7.5.8.7 Evaluation of Eddy Current Results. Eddy current results shall be evaluated in accordance with the qualified procedure described in 7.5.8.3(b). If a flaw is determined by ET to be surface connected it shall comply with the Acceptance Criteria in 7.5.8.8 below.

7.5.8.8 Acceptance Standards. These acceptance standards apply unless other more restrictive standards are specified for specific materials or applications within this Division. All surfaces examined shall be free of relevant ET surface flaw indications.

7.5.9 Evaluation and Retest for Partial Examination

The locations selected under 7.4.3.5(a) and 7.4.3.5(b) shall be deemed to be representative of the welds examined. An imperfection detected on the circumferential seam shall be considered as representing the condition of the whole circumferential seam. An imperfection detected on the longitudinal seam shall be considered as representing the condition of the whole longitudinal seam. An imperfection detected on a nozzle or branch shall be considered as representing the condition of the group of nozzles or branches. According to the imperfections type, retesting shall be as follows:

(a) When a percentage of the weld, defined in Table 7.2, is examined and meets the minimum quality requirements of 7.5.3.2, 7.5.4.2, or 7.5.5.3, as applicable, the entire weld length represented by this examination is acceptable.

(b) When a percentage of weld, as defined in Table 7.2, is examined and discloses welding that does not comply with the minimum quality requirements of 7.5.3.2, 7.5.4.2, or 7.5.5.3, as applicable, two additional welds deposited by the same welder that are of the same type and category and were not previously examined shall be examined. The additional welds to be examined shall be selected by the Inspector or fabricator under the same criteria applied to the original examination.

(1) If the two additional welds examined are acceptable in accordance with the minimum quality requirements of 7.5.3.2, 7.5.4.2, or 7.5.5.3, as applicable, the entire weld increment represented by the examinations is acceptable, provided the unacceptable indications disclosed by examinations are removed, repaired, and reexamined.

(2) If either of the two additional welds examined do not comply with the minimum quality requirements of 7.5.3.2, 7.5.4.2, or 7.5.5.3, as applicable, the entire increment of weld represented shall be repaired and reexamined; or, at the fabricator’s option, the entire increment of weld represented by the unacceptable examinations shall be completely reexamined and all unacceptable indications repaired and reexamined.

(3) Repair welding shall be performed using a qualified procedure and deposited by a qualified welder. The rewelded joint, or the weld repaired areas, shall be spot examined at one location as provided for in Table 7.2.

7.6 Final Examination of Vessel

7.6.1 Surface Examination after Hydrotest

If a fatigue analysis is required for a part of a vessel, then all of the internal and external surfaces of pressure boundary and attachment welds for that part shall be examined by wet magnetic particle method (if ferromagnetic) or by liquid penetrant method (if nonferromagnetic) after hydrotest, unless accessibility prevents meaningful interpretation and characterization of imperfections. The acceptance criteria shall be 7.5.6 and 7.5.7.

7.6.2 Inspection of Lined Vessel Interior after Hydrotest

When it is observed that the test fluid seeps behind the applied liner during or after hydrotest, the fluid shall be driven out and the lining shall be repaired by welding in accordance with 7.4.8.3(b)(3).

7.7 Leak Testing

When specified in the User’s Design Specification, leak testing shall be carried out in accordance with Section V, Article 10 in addition to hydrostatic test or pneumatic test as per 8.2.

7.8 Acoustic Emission

If specified in the User’s Design Specification, acoustic emission examination shall be carried out in accordance with Section V, Article 12 during the hydrostatic test or pneumatic test. The acceptance criteria shall be as stated in the User’s Design Specification.