

**Canadian Natural Resources Limited
GENERAL PRESSURE VESSEL INFORMATION**

Job 10.112980

District: Fort St. John North	Skid No.
Facility: Cypress Compressor Station	Location (LSD): c-61-L/94-B-15
Vessel Name Equipment Number: Glycol Contactor	
Orientation: Vertical	
Status: In Service	Regulatory Inspection

PRESSURE VESSEL NAMEPLATE DATA

"A" or "G" or "S" (Sask.) or BC Registration Number. A0413259		CRN Number: L-7377.21	
Vessel serial number: 02-3171-21		Size: 30 in. x 20 ft.	
Shell thickness: 34.9 mm		Shell material: SA 516 70N	
Head thickness: 31.8 mm		Head material: SA 516 70N	
Tube wall thickness:		Tube material:	
Tube diameter:		Tube length:	
Channel thickness:		Channel material:	
Design pressure	Shell: 1395 PSI	Operating pressure	Shell:
	Tubes:		Tubes:
Design Temp.	Shell: 150 °F	Operating temperature	Shell:
	Tubes:		Tubes:
X-ray: RT-1		Heat treatment: HT	
Code parameters: ASME VIII – Div. 1		Coated: N/S	
Manufacturer: OPSCO ENERGY INDUSTRIES LTD		Year built: 1999	
Corrosion allowance: 1.6 mm		Manway: No	

PRESSURE SAFETY VALVE NAMEPLATE DATA

PSV Tag #	Manufacture / Model / Serial	Set Pressure (PSI / kPa)	Capacity (scfm)	Size	Block Valve	Location	Service by Date
5862F	Mercer / 8134251P27G21 / A76116	1395 PSI	11170 SCFM	1.5 x 2	No	Mid shell	Unified 03/2013

SERVICE CONDITIONS-INDICATE ALL THAT APPLY

Sweet	Sour X	Oil	Gas X	Water X
Amine	LPG	Condensate	Air	Glycol X

Other (Describe):

Inspection Interval _____ **PSV Service Interval** _____

(Determined by MIC in conjunction with Chief Inspector following guidelines of CNRL's Owner-User Inspection Program)

Reports reviewed and accepted by:

Mechanical Integrity Coordinator _____ **Date** _____

Fill out all forms as completely as possible. All information is important! Use back of sheets to record additional information or sketch if required.
Copy of report to be filed by MIC at site, and copy sent to Chief Inspector

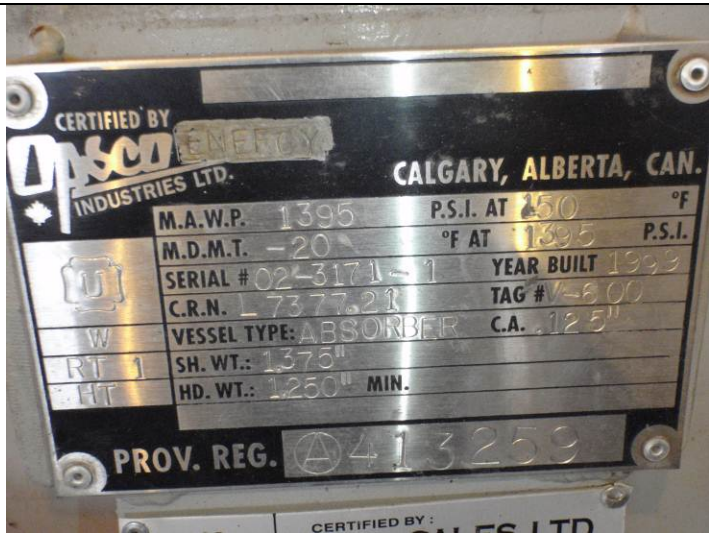
External Inspection Items	G	F	P	N/A	Comments
Insulation Verify sealed around manways, nozzles, no damage present, and there is no egress of moisture.				X	Vessel not insulated
External Condition Assess paint condition, areas peeling, record any corrosion, damage, etc (record location, size and depth of corrosion or damage)	X				Paint in good condition – no corrosion – no damage
Leakage Record any leakage at flanges, threaded joints, weep holes on repads, etc.	X				No leaks observed
Saddle/skirt Assess condition of paint, fire protection, and concrete. Look for corrosion, buckling, dents, etc. Look at vessel surface area near supports. Verify no signs of leakage at attachment to vessel and attachment welds are acceptable. Ground wire attached?	X				Skirt in good overall condition – securely bolted to skid floor – no corrosion – no buckling or dents – no sign of leaks at attachment welds – ground wire attached to skid
Anchor Bolts Hammer tap to ensure secure. Look for cracking in treads or signs of deformation.	X				Anchor bolts securely fastened – no sign of deformation
Concrete foundation Check for cracks, spalling, etc.				X	None
Ladder / Platform Describe general condition, ensure support is secure to vessel, and describe any hazards.				X	None
Nozzle Assess paint, look for leakage, and ensure stud threads are fully engaged. Record any damage, deflection, etc. Are nozzles gusseted?	X				Nozzles in good overall condition – no sign of leaks – stud threads fully engaged – no damage or deflection – nozzles are not gusseted
Gauges Ensure gauges are visible, working, no leakage, and suitable for range of MAWP/ Temp.	X				Gauges are clear and functional – within range for service – Pressure gauge: 0 – 1500 PSI – Temperature gauge: 0 – 250 F
External Piping Ensure pipe is well supported. All clamps, supports, shoes, etc. in place. Look for evidence of structural overload, deflection, etc. Paint condition, external corrosion?	X				Piping is well supported – all clamps in place – no evidence of structural overload - paint in good condition – no corrosion
Valving Ensure no leaks are visible. Valves are properly supported and chained if necessary.	X				Valves properly supported – no sign of leaks
PSV Ensure PSV is set at pressure at or below that of vessel.	X				PSV is set below MAWP – no block valve - seal intact – discharge piping does not reduced from PSV discharge orifice
NDE methods Was UT/ MPI done on vessel (MI coordinator to review results)	X				Ultrasonic corrosion survey carried out, no metal thickness detected below nominal minus corrosion allowance.
Other					
<p>Recommendations or corrective actions : Vessel is Fit for Service or describe corrective actions required) (MIC to review corrective actions with Operations, discuss with Chief Inspector where necessary, and get remedial action implemented) Recommendations: None at this time. Summary: This vessel is in good condition, visual external and ultrasonic thickness inspection carried out – no metal thickness detected below nominal minus corrosion allowance. Long term corrosion rate based on greatest thickness loss – no corrosion rate to assess. Vessel is fit for service.</p>					



LSD



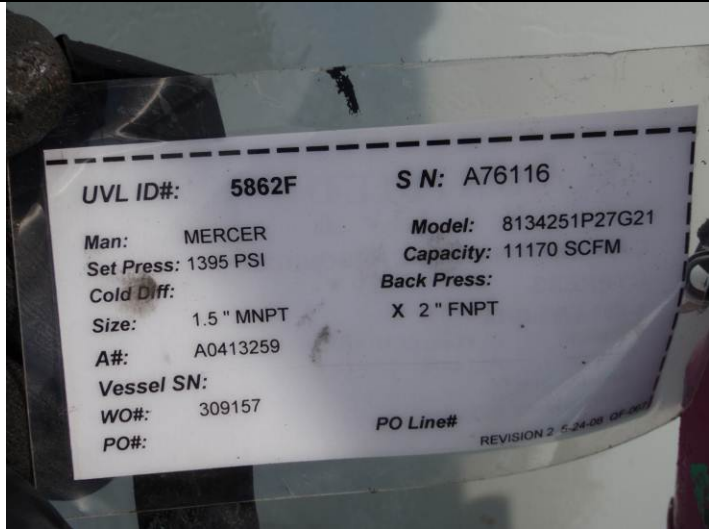
Overview



Data Plate



Overview



PSV Tag



PSV