

"The New RESNET Sampling Standard"

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Presentation Outline

- ☐ Background Information
- ☐ High-lights of New Sampling Standard:
 - 601 – General Provisions
 - 602 – Definitions
 - 603 – Technical Requirements for Sampling
 - 604 – Sampling Provider Accreditation
 - 605 – Renewal
 - 606 – Suspension and Revocation of Accreditation
 - 607 – Appeals Procedures
 - 608 – Revision of Accreditation Procedures
 - 609 – Effective Dates
- ☐ Questions & Answers



Background Information

☐ Poll the Audience:

- How many doing sampling right now?
- How many planning to do sampling in the future?
- How many have read some version of the new Sampling Standard?
 - ☐ Black text – no change
 - ☐ Orange text – new material
 - ☐ Grey text – deleted material



Background Information

☐ EPA Proposed Protocol

- RESNET comments taken, not all adopted
- Protocol published and in effect January 1, 2004
- Requested that RESNET create and adopt an accreditation standard for Sampling Providers



Background Information

☐ RESNET Sampling Task Force & Standard Drafting Committee

☐ Established in January 2004

- ☐ Ben Adams
- ☐ Eric Borsting
- ☐ Philip Fairey
- ☐ Bruce Harley
- ☐ Kathy Howard
- ☐ C.T. Loyd
- ☐ Lee O'Neal
- ☐ Kelly Parker
- ☐ Daran Wastchak
- ☐ David Wilson



Background Information

☐ RESNET Sampling Task Force & Standard Drafting Committee

- ☐ Established in January 2004
- ☐ First meeting in March 2004 at RESNET Conference
- ☐ February–March 2006 – 1st Public Review Period
- ☐ February 28, 2006 – Session at RESNET Conference
- ☐ July-August 2006 – 2nd Public Review Period
- ☐ December 20, 2006 – Final Board Approval



Background Information

- What's Next
 - Form "Sampling Accreditation Review Committee"
 - Develop an "Application For Sampling Provider Program Accreditation "
 - All new Applications are due no later than June 1, 2007
 - New Standard must be implemented by all raters and providers on July 1, 2007



High-lights of New Standard

- 601 – General Provisions
 - 601.1 – Purpose
 - Certification via the Sampling Standard does not constitute a "confirmed" rating
 - HERS Index can be assigned, but must be the same for each home plan and equal to the threshold specification determined from plans
 - Sampling Providers assume all warranties and liabilities with the sampling of homes



High-lights of New Standard

□ 602 – Definitions

- **Sample Set** - A specific group of homes from which one or more individual homes are randomly selected for sampling controls.
- **Sampling Controls** - A collection or set of required tests and inspections performed for a sample set of homes in order to confirm that the threshold specifications have been met. "Sampling controls" may refer to the entire set of tests and inspections, or to a particular phase that constitutes a defined subset of those tests and inspections (e.g. pre-drywall, final, HVAC, windows and orientation, etc).



High-lights of New Standard

□ 602 – Definitions

- **Threshold Specifications** - A set of qualification criteria, which are established for a sample set, based on worst-case Projected Ratings with consideration of all options, and in worst-case orientation, or a set of prescriptive specifications such as the ENERGY STAR prescriptive path adopted by the U.S. Environmental Protection Agency.



High-lights of New Standard

- ❑ 603 – Technical Requirements For Sampling
 - 603.2 – Homes eligible to be sampled
 - ❑ Homes of “same construction type using the same envelope systems”
 - ❑ Same set of trade contractors who have passed seven (7) consecutive homes (removed)
 - 603.3 – Worst-case analysis of floor plans



High-lights of New Standard

- ❑ 603 – Technical Requirements (cont'd)
 - 603.4 – Labeling of Homes
 - ❑ “This home has been certified using a sampling protocol in accordance with RESNET Standards. As such, some or all of the energy features of this home may or may not have been individually inspected or tested.”
 - ❑ Label to be located on the electrical panel, minimum of 10 pt font



High-lights of New Standard

☐ 603 – Technical Requirements (cont'd)

☒ 603.5 - Creating a "Sample Set" (i.e. "batch")

- ☐ Homes to be sampled can be selected within the same subdivision or metropolitan area and climate zone
- ☐ All "sampling controls" (i.e. tests and inspections) for a sample set at a particular stage of construction, must be completed within 30 days
- ☐ Sample sets do not have to consist of the same 7 homes through out all the stages of construction
- ☐ Participating subdivisions must be subject to "sampling controls" at least once every 90 days and have a minimum of 1 home start every 90 days



High-lights of New Standard

☐ 603 – Technical Requirements (cont'd)

☒ 603.7 – Sampling Controls

- ☐ Sample controls must be completed at a minimum ratio of one (1) test or inspection per seven (7) homes
- ☐ A certified rater must oversee the sampling process
- ☐ Sampling controls can be completed on a single home or several homes within a given sample set
- ☐ Builders qualify for sampling by first completing seven (7) consecutive homes without failure (Exception for builders already sampling as of January 1, 2007)



High-lights of New Standard

□ 603 – Technical Requirements (cont'd)

■ 603.7 – Sampling Controls

- **Failed Item** – A “failed item” constitutes a category of failure, such as insulation installation, duct leakage, prescriptive air sealing requirements, insulation enclosure, eave baffles, mechanical system efficiency, window specifications, etc. For the purpose of follow-up inspections, a “failed item” is not limited to the specific instance in a home but to that category of the minimum rated features as it applies to that home design.
- **Failure** - When one or more of the threshold specifications is not met during the testing and inspection process.



High-lights of New Standard

□ 603 – Technical Requirements (cont'd)

■ 603.7 – Sampling Controls

- **Initial Failure** - When one or more failure(s) are first identified in a home during the sampling process.
- **Additional Failure** – When additional instances of initial failure(s) are identified in one or more of the other homes in the sample set being tested or inspected.



High-lights of New Standard

□ 603 – Technical Requirements (cont'd)

■ 603.7 – Sampling Controls (cont'd)

- New subdivisions require three (3) consecutive homes to pass without failure before starting sampling
- "When an initial failure occurs, the failed item(s) shall be tested or inspected in two (2) additional homes"
- "When an additional failure occurs, in one or more of the two (2) additional homes, the failed item(s) shall be tested or inspected in the remaining four (4) homes" in the sample set
- "Until the failure is corrected in all identified (failed) homes in the sample set, none of the homes shall be deemed to meet the threshold or labeling criteria"



High-lights of New Standard

□ 603 – Technical Requirements (cont'd)

■ 603.8 – Multiple "additional failures"

- If three (3) "additional failures" occur within a ninety (90) day period on the same item, the failed item must pass in seven (7) consecutive homes before it can be sampled again
- If three (3) "additional failures" occur within a ninety (90) day period on several different items, the builder must re-qualify to sample by completing seven (7) consecutive homes without failure,
- or
- Builder can do a "root cause analysis"



High-lights of New Standard

☐ 603 – Technical Requirements (cont'd)

☒ 603.9 – QA of Sampling Process

- ☐ QA monitoring shall be conducted on a percentage of all the homes certified or qualified under sampling, rather than the percentage of tested and inspected homes
- ☐ QA monitoring may be conducted on any of the qualified or certified homes within the sample sets, and shall not be limited to the tested and inspected homes
- ☐ The provider's QA Designee shall be responsible for monitoring compliance with the sampling process



High-lights of New Standard

☐ 604 – Sampling Provider Accreditation

☒ 604.3 – Minimum Requirements

- ☐ Must be an Accredited Provider in good standing
- ☐ Accreditation must be renewed annually
- ☐ Must have completed a minimum of twenty-five (25) confirmed ratings (Exception for Providers already sampling as of January 1, 2007)
- ☐ Pass RESNET sampling provider/rater test (removed)
- ☐ Carry minimum of \$1,000,000 in general and professional liability insurance
- ☐ Builders can not use the sampling standard to certify or qualify homes in which they have a financial interest



High-lights of New Standard

- ❑ 604 – Sampling Provider Accreditation
 - 604.4.5 – Responsibilities of Accredited Sampling Providers
 - ❑ Ensure that the specifications for the minimum rated features for the sampled homes are communicated to the personnel or trades responsible for completing the work
 - ❑ Sampling Provider's written Operation Policies and Procedures:
 - How to keep track of homes that are part of the sampling process (including failures and re-inspections)
 - How to track blower door testing
 - How to track duct testing
 - Sampling Inspector discipline procedures



Questions

