NFRC Technical Bulletin 2011-01

DATE: January 4, 2011
SUBJECT: WINDOW6/THERM6 Software, Technical Interpretations, Publication of Documents, and New Gas Property for WINDOW

This bulletin has many items to begin the year of 2011. Included is the approval of WINDOW6/THERM6 for official NFRC certification. A new Simulation Manual accommodates the new software, as well as a new Technical Interpretations Manual. There were also revisions to existing technical documents, as well as new gas property approved for use in both WINDOW5 and WINDOW6.

If you have any questions concerning the information in this *NFRC Technical Bulletin*, please contact Dennis Anderson at 240-821-9514; email: danderson@nfrc.org or Scott Hanlon at 240-821-9519; email: shanlon@nfrc.org.

Item 1: WINDOW6.3/THERM6.3

The final versions of WINDOW6 (v. 6.3.9) and THERM6 (v. 6.3.19) have been modified in accordance with the issues presented at the Spring 2010 membership meeting and are approved for immediate use within the NFRC Certification of non-complex glazing products. NOTE: These versions of the software use the following setup files: WINDOW 6.3.9 (filename "Window63SetUpFull6_3_9.exe") and THERM 6.3.19 (filename “THERM63SetUp6_3_19”). There are previous versions of WINDOW 6.3.9 (filename "Window63SetUpFull.exe") and THERM6.3.14 that are available for download from the LNBL website but are only approved for the current version of CMAST (v.1.1.16).

Be aware that you cannot have two versions of WINDOW6.3 or two versions of THERM6.3 installed on the same computer. CMAST version 1.2 is currently under review and testing is being conducted. It is expected that CMAST version 1.2 will be released next week and this version will use the same WINDOW 6.3.9 ("Window63SetUpFull6_3_9.exe") and THERM 6.3.19 software as the residential certification program.

Item 2: Simulation Manual (January 2011) for WINDOW6 and THERM6

TIPC approved a new simulator's manual to be used immediately for simulation work involving the newly approved WINDOW6.3 and THERM6.3 Software.

http://www.nfrc.org/documents/NFRCSim6.3-2010-Manual.pdf

Item 3: Simulation Manual (July 2006) for WINDOW5 and THERM5

TIPC approved an erratum to the Simulation Manual (July 2006 version) for a correction to the boundary condition film coefficients for tilted products (skylights and sloped glazing). The link below is the corrected page that is to replace your current WINDOW5/THERM5 Simulation Manual.

http://www.nfrc.org/documents/NFRCSim5.2-2006-Chptr06-BCTiltPage6-26Erratum.pdf

Item 4: 2010 Technical Interpretations Manual

TIPC approved a new technical interpretations manual, titled *NFRC 2010 Technical Interpretations Manual*, has been published and is available for immediate use. This manual supersedes the previous 2001/2004 TI Manual. All technical interpretations that were approved by TIPC during 2010 and published as TI-2010-## kept the TI number as published. Any TI's that were carried over from the 2001/2004 TI Manual were renumbered, starting with TI-2010-10.

Be aware that two recent technical interpretations were approved on December 8, 2010 and were published as:

TI-2010-08 Door Infill/Glazing Grouping
TI-2010-09 Entry Door Panel Sizes

Click this following link for the published 2010 TI Manual:
http://www.nfrc.org/documents/NFRC2010TechnicalInterpretationsManual_E0A0.pdf

Item 5: New Gas Property Approved – Octoflouropropane

A new gas property was approved for use as a gas fill in WINDOW5 and WINDOW6. This gas property is published in NFRC 101-2010_E2A12.

http://www.nfrc.org/documents/NFRC101-2010E2A12.pdf

To import the new gas property into the WINDOW5 or WINDOW6 gas library, it is required to download a zip file and follow the instructions. Click on the link below and then page down and find "Special Gases Library." Click on the "Special Gases Library" link and the instructions and gas import zip file are available for download. Note: The link below is the same file/process for both WINDOW5 and 6.

http://windows.lbl.gov/software/window/52/W52_faq.html#.

Item 6: NFRC 100-2010 E0A3

NFRC 100-2010$_{[E0A3]}$ was revised to update Tables 4-2, 5-8, and 5-9. This action was approved by the NFRC Executive Committee. This version has been published and is available for immediate use.

Table 4-2 was required to be updated due to an error in the boundary conditions for tilted skylight modeling. If you download THERM6.3.19, the correct boundary conditions are already in the bc.lib file.

Tables 5-8 and 5-9 were revised to update type errors regarding the gap widths; and, the grey glass in Table 5-9 was removed from the Residential Fixed Aluminum Window to be consistent with NFRC 200.

http://www.nfrc.org/documents/NFRC100-2010_E0A3.pdf

Item 7: NFRC 200-2010 E1A2

NFRC 200-2010$_{[E1A2]}$ was revised to correct error messages that appeared on page 22. This document is published and is available for immediate use.

http://www.nfrc.org/documents/NFRC200-2010_E1A2.pdf

Item 8: NFRC 102-2010 E1A2

NFRC 102-2010$_{[E0A1]}$ was revised due to balloted language that was presented and approved at the NFRC Meetings in San Francisco. This revised document now includes a new section on frequency of calibration, a revised procedure for wind velocity verification, and the deletion of Table A5-1.

http://www.nfrc.org/documents/NFRC102-2010E0A1.pdf

Item 9: NFRC 201-2010 E1A2

NFRC 201-2010$_{[E1A2]}$ was revised due to balloted language that was presented and approved at the NFRC Meetings in San Francisco. A new section regarding installation and testing of Tubular Daylighting Devices was added to this document, as Appendix G.

http://www.nfrc.org/documents/NFRC201-2010E0A1.pdf

Item 10: Single-Glazing Simulations in WINDOW5.2

It was noted by LBNL that there is a calculation error in WINDOW5.2 for the simulation of any product that is single-glazed. This error has been corrected in WINDOW6.3. Therefore, if you are simulating any single-glazed products, it is required that manual area-weighting is conducted to calculate the U-factor if WINDOW5.2 software is used.