

## **Annex N**

### **(normative)**

## **Use of New Materials That Are Not Identified**

### **N.1 General**

New or unused plates and seamless or welded pipe that are not completely identified as complying with any listed specification may be used in the construction of tanks covered by this standard, under the conditions specified in N.2.

### **N.2 Conditions**

- **N.2.1** A material may be used if an authentic test record for each heat or heat-treating lot of material is available that proves that the material has chemical requirements and mechanical properties within the permissible range of a specification listed in this standard. If the test requirements of the listed specification are more restrictive than any specification or authentic tests that have been reported for the material, more restrictive tests shall be performed in accordance with the requirements of the listed specification, and the results shall be submitted to the Purchaser for approval.
- **N.2.2** If an authentic test record is not available or if all the material cannot be positively identified with the test record by legible stamping or marking, the following requirements apply.
  - a) Each plate shall be subjected to the chemical analysis and physical tests required by the designated specification, with the following modifications: The carbon and manganese contents shall be determined in all check analyses. When the designated specification does not specify carbon and manganese limits, the Purchaser shall decide whether these contents are acceptable. When the direction of rolling is not definitely known, two tension specimens shall be taken at right angles to each other from a corner of each plate, and one tension specimen shall meet the specification requirements.
  - b) Each length of pipe shall be subjected to a chemical check analysis and sufficient physical tests to satisfy the Purchaser that all of the material is properly identified with a given heat or heat-treatment lot and that the chemical and physical requirements of the designated specification are met. Material specified as suitable for welding, cold bending, close coiling, and the like shall be given sufficient check tests to satisfy the Purchaser that each length of material is suitable for the fabrication procedure to be used.
- **N.2.3** Charpy V-notch impact tests must be performed when required by Figure 4.1 to verify that the material possesses the toughness required by Table 4.4a and Table 4.4b.
- **N.2.4** After a material is properly identified with a designated specification and the Purchaser is satisfied that the material complies with the specification in all respects, the testing agency shall stencil or otherwise mark, as permitted by the specification, a serial S number on each plate or each length of pipe (or as alternatively provided for small sizes in the specification) in the presence of the Purchaser.
- **N.2.5** Suitable report forms clearly marked "Report on Tests of Nonidentified Materials" shall be furnished by the tank Manufacturer or testing agency. The forms shall be properly filled out, certified by the testing agency, and approved by the Purchaser.
- **N.2.6** The Purchaser shall have the right to accept or reject the testing agency or the test results.
- **N.2.7** The requirements for fabrication applicable to the designated specification to which the nonidentified material corresponds shall be followed, and the allowable design stress values shall be those specified in this standard for the corresponding specification.