



Natural Stone Council

Sustainability Assessment

ANSI/NSC 373-2013,
Sustainable Production of
Natural Dimension Stone



The United Voice
of the Natural Stone
Industry

This Standard is subject to revision.
Contact NSF to confirm this revision is current.

Users of this Standard may request clarifications and interpretations, or
propose revisions by contacting:

Chair, Joint Committee on Natural Dimension Stone
c/o NSF International
789 North Dixboro Road, P. O. Box 130140
Ann Arbor, Michigan 48113-0140 USA
Phone: (734) 769-8010
Telex: 753215 NSF INTL
FAX: (734) 769-0109
E-mail: info@nsf.org
Web: <http://www.nsf.org>

American National Standard/
Natural Stone Council

Sustainable Production of Natural Dimension Stone

Standard Developer
NSF International

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Foreword¹

This American National Standard, ANSI/NSC 373 Sustainable Production of Natural Dimension Stone, has been developed as part of the ongoing efforts of a number of interested parties to document and improve the sustainability profile of natural dimension stone production. Stakeholders involved in developing the Standard included stone producers, fabricators, end users such as architects, state agencies responsible for environmentally preferable product procurement practices, academics, and other interested parties.

The purpose of this Standard is to recognize and drive sustainability practices in the natural dimension stone industry. The Standard establishes a set of well-defined environmental, ecological, social responsibility and human health metrics through a multi-stakeholder, science-based approach recognized by the green building movement as an indicator of leadership in sustainability performance. The Standard provides an important opportunity to educate key members of the design and building professions, end users, government, and environmental advocacy groups about the production of natural dimension stone products. As a rating system this Standard creates a mechanism that differentiates natural dimension stone companies that demonstrate environmental leadership through commitment to sustainable operations and continued innovation. This Standard considers national and international environmental, ecological, human health, and social responsibility requirements for stone quarrying and production.

The standard applies to all processors of natural stone, from quarry operations through final stone fabrication, and is intended to allow for both domestic and international market participation from natural dimension stone producers. The quarry and processor will need to obtain the standard, chain of custody and conformance document in order to pursue certification. The certifier will not provide these.

The following credit provisions allowing the use of a past inventory will phase out on December 31, 2019.

- 10.2.2 Optional – total energy reduction
- 11.3 Optional – demonstrated process scrap reduction
- 11.4 Optional – demonstrated solid waste reduction

Suggestions for improvement of this Standard are welcome. This Standard is maintained on a Continuous Maintenance schedule and can be opened for comment at any time. Comments should be sent to Chair, Joint Committee on Dimension Stone, NSF International, National Center for Sustainability Standards at ncss@nsf.org, or P.O. Box 130140, Ann Arbor, Michigan 48113-0140, USA.

About Natural Stone Council (NSC): The Natural Stone Council, a not-for-profit organization, was formed in 2003 to unite a diverse industry of natural stone producers to actively promote the attributes of natural stone in commercial, residential, government, institutional, educational and all types of applications interior and exterior, and to proactively position natural stone as the premier construction material. The Natural Stone Council is comprised of twelve organizations representing every type of dimensional stone quarried and fabricated in the United States.

About NSF International: NSF International is a global independent organization that writes standards, and tests and certifies products for the water, food, health sciences and commercial and consumer goods industries to minimize adverse health effects and protect the environment (nsf.org). Founded in 1944, NSF is committed to protecting human health and safety worldwide. Operating in more than 150 countries, NSF is accredited by the American National Standards Institute (ANSI) and has been

¹ The information contained in this Foreword is not part of this American National Standard (ANS) and has not been processed in accordance with ANSI's requirements for an ANS. Therefore, this Foreword may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to the Standard.

collaborating with the World Health Organization since 1997 in water quality and safety, food safety and indoor environments. NSF Sustainability draws upon this expertise in standards development, product assurance and certification, advisory services and quality management systems to help companies green their products, services, operations, systems and supply chains. Through its National Center for Sustainability Standards, NSF has developed sustainability standards for product categories such as chemicals, building products and materials, and water quality. NSF works with leading regulators, scientists, engineers, public health and environmental health professionals, and industry representatives to develop these transparent, science-based standards, protocols, and product category rules. NSF Sustainability also develops product category rules (PCRs) that enable environmental product declarations (EPDs) that report the results of life cycle assessments (LCAs).

**Annex C
Scorecard
(normative)**

| 5 Water | | | | | | | |
|------------------|----|---------|---|----------------------|--|---------------------|----------|
| CHECKLIST | | | Criteria | Required or Optional | Description | Max possible points | |
| Yes | No | Comment | | | | | |
| | | | 5.1 | Required | Water inventory | R | |
| | | | 5.2 Recycled Water (maximum 2 points) Facility operator may only earn points from 5.2.2 a) OR 5.2.2 b) | | | | |
| | | | 5.2.1 | Required | A minimum of 25% of the water accounted for in the water inventory (in 5.1) for processing and quarry operations shall be captured and recycled. | R | |
| | | | 5.2.2 a) | Optional | 26% to 90% of the water accounted for in the inventory for processing or quarry operations is captured and recycled | 1 | |
| | | | 5.2.2 b) | Optional | More than 90% of the water accounted for in the inventory for processing or quarry operations is captured and recycled | 2 | |
| | | | 5.3 Water use management | | | | |
| | | | 5.3.1 | Optional | Enhanced water treatment has 3 options to choose from a), b), or c) | 1 | |
| | | | 5.3.2 | Optional | Enhanced sludge management: diversion of 50% annual sludge to environmentally acceptable reuse applications | 1 | |
| | | | Total points for water | | | | 5 |

| 6 Transportation | | | | | | |
|--|-----------|----------------|-----------------|-----------------------------|--|----------------------------|
| CHECKLIST | | | Criteria | Required or Optional | Description | Max possible points |
| Yes | No | Comment | | | | |
| | | | 6.1 | Required | Natural Stone Council Chain of Custody Standard (NSC COC), 2014 | R |
| | | | 6.2 | Required | Establish and implement a management program to manage and continually improve the efficiency of the transportation of dimension stone | R |
| Total points for Transportation | | | | | | 0 |

| 7 Site management | | | | | | |
|---|-----------|----------------|-----------------|--|---|----------------------------|
| CHECKLIST | | | Criteria | Required or Optional | Description | Max possible points |
| Yes | No | Comment | | | | |
| | | | 7.1 | Required | Site management plan covering maintenance and operations | R |
| | | | 7.2 | Enhanced site management planning | | |
| | | | 7.2.1 | Optional | Ecosystem boundaries to promote conservation | 1 |
| | | | 7.2.2 | Optional | Environmental impact assessment for current and planned operations | 2 |
| | | | 7.3 | Optional | Verification of site management plan through independent third party organization | 1 |
| Total points for site management | | | | | | 4 |

| 8 Land reclamation and adaptive reuse | | | | | | |
|--|-----------|----------------|---|-----------------------------|--|----------------------------|
| CHECKLIST | | | Criteria | Required or Optional | Description | Max possible points |
| Yes | No | Comment | | | | |
| | | | 8.1 | Required | Post-closure reclamation plan | R |
| | | | 8.2 | Optional | Community involvement with development of post closure plan | 2 |
| | | | 8.3 | Optional | Exemplary site closure reclamation plan with documented involvement of local community | 2 |
| | | | Total points for land reclamation and adaptive reuse | | | 4 |

| 9 Corporate governance | | | | | | |
|-------------------------------|-----------|----------------|--|-----------------------------|--|----------------------------|
| CHECKLIST | | | Criteria | Required or Optional | Description | Max possible points |
| Yes | No | Comment | | | | |
| | | | 9.1 | Required | Prohibition on forced labor – documented | R |
| | | | 9.2 | Required | Prohibition on child labor – documented | R |
| | | | 9.3 | Required | Prevention on discrimination – documented | R |
| | | | 9.4 | Optional | Employee participation in company supported activities in the community or community outreach/service work | 1 |
| | | | 9.5 | Optional | Social accountability plan in place | 1 |
| | | | Total points for Corporate Governance | | | 2 |

| 10 Energy | | | | | | | |
|------------------|-----------|----------------|--------------------------------|-----------------------------|---|----------------------------|----------|
| CHECKLIST | | | Criteria | Required or Optional | Description | Max possible points | |
| Yes | No | Comment | | | | | |
| | | | 10.1 | Required | Energy inventory including quantity and type of energy consumed | R | |
| | | | 10.2 Energy management | | | | |
| | | | 10.2.1 | Required | Energy management program to improve energy consumption and GHG emissions; measure and track energy data | R | |
| | | | 10.2.2 | Optional | Energy reduction: 10-20% of energy inventory; 21-40% of energy inventory; or greater than 40% energy inventory (maximum 3 points) | 3 | |
| | | | 10.3 | Optional | Carbon management – carbon footprint analysis of operations | 2 | |
| | | | 10.4 | Optional | Renewable energy sourcing – reduction in energy use by switching to renewable or alternative sources (maximum 2 points) | 2 | |
| | | | Total points for energy | | | | 7 |

| 11 Management of excess process materials and waste | | | | | | |
|--|-----------|----------------|--|-----------------------------|---|----------------------------|
| CHECKLIST | | | Criteria | Required or Optional | Description | Max possible points |
| Yes | No | Comment | | | | |
| | | | 11.1 | Required | Create and maintain an inventory of excess materials generated by its operations | R |
| | | | 11.2 | Required | Establish and implement a program to track and manage excess process material and to systematically reduce or eliminate waste. | R |
| | | | 11.3 | Optional | Demonstrated waste reduction (maximum 3 points) <ul style="list-style-type: none"> – Achieved reduction of 10-24% of solid waste inventory (1 point) – Achieved reduction of 25-50% of solid waste inventory (2 points total); or – Achieved reduction of greater than 50% of solid waste inventory (3 points total) | 3 |
| | | | 11.4 | Optional | Demonstrated solid waste reduction | 2 |
| | | | Total points for management of excess process materials and waste | | | 5 |

| 12 Safer chemical and materials management | | | | | | |
|---|-----------|----------------|---|-----------------------------|--|----------------------------|
| CHECKLIST | | | Criteria | Required or Optional | Description | Max possible points |
| Yes | No | Comment | | | | |
| | | | 12.1 | Required | Chemical inventory of all materials and chemicals directly used in operations | R |
| | | | 12.2 | Required | Develop and maintain a plan to safely manage the chemical inventory identified in 12.1 | R |
| | | | 12.3 | Optional | Develop and implement a safer chemical and materials management program that establishes priorities for replacing or reducing the use of chemicals of concern with environmentally preferable alternatives | 2 |
| | | | 12.4 | Optional | Elimination of chemicals of concern | 5 |
| | | | Total points for safer chemical and materials management | | | 7 |

| 13 Human health and safety | | | | | | | |
|----------------------------|----|---------|---|----------------------|---|---------------------|----------|
| CHECKLIST | | | Criteria | Required or Optional | Description | Max possible points | |
| Yes | No | Comment | | | | | |
| | | | 13.1 | Required | Occupational safety plan for safe working environment | R | |
| | | | 13.2 | Optional | Improved workplace safety using data for less injuries or illness (1 point for each; 2 maximum) | 2 | |
| | | | 13.3 Management of Air Quality | | | | |
| | | | 13.3.1 | Required | Air emissions inventory and description of sources | R | |
| | | | 13.3.2 | Required | Air emissions management plan | R | |
| | | | Total points for human health and safety | | | | 2 |

| 14 Innovation | | | | | | | |
|---------------|----|---------|------------------------------------|----------------------|--------------------------|---------------------|----------|
| CHECKLIST | | | Criteria | Required or Optional | Description | Max possible points | |
| Yes | No | Comment | | | | | |
| | | | 14.1 | Optional | Health and safety | 2 | |
| | | | 14.2 | Optional | Transportation | 1 | |
| | | | 14.3 | Optional | Waste reduction or reuse | 1 | |
| | | | Total points for innovation | | | | 4 |