

Welds to be tested shall mainly be selected from those of which the backside of the weld cannot be visually inspected. Such welds shall be tested by the Radiographic or the Ultrasonic method. Selection of welds shall be carried out by an accredited independent agency, approved by the Engineer.

All welds which have been repaired or replaced shall be 100% re-examined by the same methods and with the same acceptance criteria as required for the original work.

Socket welds and branch connection welds which are not radio graphed shall be examined by magnetic particle or penetrate methods to the extent stated for butt welds.

Where spot examination is required in subsequent sections, the welds shall be selected to ensure that the work of each welder and each welding procedure is included.

When required spot examination reveals defects, two additional welds, the preceding and the subsequent welds made by the same welder, shall be examined.

If one of these welds shows defects, three preceding and three subsequent welds shall be examined at the Contractor's expense.

If five or more subsequent welds of one welder show defects, all welds of this particular welder shall be additionally examined at the Contractor's expense.

10% of all butt welds shall be examined by radiography along their entire circumference as described above. The Engineer may specify greater extent of examination.

#### **7.4.1.11 Acceptance Criteria**

The accept criterion shall be class C in accordance with ISO 5817. The test shall be carried out by an accredited independent agency, approved by the Engineer. A report on the tests shall be provided.

#### **7.4.1.12 Production Testing**

The Engineer shall be entitled to select a number of seams for destructive testing.

The Contractor shall be responsible for cutting out the seams, bevelling the pipe ends and re-welding the joint. The destructive tests shall, unless otherwise agreed, be made in accordance with the requirements in the respective general welding specification covering qualification tests for welding procedures.

The Employer will bear the cost of these tests, if the welds are proved to be acceptable. However, if it turns out that the seam does not comply with all the requirements, the Contractor himself shall bear the costs. In this case, the Engineer may insist on an additional seam being tested, and the costs of the testing and renewal of this seam shall be paid by the Contractor, irrespective of the results. If this seam does not comply with the requirements, the control may be further extended at the Contractor's expense.

The extent of any such supplementary inspection work shall be decided by the Engineer with the aim of establishing in a satisfactory manner whether the welding work complies with the requirements or not.