

TEXAS DEPARTMENT OF INSURANCE

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Proposed Change to Windstorm Building Requirements or Procedures in the Texas Windstorm Insurance Association Plan of Operation

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**Please complete the following for each proposed change:
(A separate form must be submitted for each proposed change.)**

1. Proposed change to the following building requirement or procedure:

Refer to attached pages.

2. Proposed change is to:

Document: 2006 International Residential Code _____
Section: R308.6 _____
Table _____
Figure _____
Appendix _____

3. Please use the following format to present the proposed change:

~~LINE THROUGH LANGUAGE TO BE DELETED~~ UNDERLINE NEW LANGUAGE TO BE ADDED

4. Proposed Change. Please specify change. Attach additional sheets if needed.

Refer to attached pages.

5. Reason for Change. Please state purpose and reason for change. Attach additional sheets if needed.

Refer to attached pages.

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Item Number: _____
BCAC Form 100-99 Amended January 1, 2005

Page 1 of 4

Proposed Change to Windstorm Building Requirements or Procedures in the Texas Windstorm Insurance Association Plan of Operation

- 6. Attach supporting written or printed information, including, but not limited to, test data, structural calculations, and/or documentation that the proposed change complies with the minimum wind load criteria and design standards specified in the building requirements adopted by the Texas Department of Insurance. Attach supporting written or printed information relating to the proposed changes to the building requirements or procedures contained in the Texas Windstorm Insurance Association Plan of Operation.**

Pursuant to Article 21.49, §6C of the Insurance Code, this proposal form must be complete and submitted to the address specified above not later than the 30th day before the date of a scheduled advisory committee meeting for the proposal to be considered at that meeting.

For Texas Department of Insurance use only:

Item Number: _____

BCAC Form 100-99 Amended January 1, 2005

Page 2 of 4

Proposed Change to Windstorm Building Requirements or Procedures in the Texas Windstorm Insurance Association Plan of Operation

Proposal:

R308.6.9 Testing and labeling. ~~Unit skylights shall be tested by an approved independent laboratory, and bear a label identifying manufacturer, performance grade rating and approved inspection agency to indicate compliance with the requirements of AAMA/WDMA/CSA 101/I.S.2/A440.~~ **Performance.** Skylights shall be designed to resist the design wind loads specified in Table R301.2(2) adjusted for height and exposure per Table 301.2(3).

R308.6.10 Testing and labeling. Unit skylights shall be tested by an approved independent laboratory, and bear a label identifying manufacturer, performance grade rating and approved inspection agency to indicate compliance with the requirements of AAMA/WDMA/CSA 101/I.S.2/A440.

R308.6.11 Other skylight assemblies. Skylight assemblies not included within the scope of Section R308.6.10 shall be tested in accordance with ASTM E 330.

R308.6.12 Windborne debris protection. Protection of skylights in buildings located in **wind-borne debris** regions shall be in accordance with Section R301.2.1.2.

R308.6.12.1 Testing and labeling. Skylights shall be tested by an approved independent laboratory, listed by an approved entity, and bear a label identifying manufacturer, performance characteristics, and approved inspection agency to indicate compliance with the requirements of the following specification:

1. ASTM E 1886 and ASTM E 1996; or
2. AAMA 506.

Skylights qualified in this section shall also meet the requirements of R308.6.10 or R308.6.11.

Reason for Texas Revision:

The purpose of the proposed code change is to provide better guidance in the code for skylights. The reasons for these proposed changes are as follows:

- Section R308.6 of the 2006 IRC does not specifically address wind force resistance criteria pertaining to skylights. This information is critical in establishing acceptability parameters for skylight assemblies used within the hurricane-prone areas along the Texas Gulf Coast. The proposed changes will clarify the code by specifically addressing wind force resistance criteria pertaining to skylights.
- Section R308.6 of the 2006 IRC requires a skylight assembly to be subjected to a series of tests (AAMA/WDMA/CSA 101/I.S.2/A440), yet it does not address acceptable design pressure requirements which should be verified through testing. The proposed changes will clarify the code by providing a performance section (Section 308.6.9) which clarifies performance requirements.
- Section R308.6 of the 2006 IRC does not provide acceptability criteria regarding the testing and performance of certain skylight assemblies (examples include sun tunnels, tubular skylights or tubular day-lighting devices). These small skylights are popular yet they are not addressed by the IRC because they do not meet the minimum gateway test specimen sizes of AAMA/WDMA/CSA 101/I.S.2/A440. The proposed changes will clarify the code by providing an "other skylight assemblies section" (Section 308.6.11) which clarifies testing and performance requirements for these type skylights.
- Section R308.6 of the 2006 IRC does not address the need to protect skylights from windborne debris impact. The proposed changes clarify the code by providing a windborne debris section (Section 308.6.12) which requires that skylights be protected from windborne debris. This added section will include a testing and labeling subsection (Section 308.6.12.1) which specifies testing and labeling requirements for impact-resistant skylights.

For Texas Department of Insurance use only:

Item Number: _____

BCAC Form 100-99 Amended January 1, 2005

Page 3 of 4

Proposed Change to Windstorm Building Requirements or Procedures in the Texas Windstorm Insurance Association Plan of Operation

- The skylight wind performance criteria and the testing and labeling requirements of Section R308.6 are lacking specific, defined information. Skylight manufactures have difficulty interpreting codes and assessing the performance requirements and testing criteria for their products. Many skylight manufactures have, unfortunately, elected to forgo testing and labeling their products as required by the IRC. Unfortunately, the TDI is not able to develop evaluation reports for these products. Clarifying the code will help manufacturers understand the testing, labeling, and performance criteria and will enable more manufacturers to submit skylight product performance information to the TDI which meet the building code specifications. Consumers will benefit from having a greater selection of code-compliant skylight products.

The proposed changes can be substantiated based on the following logic:

- Skylights are fenestration assemblies just as windows are fenestration assemblies. Skylights and windows contain similar parts and components. Skylights are subjected to similar adverse environmental conditions as windows. Skylights and windows should, therefore, be governed by similar building code requirements. These proposed changes incorporate sections which were taken from Section R613.3 of the 2006 IRC regarding "Exterior Windows and Glass Doors". The IRC provides clear and specific detailed requirements pertaining to the wind-resistance of windows. The IRC, should, likewise, provide similar clear and specific detailed requirements pertaining to the wind-resistance of skylights.

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Item Number: _____

BCAC Form 100-99 Amended January 1, 2005

Page 4 of 4