## **USGBC** and LEED® Credibility Destroyed

Northland Pines High School, Eagle River, Wisconsin Appellants' Executive Summary Response Prepared by Larry Spielvogel, PE, FASHRAE and Mark Lentz, PE June 5, 2010

The fundamental allegations in this 125-page appeal for revocation of LEED<sup>®</sup> Certification are that this building did not comply with the mandatory ASHRAE prerequisite Standards for LEED<sup>®</sup> Certification. In response to the appeal, the US Green Building Council (USGBC) provided expert reports by Horizon Engineering Associates LLP (Horizon) and Taylor Engineering (Taylor) to support their apparent predetermined conclusion that, "USGBC will not act to revoke certification or disallow any prerequisites or credits" for the Gold Certification for Northland Pines High School (NPHS) in Eagle River, Wisconsin.

For a complete understanding of this issue, it is necessary to review (1) this Executive Summary, (2) the December 23, 2008 appeal to USGBC with its 18 appendices, (3) the relevant communications with the USGBC, (4) the January 5, 2010 Horizon report, (5) the April 26, 2010 Taylor report, (6) the April 27, 2010 USGBC letter, (7) the appellants detailed response to the Horizon report, (8) the appellants detailed response to the Taylor report, and (9) the appellants' statement, all attached.

Since compliance with both ASHRAE Standard 62.1-1999 and ASHRAE Standard 90.1-1999 are mandatory prerequisites for any level of LEED<sup>®</sup> Certification, even a single instance of noncompliance with either Standard is, or should be, prima facie grounds for denial of Certification at any level. A building could apply for Platinum Certification with more than 60 points and still not be certified at all if there is only one single case where either ASHRAE Standard is not met.

It is also important to understand that the appellants did not, and still do not have access to the submission to or communications with the USGBC and most of the relevant supporting documents. The appellants were unable to obtain responsive communications from the School District, the USGBC, and the parties involved in the LEED<sup>®</sup> certification process.

It should be noted that Mr. Taylor served on the ASHRAE Project Committee for Standard 90.1-1999 and was the Chairman of the ASHRAE Project Committee for Standard 62-1999. Thus, he should be very familiar with the requirements of both Standards. It should also be noted that it took the USGBC 16 months to respond to this appeal. It must also be noted that USGBC promised a "transparent" process to the appellants and agreed to provide the appellants with copies of all documents that Horizon and Taylor referenced and relied on. Yet as of the date of this summary, none of the promised documents has been provided.

Compliance with the prerequisite ASHRAE Standards was required by USGBC at the time of the LEED<sup>®</sup> Certification and serves as the basis for granting Certification and the plaque. Going back after the fact and making changes in attempts to comply with the prerequisites and other requirements, as has been the case here, does not change the basis for the initial granting of Certification, but it does validate the veracity of the appellants' allegations.

Taylor starts the first sentences in his Executive Summary by saying,

"there were **several violations of Standard 62.1 and Standard 90.1** requirements in the design as originally documented. As such, **the original design did not meet Indoor Environmental Quality (EQ) Prerequisite 1 and Energy and Atmosphere (EA) Prerequisite 2** of LEED<sup>®</sup> NC version 2.1." (Emphasis added)

The USGBC response to the appeal should have stopped right there, when their own "independent consultant" clearly stated that the building did not comply with the mandatory LEED<sup>®</sup> prerequisites. LEED<sup>®</sup> Certification is based solely on the original design and construction.

Taylor repeatedly uses the term, "No apparent violation." The violations may not have been apparent to him, but compliance with the ASHRAE Standards is usually black and white. As Taylor should know, great care is taken to word the requirements in these Standards so there is little or no room for judgment or question. The term "apparent" is defined as,

"1 clearly seen or understood; obvious, and 2 seeming real, but not necessarily so."

The design and the construction at NPHS either did or did not comply. "Apparent" is not a definitive or conclusive term, and Taylor should know that.

Taylor claims that many violations of the requirements of ASHRAE Standard 90.1 at NPHS were corrected by the issuance of Construction Bulletin M1 of 6/09/2005. However, where some few record drawings of the construction were available to the appellants, at least some of those violations that Taylor claims were incorporated were never actually incorporated into the building. This brings into question whether and to what extent any or all of the other violations that Taylor claims were remedied by this Bulletin were actually implemented.

It is apparent that neither Taylor nor Horizon made first hand on site observations of all of the issues they opine about. Nor did Taylor review and comment on all of the allegations of non-compliance with all of the prerequisites described in the appeal and appendices.

It is also claimed by Taylor that the use of the Energy Cost Budget Method of Standard 90.1 allows the design to avoid compliance with the prescriptive requirements of the Standard. Among other things Standard 90.1 requires, but were not included in the Taylor report are,

"A list of the energy-related features that are included in the design and on which compliance with the provisions of Section 11 is based. This list shall document all energy features that differ between the models used in the *energy cost budget* and the *design energy cost* calculations."

"The building *energy cost budget* method is an alternative to the prescriptive provisions of this standard."

This means that compliance with the Standard 90.1 prescriptive provisions must be modeled, which Taylor acknowledges was not done correctly, since not all of the prescriptive provisions were included in the budget model or on the plans. This also means that the Energy Cost Budget analysis was done incorrectly. Since they also failed to provide the model to the Code authorities for approval for construction deviations from the prescriptive measures, that represents further violations of the Code.

With so many instances where the USGBC independent consultants describe recent changes or modifications to the building in attempts to make it comply with the ASHRAE Standards after they became involved, it is clear that the building as originally designed and the completed building did not and does not comply with the ASHRAE prerequisites at the time LEED® Certification was granted. This in itself is still another admission by the USGBC and their independent consultants that the building did not meet the LEED® requirements. This may also help to explain the 16 months it took USGBC to respond to the appeal.

If access to all of the relevant documents and the ability to inspect the building for compliance is denied by the USGBC, it becomes even more evident that the building never did meet all LEED<sup>®</sup> requirements. Remember that this appeal deals with only two of the 40 LEED<sup>®</sup> points that were granted by USGBC. No attempt was made to determine whether there was compliance with the other 38 LEED<sup>®</sup> points claimed. Not completely complying with the LEED<sup>®</sup> prerequisites is a plaque removal event.

This experience makes it very clear that USGBC and/or GBCI scrutiny of LEED<sup>®</sup> applications is severely lacking. While some instances of non-compliance with LEED<sup>®</sup> requirements may be minor or innocent, it is abundantly obvious that the granting of LEED<sup>®</sup> Certification at NPHS left a lot to be desired. The violations of the LEED<sup>®</sup> prerequisites in this building are numerous and are neither minor nor innocent. Unfortunately, most designers and owners are not inclined to dispute or question LEED<sup>®</sup> Certification after it is granted, especially if it might reflect unfavorably on them.

The detailed appellants' responses show how, where, and why both the Horizon and Taylor reports cannot claim this building ever complied with all of the requirements in the ASHRAE prerequisites in Standard 90.1 and Standard 62.1. The Taylor report does not either completely or correctly address the many failures of the design and construction to meet the requirements of ASHRAE Standards 62.1 and 90.1 as described in detail in the appeal and appendices. Nor does Taylor respond to all of the claims in the appeal.

Any competent and responsible engineer licensed in and meeting the Standard of Care in Wisconsin should be ashamed to demonstrate such a complete lack of knowledge of, or total disregard for both the prerequisite ASHRAE Standards and Wisconsin Code requirements as demonstrated by the reports the USGBC independent consultants provided to the USGBC. The positions taken by the independent consultants are so self-contradictory that even non-technical people can readily determine whether or not most of the design and construction of this building meets these requirements.

It is obvious that USGBC fails and refuses to acknowledge their inability to enforce and their unwillingness to support their intellectual property or defend their client's property rights. Both independent consultants to the USGBC share the same shame as the designers and contractors who submitted the LEED® application to the USGBC for not admitting that this building does not comply with the two prerequisite ASHRAE Standards in their entirety. Mr. Taylor, who knew better or should have known better, is even more culpable by virtue of his service on both ASHRAE committees and chairing one.

With apparent full access to the Northland Pines School District, the design team, and contractors, the USGBC and their chosen independent consultants have been unable to produce any evidence that the required LEED® pre-construction commissioning requirements and documents ever existed. One of the primary functions of a Commissioning Agent is to review the design documents to identify potential problems before they are issued for bids. This one issue alone is sufficiently serious to justify

denial of LEED® Certification at any level. Yet, the designers, the USGBC, and their independent consultants persisted in either ignoring their own requirements or disregarding them when explicitly told by the appellants, they were not being followed. Either prerequisite compliance is a requirement or it is not, and if it is, the required documentation and confirmation should be readily available, and much of it is not there to be found. By the USGBC independent consultant's own admission, much of it was manufactured after Certification was granted.

The USGBC decision to reject this appeal is going to matter. Like it or not, USGBC set a dangerous precedent by turning a blind eye to a deliberately deficient submission. They sent a message to applicants that it is OK to make unsupported claims in their Certification submissions, and that USGBC will not act against them even when deficiencies are disclosed. How many other projects like this are out there? That should be a matter of grave concern to potential applicants considering the time and expense of getting their facilities LEED® Certified.

From this point forward, how can any client or unit of government have faith and confidence in an organization that deliberately and intentionally does not follow the rules they develop and adopt, especially when challenged? It was the failure of the vaunted USGBC review process that allowed Northland Pines High School to become LEED® Certified in the first place. If USGBC is unwilling to enforce their own requirements and knowingly permit LEED® Certification to be retained on projects where there is clear evidence that the Certification was based on defective and inadequate applicant certification applications, what confidence should or could anyone have in the veracity of either their rating systems or their Certifications?

When and if the additional documents requested by the appellants are provided by the USGBC, we reserve the right to amend our responses. It must also be noted that the appeal was not addressed by completely independent, unbiased, and disinterested third parties.

Therefore, we leave it up to you to come to your own conclusions about the extent to which the original design and construction of the Northland Pines High School completely met the requirements of the ASHRAE Standards, Wisconsin Codes, and the requirements of the US Green Building Council for LEED<sup>®</sup> Gold Certification.

Respectfully submitted,

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