

APPENDIX 1

Quality Management, Operational and General Requirements for the Manufacture, Processing and Supply of Reinforcing Steel

1 Scope

This Schedule covers the minimum quality and operational requirements for the manufacture and/or processing of carbon steel bars, coils, wire or mesh conforming to the requirements of AS/NZS 4671 Grades 250N, 500N and 500L, and to prestressing strand conforming to AS/NZS 4672.

2 Quality Management System

The manufacturer or processor shall have a documented quality management system. All the items listed in this appendix shall be subject to audit by ACRS.

Where the manufacturer or processor has third party certification from an accredited authority, ACRS auditors will take this into account.

(Note: Certification to AS/NZS ISO 9002:1994 shall be deemed to comply with these requirements until 31st December 2003.

3 Management Responsibility

Defined personnel within the company shall have responsibility for ensuring all product meets all the technical requirements of the relevant product specifications and any other customer requirements. The management of the company shall be committed to ensuring conformance to these requirements, and all process and product data relevant to meeting these objectives shall be closely monitored to ensure such conformance.

4 Steel Supply

- 4.1 The specifications covering the supply of steel feedstock shall include as a minimum requirement chemical composition ranges and/or limits on the acceptable strength ranges of the steel, its dimensional characteristics, and any other specifications that are important in ensuring satisfactory and consistent material suitability and identity.
- 4.2 Material supplied by ACRS certified suppliers shall be deemed to be of suitable quality and consistency.
- 4.3 Steel supplied by non-ACRS certified manufacturers shall have its suitability verified by the processor in a manner that is acceptable to ACRS. In defining the type and extent of verification necessary for steel from non ACRS certified manufacturers, other certifications and quality endorsements held by the steel supplier (eg, current certification to ISO 9001:2000) shall be taken into account. In such cases, the processor shall advise ACRS prior to the commencement of the audit the detailed procedures used to validate the quality and suitability of feedstock supplied. *(Note: Assessment of steel supplied by non-ACRS certified suppliers may require testing in accordance with the procedures contained in Clause B7 of AS/NZS 4671.)*

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- 4.4 There shall be documented procedures to ensure that purchased raw materials conform to the specifications ordered.
- 4.5 There shall be documented procedures for the receipt of feedstock, which shall include inspection of the steel, and correlation of delivery documents and test results to the batches received.
- 4.6 There shall be a documented system for recording and identifying all materials held in stock for subsequent processing.

5 Process Control

- 5.1 All processes necessary for achieving conformance with traceability requirements, product specifications and customer requirements shall be identified and their importance understood throughout the company.
- 5.2 There shall be documented procedures covering the operation of these processes so as to ensure consistency of outcomes, and such documentation shall be readily accessible by the operators of these processes.
- 5.3 Limits for the critical operating parameters for each process shall be established and closely monitored.
- 5.4 Systems shall be in place to effectively isolate any material that has been incorrectly processed and ensure it is not despatched until its conformance to specification and customer requirements can be clearly established.
- 5.5 Particular requirements for each product form and manufacturing process are detailed in Appendices 2 to 6.

6 Testing and Inspection

- 6.1 There shall be documented procedures for the sampling and testing of finished product.
- 6.2 Testing and inspection, and all associated records shall be in accordance with the requirements of AS/NZS 4671 and customer requirements. There shall be documented procedures for transmitting requisite test information to customers.
- 6.3 Results shall be reported to the significance level specified in AS/NZS 4671 or as/NZS 4672 as appropriate.

7 Despatch

- 7.1 There shall be documented procedures for warehousing and despatch of product that ensure that the material suffers no degradation, and continues to meet specification and customer requirements. This shall include adequate methods of storage, materials handling, packaging and transport, and shall ensure that batch identity is maintained in a durable form until received by the customer.
- 7.2 There shall be documented procedures for deliveries of material direct to customers on behalf of a third party. These shall ensure that the material meets the requirements of the purchase order, that the identity of each consignment is maintained, and that the third party is supplied with full details of each consignment by the processor at the time of despatch, as described in the material standard or customer order.

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8 Traceability

There shall be documented procedures for ensuring the identity and traceability of feedstock and individual production batches throughout processing, stocking, and despatch of product to the purchaser. It shall be possible to cross reference feedstock and product batch identity with all critical process control data and test results. The particular requirements for each product form and manufacturing process are detailed in Appendices 2 to 6.

9 Control of Non Conforming Product

There shall be documented procedures for dealing with non-conforming product, including adequate identification, isolation and disposal of such material. Non-conforming product shall not be despatched to customers unless the nature of its non-conformance is clearly communicated to the customer, and the customer has clearly consented to its despatch. The processor shall retain records of such consent.

10 Corrective Action

There shall be documented procedures for dealing with customer complaints and non-conformances detected in process. Records of such complaints and non-conformances, and the corrective actions taken shall be maintained. The effectiveness of all corrective actions shall be verified. Such actions may include the recall of potentially non-conforming product, changes to processes and control parameters, and changes to testing methods and frequency.

11 Calibration of Equipment

All equipment and instruments for process control and product testing shall be regularly maintained in accordance with a documented maintenance program. Calibration of process control equipment and all relevant instruments shall be in accordance with AS/NZS 3912.1 (ISO 10012-1), and this calibration status must be maintained at all times.

12 Technical Service

There shall be a system for providing technical advice to customers regarding the appropriate use, processing and application of the products supplied.

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