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Flowguard Materials	TITLE:	<b>SUPPLEMENTAL TESTING OF FORGED BAR</b>	

1. Scope

1.1. The specification describes the additional testing requirements for forged bar so that it may be used to construct pressure retaining items manufactured and designed in accordance with ASME VIII Division 1

2. Reference Documents

- 2.1. ASME VIII Division 1 (Latest Edition)
- 2.2. SA-388 (Latest Edition)
- 2.3. ASME Boiler & Pressure Vessel Code Case 2155
- 2.4. ASME Boiler & Pressure Vessel Code Case 2156

3. Transverse Testing

3.1. Two transverse tensile test specimens to be taken from each cast, each cast to have the same diameter. The second specimen to be taken at 90° to the first specimen. The axis of the specimen shall be taken midway between the centre of the bar and the circumference. Both specimens shall meet the Tensile, Yield, Elongation and Reduction of Area stated in the material specification.

4. Ultrasonic Testing

- 4.1. Each bar before machining shall be 100% ultrasonically tested perpendicular to the longitudinal axis by straight beam technique in accordance with SA-388.
- 4.2. The bar shall be unacceptable if the results show one or more indications accompanied by loss of back reflection larger than 60% of the reference back reflection.
- 4.3. The examination shows indications larger than 40% of the reference back reflection when accompanied by a 40% loss of back reflection.

5. Approvals

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