

**Dimension Stone  
Joint Committee Meeting  
Mandalay Bay, Las Vegas NV  
January 25, 2012**

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Meeting Attendees			
Company	Name	Interest Category	Role
Building Stone Institute	Jane Bennett	General Interest	Observer
Walker and Zanger, Inc	Bob Buswell	Distributor	Member
Kenneth Castellucci and Associates	David Castellucci	General Interest	Observer
NSF International	Mindy Costello	Other	Secretariat
Marble Institute of America	Garen Distelhorst	Academia / NGO	Member
NSF International	Amber Dzikowicz	General Interest	Observer
Dovetail Partners	Katie Fernholz	Academia / NGO	Member
NSF International	Kianda Franklin	User	Member
Univerity of Tennessee	Jack Geibig	User	Member
NSF International	Gillan, Dennis		Guest
Holland Marble Company	Peter Holland	Industry	Member
Estudio Group	Fred Jackson	General Interest	Observer
Artistic Tile	Joshua Levinson	Distributor	Member
Cold Spring Granite Company	John Mattke	Industry	Member
Stone Interiors LLC	Gasper Naquin	Distributor	Member
Indiana Limestone Institute	Jim Owens	Industry	Observer
Stony Creek Quarry Corporation	Darrell Petit	Academia / NGO	Member
Natural Stone Council	Duke Pointer	General Interest	Observer
University of Denver	Mark Rodgers	Academia / NGO	Joint Committee Chair
GZA GeoEnvironmental Inc.	Wendy Schlett	User	Member
Indiana Limestone Institute	Todd Schnatzmeyer	General Interest	Observer
NSF International	Jessica Slomka		Observer
Lafarge	Matt Stewart	Industry	Observer

Mindy Costello read attendance and the anti-trust statement. All agreed. Mark Rodgers welcomed everyone to the meeting.

Jack Geibig presented to the group history and where we are now. The framework document contains some criteria and ideas but is in need of specific wording to become a draft standard. There was a list of about 45 questions from industry related to the standard and Jack presented slides addressing these questions grouped into categories: process, standard, certification, and overarching.

A stakeholder is any materially affected or interested person or organization and may participate in any meetings as well as comment on ballots. The Joint Committee is the consensus body made from

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stakeholders representing balanced interest categories. The Joint Committee membership is reviewed annually for participation, voting on ballots, and task group participation. There is a recommended cap on the JC at 33 plus the JC chair. Determination of new members is based on the interest categories and balance among them.

Whit Falconer of USGBC has been monitoring the process; their policy does not allow them to directly participate on standards committees. Todd recommended another stakeholder from USGBC or someone with knowledge of LEED. Jack suggested there could be a member from Living Building Challenge.

Anyone can draft criteria for the standard; the criteria may change over time as the group evolves the framework into standard language.

Regulatory requirements may be part of the standard; however a collection of regulations is not a valuable standard for use by the market.

Certification will be monitored by those certification bodies (CBs) utilizing the standard. NSC may create a brand logo that CBs use when they certify a quarry or processor. This does not preclude any company from claiming self certification or being certified without the NSC brand. The marketplace will drive what is accepted such as third party certification with the brand.

The committee had looked at point levels for criteria for a piece of stone from the quarry and processor.

Cost is considered when developing criteria; however, it is not the only consideration. The nature of a sustainability standard is not such that there would be requirements for testing costs. Auditing is determined by the CBs or the NSC brand criteria. Foreign producers are monitored the same as domestic.

Standard scoping decisions were made early on in the development process: stone material was difficult to determine criteria for to distinguish sustainable stone. Similar to forestry certification programs for wood – stone is a material. The programs relate to the harvesting processes and reforestation. Certification at the organization level includes quarry and processing because stone is a natural material.

Different levels of achievement can change as the criteria area developed from the framework document.

If a company cannot do all the criteria (i.e., water recycling because no water use) allow points to be achieved at maximum level. Separate certification for both quarry and processing. Multiple sites will be certified independently.

Dormant quarry sites will need to be accommodated in the standard. All quarry sites can apply overarching criteria to save costs to certification of multiple sites; however each quarry site will need to be certified. Quarries will track data for all sites so there is no additional work.

There was a question about using performance criteria such as ASTM standards within this standard. In ASTM 568 there are 3 dimension stone types with minimum compression levels. Other ASTM standards exist for marble, granite and other stone types. Points could be achieved for having performed the testing; but not setting a threshold for the performance data itself.

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The question was posted if voluntary standards can become mandatory. If a standard becomes part of federal or state legislation for purchasing, the standard is therefore mandatory to participate in their purchasing programs. In LEED 2012, it is trending to look at standards for preferable programs and considering criteria EBOM (materials credit) for this purpose.

Living Building Challenge is a database for green materials. IgCC will standardize how standards are linked with codes. As a standard is utilized more in specifications it becomes the norm; market drives the standard use and will take liability of the material from the specifier and back to the certification.

There were concerns raised about costs and suppliers/fabricators asking so they can prepare for certification changes. The framework document will lead to drafting standard criteria. The consensus body will approve the standard ultimately through balloting. Costs can be estimated once the draft standard is developed.

If a company has not been tracking energy use or water, it may cost more to start that program for certification initially.

Standards are developed usually because the industry sees a need and drive to benefit. Typically innovative companies and larger ones will be early adopters of the standard. Then if success is achieved through marketplace acceptance others will begin adoption of the standard through certification.

Smaller quarriers are concerned with what they will have to do and what it will cost to achieve points for certification.

NSC sustainability committee has a mission to explore standards that exist for the industry. Education and training are needed to bring everyone up to par on sustainability issues. Informing companies once the criteria are developed is very key to acceptance.

EPA mandates are driving the industry to development of a standard rather than being told what will be included in requirements for their industry.

NSC voted to continue the standard – member organizations on the JC and stakeholders should be educated on sustainability issues. Membership outreach is important. Some quarriers are too far away from sustainable practices; they should not be the ones to “stop” sustainability standards from being developed.

Time to have adopted in market could be lengthy with specification. Architects are supportive of standards specifically how they will affect the perception of dimension stone versus other building materials. Todd Schnatzmeyer felt there would be a huge backlash in the industry. He said that education was very important to acceptance of the standard. ILI represents a group of industry and the limestone segment of stone. The responsibility of education is of the JC member or stakeholder to educate its own members on the standard's progress. The committee can be educated on the process for standard development through Ecoform and NSF International. Member companies who are stakeholders may also be informed of the standards development process. There was a suggestion to send the best practices to members of ILI for example to show them a starting point for sustainability practices. Providing information to member companies will help move the standard development process forward.

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Key scoping decisions were made during the initial development of the standard. The standard would be global in application such that it could become the ISO standard for quarries and processing if the other ISO effort did not get completed. There was no knowledge of the other ISO effort having any current progress. The focus for NSC 373 would be the N. American marketplace and its demands. This does not exclude phases of the life cycle that are outside the scope unless they are covered by other standards (e.g., TCNA Green Squared).

Aggregate is not included in the current scope; it could be at some point in the future if the stakeholders from both groups agreed this was appropriate. Two representatives from aggregate: Matt Lafarge and Wendy Schlett were monitoring this progress. LuckStone was a producer of both dimension and aggregate who was a stakeholder on this committee as well. NSSGA will be updated on the progress of the dimension stone standard in March 2012 to inform its own efforts. There are few aggregate stakeholders part of the dimension stone committee; more would need to be invited if the scope issue was discussed.

Specific framework criteria were reviewed.

Transportation both inbound and outbound was included in the standard framework. They covered fuel savings, emissions, and scope from quarry to processing and processing to next step.

Site management: quarries only, land maintenance, ecosystem conservation, site management plan, and environmental assessment.

Corporate governance: forced and child labor, anti-discrimination, employee participation in community activities, outreach and policies. References to EPA will need to be internationalized. The ILO convention reference will cover global issues of child and forced labor.

Land reclamation: post closure plan and adaptive reuse, ongoing maintenance. Some sites have geologic restrictions for land reclamation. The plan will need to be site specific. Closure is not always used – sometimes it is continuance. Ecological assessment and review of the processes at the beginning and during operation are as important as closure. Dormant sites should be addressed as well; perhaps these could be part of the plan and have health and safety aspects required for dormant sites. Educating communities is important because there are differences between aggregate and dimension stone quarriers.

The difficulty to assess cost for certification cannot be resolved until these issues are finalized. If an auditor is visiting multiple sites, this increases the cost.

Water: water inventory, recycled water, efficiency or reduction, impact adjusted water usage, water quality of discharge water, graywater responsibility and reuse.

Energy: operations, renewable use, commuting and travel, operation and maintenance plan, measurement and continuous improvement. Costs can be controlled by having many criteria optional; however the baseline cannot be too low either.

Development issues:

- Boundaries;

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- relevance of scrap rate and quarry yield;
- life cycle of stone criteria;
- translate N. American to international;
- optional versus prerequisites;
- weighting points;
- manifestation of certification at point of sale; and
- chain of custody tracking.

The group should review the TCNA Green Squared standard for internationalization suggestions.

For criteria where a quarry or processor does not use that material, they cannot show reductions; therefore, the company should receive the maximum number of points for the reduction. Another suggestion was to use a percentage of points applicable to your operations. If a quarry is operating in the "ideal" conditions (e.g., no water use) then they should receive the maximum number of points for that criterion. An example was laser cutting that is an advanced technology that uses no water.

As part of the review of the framework document, shifting life cycle burdens needs to be considered. Keeping technology and innovation in mind is important in development of credit language for the draft standard.

Manifestation of certification: a piece of stone has accumulated points with a final score of XX that specifiers or at point of sale look for. This would be similar to chain of custody in the wood industry. There could be a chain of custody as part of the delivery paperwork for a piece of stone. Individual quarries can control the tracking if they choose.

In a LEED project, the chain of custody is needed to prove credit to achieve points; in municipal projects this is required as well. Does there need to be a database to track stone pieces? Inventory of stone products was another issue what would not be easy to deal with.

Quarry – could only apply sustainable practices to specific dimension stone within that quarry. Processing could be all steps of processing at different locations. Therefore, there could be several steps of processing before point of sale. One suggestion was that only stone that has chain of custody going back to the quarry and processing could be claimed to be sustainable.

Traceability is available by the processing portion to get registry of certified quarries and processors for chain of custody. Dating of stone is possible; may not be easy but is available. Overseas, they will need to provide traceability to meeting dating, block by block certificate of origin. NY State has requested that info and even down to the bench and site within a quarry.

Another issue was labeling and time to use from slabs in inventory. Some quarries have many inventory slabs. Could there be an issue with how long it is in inventory? A registry would be doable but with issues to resolve. Is this a tracking sheet with packaging or on the product itself or where is the label located?

Installers could meet the requirements of NSF P391 Sustainable Service Providers to market an entire sustainable package: quarry, processing and installation. For tile, this could include Green Squared as well.

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The standard needs to be appealing to users with basis for the criteria as developed and consideration of locally sourced where possible. The standard can have a voice in future direction of LEED and other programs to tell the story of sustainable dimension stone.

Path going forward:

A teleconference will be scheduled for the stakeholders to review next steps and create an action plan. This will be scheduled in about 2-3 weeks.

Mark Rodgers thanked everyone for their participation and said he looked forward to seeing the progress as the groups continue to develop the draft standard.