



Oilix Energy Pty. Ltd. / 09 Oct 2019 / Diwata Aquino

Pipeline Inspection Checklist


Complete


Inspection score	Failed items	Created actions
80.95%	9	4
Site Manila		
Operator Oilix Energy Pty. Ltd.		
Location Highway 27, Fort Wayne, IN 46774		
Inspector Diwata Aquino		
Conducted on 📅 9th Oct, 2019 ⌚ 6:39 AM +08		

Pipeline Inspection Checklist / Procedures

<p>Is there a program in effect to address corrosion problems on service lines?</p>	<p>No</p>
<p>– Actions</p> <hr/> <p>To Do Implement corrosion risk management program using iAuditor</p>	
<p>Do we have procedures established for examining exposed cast iron pipe for evidence of graphitization?</p>	<p>No</p>
<p>– Actions</p> <hr/> <p>To Do Develop SOP for examining exposed cast iron pipes</p>	
<p>Do we have procedures established for remedial measures on cast iron pipe if graphitization is discovered?</p>	<p>No</p>

Pipeline Inspection Checklist / Corrosion Control

Is external corrosion requiring remedial action found?	Yes
<p>– Photos</p>  <p>Photo 4</p> <p>– Actions</p> <hr/> <p>Done Re-apply anti-corrosion coating on external pipe, ASAP!</p>	

Is the pipeline investigated circumferentially and longitudinally beyond the exposed portion to determine whether additional corrosion requiring remedial action exists?	Yes
<p>– Notes</p> <p>fixed it</p> <p>– Photos</p>   <p>Photo 5 Photo 6</p>	

Pipeline Inspection Checklist / Coating

Does the coating on steel pipe have sufficient adhesion to resist underfilm migration of moisture?	No
<p>– Notes</p> <p>suitable for monitoring, apply coating on next reassessment</p>	

Pipeline Inspection Checklist / Test Stations

Are each bared test lead wire and bared metallic area (at point of connection) coated with an electrically insulating material compatible with the pipe coating and insulation on the wire?	No
<p>– Notes</p> <p>scheduled action required, apply coating on the next pipeline inspection</p>	





Pipeline Inspection Checklist / Remedial Measures

Is each segment of cast iron or ductile iron pipe on which general graphitization is found to a degree where a fracture or any leakage might result, replaced?	No
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Pipeline Inspection Checklist / Monitoring

Do we check for the proper performance of each reverse current switch, diode, and interference bond whose failure would jeopardize structure protection?	No
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– Actions <hr/> To Do Include performance checks



<p>SafetyCulture Staff created a Low priority action</p> <p>To Do  23rd Oct, 2019 8:00 AM +08</p> <p>Include performance checks Include performance checks</p>
<p>Do we check for the proper performance of each reverse current switch, diode, and interference bond whose failure would jeopardize structure protection?</p> <p>Pipeline Inspection Checklist / Monitoring</p>
<p>SafetyCulture Staff created a High priority action</p> <p>Done  10th Oct, 2019 8:00 AM +08</p> <p>Re-apply anti-corrosion coating on external pipe, ASAP! Re-apply anti-corrosion coating on external pipe, ASAP!</p>
<p>Is external corrosion requiring remedial action found?</p> <p>Pipeline Inspection Checklist / Corrosion Control</p>
<p>SafetyCulture Staff created a Medium priority action</p> <p>To Do  16th Oct, 2019 8:00 AM +08</p> <p>Develop SOP for examining exposed cast iron pipes Develop SOP for examining exposed cast iron pipes</p>
<p>Do we have procedures established for examining exposed cast iron pipe for evidence of graphitization?</p> <p>Pipeline Inspection Checklist / Procedures</p>
<p>SafetyCulture Staff created a Medium priority action</p> <p>To Do  16th Oct, 2019 8:00 AM +08</p> <p>Implement corrosion risk management program using iAuditor Implement corrosion risk management program using iAuditor</p>
<p>Is there a program in effect to address corrosion problems on service lines?</p> <p>Pipeline Inspection Checklist / Procedures</p>

Pipeline Inspection Checklist

9 Failed 4 Actions 80.95%



Procedures



3 Failed 2 Actions

Are corrosion control procedures established?	Yes
Is there a program in effect to address corrosion problems on service lines?	No
<p>– Actions</p> <hr/> <p>To Do Implement corrosion risk management program using iAuditor</p>	
Are there procedures for design?	Yes
<p>– Notes</p> <p>looks pretty good to me</p> <p>– Photos</p> <div style="display: flex; justify-content: space-around;">   </div> <p>Photo 1 Photo 2</p>	
Are there procedures for installation?	Yes
Are there procedures for operation?	Yes
Are there procedures for maintenance?	Yes
Do we have procedures established for examining exposed cast iron pipe for evidence of graphitization?	No
<p>– Actions</p> <hr/> <p>To Do Develop SOP for examining exposed cast iron pipes</p>	
Do we have procedures established for remedial measures on cast iron pipe if graphitization is discovered?	No
Are these procedures under the responsibility of a qualified person?	Yes

Corrosion Control

2 Failed 1 Action

Type of Pipeline	Bare Copper
<p>– Photos</p>  <p>Photo 3</p>	
Is the pipeline cathodically protected if a corrosive environment exists?	Yes
Are buried pipelines electrically isolated from other underground structures?	N/A
Are buried segments externally coated & cathodically protected?	N/A
Is protection provided to the pipelines against damage due to fault currents?	Yes
When we have knowledge that any pipeline is exposed, is the exposed pipe examined for evidence of corrosion or coating deterioration?	Yes
Is external corrosion requiring remedial action found?	Yes
<p>– Photos</p>  <p>Photo 4</p> <p>– Actions</p> <hr/> <p>Done Re-apply anti-corrosion coating on external pipe, ASAP!</p>	


Is the pipeline investigated circumferentially and longitudinally beyond the exposed portion to determine whether additional corrosion requiring remedial action exists?	Yes
<p>– Notes</p> <p>fixed it</p> <p>– Photos</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="194 436 422 660">  <p>Photo 5</p> </div> <div data-bbox="427 436 655 660">  <p>Photo 6</p> </div> </div>	

Atmospheric Corrosion Control

Are insulating devices prohibited in areas where a combustible atmosphere is anticipated unless precautions are made to prevent arcing?	Yes
Have above ground facilities been cleaned and coated?	Yes
Is the coating material suitable for the prevention of atmospheric corrosion?	Yes
Do we inspect piping exposed to the atmosphere?	Yes
Do we give particular attention to the pipe at soil-to-air interfaces, under thermal insulation, under disbanded coating, at pipe supports, at deck penetrations, and in spans over water?	Yes
If atmospheric corrosion is found, does the operator provide protection against the corrosion?	Yes

Coating

1 Failed

Is the coating on steel pipe applied on a properly prepared surface?	Yes
<p>– Photos</p> <div data-bbox="194 1624 422 1848">  <p>Photo 7</p> </div>	


Does the coating on steel pipe have sufficient adhesion to resist underfilm migration of moisture?	No
– Notes suitable for monitoring, apply coating on next reassessment	
Is the coating on steel pipe sufficiently ductile to resist cracking?	Yes
Does the coating on steel pipe have sufficient strength to resist damage due to handling and soil stress?	Yes
Is the coating on steel pipe compatible with supplemental cathodic protection?	Yes
Is the external coating electrically insulating?	No
Is the external coating inspected prior to lowering the pipe into the ditch and is any damage repaired?	N/A
Is external protective coating protected from damage resulting from adverse ditch conditions or damage from supporting blocks?	Yes

Cathodic Protection

Is the amount of cathodic protection controlled to prevent damage to the protective coating or the pipe?	Yes
Has each pipeline that is cathodically protected been tested?	Yes
Has each cathodic protection rectifier been inspected?	Yes

Test Stations

1 Failed

Are there sufficient test stations or test points?	Yes
– Photos	
 <p>Photo 8</p>	
Are test leads mechanically secure to the pipe and electrically conductive?	Yes
Are test leads attached to minimize stress concentration on the pipe?	Yes

Are each bared test lead wire and bared metallic area (at point of connection) coated with an electrically insulating material compatible with the pipe coating and insulation on the wire?	No
<p>– Notes</p> <p>scheduled action required, apply coating on the next pipeline inspection</p>	

Remedial Measures

1 Failed

For each segment of transmission line with localized pitting to a degree where leakage might result, is the section of pipeline replaced, repaired, or have the operating pressure reduced?	Yes
For distribution lines with a remaining wall thickness less than 30 percent of the nominal wall thickness, do we replace or repair the pipe?	N/A
For distribution lines, do we replace or repair pipe with localized corrosion pitting?	N/A
Is each segment of cast iron or ductile iron pipe on which general graphitization is found to a degree where a fracture or any leakage might result, replaced?	No
Is each segment of cast iron or ductile iron pipe on which localized graphitization is found to a degree where any leakage might result, replaced or repaired, or sealed by internal sealing methods?	Yes

Monitoring

1 Failed 1 Action

Do we check for the proper performance of each reverse current switch, diode, and interference bond whose failure would jeopardize structure protection?	No
<p>– Actions</p> <hr/> <p>To Do Include performance checks</p>	
Do we check for proper performance of other interference bonds?	Yes
Is prompt remedial action taken to correct any deficiencies indicated by the monitoring?	Yes
Are casing potentials monitored to detect the presence of shorts?	N/A
Do we investigate & take appropriate action when indications of casing shorts are found?	N/A
Do we monitor the system for stray currents and take appropriate steps to minimize detrimental effects?	Yes

Sign off

Additional Observations

Great work mitigating corrosion for immediate action required items.

Inspector

Inspector 1

Inspector Name & Signature




Diwata Aquino

9th Oct, 2019 9:08 AM +08

Inspector 2

Inspector Name & Signature



Crisencio Smith

9th Oct, 2019 9:10 AM +08

Inspector 3

Inspector Name & Signature



Adelaida Pedro

9th Oct, 2019 9:10 AM +08

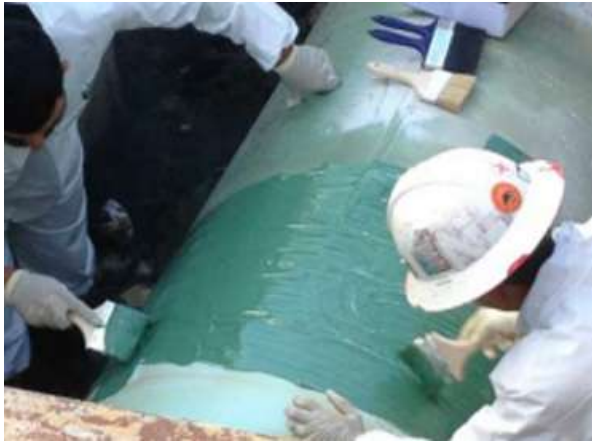


Photo 7



Photo 8