedures in the event of a sighting were discussed.
- Migratory bird nesting was discussed on site. All procedures discussed appears compliant with EPP commitments.

Soil Handling

- Contaminated soils bin (signed and closed) was observed on site.
- Stockpiles were labelled with topsoil or subsoil signs.
- Procedures in the event of the identification of suspected impacted soils were discussed on site.
- Inspection Team met with the contracted soil specialists conducting soil sampling at the site. Soil sampling protocols and applicable criteria for in- and ex-situ soils were discussed, with no concerns noted.
- Company representatives indicated that weeds were managed through a weed treatment program and were spot sprayed with herbicide as required. They discussed maintaining the required setbacks around watercourses while spot spraying. Operations usually maintains the program but it will be taken over by the project this spring and summer.

Waste Segregation

- Wildlife protection mitigations (clips) observed on garbage waste bins.
- Generally, wastes were well handled with clearly labelled segregated bins. Several bins were spot checked and wastes inside were observed to be appropriate.
  A closing meeting summarizing the inspection concluded the day. No non-compliances were noted at the Burnaby Terminal.

Tool Used
No Tool Used

Indigenous Monitor Observations 1

Date
2020-02-20
Discipline
Environmental Protection
Categories

- Surface Water Management
  - Containment and Drainage Structures
  - Surface Water Management Plan
- Water Bodies - Fish-bearing
  - Chemical Spills/Releases
- Wildlife
  - Destruction/Loss of Habitat

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 and Time of Visit: February 20, 2020 at 0830
Facility: Westridge Terminal
Observations:

Proper PPE was observed. Double hearing protection required for pile driving and for the Hydrovac truck. Lifejackets within 3m of water. Opening meeting started with a safety share. CP Flaggers on site to signal when safe to cross.
All spills are recorded in company records no matter how small.
Secondary containment is used for vehicles and engines. A plant nappy is used to contain any spills from vehicles and engines.
Spill kits are found all over the site, and all vehicles have spill kits.
On February 19, 2020, there was 125 mL of Hydraulic Fluid spilled on the foreshore. The spill was all on land and was cleaned up and disposed of properly.
While on the site, the company Indigenous Monitor noticed a sheen on the road. This was rectified, and they had someone clean up the spill immediately. An inspection was also conducted on the dump truck to figure out what had caused the spill. They think that it was due to the angle of the road and the vehicles bleeder valve.
All waste is labelled and separated into their proper bins. Hazardous waste has secondary containment.

Water on site is diverted to the water treatment and treated before leaving the site.
Sediment control is important on site. They use silt fences that are properly installed. Straw erosion blankets are used to help with sediment control.
Sand bags are used to control water and sediment if soil needs to be disturbed.
There were 2 new sump pumps being installed on the site to divert the water to water treatment.
Turbidity curtains are used in water for sediment control.
There was a crow's nest observed on site. There are no rules to protect crows; Therefore, the nest is left in place.
On the site there was an eagle's nest that was blown down from a tree. Transmountain had built a nest to replace the old one. The next year the Eagles returned to the new nest. There are currently eagles flying around the site. Transmountain and their Biologist has not been able to find the new nesting location but believe it to be on site. The Biologist has been trying to locate where the birds are carrying the sticks to build the nest. They have not implemented their mitigation plan due to not knowing the nest locations. A buffer is needed 100 m around the nest, as well as the height of the nest.. FLNRO issued the permit.
There are bird deterrents on site. They have placed cones to deter nesting of eagles on site which have been successful. They have put up bird spikes and reflectors to keep the birds from getting caught on their fencing in the water. If dolphin piles are not being worked on within 24 hours, they must put a cap on them. There were some seagulls that had died from falling into the piles.
Due to the deaths of the herrings on site there were changes to the bubble curtain. The bubble curtain had kinks in the line. The materials in the line have been changed to be more stable.
The bubble curtain is about 3 inches away from the pile. Each pipe on the bubble curtain is 10m apart.
Environmental monitors use hydrophones to monitor the underwater noise levels.
There was a fish salvage when the site was sealed off. They caught the fish and returned them to the ocean.
There is a marine mammal monitor on site. They need to stop pile driving for half an hour after a seal is spotted, and one hour after a whale is spotted.
If there is a chance find they use McTavish Archeology, indigenous monitors, and the archeology branch from Coquitlam Band. Trans Mountain has Contract Qualification Specifications for the experts they use.

Indigenous Monitor Observations
Date and Time of Visit: February 20, 2020 at 0815
Facility: Burnaby Terminal
Observations:

Proper PPE was observed. Wind socks observed in multiple areas. Steel posts have mushroom caps.
Opening meeting started with a safety share.
There is constant water testing. There are Nephelometric Turbidity Units (NTU) and Total Suspended Solids (TSS.) The maximum TSS is 20mg/L, this is approximately 34 NTU. Weekly grab samples are done, and they will also do grab samples when there is a lot of rain. There is constant monitoring at the top and bottom of Eagle Creek Tributary. There is a monitor at the bottom of the Tertiary Containment Area (TCA) and one at the bottom of Silver Creek Tributary. Monitors at the top of Eagle Creek Tributary keep record of the quality of water that enters and leaves the site.
All water on the site is treated then sent to the TCA before leaving the site through the tributaries. If there is an excessive amount of water on the site then the water is rerouted to other water treatment facilities on site.
Non-contact water rerouted through a culvert into the TCA.
Sediment control is very important at this site. They use swales and dikes to slow the water down to improve the possibility of sediment fall out in the water.
Exposed soil was tarped, erosion blankets and/or hydro seeding was added. Permanent erosion blankets are changed from plastic netting to sisal netting.
Intermediate Storm Water Retainment Area (ISWRA) is being built for the east side of the site.
If there is an excessive amount of water in the area, the water is diverted to the other water treatment areas on site before entering the TCA.
The water treatment goes through 3 steps to clean the water.
Currently building sub drainage system.

There was a sound wall built to reduce sound to the neighbors in the surrounding areas. A water tank or straw erosion blankets are placed between work and the community to reduce sound.
There are 4 sound receptors; one at the main gate, one at the Aubrey gate, one at the northwest corner, and one off-site in the community.
They use the creek to equalize the fire pond.
Sicel webbing is used for final reclamation as opposed to plastic webbing in the straw erosion blankets.
Plant nappies are used as secondary catchment. They catch hydrocarbons but allow water to pass through.
Tank 74 was decommissioned to make room for 3 new tanks.
Silver Creek Tributary is in a culvert through most of the site. They will be putting Eagle Creek Tributary into a culvert as well.
Vertex is the on-site soil contamination specialists. Contaminated soil on-site is regulated through Canadian Council of Ministers of the Environment (CCME). When soil is shipped off-site it is then regulated through British Columbia Contaminated Site Regulations (BCCSR). There are 2 samples tested every 250m.
There will be Archaeological Impact Assessments (AIA) done for both ends of the tunnel and for any work done under the railway.
Wildlife that they look out for are Red-Tail Hawk, Bald Eagles, Garter Snakes, and Tree Frogs.

Tool Used
No
Tool Used

Indigenous Monitor Observations 2

Date
2020-02-20
Discipline
Environmental Protection
Categories

- Surface Water Management
  - Containment and Drainage Structures
  - Surface Water Management Plan
- Water Bodies - Fish-bearing
  - Erosion
  - Sedimentation/Turbidity
  - Chemical Spills/Releases
- Wildlife
  - Destruction/Loss of Habitat

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: Feb 20/20
Discipline: Environmental Protection
Categories: Erosion control

- Chemical spills
- < >< >Matting and poly to help with erosion
- Eagles on site after nest relocation. The nest deterrent was successful, no other nest observed
- Small engines equipment had green tags for inspections
- Spills kits close to equipment
- Pile caps placed if not worked on in 24hrs to keep wildlife out
- Bubble guard around pile caps
- Bubble curtain log
- No marine life observed while on site
- All required PPE was used
- House keeping was maintained

Date: Feb 21/20
Discipline: Environmental Protection
Categories: PPE
- Erosion control
- Chemical spills
- Water management

Location: Burnaby Terminal

Observations:

- All required PPE observed
- All soils had been hydro seeded
- Stock piled soils were tarped
- Weekly water samples
- Spill kits close to machinery
- Spill kits have red tags indicating not used
- West end ditch has rip wrap to catch sediment
- Contractors for vegetation to reestablish vegetation
- Weed spraying where needed
- Soil sampling
- VERTEX on site to deal with contaminated soil
- Noise receptor to monitor on a daily basis
- Street sweeper on site
- House cleaning was excellent

Tool Used
No
Tool Used