

PIPELINE SAFETY ALERT

ISSUED 3 MARCH 2004

High Pressure Pipelines Gas and Liquid Petroleum AS 2885 Part 3-2001

Attention is drawn to **SECTION 6 PIPELINE STRUCTURAL INTEGRITY**

5.4 PIPE WALL DEFECT ASSESSMENT

5.4.1 Damaged pipework

- Gouges, grooves and notches less than 0.25 mm are considered harmless.
- Gouges, grooves and notches above 0.25 mm and up to 10% of wall thickness may be removed by grinding. The requirements for non-destructive testing (NDT) for micro-cracking should be assessed.
- Wall thickness loss due to grinding may be assessed in the same manner as corroded pipework.
- Unless detailed analysis has been carried out to confirm the acceptability of an anomaly, anomalies in excess of the following shall be removed, replaced or otherwise repaired:
 - (a) Dents, as described in AS 2885.1 except that the maximum depth specified may be increased to 6% of the pipe diameter.
 - (b) Gouges grooves and notches that are outside the criteria set out in AS 2885.1. Combined pipe wall anomalies shall be subjected to detailed assessment.

NOTE: Detailed analysis may be undertaken using CSA-Z662 *Oil and Gas Pipeline Systems*. This allows, subject to stated conditions, repair of dents containing stress concentrators by grinding, by pipe replacement, by pressure containment sleeve, or by reinforcement sleeve.

The reference to AS2885.1 is to the following clause-

SECTION 6 - CONSTRUCTION

6.4.4 Dents Pipelines shall not contain any dents that—

- (a) will impede the passage of any pig that may be used for operations or surveillance;
- (b) occur at a weld;
- (c) contain a stress concentrator, such as an arc burn, crack, gouge or groove; or
- (d) have a depth which exceeds—
 - (i) 6 mm in a pipe having a diameter not more than 323.9 mm; and
 - (ii) 2% of the diameter in a pipe having a diameter of more than 323.9 mm.

Dents shall be repaired in accordance with Item (c) of Clause 6.4.6.

Alert

This clearly requires a repair of the dent that contains a stress concentrator and this is not optional.