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Updated NIBS Guideline 3 will help owners get a building that works

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The latest guideline released by the National Institute of Building Sciences Building Enclosure Technology and Environment Council (BETEC) will help ensure that building owners are getting a building that works correctly according to what they specify.

NIBS Guideline 3-2012: Building Enclosure Commissioning Process, released on June 1, describes a process that allows an owner to incorporate building enclosure commissioning (BECx) into a project. The BECx process is used throughout the lifecycle of a buildingâ€”from project inception through operations and maintenanceâ€”to validate that the performance of the building's materials, components, assemblies, systems and design is meeting the owner's objectives and requirements as outlined in the contract documents. Guideline 3 is intended to be used in conjunction with ASHRAE Guideline 0-2005: The Commissioning Process, which is an overall strategy detailing the commissioning process for the entire building.

"Building enclosure commissioning is becoming increasingly more complex and precise as building owners are getting savvier and more articulate about how they want their buildings to perform," said Guideline 3-2012 committee chair Robert Kistler, AIA, of the Fa  ade Group in Portland, Ore. "Guideline 3 identifies building enclosure performance as a team sport that needs to be carefully planned and monitored from the project's beginning and at each step of the building process. It offers the owner and the owners' design representatives a framework to manage the processes that facilitate the successful performance of the building enclosure."

Guideline 3-2012 is the second edition of the guideline, which was first published by the Institute in 2005. The new edition refines performance objectives for control of moisture, condensation, heat flow, air flow, water vapor flow, noise, fire, vibrations, energy migration, light, infrared radiation, ultraviolet radiation, structural performance, durability, resiliency, security, reliability, aesthetics, value, constructability, maintainability and sustainability.

"Guideline 3 is a guideline for a process; it's not a one-size-fits-all standard for commissioning," said Kistler. "Commissioning objectives for any given building's enclosure can vary by the type of owner, occupancy, use, size and specific project requirements."

To understand fully the specifics of building enclosure commissioning, Guideline 3 recommends that the user first be familiar with ASHRAE Guideline 0-2005: The Commissioning Process, upon which the new Guideline 3 is built. Guideline 3-2012 reflects current refinements in industry understanding about BECx, including the differing roles of a Building Envelope Commissioning Agent (BECxA), who is the entity designated by the team to formally document the project-specific BECx, and a Building Envelope Specialist (BES), the party deemed an "expert" in the building enclosure systems anticipated to be used on the proposed building, who possesses the experience and technical qualifications to design, critique, validate and support the team in the project development and

construction validation.

In March, the Institute signed a Memorandum of Understanding with ASTM International, which focuses specifically on building enclosure design and commissioning. ASTM E2813, Standard Practice for Building Enclosure Commissioning, currently under development, will align with ASHRAE Guideline 0 (originally developed by the Institute). When ASTM 2813 is published later this year, ASTM will format and publish NIBS Guideline 3 as a companion ASTM Standard Guide. These collaborative efforts are intended to promote a strong family of building commissioning documents and encourage wider use of the guideline and standards.

The role of BETEC, which is celebrating its 30th year in 2012, is to foster cooperation among public and private interests to improve the performance of building envelopes. In addition to Kistler, the Guideline 3 Development Committee includes BETEC members Fiona Aldous, David Altenhofen, William Nash, Tim Corbett, Joseph Deringer, Robert Magoon and Dirk Meyer.

Guideline 3-2012 can be found on the Institute's WBDG Whole Building Design Guide, the largest online portal for building science information in the world, which is also home to a wide array of research materials concerning commissioning and commissioning standards.

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