

Field Inspection Report - Long_Run 483121_01/12/2017_VT_Internal

Vessel Number	483121	Vessel Name	INLET SEPARATOR	Province	Alberta
District	NORTHERN - AB	LSD	02-12-058-23W4	Location	REDWATER
Method	VT	Access	Internal	Cleaning	Good
Inspection Date (mm/dd/yyyy)	01/12/2017	Inspection Interval (months)	60	Next Inspection (mm/dd/yyyy)	01/12/2022
CRN	P5114.21	Skid Number	PKG54928	Service	Sweet
Internal Access	YES 20"	Internal Coating	No	Status	Out Of Service
MAWP (PSI)	1445	MAWP (kPa)	9962.99	Outstanding NCRs	0
MAWT (°C)	51.67	MAWT (°F)	125		

General

A thorough inspection was conducted on this separator after the skid was moved to the 2-12-58-23W4 facility. No issues or deficiencies preventing continued service were found.

Safety Valves

PSV MWS68593 Shell side. Set pressure: 1440 PSI / 9928.512 KPa. MAWP: 1445 PSI / 9962.986 KPa. Capacity: 21951 SCFM / 621.58 m3/min.

External Condition

All visible shell surfaces and nozzles appeared to be in good condition. Name plate was intact and legible with the vessel A number and Alberta CRN legibly stamped on it. Vessel supports appeared to be adequate with no damage or distortion. Saddles were bolted tight to the skid. Foundation was acceptable with no signs of settling or shifting. Skid was welded to piles. Electrical grounding was verified. The external insulation cladding exhibited some areas of damage as well as loose sections. The remainder of the cladding was intact with no significant perforations and no signs of moisture ingress or egress. Weather sealing was adequate. The portion of the vessel situated inside the skid building had exposed paint coating which was intact with no damage or deterioration noted. Associated piping, supports and components were removed at the time of inspection. New piping spools were being fabricated to hook the equipment up at the new location. PSV protection was removed at the time of inspection and was not present in the skid.

Internal Condition

Vessel was not internally coated. Shell and head surfaces exhibited a lightly etched profile over the majority of the vessel. Internal welding was full profile with no preferential attack or visible defects. Underneath the emulsion draw box the shell exhibited general corrosion of approximately .030" depth. At 6 o'clock in the

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manway nozzle some small diameter pitting was present with depth of .020-.030". A small trough of ice was present throughout the bottom of the vessel. Areas in the bottom of the shell near both heads had sand build up. On the inlet end the sand depth was approximately 4". Representative areas were able to be cleared to view the shell surface. No significant corrosion or other degradation was found. Previous inspections noted minor pitting corrosion near the shell to head weld on the outlet end of the vessel at 6 o'clock. Sand build up make the areas difficult to assess, however, no appreciable progression of the condition was noted. Internal weir was intact and attachment welds to the shell appeared to be acceptable with no visible defects. The weir had an adjustable plate section on the top edge. Emulsion draw box was securely attached to the shell. A large hole, approximately 12" x 12" was cut in the bottom of the inlet end side. All attachment plate and welds were smooth with no appreciable corrosion or damage. A slotted panel style demister was in place and appeared to be acceptable with no damage noted. Nozzle bores were smooth no so significant corrosion or damage present. An anode was present at approximately half vessel height near the outlet end weir. The anode had 100% mass remaining and appeared in like new condition. It is possible that function of the sacrificial anode would be impaired if vessel fluid height was not high enough to submerge the anode.

Recommendations

Ensure suitable over-pressure protection prior to operation.
 Recommended renewing damaged section of cladding and insulation.
 Consider moving anode from the current 8" nozzle to a location on the weir plate or near the bottom of the shell where it would be submerged by process fluid.

Suitable to be returned to Service	Yes	Suggested Inspection interval (Months)	60
Repairs are still required	No		
Sean Babiy ABSA ISBPV:000327 Inspector			01/12/2017 Date (mm/dd/yyyy)
		Signature	

Pictures

-No pictures for this inspection-	
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