

Incident Investigation Summary

Responsible Manager: David Wright

Incident Reference No: Compass 11238/09/NG

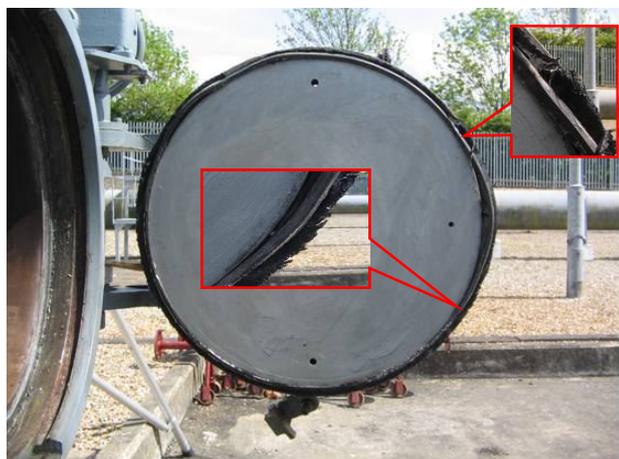
Person Responsible for National Implementation: Russell Wilcock for Transmission MDG

This bulletin is issued to disseminate incident investigation findings and recommendations/ learning for consideration and (as appropriate) action by other operating units, contractors, etc.

Ring Lock Closure Seal Failure on a High Pressure Pig Trap at Gt. Wilbraham AGI

What happened?

Failure of a GD Engineering Ltd chevron door seal installed on Pig Trap (A) at Gt. Wilbraham AGI, causing the contents (approx. 482kg) of the pig trap vessel to be vented to atmosphere. The failed door seal had been in service for 4 years, following a PSSR Inspection in September 2005.



Safety bleeder lock showing evidence of heavy paint deposits

Evidence of 'corrosion like' deposits found within the valve quadrant.



Why Did This Happen?

- Evidence of heavy build up of paint deposits on the safety bleeder locking plates, which are critical mating surfaces with the locking rings. Therefore, being incapable to take these critical measurements.
- The safety bleed locking plates were found to be undersized, which resulted in the locking rings not being fully expanded within the closure mechanism.
- The pig trap door was not centrally located within the neck of the closure mechanism, thus allowing an additional gap to develop at the top of the door causing the chevron seal to be extruded under pressure.
- Unable to obtain effective cavity seal on valve for isolating pig trap, as valve quadrant found to be full of 'corrosion like' deposits.

Learning points?

1. Staff are reminded of the importance of following Work Procedure T/PR/MAINT/5029 to ensure:
 - a. particular attention should be paid to the cleanliness of safety bleeder locks and locking ring draw bolts etc. Guidance on the operation and maintenance of ring lock closures is available in a video on the Infonet: http://ngtuk/dist_networkstrategy/default.asp?action=readnew&preview=true&id=1150&bhcp=1
 - b. pig trap isolation valves are in the correct position prior to maintenance, in accordance with Section 6.2 (6.2.1.) to avoid future incidents.
2. Ensure only new seals are installed or are at least <12months old and have been stored correctly in accordance with the GD Engineering Ltd storage guidelines.
3. Check the integrity of the seal prior to installation into the door closure.
4. Ensure an increasing trend for ALL Pig Trap Compass/Defect reporting.

Circulation: All National Grid MDG Area Managers

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For further information regarding this bulletin please contact Steve Johnstone (07867-905922) or the Responsible Manager detailed above.