1520.5 Application. Roof insulation shall be applied in strict compliance with the application methods detailed in the roof assembly Product Approval and with the requirements set forth in RAS 117.

1520.5.1 Roof insulation, either on the ground or on the roof top, shall be kept dry. The building official shall instruct the removal of the insulation from the job when elevated moisture levels are found in the insulation or where panels cannot achieve 85-percent adhesion.

1520.5.2 When applied in hot asphalt or cold adhesive, no insulation panel's dimension shall be greater than 4 feet (1219 mm).

1520.5.3 Strip or spot mopping of insulation panels shall be used as an application method only when approved in the roof assembly Product Approval.

1520.5.4 Where more than one layer of insulation is applied, joints between layers shall be staggered.

1520.5.5 Application in approved cold adhesive shall be as detailed in the Product Approval and shall be in compliance with the required fire classification.

1520.5.6 Nail boards or composite panels with a nailable surface may be applied to sloped decks for the application of prepared roof covering or metal roofing systems, providing that the nailing surface is minimum $^{15}/_{32}$-inch (12 mm) exterior grade plywood sheathing, and has been attached to the deck with approved fastening assemblies in accordance with the windload requirements of Chapter 16 (High-Velocity Hurricane Zones). Composite panels shall be gapped a minimum of $^{1}/_{8}$ inch (3.2 mm) to allow for expansion of the sheathing panel.

1520.5.7 Suitable nailable decks installed over rigid board roof insulation in buildings of mean roof height of 35 feet (10.7 m) or less, shall be a minimum of $^{15}/_{32}$-inch (12 mm) exterior grade plywood sheathing. These decks shall be fastened to every structural roof frame member or to the existing deck under the insulation, at intervals of not more than 24 inches (610 mm) apart, with a minimum #12 approved insulation fastener spaced at a maximum of 12 inches (305 mm) apart in one direction with a minimum penetration of $1^{1}/_{2}$ inches (38 mm) into the structural member or deck. In these cases the maximum thickness of the rigid insulation board shall not exceed 2 inches (51 mm). An alternate method of attachment may be proposed, provided it is in compliance with Chapter 16 (High-Velocity Hurricane Zones), and it is prepared, signed and sealed by a Florida-registered architect or a Florida professional engineer, which architect or engineer shall be proficient in structural design.

1520.5.8 Mechanical attachment of insulation panels at uneven areas shall be acceptable. Hollowing, cutting or scoring of insulation panels to provide contact shall not be acceptable.

SECTION 1521
HIGH-VELOCITY HURRICANE ZONES—REROOFING

1521.1 General. Materials and methods of application used for recovering or replacing an existing roof covering, system or assembly shall comply with the requirements set forth in Sections 1512 through 1525.

1521.2 Repairs shall be carried out with roofing components as defined in this chapter having a Product Approval.

1521.3 Repairs shall be carried out in such a manner as to not create additional ponding water.

1521.4 Not more than 25 percent of the total roof area or roof section of any existing building or structure shall be repaired, replaced or recovered in any 12-month period unless the entire existing roofing system or roof section is replaced to conform to requirements of this code.

1521.5 A roofing system shall not be applied over an existing roof or over an existing roof deck where the roof sheathing has not been fastened in compliance with this code or where the roof sheathing will not permit effective fastening or where sheathing is water soaked or deteriorated so that effective attachment is not possible. All areas of deteriorated sheathing shall be removed and replaced. The building official shall not be required to inspect the renailing of the sheathing under this section.

1521.6 Structural concrete decks shall be allowed to dry or shall be dried prior to application of an ASTM D 41 or ASTM D 43, as required, or roofing system proprietary primer where the base sheet or base insulation layer is bonded to the concrete deck.

1521.7 On lightweight concrete, gypsum and cementitious wood fiber roof decks a field fastener withdrawal resistance test, in compliance with TAS 105, shall be carried out to confirm compliance with wind load requirements of Chapter 16 (High-Velocity Hurricane Zones).

1521.7.1 If the tested fasteners exhibit a minimum characteristic resistance force less than 80 percent than that listed in the Product Approval, a structural engineer shall examine the deck's integrity and provide a proposed attachment specification. Such specification shall be submitted with the uniform roofing permit application for review and approval by the building official prior to the issuance of a roofing permit. Calculations for the attachment of the anchor sheet/base sheet or insulation over these deck types, shall be in compliance with RAS 117.

1521.8 Steel decks shall be examined prior to recover for indication of corrosion. Any corrosion shall be treated with a rust inhibitor, providing the field fastener withdrawal resistance values of the proposed mechanical fasteners comply with the requirements of Chapter 16 (High-Velocity Hurricane Zone) of this code. All steel decks less than 22 gage shall be field tested for fastener withdrawal resistance for compliance with Chapter 16 (High-Velocity Hurricane Zones) prior to application of a new roofing system. Test results shall be submitted with the uniform roofing permit application.