

ACCEPTANCE CRITERIA FOR QUALITY CONTROL OF WOOD SHAKES AND SHINGLES

AC09

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PREFACE

Evaluation reports issued by ICC Evaluation Service, Inc. (ICC-ES), are based upon performance features of the International family of codes and other widely adopted code families, including the Uniform Codes, the BOCA National Codes, and the SBCCI Standard Codes. Section 104.11 of the *International Building Code*® reads as follows:

The provisions of this code are not intended to prevent the installation of any materials or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. An alternative material, design or method of construction shall be approved where the building official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.

Similar provisions are contained in the Uniform Codes, the National Codes, and the Standard Codes.

This acceptance criteria has been issued to provide all interested parties with guidelines for demonstrating compliance with performance features of the applicable code(s) referenced in the acceptance criteria. The criteria was developed and adopted following public hearings conducted by the ICC-ES Evaluation Committee, and is effective on the date shown above. All reports issued or reissued on or after the effective date must comply with this criteria, while reports issued prior to this date may be in compliance with this criteria or with the previous edition. If the criteria is an updated version from the previous edition, a solid vertical line (|) in the margin within the criteria indicates a technical change, addition, or deletion from the previous edition. A deletion indicator (→) is provided in the margin where a paragraph has been deleted if the deletion involved a technical change. This criteria may be further revised as the need dictates.

ICC-ES may consider alternate criteria, provided the report applicant submits valid data demonstrating that the alternate criteria are at least equivalent to the criteria set forth in this document, and otherwise demonstrate compliance with the performance features of the codes. Notwithstanding that a product, material, or type or method of construction meets the requirements of the criteria set forth in this document, or that it can be demonstrated that valid alternate criteria are equivalent to the criteria in this document and otherwise demonstrate compliance with the performance features of the codes, ICC-ES retains the right to refuse to issue or renew an evaluation report, if the product, material, or type or method of construction is such that either unusual care with its installation or use must be exercised for satisfactory performance, or if malfunctioning is apt to cause unreasonable property damage or personal injury or sickness relative to the benefits to be achieved by the use of the product, material, or type or method of construction.

Acceptance criteria are developed for use solely by ICC-ES for purposes of issuing ICC-ES evaluation reports.

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1.0 INTRODUCTION

1.1 Purpose: The purpose of this acceptance criteria is to establish minimum requirements for applicants requesting recognition, in an ICC-ES evaluation report, of wood shakes and shingles under the 2006 *International Building Code*[®] (IBC), the 2006 *International Residential Code*[®] (IRC), and the 1997 *Uniform Building Code*[™] (UBC). The bases of recognition include IBC Sections 104.11, 1507.8.4 and 1507.9.5; IRC Sections 104.11, R905.7.4 and R905.8.5; and UBC Sections 104.2.8, 1507.12 and 1507.13.

1.2 Scope: This acceptance criteria encompasses, for wood shakes and shingles, the minimum grade requirements; requirements for quality control systems and documentation, and for product identification; and inspection agency requirements. If recognition is desired for products produced from species other than Western red cedar or redwood, manufactured and graded in accordance with the applicable code, compliance with Section 3.1 of the ICC-ES Acceptance Criteria for Special Roofing Systems (AC07) shall be demonstrated. If fire classification is to be considered, compliance with the ICC-ES Acceptance criteria for Classified Wood Roof Systems (AC107) shall also be established.

1.3 Codes and Reference Standards:

1.3.1 2006 *International Building Code*[®] (IBC), International Code Council.

1.3.2 2006 *International Residential Code*[®] (IRC), International Code Council.

1.3.3 1997 *Uniform Building Code*[™] (UBC).

1.3.4 ICC-ES Acceptance Criteria for Classified Wood Roof Systems (AC107).

1.3.5 ICC-ES Acceptance Criteria for Special Roofing Systems (AC07).

2.0 BASIC INFORMATION

2.1 General: The following information shall be submitted:

2.1.1 Product Description: Complete information concerning material specifications, thickness, size and the manufacturing process, including the grading rules applicable to the product(s).

2.1.2 Installation Instructions: Installation details, limitations and fastening methods.

2.1.3 Packaging and Identification: A description of the method of packaging and field identification of the product. Identification provisions shall include the following:

2.1.3.1 Bundle Labels: Each bundle of No. 1 grade shakes and shingles, including shakes and shingles for hip and ridge locations, shall be identified by a label printed on white base stock with predominantly blue ink. Each bundle of No. 2 grade tapersawn shakes and shingles, including No. 2 grade tapersawn shakes and shingles for hip and ridge locations, shall be identified by a label on white base stock with predominantly red ink. Each bundle of No. 3 grade shingles, including shingles

for hip and ridge locations, shall be identified by a label printed on white base stock with predominantly black ink.

Labels shall bear the following information:

- Wood species.
- Evaluation report number.
- Designation of the approved grading rules applicable to the product.
- Name, address and telephone number of the mill.
- Name and accreditation number of the inspection agency.
- Grade number for shakes and shingles, including hip and ridge products.
- Product dimensions (thickness and length).
- Coverage and exposure information.
- Any other information required under the conditions of an ICC-ES evaluation report.

Installation instructions may also appear on the labels. If so, they must comply with the applicable building code or acceptance criteria.

2.1.3.2 Noncomplying Labels: Each bundle of noncomplying wood shake or shingle products shall be segregated from complying products and shall bear a label clearly identifying the bundle as noncomplying material. Specifically, the labels shall state that the material does not comply with the provisions of the *International Building Code*, the *International Residential Code* or the *Uniform Building Code*. The wording, color, and all other features or symbols upon the label shall not, in any manner, suggest or infer that the material is complying material. The label shall not, in any manner, refer to ICC, ICC Evaluation Service, Inc., or the evaluation report number or the accreditation number of the inspection agency.

2.1.3.3 Pallet Release Tags: Each pallet shall be identified by a serialized release tag substantially attached to the pallet. The release tag shall include the inspection agency name, the name and address of the mill, packing date, product type, the date of release of the palletized material, and the signature or initials of the designated in-house quality control inspector.

The manufacturer shall maintain a release tag log which shall note the number of tags issued for each product type. This log shall be available at the mill.

3.0 QUALITY CONTROL

3.1 Manufacturer's Requirements:

3.1.1 General: The products shall be manufactured under an approved quality control program with inspections by an inspection agency accredited by the International Accreditation Service (IAS).

3.1.2 Quality Control Documentation: Quality documentation complying with the ICC-ES Acceptance Criteria for Quality Documentation (AC10) shall be submitted and shall include, in addition to the requirements of AC10, the following:

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3.1.2.1 Name and telephone number of the designated in-house quality control inspector(s).

3.1.2.2 Copies of all labels to be applied to finished product, including noncomplying labels and pallet release tags.

3.1.2.3 Copies of in-house quality control forms and reports, and copies of the inspection form(s) to be used by the inspection agency. Typical inspection forms are provided in Appendices A and B of this criteria.

3.1.3 Noncompliance: Each rejected (red-tagged) pallet, whether noted by the inspection agency or by the in-house quality control inspector, shall be identified with a serialized tag noting the product type, the date red-tagged, the date repacked and the number of bundles contained on the pallet.

3.1.3.1 All rejected (red-tagged) pallets shall be repacked within 30 days of the initial red-tagged date and reinspected by the inspection agency. Additional material shall not be added to the repacked pallets until released by the inspection agency. The red tag on the discrepant material shall only be removed by the inspection agency.

3.2 Inspection Agency Requirements: The following requirements pertain to the inspection agency and shall be documented in the manufacturer's quality documentation or in a separate document from the inspection agency.

3.2.1 At a minimum, the inspection agency shall conduct unannounced inspections at the mill(s) once every working week.

EXCEPTION: For preservative-treated wood shakes complying with Part III of UBC Standard 15-3, inspections shall be conducted at a minimum frequency of once every two weeks.

3.2.1.1 Mills on reduced production may be inspected once every 750 bundles.

3.2.1.2 Field inspections of products manufactured by the manufacturer may be substituted for a maximum of two required inspections per month at the production facility.

EXCEPTION: For preservative-treated wood shakes, field inspection may be substituted for up to a maximum of one inspection per month.

3.2.1.3 More frequent inspections may be necessary for mills on notice because of improper grading or poor quality control practices.

3.2.2 The inspection agency shall have total control of the product identification labels and shall be responsible for the following:

3.2.2.1 The mill(s), at any given time, shall be provided labels for no more than 90 days of production for each type of product.

3.2.2.2 Labels belonging to any other mill or agency, other than the mill or agency of record, are not permitted at the mill site without prior written approval of the inspection agency.

3.2.3 The inspection agency shall maintain a log of rejected (red-tagged) material. The log shall include the number of bundles on each pallet to be repacked, the number of bundles on the pallet after repacking, the date material was red-tagged, the date released by the agency inspector, and the serial number on each pallet's red tag.

3.2.4 The inspection agency inspection personnel shall be able to demonstrate acceptable inspection practices and proficiency in grading under the applicable standards and/or applicable ICC-ES acceptance criteria.

3.3 Joint Inspection: Prior to issuance of an evaluation report, ICC-ES reserves the right to conduct a joint inspection of the manufacturing facilities with the inspection agency. ■

