STANDARDS ASSOCIATION OF ZIMBABWE

CERTIFICATION SERVICES – MUTARE

TIMBER CERTIFICATION SCHEME

1. PREAMBLE

This certification scheme, which is based on type five scheme of ISO/IEC 17067, uses four surveillance activities which are;

(i) Taking samples from the production point
(ii) Taking samples from the open market
(iii) Periodic assessment of production process
(iv) Periodic audit of the management system

The management system required in this scheme is not necessarily ISO 9001:2008 certification, but selected documentation which SAZ has deemed necessary to ensure that products continue to meet specifications.

2. SCOPE

This scheme covers the following products and standards:

Sawn Softwood Timber

(i)	Stress-graded structural timber and timber for frame wall construction (visual graded)	: ZWS 257 Part 2 : 2013
(ii)	Brandering and battens (visual graded)	: ZWS 257 Part 4 : 2013
(iii)	The manufacture of finger jointed structural timber	: ZWS 208 : 2010

Eucalyptus poles

(iv	Eucalyptus poles and cross-arms for electric power and telephone lines	: ZWS 120 : 2013
(v)	Hardwood poles, droppers, laths guardrail posts, and spacer blocks.	: ZWS 553 : 2013

3. REQUIREMENTS FOR CERTIFICATION

(a) Every organisation applying for certification under this scheme shall meet the requirements stipulated in the document PM/MRE/02 “Certification requirements for the timber industry.”

(b) Quality system

The organisation shall develop and implement a quality management system as stipulated in PM/MRE/02. In addition to the mandatory documents required, the

organisation shall have written work instructions at all points in the production line where lack of such instructions could adversely affect the performance of work.

(c) Personnel involved in quality function

Personnel responsible for grading, testing and inspecting timber shall have undergone a training course approved by SAZ in the relevant product specification.

4. PROCESS CONTROL ACTIVITIES

Sawn Softwood Timber
(Visual graded structural timber & brandering and battens)

(a) Equipment required for grading

All measuring and monitoring instruments used shall have valid calibration records.
The following equipment shall be available at all premises where timber is graded:

(i) A moisture meter capable of measuring moisture content in accordance with ZWS 257 Part I Clause C.6.3
(ii) Equipment for the measurement of density or a scale for determining the mass of individual pieces of timber.
(iii) A metal measuring tape of length equal to at least the longest piece of timber produced, and graduated in millimetres.
(iv) A veneer calliper with 0.1 millimetre divisions and capable of measuring the widest faces produced (optional where only rough sawn timber is produced.)
(v) A perfectly flat surface (concrete, metal or other acceptable material) on which any form of warp can be measured. The flat surface shall be capable of accommodating the longest pieces being produced.

(b) Product Testing and Inspection

Every organization shall institute internal quality checks at critical points in the production line as required in clause 2(a)vi of the document PM/MRE/02. In general, the points shall include receiving of raw materials, in- process inspection/testing and the final inspection of finished products before dispatch. The internal quality checks shall include visual inspections for inherent defects, moisture content tests, density tests and any other aspect stipulated in the relevant standard.

-Density Tests

This test shall be conducted whenever timber is being milled from logs that are coming from new compartments or from thinnings. In other cases, the test shall be performed on every batch of timber received.

-Moisture content

Moisture content and gradient shall be tested on all batches coming from the kilns and drying stacks or before the timber is used on a structure. Both air drying and kiln drying shall be accepted under this scheme.

(b) Sampling

Samples for internal quality checks shall be randomly taken from the production line and finished products as per the company's schedules (see PM/MRE/02). The quantity of samples shall be as in Table 3 of ZWS 257 Part 1. The company's sampling schedules shall ensure that all batches are covered.

(d) Acceptance.
The lot shall be accepted if the number of defectives does not exceed the acceptance number stipulated in Table 3 of ZWS 257 Part 1.

(e) Marking
Structural timber shall be marked as in clause 6 of ZWS 257 part 2. Brandering & battens shall be marked as in clause 6 of ZWS 257 part 4.

5. FINGER JOINTED TIMBER

(a) The process controls stipulated in 3 above shall also be applicable to finger jointed timber except that the sampling and acceptance shall be as specified in ZWS 208.

(b) Finger jointing shall be carried out in accordance with ZWS 208. The finger joint pattern shall comply with clause 4 of the standard and no deviations shall be permitted. The licence holder shall have a finger jointing machine that is capable of producing the finger patterns as required by the standard and which also shall reach the recommended end pressures.

(c) All adhesives used shall be certified or be accompanied by a laboratory report if a batch system is used. Only class 1 and 2 adhesives shall be used on structural timber and on brandering and battens. Class 3 and 4 adhesives may be used for non-structural applications.

(d) The glue manufacturer's instructions shall be readily available and shall be followed in the gluing process. Where the mixing of resin and hardener is involved, the necessary equipment shall be available, that is, weighing scales and containers, timer clock, temperature sensors and mixing machine or buckets. Where heat is required either during gluing or curing, this shall be provided.

(e) The company shall either have an internal laboratory for testing finger joint samples or have access to an outside laboratory that is capable of testing joints in accordance with ZWS 208. Samples for testing shall be drawn from every batch that is produced.

(f) In addition to the density and moisture content tests in 3(b) above, the following tests shall also be performed on Finger Jointed timber.

(i) Bond Strength (Tensile tests) shall be conducted as stipulated in appendix A of ZWS 208. The quantity of samples shall be as in Table 3. The frequency of

sampling shall be as in clause A.3.2. The acceptance of the lot shall be as per clause A.9.

(ii) Bending Strength (Modulus of rupture) shall be conducted as in appendix B of ZWS 208. The quantity of samples shall be as in Table 5. The frequency of sampling shall be as in clause A.3.2. The acceptance of the lot shall be as in clause B7 and B8.

(g) Finger jointed timber shall be visually graded for inherent and manufacturing defects in accordance with the relevant product specification.

(h) Finger jointed timber shall be marked as stipulated in ZWS 208 and also as per the relevant product specification.

6. PROCESS CONTROLS FOR EUCALYPTUS POLES

Equipment required for grading poles;
-Tape measure graduated in millimetres and capable of measuring the length of the longest pole.
-A diameter tape graduated in millimetres capable of measuring the largest diameter.
-An increment borer
-A moister meter with valid calibration records.

(a) Pre –Treatment

Poles shall be air stacked and handled in accordance with appendix A1 of ZWS 120 until they have attained the accepted moisture content for treating. All the poles (100%) shall then be visually graded for freedom from inherent defects. Every pole shall be measured for compliance with dimensional requirements i.e. length and diameter class. Pre-treatment grading records shall be kept.

(b) Preservatives

All preservatives used in treating poles shall be certified or be accompanied by a laboratory report if a batch release system is used.

(c) Treatment process

The company shall have a pole treatment plant capable of treating poles using any of the pressure methods stipulated in SANS 10005. Non pressure methods of treating poles shall not be certified under this scheme. Treatment plants shall be designed in such a manner that the amount of preservative used per charge is easily quantified and the correct retentions calculated. The volumetric method given in appendix A.3.3 of ZWS 120 shall be the preferred method for calculating retention. All pressure gauges on the treatment plant shall have valid calibration records.

(i) A charge book or permanent record shall be kept where the following details are recorded;

-charge or batch number, dates treated , preservative used, number of poles and their lengths and diameter classes, moisture content before treatment, treatment process, retention obtained and the results of penetration tests.

-Poles shall be marked as stipulated in ZWS 120:2013

(iii) Where CCA is used, SANS method 1061 shall be used for checking solution strength.

(iv) A final inspection covering 100% of the poles shall be made before dispatch for compliance with the requirements of ZWS 120:2013 and this record shall also be kept as a permanent record at the plant.

(v) Tests

The following tests shall be performed on poles;

Moisture content

Every batch shall be tested for moisture content before treatment using either the moisture meter method or the oven dry method.

Preservative Penetration

Every batch of treated poles shall be tested for preservative penetration. The core method and copper azurol spray method given in clause6.5.2 of ZWS 120:2013 shall be the preferred methods for creosote and CCA treated poles respectively.

In both cases, the sampling for these tests and the acceptance criteria shall be as in Table 7 of ZWS 120:2013

7. Certification Process

The process of obtaining a licence described in procedure PR/02 “Product mark certification process” shall be followed. The Enquiry form MC14 shall be completed at the enquiry stage. The reviewing of inspection and laboratory reports shall be conducted by the certification manager or auditor who shall recommend the applicant to the Product Mark Certification Committee for certification if all the requirements have been met. If recommending for certification is not appropriate, the applicant shall be advised accordingly.

(a) Sampling

Where applicable, sampling shall be carried out as stipulated in clause 5 of PR/02 cited above. However, where tests can be performed on site by the inspector, the sampling shall be combined with the pre-licence inspection/audit.

(b) Pre-licence inspection/audit

A pre-licence audit/ inspection shall be conducted at the client's premises. This audit shall include an audit of the company's management system as well as an inspection of the company's production process.

(c) Evaluation

For the purpose of granting and maintaining certification, Products shall be evaluated against all the requirements of the applicable standard. The organization shall be evaluated on its quality system and the controls it puts in the production process.

(d) Certification Decision

All evidence gathered through audits, inspections, laboratory reports and application forms shall be assessed by the Product Mark Certification Committee who shall make the certification decision. When certification is granted, the client shall be issued with a licence that permits them to use the Association's mark of conformity.

(e) Post-licence Surveillance

At least one inspection per quarter shall be conducted on licence holders. The inspection can be announced or unannounced. Where an inspection shows non-compliance, the licence holder shall be required to institute corrective action. Where applicable, sampling for laboratory testing shall also be conducted during the inspection.

(f) Inspection of timber in the open market

SAZ may occasionally visit construction sites, timber merchants as well as electricity and telephone service providers to inspect timber coming from certified clients. Open market inspections and testing shall also be conducted whenever there is a complaint over certified products. Whenever such inspections are conducted, the manufacturer shall be issued with a copy of the inspection report. Manufacturers shall be requested to disclose their markets to enable open market surveillance to be conducted. Where non-conformities are detected in the open market, the client shall be required to institute corrective action which may involve product recall or replacement.

8. SUSPENSION AND WITHDRAWAL OF CERTIFICATION

SAZ reserves the right to suspend or withdraw certification should the client breach any of the conditions for certification. The conditions for suspending or withdrawing certification are stipulated in the contract agreement form MC 18. The process of withdrawing or suspending certification is stipulated in the SAZ procedure PR/13 "Conditions for reduction, suspension or withdrawal of registration"

9. FEES

The requirements stipulated in the contract form MC18 and the following shall apply.

(a) The client shall pay SAZ all fees due in respect of certification services provided.

(b) The fees payable are those set out in the current schedule of levies, or as otherwise agreed between SAZ and the client.

(g) SAZ reserves the right to amend the schedule of levies at any time and to require the clients to pay in advance.

(h) Additional costs

The client shall be responsible for additional costs incurred by SAZ in;

- re-evaluation where premises or ownership has changed.
- Follow ups on shortcomings detected during audits and in investigations pertaining to non-complying products.

10. USE OF LICENCES AND MARKS OF CONFORMITY

The requirements stated in the contract form and the following shall apply:

(a) The client may copy the licence provided that each copy is clearly identified as a copy.

(b) The client may publicise the fact that certification has been granted and use the licence as evidence.

(c) The original and any copies of the licence remain the property of SAZ and shall be returned immediately when requested to do so.

(d) The client shall not misrepresent the nature, status or scope of certification.

(e) The use of the SAZ mark of conformity, as governed by document PM31, "Reference to certification and use of marks" shall be strictly adhered to. If, for any reason, the client is instructed to stop marking products, the client shall do so until instructed to resume the marking.

(f) The standard mark for product certification given in PM31 or its simplified forms shall be used on timber which complies with relevant standards.

11. COMPLAINTS / APPEALS

Licence holders and the public have the right to complain regarding the service provided by SAZ or non-complying certified products and to appeal on any decision made regarding certification. The SAZ procedure for customer complaints/appeals MPR1 shall be followed in lodging a complaint or appeal The procedure is available on request from SAZ offices and is also available on the SAZ website ; *www.saz.org.zw*