

## APPENDIX 8

# Quality Management, Operational and General Requirements for the Processing and Supply of Reinforcing Steel From ACRS Certified Secondary Sites

### 1 Scope

This Schedule covers the minimum quality and operational requirements for the processing of carbon steel bars and coils conforming to the requirements of AS/NZS 4671 Grades 250N, 500N, 500E and 500L at Secondary sites. Secondary sites covered by this Appendix report to a Capital City Head Office or Main Processing Site, and have the capacity for the processing of reinforcing bar in coil.

### 2 Quality Management System

The Secondary site shall have a documented quality management system that achieves the major objectives of AS/NZS ISO 9001. All the items listed in this appendix shall be subject to audit by ACRS.

*Note: Certification to AS/NZS ISO 9001 is not required for compliance to this Appendix, but where this and/or Third Party certification by another accredited body is held, ACRS Assessors will take this into account.*

### 3 Management Responsibility

Defined personnel within the company shall have responsibility for ensuring that all products meet 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.

A company officer at the Senior Management or Supervisory level shall be designated as the Management Representative for quality. This officer shall have authority for all decisions relating to quality and compliance to the requirements of this Appendix, and shall be the principal point of contact for ACRS in matters relating to the operation of the Quality Management System and compliance to this Appendix.

There shall be a regular, programmed and documented Management Review process that covers all aspects of the operation of the Quality Management System, the status of resolution of NCRs and CARs, and related quality issues.

### 5 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.

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- 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 Secondary Site or the Head Office/Main Site in accordance with the requirements of ACRS Appendix 6.
- 4.4 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.
- 4.5 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 to 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, including tolerance, shape and straightness requirements, shall be established for each process and closely monitored.

## 6 Testing and Inspection

- 1. There shall be documented procedures for the sampling and testing of finished product.
- 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.
- 3. Long-term quality levels shall be determined for each size/grade combination in the manner specified in AS/NZS4671 or the customer's specification as appropriate. The test results for the processor's long-term quality level analysis shall be submitted to ACRS at three monthly intervals. These shall be analysed at ACRS and will form part of subsequent surveillance inspections.
- 4. There shall be evidence that the processor is aware of the effect that his processing has on reinforcing steel properties by ongoing documented comparisons of finished product results with the steel supplier's batch and Long Term Quality Level results.

## 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.

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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.

## 8 Traceability

There shall be documented procedures for ensuring the identity and traceability of feedstock and individual production batches is maintained 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.

## 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 Training

There shall be documented procedures for training new personnel and developing the skills and competencies of existing personnel. This shall include as a minimum:

1. Familiarisation with relevant SOPs Work Instructions and relevant parts of the QMS.
2. Supervised on the job training for a defined period.
3. Verification of required competencies and skills.
4. Maintaining a Training Register that covers skills and competencies of operating personnel.

## 13 Audit Testing

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Samples from one heat of each diameter of coil rebar processed at the Secondary Site shall be sampled and tested at an Independent Laboratory selected by ACRS as follows:

<b>Property</b>	<b>Number of tests per cast of bar/coil diameter</b>
R <sub>m</sub>	5
R <sub>e</sub>	5
R <sub>m</sub> /R <sub>e</sub>	5
A <sub>gt</sub>	5
Rebend	3
Mass/Metre	1
Rib Geometry	1

A duplicate set of samples from each heat shall be tested by the Secondary Site as above. The Assessor shall Witness at least 30% of tests performed by the Secondary Site.

The test results will be deemed to comply with ACRS requirements if:

1. The values for Re, Ratio and Agt meet the batch test requirements of AS/NZS 4671 in both Independent and Witnessed testing.
2. There is acceptable statistical agreement in the test values for Witnessed and Independent testing.
3. The rebend tests in both Witnessed and Independent testing meet AS/NZS 4671 requirements.
4. The Mass/Metre, Rib Geometry and SPRA values conform to AS/NZS 4671 requirements in both Witnessed and Independent testing.