



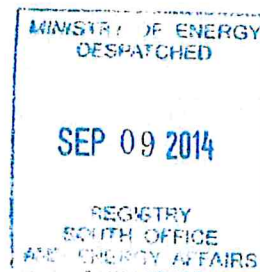
The Government Of The Republic Of Trinidad And Tobago
MINISTRY OF ENERGY AND ENERGY AFFAIRS

International Waterfront Centre, 1 Wrightson Road, Port of Spain, Trinidad West Indies
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2/3/13
Our Ref.: 2/3/31

September 4, 2014

Mr. Khalid Hassanali
President
Petroleum Company of Trinidad and Tobago Limited
Pointe-a-Pierre



Dear Mr. Hassanali,

Re: MEEA's Regulatory Inspection/Audit of Petrotrin's Port and Marine Facility – Point-a-Pierre

Reference is made to the Ministry of Energy and Energy Affairs' (MEEA's) inspection/ audit of your Port and Marine facility during the period July – August, 2014.

The objectives of this exercise were:

- a) to ensure compliance with the requirements of the *Petroleum Act, Chapter 62:01*, the *Petroleum Regulations* and other legislation having legal jurisdiction;
- b) to ensure that operations are being carried out in a safe, health conscious and environmentally responsible manner; and
- c) to assess the 'fitness for continued service' of the facility.

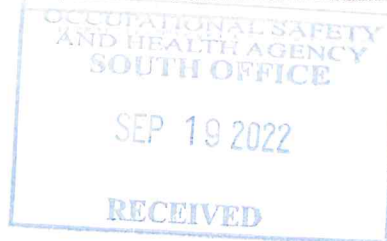
Attached for your attention is a copy of the MEEA's inspection/ audit report. The MEEA expects that the closure of the identified items will be treated with urgency and in the interim requests that an action plan be forwarded within twenty one (21) days from the date of receipt of this letter.

Matters requiring further information or clarification can be directed to the attention of Mr. Marc Rudder, Senior Petroleum Engineer, at any of the listed contacts(ext. :3309) or email: mrudder@energy.gov.tt

Sincerely


/s/ Permanent Secretary
Ministry of Energy and Energy Affairs

PERMANENT SECRETARY
Ministry of Energy
and Energy Affairs



Encl.: *Petrotrin's Port and Marine Facility Inspection Report*





REPUBLIC OF TRINIDAD AND TOBAGO
MINISTRY OF ENERGY AND ENERGY AFFAIRS
Petrotrin's Port and Marine Facility Inspection Report

A. Inspection Particulars

	Details
Activity	Inspection of Petrotrin's Port and Marine Facility
Inspection date(s)	Document Review – July 18, 2014 Facility Inspections – July 24, 2014, August 07 & 14, 2014
Previous Inspection	-
Facility Identification & Details	<p>Port Name: Petrotrin Pointe - A - Pierre Port ID No: 23003</p> <p>The port and marine facility comprises of the following:</p> <ol style="list-style-type: none">1. A Main Via Duct (MVD)2. A Lube Oil Jetty (LOJ) – product lines are out of service3. Berths (along MVD, LOJ and Sea Berths)4. Slop pumps5. Boat Shed6. Schooner berth7. Tug Launch8. Tugs with fire-fighting capabilities <p>Products include kerosene, gasoil, MO-gas, fuel oil, LPG, black oil, crude import</p> <p>Berths on MVD</p> <ul style="list-style-type: none">• Berth 1: 8 loading arms• Berth 2N: 5 loading arms• Berth 2S: 5 loading arms• Berth 3N: 2 loading arms for Petrotrin & 2 loading arms for Ethylchem. <p><i>Note: Berth 3N is owed by Petrotrin but arrangement made with Ethylchem on its usage. Petrotrin will use the berth only when it is not occupied by Ethylchem.</i></p> <p>Berths on LOJ</p> <ul style="list-style-type: none">• Berth 7:• Berth 8S - bunkering berth• Sulphur berth – Managed by the hydro processing group <p>Sea Berths</p> <ul style="list-style-type: none">• Berth 5: 3 loading arms• Berth 6: 4 loading arms
Licensee	Petrotrin
Field/ Location of Inspection	Pointe-A-Pierre
Mode of Operation during	Normal Operations



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Inspection																									
Inspection Officers	<table><tr><td>Mr. S Ali</td><td>MEEA</td><td>Chief Mechanical Engineer</td></tr><tr><td>Mr. N. Arjoon</td><td>MEEA</td><td>Mechanical Engineer I</td></tr><tr><td>Ms. N. Arjoon</td><td>MEEA</td><td>Petroleum Inspector I</td></tr><tr><td>Ms. N. Dipnarine</td><td>MEEA</td><td>Measurement Engineer</td></tr><tr><td>Mr. S. Yasein</td><td>MEEA</td><td>Service Provider</td></tr><tr><td>Mr. R. Ramouter</td><td>OSH Agency</td><td>OSH Inspector</td></tr><tr><td>Mr. M. Superville</td><td>OSH Agency</td><td>OSH Inspector</td></tr><tr><td>Mr. J. Lookhoor</td><td>OSH Agency</td><td>OSH Inspector</td></tr></table>	Mr. S Ali	MEEA	Chief Mechanical Engineer	Mr. N. Arjoon	MEEA	Mechanical Engineer I	Ms. N. Arjoon	MEEA	Petroleum Inspector I	Ms. N. Dipnarine	MEEA	Measurement Engineer	Mr. S. Yasein	MEEA	Service Provider	Mr. R. Ramouter	OSH Agency	OSH Inspector	Mr. M. Superville	OSH Agency	OSH Inspector	Mr. J. Lookhoor	OSH Agency	OSH Inspector
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Persons Facilitating Inspection	<table><tr><td>Mr. R. Ramouter</td><td>Petrotrin</td></tr><tr><td>Mr. A. Gopaul</td><td>Petrotrin</td></tr><tr><td>Mr. R. Ramjit</td><td>Petrotrin</td></tr><tr><td>Mr. M. Moses</td><td>Petrotrin</td></tr><tr><td>Mr. R. Samlal</td><td>Petrotrin</td></tr><tr><td>Mr. A. Phillip</td><td>Assistant Secretary – OWTU</td></tr><tr><td>Mr. R. Low Hoy</td><td>Communication Member – OWTU</td></tr></table>	Mr. R. Ramouter	Petrotrin	Mr. A. Gopaul	Petrotrin	Mr. R. Ramjit	Petrotrin	Mr. M. Moses	Petrotrin	Mr. R. Samlal	Petrotrin	Mr. A. Phillip	Assistant Secretary – OWTU	Mr. R. Low Hoy	Communication Member – OWTU										
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Other Information	<ol style="list-style-type: none">1. There are no fixed gas detection systems on the berths.2. There is no automatic foam system or automatic fire suppression system on the berths except for Berth #3. This system has not been commissioned.3. Berth #3 is owned by Petrotrin but will be used by EthylChem. When it is unoccupied by EthylChem, Petrotrin will be able to use the berth.4. The launch landing for Berth #2N is out of service.5. Berth #1 is out of service due to the condition of the dolphins. However, there is product in the pipelines.6. Berth #4 is obsolete.7. Plans are in place to install the Launch Landing in proximity to the shipping yard.8. The expansion joints of the Main Via Duct were being inspected at the time of the inspection.																								



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B. Action Items

No.	Area	Deficiency/ Observation/Finding	Recommended Action
1.	Documents	<p>a) As-built drawings and site plans are not available. Petrotrin personnel indicated that same is being updated.</p> <p>b) The pipelines are approximately forty years old and no inspection has ever been done on the subsea lines. Visual inspections and ultrasonic testing (if deemed necessary) is conducted on the risers of the subsea lines every two years. The integrity of the subsea sections of the pipelines is therefore uncertain. Given the age of the pipelines and the uncertainty of the integrity of the lines there is the potential risk of major leaks developing leading to pollution of the marine environment.</p> <p>c) The exact route of the subsea pipelines has not been mapped.</p> <p>d) There is a 50% backlog on the preventative maintenance and inspection programs. Such a large backlog creates the potential risk of failure of equipment, pipelines etc.</p> <p>e) Risk assessments are currently being updated for all berths.</p> <p>f) There is no evidence of a HAZOP study being done for the facility operations.</p> <p>g) There is no Fire and Life certificate from the Fire Services Division.</p> <p>h) There is no evidence indicating that the following surveys have been conducted: i) Vibration survey ii) Lighting Survey iii) Noise survey iv) Subsea Inspection of jetty support structures v) Cathodic Protection survey</p>	<p>a) Provide as-built drawings and site plans for the entire facility.</p> <p>b) Conduct the necessary inspections of the subsea sections of the pipelines for determining the integrity of same.</p> <p>c) Determine the exact route of the subsea pipelines and develop maps/drawings of same.</p> <p>d) Determine the cause of the backlog of the maintenance programs and put measures in place for improving same.</p> <p>e) Expedite the review of risk assessments for the berths.</p> <p>f) Conduct a HAZOP study for facility and implements recommendations of same.</p> <p>g) Acquire a Fire and Life Certificate from the Fire Services Division.</p> <p>h) Conduct the listed surveys and implement recommendations from same.</p>



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No.	Area	Deficiency/ Observation/Finding	Recommended Action
		<p>i) A system for ensuring proper valve line up arrangements for loading/ receiving of product is not implemented.</p> <p>j) Pumping to loading arms is handled by the Oil Stocks division. Discussions indicated that any issues regarding pumping while loading requires contacting oil stocks division who then contacts the pump attendants. Also, pump attendants do not remain at the pumps while pumping operations are ongoing. This system creates the potential for delays in communication and response in the event of an emergency.</p> <p>k) There is no firefighting for the facility.</p> <p>l) The Contractor Management Plan is in draft.</p> <p>m) The Oil Spill Contingency Plan is not signed and dated by senior management.</p> <p>n) There are no emergency lights on the berths in the event of a power failure.</p>	<p>i) Develop and implement a system for ensuring proper valve line up when conducting loading/receiving operations.</p> <p>j) Implement an effective communication system to ensure the availability of pump house attendants and effective response in the event of an emergency.</p> <p>k) Provide a firefighting plan for the facility.</p> <p>l) Finalise the Contractor Management Plan and implement same.</p> <p>m) Review and update the Oil Spill Contingency Plan and ensure same is signed as being approved.</p> <p>n) Conduct a survey of the entire facility for determining areas which require emergency lighting and implement same.</p>
		<p>o) Some of the Standard Operating Procedures require revising. Some of the procedures have dates such as 2009, 2010 and 2011.</p> <p>p) The Emergency Response Plan is not available.</p> <p>q) The training matrix for 2012-2013 is only 38% completed. 67% of the Priority 1 items have been completed while 40% of the Priority 2 items have been completed.</p> <p>r) The Minimum Safe Manning requirements are not available.</p>	<p>o) Revise the Standard Operating Procedures.</p> <p>p) Develop an emergency response plan for the facility.</p> <p>q) Determine reasons for lapse in completing training as determined in the training matrix and implement measures for rectifying.</p> <p>r) Determine the minimum safe manning requirements for operations of the various sections of the facility and implement same. Consideration should be given to manning required for emergency response.</p>



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		<p>s) The pipelines are not outfitted with leak detection systems. Also, no evidence was provided for auditing the frequency and adequacy of reconciliation being used as a leak detection method.</p> <p>t) The safety meeting minutes refer to a Port & Marine non-conformance list of deficiencies, some of which are given a high risk rating.</p> <p>u) Health surveillance although mandatory is only 75% completed.</p>	<p>s) Provide records of reconciliation which is being used as a leak detection method.</p> <p>t) Address all items/deficiencies from safety committee meetings and Port and Marine non-conformance list.</p> <p>u) Put measures in place for ensuring that all personnel undergo health surveillance.</p>
2.	Lube Oil Jetty	<p>a) There is a Diesel storage tank at the entrance of the Jetty. Petrotrin officials stated it was condemned; however, it is not isolated.</p> <p>b) The hydrant pipeline at the entrance of the jetty is leaking.</p> <p>c) The supports for the sea water pipelines to the refinery are corroded.</p> <p>d) There is corrosion on the sea water pipelines to the refinery particularly at the restraint brackets.</p> <p>e) There are leaks on several of the valve connections of the sea water pipelines to the refinery.</p> <p>f) The pipelines on the Lube Oil Jetty are not labelled to indicate content and direction of flow.</p> <p>g) The Lube Oil tanks # 2 (727 USG) and # 3 (592 USG) are sharing a bund, however, the capacity of the bund is questionable.</p> <p>h) The rungs of the ladder for the Lube Oil tank # 3 are not provided with anti-skid material. Also, a gauging platform is not installed.</p> <p>i) The pedestrian walkway is not demarcated.</p>	<p>a) Verify if the Diesel storage tank is condemned and isolate same.</p> <p>b) Repair the leaking hydrant pipeline at the entrance of the jetty.</p> <p>c) Address corrosion on the supports for the sea water pipelines.</p> <p>d) Address corrosion on the sea water pipelines.</p> <p>e) Repair the leaking valve connections of the sea water pipelines to the refinery.</p> <p>f) Label the pipelines to indicate content and direction of flow.</p> <p>g) Determine if the bund can contain 110% of the capacity of the largest tank and rectify if necessary. Also, install crash barriers to protect the tanks from vehicular collision.</p> <p>h) Provide anti-skid rungs to reduce the risk of slipping. Also, provide a safe gauging platform for such activity.</p> <p>i) Demarcate the pedestrian walkway.</p>



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		<p>j) The curb wall at the edge of the jetty, raised elevations and the guard rails are not highly visible.</p> <p>k) There are no barriers to prevent persons from accidentally falling into the sea when accessing the fire hydrant along the Jetty.</p> <p>l) The switches in the electrical panel of the Marine Craft office are not identified.</p> <p>m) The valve on the water line to the safety shower near the Marine Craft office is kept closed due to a leak on the piping. The safety shower is therefore not functional when the activation lever is pushed.</p> <p>n) A slop tank and several barrels of oil in the vicinity of No. 8 Berth Switch Hose are not provided with secondary containment. Also, there are breaches in the curb wall in close proximity to the storage area where oil can enter the marine environment in the event of a leak on the tank or drums of oil.</p> <p>o) The letters on the sign board near the foam tank are completely faded.</p>	<p>j) Paint the curb wall, the raised elevations and guard rails to increase visibility.</p> <p>k) Install barriers to reduce the risk of personnel accidentally falling into the sea when accessing the fire hydrant along the jetty.</p> <p>l) Label the switches in the electrical panel of the Marine Craft Office.</p> <p>m) Repair the leak on the water line to ensure the safety shower is functional when the activation lever is pushed in the event of an emergency.</p> <p>n) Provide secondary containment for the slop tank and the drums of oil. Repair the breaches in the curb wall.</p> <p>o) Repair or replace the sign board. Ensure safety signs are conspicuously displayed and maintained in a legible condition.</p>
3.	Temporary Launch Landing for Schooner Berth	The ladder for the launch landing is corroded.	Repair/replace the corroded ladder.
4.	Main Via Duct (Pile Bent 19 – 55)	<p>a) Sections of the pipelines, the cross members between the pile bents, the handrails and cross bars of the handrails along the Main Via-Duct are heavily corroded.</p> <p>b) The valve wheel on No. 11 sea line by pile bent 19 is in contact with a nearby pipeline obstructing the movement of the valve wheel.</p>	<p>a) Assess the extent of corrosion and conduct the necessary repairs to ensure the mechanical integrity of the pipelines and the structural integrity of the cross members between the pile bents, the handrails and cross bars of the handrails along the Main via Duct are not compromised.</p> <p>b) Ensure movement of the valve wheel on No. 11 sea line is not obstructed.</p>



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		c) A section of the walkway over pile bent 19 by valve wheel on No. 11 sea line is not provided with fall barriers.	c) Install chains or other means to prevent persons from falling over when operating the valve or when stepping across to the other walkway.
		d) A walkway is not provided to easily access a valve on the No. 40 Sea line by pile bent 19. It was stated that scaffolding must be erected to access some of the valves.	d) Provide a safe means of access to the valve on No. 40 sea line.
		e) There are two heavily corroded suspended lines near pile bent 19. Also, the pad eye for the shackle on one of the lines is heavily corroded.	e) Repair/replace the corroded lines and the pad eye. Conduct a survey of the via duct for identifying and addressing similar issues.
		f) The height of the handrails on the walkway over pile bent 21 is inadequate. Also, there are no mid rails installed.	f) Extend the hand rails to a minimum of 42 inches and install mid rails.
		g) The obsolete Salt Water pump house by pile bent 55 is in a dilapidated condition and is not provided with any warning signs.	g) Post suitable safety signs to alert persons of the potential hazards arising from the obsolete and dilapidated Salt Water pump house by pile bent 55.
		h) There is a valve stem protruding into the walkway across pile bent 55.	h) Implement suitable measures to prevent injury to persons from the protrusion of the valve stem into the walkway over pile bent 55.
		i) There is heavy corrosion on a section of the No. 21 sea line leading to pile bent 55. Also, the flange on the sea line by pile bent 55 is heavily corroded.	i) Repair/replace the corroded lines and flange.
		j) A section of a walkway over pile bent 55 is supported by the No. 21 sea line.	j) Provide dedicated supports for the walkways.
		k) There is heavy corrosion on the flange of the 8 inch outer line of No. 21 sea line by pile bent 53.	k) Replace the corroded flange on the outer line of No. 21 sea line by pile bent 53.
		l) A three (3) inch aluminium line is suspended from the No. 21 sea line by wire. Also, the No. 50 sea line is suspended by chains from the eight inch line adjacent to the No. 21 sea line near pile bent 30.	l) Provide dedicated supports for the pipelines. Refrain from adding additional load to the pipelines.
		m) The grating on the walkway is uneven in several areas creating potential tripping	m) Secure the grating on the walkway to prevent tripping hazards from uneven



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		<p>hazards.</p> <p>n) There is only one means of access/egress from pile bent 19 to pile bent 55.</p>	<p>surfaces.</p> <p>n) Install an additional means of access/egress to safely evacuate persons on the Main Via Duct in the event of an emergency.</p>
5.	Main Via Duct (From Pile bent 80)	<p>a) Some of the product pipelines are showing signs of corrosion. The number 18 gas oil sea pipeline is severely corroded.</p> <p>b) Some of the manual valves at PB 80 appear to be leaking.</p> <p>c) The Muster Point at PB 80 is clearly not identified.</p> <p>d) There are several pipelines that are out of service but are not easily identifiable.</p> <p>e) The handrails of the walkway are corroded and which creates the potential for personnel injury.</p> <p>f) The channels supporting the pipelines are corroded.</p> <p>g) The cross members between the piles of the Main Via-Duct are corroded.</p> <p>h) There are obsolete deteriorated wooden structures/piles at two locations on either side of the Main Via Duct. Should these structures/pile fail they would impact the pipelines along the duct.</p> <p>i) Number 23 gas oil pipeline is incorrectly labelled as number 22 gas oil at one section of the Main Via-Duct.</p> <p>j) There are items on the walkway that are partially obstructing it creating tripping hazards.</p>	<p>a) Assess the extent of corrosion and conduct the necessary repairs to ensure the mechanical integrity of the pipelines is not compromised.</p> <p>b) Determine if the manual valves are leaking and rectify.</p> <p>c) Clearly identify the Muster Point at PB 80.</p> <p>d) Label the out of service pipelines to indicate same.</p> <p>e) Assess the extent of corrosion and conduct the necessary repairs to ensure the structural integrity of the handrails is not compromised.</p> <p>f) Assess the extent of corrosion and conduct the necessary repairs to ensure the structural integrity of the channels is not compromised.</p> <p>g) Assess the extent of corrosion and conduct the necessary repairs to ensure the structural integrity of the cross members between the pile bents are not compromised.</p> <p>h) Remove the obsolete deteriorated wooden structures/piles located on the sides of the Main Via Duct.</p> <p>i) Correctly re-label the pipeline. Put measures in place for identifying and addressing similar deficiencies.</p> <p>j) Ensure the walkway is maintained clear of items that could restrict access or constitute a tripping hazard.</p>



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		k) The valves for some of the pipelines are not easily accessible to personnel due to their position. l) A piece of wood is being used to separate two pipelines from touching.	k) Implement measures to ensure valves are easily accessible to personnel. l) Implement suitable engineering measures to ensure pipelines are not touching.
6.	Berth # 1 (Main Via Duct)	a) The overhead trolley crane is not certified by and the Safe Working Load (SWL) is not posted on same. b) The lifting winches: i. are not certified by a competent person, ii. do not have guards installed, iii. do not have legible nameplates, iv. do not have the on/off positions identified, v. are not uniquely identified. c) The Slop Oil tank on the lower deck does not have secondary containment. d) The Slop Oil tank does not have any provisions for automatic detection of high levels. This is of concern as the valves are 'passing' product when closed and the product is entering the slop tank. e) Some of the pipeline pressure gauges are not labelled to indicate which pipeline they monitor. Also, some of the gauges are not functioning. f) There is no Pressure Relief Valve (PRV) on the air tank for the winches. g) The rungs for the access ladder to the upper gantry are corroded. h) The PRV for 16 SOP pipeline failed and product is being directed to the Slop Tank. i) Some of the lifting winches are missing. j) The pipelines for the berth are currently pressurized as they have product in them.	a) Certify the overhead trolley crane and post the Safe Working Load (SWL) on same. b) Ensure the lifting winches: i. are certified by a competent person, ii. have guards installed, iii. have legible nameplates, iv. have the on/off positions identified, v. are uniquely identified. c) Ensure secondary containment is provided for the Slop Oil tank. The secondary containment should be able to contain 110% the capacity tank. d) Install high level alarms for the Slop Oil tank or implement measures to ensure the Slop Oil tank is monitored to prevent overspill. e) Label the pressure gauges appropriately and ensure all the gauges are functional. f) Install a Pressure Relief Valve (PRV) on the air tank of the winches. g) Remove the corrosion from the access ladder and treat to prevent further corrosion. h) Ensure the PRV is replaced before the Berth is put back into service. i) Replace the missing lifting winches. j) Implement measures to ensure the pipelines and valves are not maintained in



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		This is a dangerous condition as the valves are under pressure and are currently passing product.	a pressurized condition while the berth is out of service.
7.	Berth #2N (Main Via Duct)	<p>a) The lifting winches:</p> <ul style="list-style-type: none"> i. are not certified by a competent person, ii. do not have guards installed, iii. do not have legible nameplates, iv. do not have the on/off positions identified v. are not uniquely identified. <p>b) Some of the pipeline pressure gauges are not labelled to indicate which line they monitor and some of the gauges are not functioning.</p> <p>c) The Slop Oil tank does not have any provisions for automatic detection of high levels. This is of concern as the valves are 'passing' product when closed and the product is entering the slop tank.</p> <p>d) The Slop Oil tank on the lower deck does not have secondary containment.</p> <p>e) Some of the fenders are missing.</p> <p>f) The ramp associated with the fenders is corroded.</p> <p>g) The walkway to one of the dolphins is slanted on the vertical axis.</p> <p>h) The dolphin for the stern line is out of service. Another dolphin nearby is being utilized and this results in the mooring line extending over the channel. The channel cannot be accessed by other vessels as the mooring line acts as an obstruction.</p> <p>i) The Low Tide access point to the berth is out of service.</p>	<p>a) Ensure the lifting winches:</p> <ul style="list-style-type: none"> i. are certified by a competent person, ii. have guards installed, iii. have legible nameplates, iv. have the on/off positions identified v. are not uniquely identified. <p>b) Label the pressure gauges appropriately and ensure all the gauges are functional.</p> <p>c) Install high level alarms for the Slop Oil tank or implement measures to ensure the Slop Oil tank is monitored to prevent overspill.</p> <p>d) Provide secondary containment for the Slop Oil tank. The secondary containment should be able to contain 110% the capacity tank.</p> <p>e) Install sufficient fenders.</p> <p>f) Repair/replace the corroded ramp.</p> <p>g) An investigation should be conducted to determine the reason the walkway is tilted on the vertical axis.</p> <p>h) Implement measures to ensure the mooring line does not restrict access to the channel.</p> <p>i) Repair the Low Tide access point to the berth.</p>
8.	Berth # 2S (Main Via Duct)	The presence of bees on the Main Via Duct on July 24, 2014 prevented the inspection of	Submit the inspection report identifying the non-conformances on berth # 2S and an



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		Berth # 2S.	action plan on the closure of these items.
9.	Berth # 3 (Main Via Duct)	<p>a) The portable fire extinguishers are resting on the floor and their locations are not identified.</p> <p>b) The Petrotrin's lifting winches are not certified by a competent person and the winch for the Utility boom does not have a guard.</p> <p>c) The EthylChem Ltd.'s lifting winches do not have guards on them and they are not certified by a competent person.</p> <p>d) The lifting winches are not uniquely identified to allow easy reference.</p> <p>e) The Slop Oil tanks on the lower deck do not have secondary containment.</p> <p>f) The bumper guards for the dolphins are in a dilapidated condition.</p> <p>g) There is no wind sock for the berth.</p>	<p>a) Store portable fire extinguishers on stands, racks, or hangers, the location of which are readily identified in accordance with NFPA 10 – Standard for Portable Fire Extinguishers.</p> <p>b) Certify the lifting winches are by a competent person and install a guard on the winch of the Utility boom.</p> <p>c) Ensure EthylChem Ltd.'s lifting winches are certified by a competent person and install guards on the winches.</p> <p>d) Uniquely identify the lifting winches for easy reference.</p> <p>e) Ensure secondary containment is provided for the Slop Oil tanks. The secondary containment should be able to contain 110% the capacity of the largest tank.</p> <p>f) Repair/replace the bumper guards for the dolphins.</p> <p>g) Install a wind sock for the berth.</p>
10.	Berth # 5	<p>a) There is severe corrosion on the bleed lines, valves and flanges of booms 1-4. Also, the handrails on the deck under the loading arms are corroded.</p> <p>b) There is no fall barrier provided across the top of the ladder near the toilet/shower.</p> <p>c) The raised elevation at the entrance of the catwalks to the spring line dolphins are a potential tripping hazard.</p> <p>d) There is heavy corrosion on the access ramps to the dolphins.</p> <p>e) The "Warning to Vessels" sign posted in the vicinity of the entrance to the forward spring line dolphin is not adequately</p>	<p>a) Assess the extent of corrosion and conduct the necessary repairs of the corroded bleed lines, valve and flanges of boom 1-4 and also the handrails.</p> <p>b) Install a chain barrier or other means of fall prevention at the top of the ladder near the toilet/shower.</p> <p>c) Modify the design to prevent the tripping hazard. In the interim highlight the raised elevation to increase visibility.</p> <p>d) Repair or replace the access ramps.</p> <p>e) Adequately secure the "Warning to Vessels" sign.</p>



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		secured and is a potential drop object hazard.	
		f) The lifting winches: i. are not certified by a competent person, ii. do not have guards installed, iii. do not have spooling devices. iv. are not numbered for ease of identification v. SWL is not indicated	f) Ensure the lifting winches: i. are certified by a competent person, ii. have guards installed, iii. have spooling devices. iv. numbered for ease of identification v. SWL posted
		g) The No. 2 winch line is not running on the pulley.	g) Return the winch line to the pulley.
		h) There is no bushing/bearing for the No. 3 winch line pulley.	h) Install a bushing/bearing on the No. 3 winch line pulley.
		i) Some of the studs on the valve body above the winches are not long enough for adequate threading of the nuts.	i) Install studs of adequate length on the flanges of the valves above the winches.
		j) The low headroom areas created by the cross bars by the winches are not highlighted.	j) Highlight the low head room areas created by the cross bars by the winches.
		k) The Slop Oil tanks on the lower deck do not have secondary containment.	k) Ensure secondary containment is provided for the Slop Oil tanks. The secondary containment should be able to contain 110% the capacity of the largest tank.
		l) The incoming and departing lines for the slops oil pump are heavily corroded at the bends below the deck surface.	l) Repair or replace the heavily corroded flowlines.
		m) There are no handrails/barriers at the top of the platform for accessing the valves near the slops oil pump.	m) Provide handrails/barriers for the platform to reduce the risk of personnel falling off the platform.
		n) The location of fire extinguishers is not demarcated.	n) Label the location for lifesaving equipment.
		o) The berth is outfitted with a single man raft for emergency evacuation. There are no measures in place for evacuation of personnel when there is increased POB on the facility.	o) Put measures in place for evacuation when the POB on the facility is increased.
		p) There are no life rings throughout the	p) Provide life rings on the facility.



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11.	Berth # 6	<p>a) Some of the fenders on the landing stage are damaged.</p> <p>b) The "Suppression" labels on the fire water activation buttons are faded.</p> <p>c) The side bolts and supporting base of the 'Danger' sign posted on the Jetty Hut are corroded. This is a potential drop object hazard.</p> <p>d) There are exposed conductors in the vicinity of the phone in the Jetty Hut.</p> <p>e) A first aid kit is not available on the berth.</p> <p>f) The life float is dirty and stored inside the Jetty Hut. The location does not permit for easy deployment in the event on an emergency. Also, this is a single man raft and there is no provision for emergency evacuation when there is increased number of personnel on the facility.</p> <p>g) A section of the mid rail and toe board is missing by the walkway at the top of the first ladder used to access the SPM platform. It was stated that there are plans to construct a stairway to replace the ladder at this location.</p> <p>h) The belt on the contractor pump stored on the SPM platform is not adequately guarded.</p> <p>i) There is a major concern with the scaffolding erected by the contractors on the SPM platform. Some of the planks are loose and gratings instead of planks are used in some areas.</p> <p>j) Tins of paint and paint thinners are not provided with secondary containment.</p> <p>k) There are exposed electrical lines and corrosion of the electrical supports.</p>	<p>a) Repair or replace the fenders on the landing stage.</p> <p>b) Provide conspicuous labels for the fire water activation buttons.</p> <p>c) Assess the state of corrosion and ensure same is adequately secured.</p> <p>d) Secure all exposed conductors to prevent contact with energized conductors.</p> <p>e) Provide a first aid kit.</p> <p>f) Maintain cleanliness of the life float and store appropriately for easy retrieval. Put measures in place for evacuation when POB is increased on the facility.</p> <p>g) Implement measures to safeguard against possible incidents that could arise from the missing section of the mid rail and toe board at this area until the construction of the stairway.</p> <p>h) Implement and enforce proper procedures to ensure unsafe equipment is not utilized by contractors on the berth.</p> <p>i) Effectively manage the contractors to ensure the health, safety and welfare of all employees.</p> <p>j) Provide secondary containment for these items to prevent pollution of the marine environment in the event of leaks.</p> <p>k) Secure all exposed electrical lines to prevent contact with energized conductors. Remove, if obsolete.</p>



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		<p>l) The direction of flow is not indicated on the pipelines on the SPM platform.</p> <p>m) There are no fire extinguishers provided at the SPM platform.</p> <p>n) There are oil sheens near the obsolete risers alongside the Single Point Mooring (SPM) platform.</p> <p>o) The fire alarm panel is malfunctioning and as a result the fire alarm is silenced.</p> <p>p) The handrails of the hydrant/wind sock landing are severely corroded.</p> <p>q) The rungs of the access ladder to the wind sock platform are corroded.</p> <p>r) The identification sign near the gangway platform is faded.</p> <p>s) The base of the light pole and the handrails of the gangway platform are corroded.</p> <p>t) The slops trough is out of service and has two holes.</p>	<p>l) Indicate the direction of flow on the pipelines on the SPM platform.</p> <p>m) Develop a firefighting plan for the facility and provide fire extinguishers as required in the plan.</p> <p>n) Determine the source of pollution and employ measures to mitigate the release of oil into the marine environment.</p> <p>o) Determine the reason the fire alarm panel is malfunctioning and rectify accordingly.</p> <p>p) Repair/replace the corroded handrails of the hydrant/wind sock landing.</p> <p>q) Repair/replace the rungs of the access ladder to the wind sock platform. Also, ensure the rungs are not smooth to prevent a slipping hazard.</p> <p>r) Repaint the faded identification sign by the gangway landing.</p> <p>s) Conduct the necessary repairs to the corroded structures to ensure the integrity is not compromised.</p> <p>t) Seal the holes in the slop trough and return to its intended service as necessary.</p>
12.	Berth # 7	According to Petrotrin officials, Berth # 7 is out of service due to structural issues of the dolphins and heavy corrosion of the pipelines and infrastructure on the berth.	Submit a report to the MEEA identifying the reasons the berth was taken out of service, status of the product in the pipelines and future plans for the berth. Also, ensure that access is restricted to authorized persons and if the area is deemed unsafe then adequate measures are in place to prevent injury to people, property and the environment.
13.	Berth # 8	Berth # 8 is out of service. Heavy corrosion on the handrails and infrastructure was observed.	Submit a report to the MEEA identifying the reasons the berth was taken out of service, status of the product in the pipelines and future plans for the berth. Also, ensure that access is restricted to authorized persons and if the area is deemed unsafe then adequate measures are in place to prevent injury to people, property and the environment.



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14.	General	a) The obsolete Berth #4 is not properly lit. b) Wind socks are not installed on all the berths. c) Conspicuous identification signs are not posted on all the berths. d) First aid kits are not provided on all the berths. e) There is no signage on the berths to indicate where life jackets are required. f) There are no life rings on the berths.	a) Remove the obsolete structure. In the interim, provide lighting. b) Install wind socks on all the berths. c) Prominently display identification signs on all the berths to notify incoming vessels and rescue teams. d) Provide first aid kits to personnel on the berths. e) Provide signage indicating areas where life jackets are required. f) Develop a lifesaving appliances plan for the berth to determine locations where life rings should be located and provide same.

Guidance Notes:

¹Recommended actions listed in the tables above are provided as a possible means of addressing the noted deficiencies/ observations. Any alternative means of closing out the action items must be forwarded in your company's action plan when responding to this report. These alternative means must provide an equivalent or better level of protection for the noted deficiencies/ observations.

²Deficiencies/ observations which your company believes are not safety critical or for which there are sufficient measures in place to control the risk and therefore does not warrant implementation must be highlighted in your action plan with suitable justifications. The Ministry would review these justifications and respond accordingly.

...End of Report...