



**PARK DEROCHIE (PD)
INSPECTION AND TEST PLAN**

PD Job No.: P-5759 Location of Work: Park Derochie Edmonton Shop Scope of Work: Coating - Above Ground Uninsulated Pipe Comp. Station ID: U2901 - CS5 - Australian Purchase Order #: EH-10136-U2901-COATING						Client: Ideal Welders Ltd. Project: T-South Expansion Contract #: TBD ITP #: P-5759 - CS5 A2 Revision #: 0						Inspection Code Legend <table style="width:100%; border-collapse: collapse;"> <tr> <td>S =</td><td>Surveillance</td> <td>N =</td><td>Notify</td> </tr> <tr> <td>V =</td><td>Verify</td> <td>I =</td><td>Inspect</td> </tr> <tr> <td>DR =</td><td>Document review</td> <td>W =</td><td>Witness</td> </tr> <tr> <td>H =</td><td>Hold</td> <td>RI =</td><td>Random Inspection</td> </tr> </table>						S =	Surveillance	N =	Notify	V =	Verify	I =	Inspect	DR =	Document review	W =	Witness	H =	Hold	RI =	Random Inspection
S =	Surveillance	N =	Notify																														
V =	Verify	I =	Inspect																														
DR =	Document review	W =	Witness																														
H =	Hold	RI =	Random Inspection																														
Project Specifications: Enbridge (Solaris) Coatings Spec.#03350-31-2200-SPC-0017; Park Derochie Quality Program; Manufacturer's Instructions																																	
No.	Specific Inspection Activity	Item / Activity Description	Specification Section	Requirements Acceptance Criteria	Frequency of Testing	Verifying Documents or Records	Park Derochie			Ideal Welders			Enbridge			Notes / Details / Comments																	
							Code	Initial	Date(s)	Code	Initial	Date(s)	Code	Initial	Date																		
Service Category SC1, System A2 : Two Coat System																																	
General																																	
1	Inspection and Test Plan (ITP) Approval	Verify review and approval of ITP	Park Derochie Quality practice	Client / Owner approval of ITP	Prior to commencement of work	Sign this ITP line item and "ITP Acceptance" area below	H		2020-03-20	DR		MAR 20 2020	DR			APPROVED By Jamie Ellis at 1:06 pm, Mar 24, 2020																	
2	Approved Construction Products	Verify coating Products	Enbridge (Solaris) Coatings Spec.#03350-31-2200-SPC-0017, section 7, Table 2, Table 4	Carboline Products: Primer: Devran 201H; Topcoat: Devthane 379; Topcoat Colour: Eggshell White, FSC 17925	Prior to commencement of work	Sign this ITP line item	V	YL	3/16/20	DR		03/16/20	DR		AS	03.26.20																	
3	Inspection Equipment Calibration	Verify Current Certification for Coating Inspection Equipment	Standard Practice; Enbridge (Solaris) Coatings Spec.#03350-31-2200-SPC-0017, section 4.5, 4.5.10	Calibration Certificates; Calibration verified prior to use.	The calibration of all adjustable measuring instruments being used is verified a minimum of once per day.	Calibration Certificates; PD Form COQC 43.4 Coating Application Data Report	V	YL	3/16/20	DR		03/16/20	DR		AS	03.26.20																	
4	Material Storage Review	Verify proper Material storage conditions	Enbridge (Solaris) Coatings Spec.#03350-31-2200-SPC-0017, section 5.3; Manufacturer's Instructions	Enclosed area out of direct sunlight; Store away from ignition sources; Store in areas where temperature extremes will not be encountered	Prior to commencement of work	PD Form COQC 43.4 Coating Application Data Report	V	YL	3/16/20	DR		03/16/20	RI		AS	03.26.20																	
5	Product Data Review	Verify review of Product data	Park Derochie Quality practice	PD supervisor to review Product data	Prior to commencement of work	Sign this ITP line item	V DR	YL	3/16/20							PD Supervisor acknowledgement of Product Data Review; Review scope of work with crew members.																	
6	Verification of Delivered Materials	Very Inspection of delivered materials.	Park Derochie Quality practice; Good Painting Practice	PD Supervisor to verify that delivered materials match those that are listed in Approved Products documents.	Prior to commencement of work	This ITP	V	YL	3/16/20	DR		03/16/20	DR		AS	03.26.20																	
7	Product Traceability	Verify recording of batch numbers for material traceability	Park Derochie Quality Practice	Batch numbers are recorded on Application report	Prior to commencement of work	PD Form COQC 43.4 Coating Application Data Report	RI	YL	3/16/20	DR		03/16/20	DR		AS	03.26.20																	

Surface Preparation													
8	Masking (Protection of Adjacent surfaces and equipment)	Verify protection is in place to prevent damage	Enbridge (Solaris) Coatings Spec.#03350-31-2200-SPC-0017, section 7.4	All nameplates, sight glasses, lenses, etc. are to be properly masked / nearby structures/property is protected.	Prior to coating	This ITP	I	96	3/24/20	DR	AS	03.26.20	
9	Inspection - Damaged Pipe	Verify inspection of pipe for damage	Enbridge (Solaris) Coatings Spec.#03350-31-2200-SPC-0017, section 7.4	Notify inspector if corroded or mechanically damaged pipe is discovered	Ongoing	This ITP	I	96	3/24/20	DR	AS	03.26.20	
10	Initial Steel Surface Condition / Rough Welds / Burns	Verify surface condition of pipe is suitable for coating application	Park Derochie Quality Practice; Good Painting Practice	Initial Rust Condition Grade reviewed prior to Surface Preparation / notify client for repair of rough welds, burrs, silvers etc.	Prior to commencement of work	This ITP / PD Form COQC 36.0 Welds Inspection Report (if deficiencies area discovered)	I	96	3/24/20	DR	AS	03.26.20	Verify that weld splatter, rough edges and welds are properly ground smooth - if not, contact client for correction.
11	Steel Surface Cleaning	Verify surfaces for be coated are free of Oil or grease	Enbridge (Solaris) Coatings Spec.#03350-31-2200-SPC-0017, section 7.4	Visual Inspection is free from oil or grease in accordance with SSPC-SP1	Prior to abrasive blasting	PD Form COQC 43.4 Coating Application Data Report	I	96	3/24/20	DR	AS	03.26.20	Oil or grease removed in accordance with SSPC-SP 1.
12	Quality of Air From the Compressor	Verify Compressed Air is free from oil or water	Park Derochie Quality Practice; Good Painting Practice	Perform Blotter Test; Stain-free Blotter Test paper	Minimum at start of project, or if required at equipment changes.	PD Form COQC 43.4 Coating Application Data Report	V	96	3/24/20	DR	AS	03.26.20	Visual inspection and test utilising Blotter Test Paper, as per ASTM D4285.
13	Environmental Conditions for surface preparation	Verify Ambient Temperature and Dew Point is within acceptable limits for abrasive blasting	Enbridge (Solaris) Coatings Spec.#03350-31-2200-SPC-0017, section 7.5	Must be at least 3°C (5°F) above dew point	Prior to abrasive blasting	PD Form COQC 43.4 Coating Application Data Report	VIH	96	3/24/20	W/S	AS	03.26.20	
14	Blast Cleaning of Substrate	Verify proper blast-cleaned surface - surface profile	Enbridge (Solaris) Coatings Spec.#03350-31-2200-SPC-0017, section 7.2, Table 3; section 7.4	SSPC SP 10 with Anchor Profile of 1.0 - 3.0 mils	A minimum of one location per hour, to be coated, shall be documented	PD Form COQC 21.0 Anchor Profile Log	I	96	3/24/20	DR	AS	03.26.20	verify with Replica Tape as per ASTM D4417.
15	Visual Inspection / acceptance of Blast Cleaned Surfaces	Verify Proper Visual Surface Preparation	Standard Practice	SSPC SP 10 with Anchor Profile of 1.0 - 3.0 mils	Prior to commencement of coating application	PD Form COQC 43.4 Coating Application Data Report	H / I	96	3/24/20	V	AS	03.26.20	All surfaces not meeting the specified anchor profile and/or cleanliness are to be rejected and re-blasted.
Coating Application													
16	Environmental Conditions for Coating Application	Verify suitable Ambient Conditions prior to Mixing and Application of Coating	Enbridge (Solaris) Coatings Spec.#03350-31-2200-SPC-0017, section 7.5	Minimum 3°C or 5°F Delta Point; and as per Manufacturers Product Data Sheets	Prior to application of coating.	PD Form COQC 43.4 Coating Application Data Report	V	96	3/24/20	DR	AS	03.27.20	Must be at least 3°C above dew point; Surface: 4°C-57°C; Ambient: 4°C-43°C Relative Humidity: ≤ 90%
17	Mixing of Coating	Verify Proper mixing of coating products	Enbridge (Solaris) Coatings Spec.#03350-31-2200-SPC-0017, section 7.5	mixed as per manufacturer's instructions	Per each Coating applied.	PD Form COQC 43.4 Coating Application Data Report	V / I	96	3/24/20	DR	AS	03.27.20	Power mix separately, then combine and power mix.
18	Stripe coating	Install Stripe coat.	Park Derochie Quality Practice; Good Painting Practice	Visual Inspection of Stripe Coat on all crevices, welds, bolts, and sharp edges etc.	May be applied after Primer coat	PD Form COQC 43.4 Coating Application Data Report	V/D	96	3/24/20	RI	AS	03.27.20	Stripe bolts, crevices, welds, and sharp edges.

T-SOUTH EXPANSION (U2901)
(S5. LOAD #1 PIPING)

19	Application of Primer Coat / acceptance of applied primer	Verify proper prime coat application - Coating Thickness-DFT measurements	Enbridge (Solaris) Coatings Spec.#03350-31-2200-SPC-0017, section 7.2 (2019-Nov-27) 7.3, Table 4; section 7.5, 7.6 See also: TSRE-9550046107-RFI-CS4A-0067, Revision 0	Install Devran 201H @ 2-3 mils DFT	Ongoing WFT checks during application; ensure that four (4) WFT measurements are made around the substrate a minimum of one location every hour	PD Form COQC 43.4 Coating Application Data Report	H/I/D	9/1	3/26/20	V	03/30/20	H/I	AS	03.30.20	Verify uniform film which is generally smooth, without drips, runs, sags or other discontinuities. DFT measurements are to be made (as per PA2) in the same approximate location as the WFT readings, where practicable.
20	Application of Topcoat	Verify proper top coat application - Coating thickness-DFT measurements	Enbridge (Solaris) Coatings Spec.#03350-31-2200-SPC-0017, section 7.2 (2019-Nov-27) 7.3, Table 4; section 7.5, 7.6 See also: TSRE-9550046107-RFI-CS4A-0067, Revision 0	Install Devthane 379 @ 2-3 mils DFT; Topcoat colour: Eggshell White, FSC 17925	Ongoing WFT checks during application; ensure that four (4) WFT measurements are made around the substrate a minimum of one location every hour	PD Form COQC 43.4 Coating Application Data Report	H/I/D	9/1	03/27/20	V	03/30/20	H/I	AS	03.30.20	Verify uniform film which is generally smooth, without drips, runs, sags or other discontinuities. DFT measurements are to be made (as per PA2) in the same approximate location as the WFT readings, where practicable.
21	Final Inspection and Acceptance	Verify acceptance of installed coating	Enbridge (Solaris) Coatings Spec.#03350-31-2200-SPC-0017, section 7.	confirm coating is free from inclusions, excessive film build, runs, sags, cratering, mudcracking, wrinkling, overspray, blistering, delamination or other unacceptable defects as specified.	Upon completion work area applicable to this ITP	PD Form COQC 43.4 Coating Application Data Report; This ITP signed-off below	V/D	MAR 28 2020		R/D/R	03/30/20	R/D/R	AS	03.30.20	Visual inspection to confirm coating is free from inclusions, excessive film build, runs, sags, cratering, mudcracking, wrinkling, overspray, blistering, delamination or other unacceptable defects as specified.

ITP Acceptance

Client Acceptance of ITP:

APPROVED

By Jamie Flis at 1:06 pm, Mar 24, 2020

Enbridge Rep. Signature: _____

Print

Ideal Welder's Rep. Signature: _____

Rob

Print

J. Flis

Signature

Signature

MAR 20 2020

ITP Closeout / Completion

Close out ITP on Completion and Acceptance of Specified Work

WACE#

Park Derochie Rep. signature: _____

PETER KOVIDS

Print

72229

Signature

MAR 28 2020

Ideal Welder's Rep. Signature: _____

Nick Kenny

Print

Signature

03/30/2020

Enbridge Rep. Signature: _____

ALLAN STEWART

Print

Signature

03.30.2020

T-SOUTH EXPANSION (U2901)
CS5 LOAD #1 PIPING