



2024 Joint Committee on Sustainability Program

Joint Committee Meeting

Wednesday, April 17, 11:00 am – 4:00 pm ET

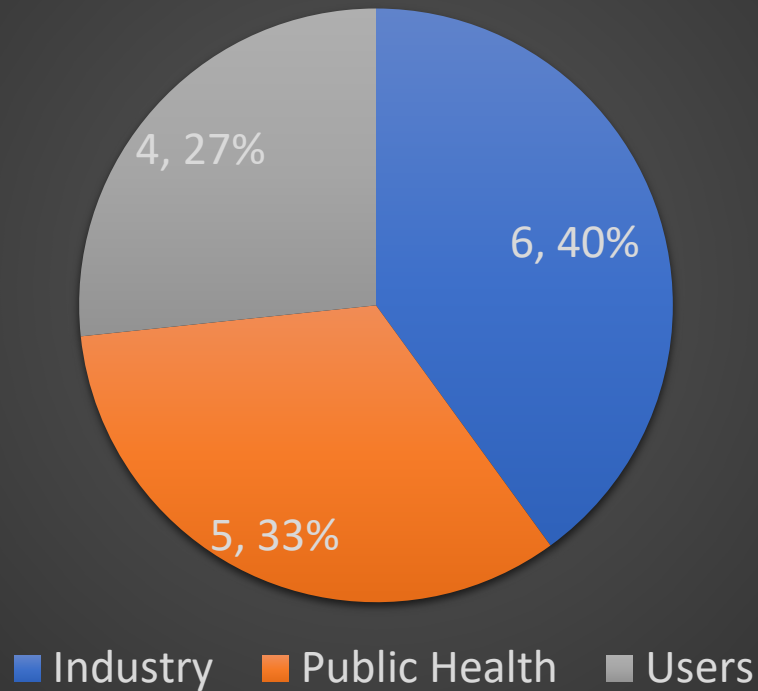
DRAFT Agenda

Computer or mobile app	Phone
Microsoft Teams meeting Click here to join the meeting	1) Dial: +1 248-434-3387, 236195956016# 2) Enter Conference ID: 236 195 956 016# Find a local number

TIME	ITEM	SPEAKER	PURPOSE
11:00	Welcome	Ralph Paroli	Admin
	Best Practices for Videoconferencing	Rachel Brooker	
	Attendance		
	Antitrust Statement		
	Membership Update	Ralph Paroli	Admin
	Review and Approval of Agenda		
	Review and Approval of May 2022 Meeting Summary		
SUSTAINABILITY OR PRODUCT STANDARD DEBATE			
11:30	Remove all sustainability	Kristine Brown Jennifer Dodson Sarah Sanzo	Action
12:00	Keep it a sustainability standard	Justin Brown Jessica Slomka	Action
12:30	Actions needed if the standard is not a sustainability standard	Rachel Brooker	Action
12:45 15 MINUTE BREAK			
SUSTAINABILITY OR PRODUCT STANDARD DEBATE CONTINUED			
1:00	Open discussion	All	Action
COMMITTEE ADMINISTRATIVE ISSUES			
3:30	Next steps	Rachel Brooker	Action
3:45	New Business	Ralph Paroli	Admin
	Meeting Summary and Next Meeting Date – May 20, 2024 1:30 – 3:00 pm ET		
4:00 ADJOURN			

Because this meeting involves representatives of competing businesses or otherwise implicate antitrust laws, it is important that I get everyone's agreement before we begin that the meeting will be conducted in full compliance with the antitrust laws. We must avoid any comment or action that encourages joint action by participating organizations or persons to restrict their competition or to violate the antitrust law. If any of you have any questions, I refer you to the NSF Antitrust Guide.

2024 JC on Sustainability Program Document for Architectural Coatings Roster



Ralph	Paroli	National Research Council (NRC) - Canada	Joint Committee Chair	
Rachel	Brooker	NSF	Secretariat	
Katherine	Berry	American Coatings Association	Vice chair	Industry
Scott	Bartels	South Coast AQMD	Member	Public Health / Regulatory
Justin	Brown	NSF	Member	User
Laureen	Burton	U.S. Environmental Protection Agency	Member	Public Health / Regulatory
Dwayne	Fuhlhage	Prosoco	Member	Industry
Alfred	Hodgson	Berkeley Analytical	Member	User
Josh	Jacobs	WAP Sustainability	Member	User
Tim	Kittler	Allnex	Member	Industry
William	Le Roy	EPA	Member	Public Health / Regulatory
Cindy	O'Malley	Master Painters Institute	Member	User
Ghasideh	Pourhashem	North Dakota State University	Member	Public Health / Regulatory
Jessica	Slomka	Sherwin-Williams Company	Member	Industry
Devin	Walpert	Behr	Member	Industry
Howard	Wiig	State of Hawaii	Member	Public Health / Regulatory
Amy	Woodard	Tremco Incorporated	Member	Industry

JC on Sustainability Program Document for Architectural Coatings

Draft Meeting Summary

Indianapolis, IN

April 6, 2021 10:00 am – 1:00 pm ET

I Opening Remarks

Brian Zamora called the meeting to order. Rachel Brooker took roll call and read the anti-trust statement.

II Review of Agenda

Zamora asked for any additions to the agenda but none were voiced.

Motion: Stephanie Dresen motioned to accept the proposed agenda.

Seconded: Doug Mazeffa

Objections: None

Abstentions: None

Vote by verbal affirmation: None apposed.

Motion passed.

III Membership Review

Brooker informed the group that JC with 9 Industry, 5 Users, and 5 Public Health (PH) members. This group needs more PH and User stakeholders, and Brooker requested that anyone who knows of a PH or User representative that would be interested in joining to please contact her after the meeting. She noted that there were applicants for the industry stakeholder category that have been waitlisted until the PH members have been increased.

IV Standard Review

All notes and action items were recorded in the standard draft. Please see the draft dated 04/06/22 on the NSF Online Workspace (NOW) for details.

V Adjourn

Since the group was not able to get through the standard it was decided to set up four more meetings. Brooker will send a doodle poll to determine the dates. The meeting was adjourned.

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Attendance

South Coast AQMD	Scott Bartels	Public Health / Regulatory	Member
American Coatings Association	Katherine Berry	Industry	Member
NSF International	Justin Brown	User	Member
Tnemec Co., Inc.	Stephanie Dresen	Industry	Member
Prosoco	Dwayne Fuhlhage	Industry	Member
Sherwin-Williams Company	Doug Mazeffa	Industry	Vice chair
DOW Chemical Company	Elizabeth Uhlhorn	Industry	Member
County of San Mateo	Brian Zamora	General Interest	Joint Committee Chair

NSF/ANSI 498 – 20XX

Sustainability Program Document for Architectural Coatings

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American National Standard**



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Phone: (734) 769-8010 Fax: (734) 769-0109
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NSF/ANSI 498 – 20XX

NSF International Standard /
American National Standard
for Sustainability –

Sustainability Program Document for Architectural Coatings

Standard Developer
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At the time of this publication, examples of programs and processes were provided for general guidance. This information is given for the convenience of users of this standard and does not constitute an endorsement by NSF International. Equivalent programs and processes may be used.

Unless otherwise referenced, the annexes are not considered an integral part of NSF Standards. The annexes are provided as general guidelines to the manufacturer, regulatory agency, user, or certifying organization.

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Foreword²

This American National Standard, NSF/ANSI 498 *Sustainability Program Document for Architectural Coatings*, has been developed as part of the ongoing efforts of interested parties to document and improve the sustainability profile of architectural coatings using established and/or advanced scientific principles, practices, materials, and standards. Stakeholders involved in developing this Standard included architectural coatings manufacturers, architectural coatings distributors, end users such as consultants and certifiers, state agencies responsible for environmentally preferable product procurement practices, academics, and nongovernmental organizations.

The purpose of this Standard is a thorough communication of information that is verifiable, accurate, and not misleading about environmental and social aspects associated with the production and use of architectural coatings.

This Standard has been designed, in part, to satisfy the following criteria:

- product design through encouraging manufacturers to integrate environmental and life cycle thinking into the product(s) design process;
- product manufacturing encouraging manufacturers to quantify the environmental impacts from their manufacturing, and then act to reduce or remove those impacts;
- long-term value encouraging manufacturers to maximize product(s) longevity;
- end-of-life management ensuring that existing and new wallcovering products can be collected, processed, recycled, and/or composted within the existing materials recycling infrastructure;
- corporate governance encouraging corporate social responsibility in the forms of providing a desirable workplace, being involved in the local community, and demonstrating financial health; and
- innovation to give manufacturers the opportunity to be awarded points for exceptional performance above the requirements set forth in this Standard.

This Standard was developed by the NSF Joint Committee on Sustainability Program Document for Architectural Coatings using the consensus process described by the American National Standards Institute.

This Standard and the accompanying text are intended for voluntary use by certifying organizations, regulatory agencies, and/or manufacturers as a basis of providing assurances that adequate health protection exists for covered products.

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 Sustainability Program Document for Architectural Coatings at standards@nsf.org, or c/o NSF International, Standards Department, PO Box 130140, Ann Arbor, Michigan 48113-0140, USA.

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NSF/ANSI Standard for Sustainability –

Sustainability Program Document for Architectural Coatings

¹ General

1.1 Purpose

The overall purpose of this Standard is a thorough communication of information that is verifiable, accurate, and not misleading about environmental and social aspects associated with the production and use of architectural coatings. Such communication is expected to encourage the demand for and supply of products that cause less stress on the environment and society, thereby stimulating the potential for market-driven continuous improvement.

This Standard is intended to be science based, provide transparency, and offer credibility for manufacturers in making claims of environmental preferability and sustainability, and to harmonize the principles and procedures used to support such claims.

This Standard provides a practice for assessing the sustainability of architectural coatings. Sustainability-related information can inform a manufacturer's decisions about supply chain modifications, product(s) content changes, manufacturing adjustments, performance improvements, end-of-life options, and corporate governance, with the goal of producing more sustainable products.

This Standard addresses environmental performance and sustainability attributes (including social aspects) of products, and provides a means to track incremental changes to the products' sustainability profile. This Standard is intended to provide a consistent framework in which to compare and assess the sustainable nature of different products within the context of performing similar functions.

This Standard is intended to be used primarily by product(s) manufacturers interested in understanding the sustainability performance of their product(s). Independent auditors, certification bodies and environmental labeling organizations are also potential users of this Standard for its use in supporting market-based environmental and sustainability claims. This Standard may also be used by purchasers and consumers who wish to ensure that manufacturers are accurately declaring the sustainable nature of their products.

1.2 Scope

This is a multi-attribute sustainability document for architectural coating products. This document addresses multiple sustainability attributes throughout the product lifecycle such as implementation of chemicals management practices reduction of substances of concern, preferable materials use, energy efficiency, design for end-of-life, product packaging, product longevity, responsible end-of-life management, and corporate responsibility.

2 Normative references

The following documents contain requirements that, by reference in this text, constitute requirements of this Standard. At the time of publication, the indicated editions were valid. All of the documents are subject to revision and parties are encouraged to investigate the possibility of applying the recent editions of the documents indicated below. The most recent published edition of the document shall be used for undated references.

29 CFR 1926, Subpart Z – Toxic and Hazardous Substances³

ACA Safety Award Program⁴

AgBB test methodology⁵

ASTM D1006, *Standard Practice for Conducting Exterior Exposure Tests of Hand and Factory Applied Paints on Wood and Wood Composite Materials*⁶

ASTM D2486-e1, *Standard Test Methods for Scrub Resistance of Wall Paints*⁶

ASTM D3274, *Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Fungal or Algal Growth, or Soil and Dirt Accumulation*⁶

ASTM D662, *Standard Test Method for Evaluating Degree of Erosion of Exterior Paints*⁶

ASTM D6736, *Standard Test Method for Burnish Resistance of Latex Paints*⁶

ASTM D6866 – 20, *Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis*⁶

ASTM D714, *Standard Test Method for Evaluating Degree of Blistering of Paints*⁶

ASTM D772, *Standard Test Method for Evaluating Degree of Flaking (Scaling) of Exterior Paints*⁶

BS EN 16516:2017, *Construction products: Assessment of release of dangerous substances – Determination of emissions into indoor air*⁷

California SB-54, Solid Waste: Packaging and Products⁸

Canada Hazardous Products Act (R.S.C., 1985, c H-3)⁹

Canadian Environmental Protection Act (CEPA) – Virtual Elimination List¹⁰

CARB, *Architectural and Industrial Maintenance (AIM) suggested Control Measure (SCM)*, 2007¹¹

CARB, *Suggested Control Measure (SCM) for Architectural Coatings*¹¹

³ National Archives and Records Administration, Office of the Federal Register. 7 G Street NW, Suite A-734, Washington, DC 20401. <ecfr.federalregister.gov/>

⁴ American Coatings Association. 901 New York Avenue NW, Suite 300 West, Washington, DC 20001. <www.paint.org>

⁵ Ausschuss zur gesundheitlichen Bewertung von Bauprodukten (AgBB) scheme.

⁶ ASTM International. 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959. <www.astm.org>

⁷ British Standards Institution (BSI). 389 Chiswick High Road, London, W4 4AL. <www.bsigroup.com>

⁸ State of California, Office of Administrative Law. 300 Capitol Mall, Suite 1250, Sacramento, CA 95814. <govt.westlaw.com/calregs>

⁹ <https://laws-lois.justice.gc.ca/eng/acts/h-3/FullText.html>

¹⁰ <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2006-298/FullText.html>

¹¹ California Air Resources Board. 1001 I Street, Sacramento, CA 95814. <ww2.arb.ca.gov>

Commented [AZ3]: Is there a particular organization that this can be linked to?

Commented [RB4R3]: Remove this reference. Doug will go through the rest of the references questions.

CDPH, *Standard Method Guidelines for Use of Standard Method as Basis for a Building Product Claim*¹²

CDPH/EHLB, *Standard Method v1.2 (CA Section 01350)*¹²

Cool Roof Rating Council (CRRC) *Wall Rating Standard*¹³

Cradle to Cradle Certified®, *Standard version 3*¹⁴

Declare

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Dodd-Frank Wall Street Reform and Consumer Protection Act, Public Law 111-203 – July 21, 2010¹⁵

ECHA, *Endocrine disruptor assessment list*¹⁶

EU PEF QUV

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"Globally Harmonized System of Classification and Labeling of Chemicals" (GHS), rev.6 (2015)¹⁷

HPD *Open Standard*¹⁸

ISO 4628-1, *Paints and varnishes – Evaluation of degradation of coatings – Designation of quantity and size of defects, and of intensity of uniform changes in appearance – Part 1: General introduction and designation system*¹⁹

ISO 12944, *Paints and varnishes – Corrosion protection of steel structures by protective paint systems*¹⁹

ISO 16000-23, *Indoor air – Part 23: Performance test for evaluating the reduction of formaldehyde concentrations by sorptive building materials*¹⁹

ISO 16000-24, *Indoor air – Part 24: Performance test for evaluating the reduction of volatile organic compound (except formaldehyde) concentrations by sorptive building materials*¹⁹

ISO 16620-2, *Plastics – Biobased content – Part 2: Determination of biobased carbon content*¹⁹

ISO/IEC 17025, *Testing and calibration laboratories*¹⁹

LEED 4.1²⁰

"Montreal Protocol on Substances that Deplete the Ozone Layer," substances listed in Annexes A through

¹² California Department of Public Health. PO Box 997377, MS 05000, Sacramento, CA 95899-7377. <cdph.ca.gov>

¹³ Cool Roof Rating Council. 2435 N Lombard Street, Portland, OR 97217. <www.coolroofs.org>

¹⁴ Cradle to Cradle Certified. 475 14th Street, Suite 290, Oakland, CA 94612. <https://www.c2ccertified.org/>

¹⁵ <www.govinfo.gov/link/plaw/111/public/203?link-type=pdf&.pdf>

¹⁶ European Chemicals Agency. Telakkakatu 6, PO Box 400, FI-00121 Helsinki, Finland. < https://echa.europa.eu/home>

¹⁷ United Nations Economic Commission for Europe. Palais des Nations, CH-1211 Geneva 10, Switzerland. <unece.org/>

¹⁸ Health Product Declaration® Collaborative. 401 Edgewater Place, Suite 600, Wakefield, MA 01880. <www.hpd-collaborative.org>

¹⁹ International Organization for Standardization. Chemin de Blandonnet 8, Case Postale 401, 1214 Vernier, Geneva, Switzerland. <www.iso.org>

²⁰ US Green Building Council. 2101 L Street NW, Suite 500, Washington, DC 20037. <www.usgbc.org>

F²¹NTP Report on Carcinogens- Known or Reasonably Anticipated Human Carcinogens²²Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Authorization List²³Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Substances of Very High Concern (SVHC) Candidate List for Authorization²³"Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade," substances listed in Annex III²⁴SCAQMD Rule 1113²⁵"Stockholm Convention on Persistent Organic Pollutants," substances listed in Annex A, B, and C²⁶US EPA, *Comprehensive Procurement Guideline* (CPG)²⁷

3 Definitions

3.1 acute toxicity: Adverse effects resulting from a single exposure to a substance (via oral, dermal or inhalation).

3.2 architectural coating: A coating recommended for field application to stationary structures or their appurtenances at the site of installation, to portable buildings, to pavements, or to curbs. For purposes of this PCR an "architectural coating" does not include adhesives and coatings for shop applications or original equipment manufacturing, nor does it include coatings solely for application to non-stationary structures, such as airplanes, ships, boats, and railcars. Please see the product category requirements in Section 1.1 of the PCR for additional clarification.

3.3 bio-based materials: A material composed, in whole or in part, of biological products.

3.4 bio-based product: A product that is composed, in whole or in significant part, of biological products, including renewable domestic agricultural materials, renewable chemicals, and forestry materials. Bio-based products are derived from raw materials such as plants and other renewable agricultural, marine, and forestry materials. Biobased products generally provide an alternative to conventional petroleum derived products.

²¹ United Nations Environment Programme, Ozone Secretariat. <ozone.unep.org/treaties/montreal-protocol/montreal-protocol-substances-deplete-ozone-layer>

²² NTP (National Toxicology Program). 2016. Report on Carcinogens, Fourteenth Edition.; Research Triangle Park, NC: US Department of Health and Human Services, Public Health Service. <<https://ntp.niehs.nih.gov/go/roc14>>

²³ European Union, European Chemicals Agency. Telakkakatu 6, PO Box 400, FI-00121 Helsinki, Finland. <echa.europa.eu>

²⁴ United Nations Environment Programme, Rotterdam Convention. Secretariat of the Rotterdam Convention – UNEP. Avenue de la Paix 8-14, 1211 Genève 10, Switzerland. <www.pic.int>

²⁵ South Coast Air Quality Management District. 21865 Copley Drive, Diamond Bar, CA 91765. <www.aqmd.gov>

²⁶ United Nations Environment Programme, Secretariat of the Stockholm Convention. Avenue de la Paix 8-14, 1211 Genève 10, Switzerland. <www.pops.int>

²⁷ US Environmental Protection Agency. 1200 Pennsylvania Avenue NW, Washington, DC 20004. <www.epa.gov>

3.5 biologic growth or bio deterioration (fungal, algal and/or mildew): Any undesirable change in material properties brought about by the activities of microorganisms.

3.6 biomass balance: a certification provided by a raw material supplier documenting the mass of the biobased content in their product.

3.7 blistering: The formation of dome shaped hollow projections in paints or varnish films resulting from the local loss of adhesion and lifting of the film from the surface or coating.

3.8 burnish resistance: The resistance of a coating to an increase in gloss or sheen due to polishing or rubbing.

3.9 carcinogen: A substance capable of causing cancer in living tissue.

3.10 chemical hazard: Hazard caused by the exposure to chemicals.

3.11 chemically recycled content: ?

3.12 circular economy: An economic system aimed at eliminating waste and the continual use of resources.

3.13 design life: The estimated lifetime of a coating based solely on its hiding and performance characteristics determined by results in certain ASTM durability tests.

3.14 durability: The degree to which coatings can withstand the destructive effect of the conditions to which they are subjected and how long they retain an acceptable appearance and continue to protect the substrate.

3.15 ecoinvent: A life cycle database that contains international industrial life cycle inventory data on energy supply, resource extraction, material supply, chemicals, metals, agriculture, waste management services, and transport services.

3.16 Environmental Product Declaration (EPD): EPDs are form of as Type III environmental declarations under ISO 14025. They are the summary document of data collected in the LCA as specified by a relevant PCR. EPDs can enable comparison between products if the underlying studies and assumptions are similar.

3.17 erosion: The wearing away of the top coating of a painted surface e.g., by chalking, or by the abrasive action of windborne particles of grit, which may result in exposure of the underlying surface. The degree of resistance is dependent on the amount of coating retained.

3.18 flaking / peeling: The phenomenon manifested in paint films by the actual detachment of pieces of the film itself either from its substrate or from paint previously applied. Peeling can be considered as an aggravated form of flaking. It is frequently due to the collection of moisture beneath the film.

3.19 Flat category:

3.20 GaBi: Created by PE INTERNATIONAL GaBi Databases are LCA databases that contain ready-to-use Life Cycle Inventory profiles.

3.21 gloss: A value of specular reflection which is often used to categorize certain types of paints.

3.22 high risk supplier: Under the Dodd-Frank Act of 2010, manufacturers are required to document their use of the following four minerals: tantalum, tin, tungsten, and gold (3TG). "Congress enacted Section 1502 of the Act because of concerns that the exploitation and trade of conflict minerals by armed groups is helping to finance conflict in the DRC region and is contributing to an emergency humanitarian crisis." [1] In

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addition to 3TG, a number of other minerals used by the paints and coatings industry have come under suspicion for a high-risk of corruption in their supply chain, including, but not limited to, mica, cobalt, and copper.[2] These minerals are frequently used as important pigments in paints and coatings. Given their high-risk situation, they must be sourced with caution.

3.23 intermediate processing: the conversion of raw materials to intermediates (e.g., titanium dioxide ore into titanium dioxide pigment, etc.).

3.24 Life Cycle Assessment or Analysis (LCA): A technique to assess environmental impacts associated with all the stages of a product's life from cradle to grave (i.e., from raw material extraction through materials processing, manufacture, distribution, use, repair and maintenance, and disposal or recycling), as defined in ISO 14040.

3.25 life cycle thinking: Going beyond the traditional focus on production site and manufacturing processes to include environmental, social and economic impacts of a product over its entire life cycle.

3.26 Living Product Challenge: A framework for manufacturers to create products that are healthy, inspirational, and give back to the environment.

3.27 low emitting materials: As defined by LEED v.14.

3.28 management system: A set of policies, processes and procedures used by an organization to ensure that it can fulfill the tasks required to achieve its objectives.

3.29 market-based life: The estimated lifetime of a coating based off the actual use pattern of the product type.

3.30 Montreal Protocol: Global agreement to protect the stratospheric ozone layer by phasing out the production and consumption of ozone-depleting substances.

3.31 mutagen: An agent, such as radiation or a chemical substance, which causes genetic mutation.

3.32 PaintCare: ACA's End-of-Life Product Stewardship Program to facilitate the recycling and proper disposal of paints and coatings

3.33 pigment: The material(s) that give a coating its color.

3.34 post-consumer recycled content: Product that was collected post-consumer use and repurposed into other products.

3.35 pre-consumer recycled content: product that, for whatever reason, did not meet specifications to be sold and was repurposed into other products.

3.36 primary materials: Resources extracted from nature. Examples include titanium dioxide ore, crude oil, etc. that are used to create basic materials used in the production of architectural coatings (e.g., titanium dioxide).

3.37 Product Category Rule (PCR): A PCR defines the rules and requirements for creating EPDs of a certain product category, as described in ISO 14025.

3.38 product lens: Ingredient disclosure tool that provides hazard information across the entire lifecycle of a product and also considers risk and exposure.

3.39 product line: defined as a set of interior or exterior architectural paint products. It generally consists of multiple types of bases (e.g., flat, semi-gloss, extra-white, gloss) sold under a common brand name.

Commented [AZ11]: Should either put definition from LEED here or have a footnote linking to it.

Commented [RB12R11]: Doug

3.40 recycled content: ?

Commented [AZ13]: This is what was listed on the definitions spreadsheet

3.41 Red List Free: Free of The Living Building Challenge (LBC) Red List represents the "worst in class" materials and chemicals.

Commented [RB14R13]: Doug

3.42 resin / binder: Acts as the glue or adhesive to adhere the coating to the substrate.

3.43 respiratory sensitizers: A respiratory sensitizer is a substance which when inhaled can trigger an irreversible allergic reaction in the respiratory system.

3.44 Rotterdam Convention: The Rotterdam Convention is a multilateral treaty to promote shared responsibilities in relation to importation of hazardous chemicals.

3.45 scrub: To wipe one time typically with an abrasive material.

3.46 scrubability or scrub resistance: The ability of a coating to resist being worn away or to maintain its original appearance when rubbed repetitively with an abrasive material.

3.47 secondary materials: Recovered, reclaimed, or recycled content that is used to create basic materials to be used in the production of architectural coatings.

3.48 specific target organ toxicity: Specific non-lethal effects on organs or organ systems in the body following single exposure to a chemical.

3.49 Stockholm Convention: Global treaty that aims to protect human health and the environment from the effects of persistent organic pollutants.

3.50 sustainability reporting: The disclosure and communication of environmental, social, and governance (ESG) goals – as well as a company's progress towards them.

3.51 toxic to reproduction: An agent or factor which causes malformation of an embryo.

3.52 washability: The ease with which the dirt can be removed from a paint surface by washing; also refers to the ability of the coating to withstand washing without removal or substantial damage.

3.53 wet-applied product:

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4 Acronyms and abbreviations

ACA	American Coating Association
ASTM	ASTM International, formally known as the American Society for Testing and Materials
BM	Full GreenScreen Benchmark
CARB	California Air Resources Board
CASRN	Chemical Abstract Service Registration Number
CDP	Carbon Disclosure Project
CDPH/EHLB	California Department of Public Health, Environmental Health Laboratory Branch
CEPA	Canadian Environmental Protection Act
CLP	European Union classification, labelling and packaging
CPG	Comprehensive Procurement Guide
CPSA	Consumer Product Safety Act
CRRC	Cool Roof Rating Council
EC Number	European Community Number
ED	endocrine disruptor
EPA	U.S. Environmental Protection Agency
EPA WARM model	United States Environmental Protection Agency Waste Reduction Model

EPD	Environmental Product Declaration
ESG	Environmental, Social Governance
EU	European Union
EU PEF QUV	European Union Product Environmental Footprint Q-panel Laboratory Ultraviolet
FHSA	Federal Hazardous Substances Act
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
GRI	Global Reporting Initiative
Haz Com	Hazard Communication Standard
HPD	Health Product Declaration
HSE	Health, Safety, and Environmental
IEC	International Electrotechnical Commission, used in conjunction with ISO
ISO	International Standards Organization
ISS	Institutional Shareholder Services
LBC	Living Building Challenge
LCA	Life Cycle Assessment or Analysis
LCI	Lowest Concentration of Interest
LEED	Leadership in Energy and Environmental Design
LT	Greenscreen List Translator
MOC	Management of Change
MSCI	Financial ESG Assessment Platform
NCSS	NSF International's National Center for Sustainability Standards
OEM	Original Equipment Manufacturing
OSHA	Occupational Safety and Health Administration
PBT	Persistent bioaccumulative toxic
PCR	Product Category Rule
PEF	Product Environmental Footprint
PMT	persistent, mobile and toxic chemicals
PPE	personal protective equipment
ppm	parts per million
PPPA	Poison Prevention Packaging Act
PPSI	Paint Producer Stewardship Initiative
Prop 65	California Proposition 65
PSI	Product Stewardship Institute
PTO	Paid time off
R&D	Research and Development
REACH	European Union Registration, evaluation, authorization and restriction of chemicals
SASB	Sustainable Accounting Standards Board
SCAQMD	South Coast Air Quality Management District
SCM	suggested control measure
SDS	safety data sheets
TCFD	Task Force for Climate-Related Financial Disclosure
TSCA	Toxic Substances Control Act
USDA	United States Department of Agriculture
USGBC	US Green Building Council
VOC	volatile organic compound
vPvB	very persistent and very bio-accumulative
vPvM	very persistent and very mobile
WBCSD	World Business Council for Sustainable Development

5 Conformance, evaluation, and assessment

5.1 Elements

This sustainability assessment standard is divided into nine basic categories consisting of credits that are potentially available to organizations seeking compliance with the standard. The nine categories are:

- product performance;
- life cycle assessment (LCA);
- product emissions/VOC;
- low impact materials
- chemical stewardship
- safety
- manufacturing and supply chain management
- corporate sustainability; and
- social responsibility.

5.2 Prerequisites

Each category may have one or more prerequisites that are required, as the minimum performance against the Standard. Users shall meet all prerequisites in each category in order to proceed. Once all prerequisites are met, users may achieve optional points toward multiple levels of achievement in each category by meeting specified performance requirements.

5.3 Scoring methodology

For users choosing to rate the sustainability performance of products evaluated in accordance with this Standard, a point-based scoring system has been developed. This system is based on a XX-point scale (excluding optional extra credits), with the different points for the various assessment criteria allocated as follows:

- a) Product performance– XX points
- b) Life cycle assessment (LCA) – XX points
- c) Product emissions/VOC – XX points
- d) Low impact materials – XX points
- e) Chemical stewardship – XX points
- f) Safety – XX points
- g) Manufacturing and supply chain management – XX points
- h) Corporate sustainability – XX points
- i) Social responsibility – XX points

5.4 Procedures for labeling and reporting

5.4.1 Basic principle

The methodology for assessing whether a product(s) conforms to the product(s) environmental and social responsibility criteria and for verifying ongoing conformance shall be documented and be of sufficient detail to provide consumer confidence that this Standard has been correctly applied.

5.4.2 Declaration of level of conformance/labeling

Achievement of conformance with the prerequisite criteria/points shall permit users to make the following product(s) declarations:

- a) Sustainable product(s) achievement – Silver: Minimum XX points
- b) Sustainable product(s) achievement – Gold: Minimum XX points
- c) Sustainable product(s) achievement – Platinum: Minimum XX points

5.4.3 Public reporting

Commented [RB17]: Once we go over this at the JC meeting I will add up all the points and fill in this section.

Users making a declaration of conformance should report this in a publicly available document.

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5.4.4 Monitoring and reevaluation

Documented procedures shall exist that demonstrate measurement of, and the regular monitoring of continued conformance to this Standard.

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5.4.5 Non-conformance and corrective and preventative action

Authority shall be assigned and supported by corporate management for identifying and investigating nonconformance, and taking the appropriate action. In establishing and maintaining procedures for investigating and correcting non-conformance, the manufacturer shall include these basic elements:

- Identify the cause of the non-conformance;
- Identify and implement the necessary corrective action;
- Implement or modify controls necessary to avoid repetition of the non-conformance; and
- Record any changes in written procedures resulting from the corrective action.

Commented [RB20]: Since this is point based and some things are not really required do you want to have a section on non-conformance? My regular standards are basically pass/fail so you will have non-conformances but since this one someone can pass without conforming to everything do you want a section on this?

6 Product performance

This section on the Sustainability Program pertains to demonstrating that the product meets the minimum levels of durability. It is well documented that significant resources go into making, supplying, and applying architectural paints. It is further documented that they longer they beautify and protect the substrate to which they are applied, this has potential to reduce customer dissatisfaction and the environmental burdens associated with the additional paint, transportation, and labor of recoating. Please see introduction, purpose, scope, acronyms, and definitions for more details.

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Industrial Maintenance Coating: As defined in the California Air Resource Board (CARB) 2007 Architectural and Industrial Maintenance (AIM) suggested Control Measure (SCM).

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6.1 Product performance / durability

Provide product scientifically equivalent testing information to validate the chosen product classification. Classify product into a low, mid, or high-quality level interior, exterior, and industrial maintenance coatings and associated design life.

Low quality criteria is a prerequisite to achieve certification to this Standard. Credits are awarded to products that achieve mid- and high-quality status. A product shall achieve all criteria of a category to be awarded the points for that category. Products that qualify for low-quality receive no points, as this is the prerequisite, products that qualify for mid-quality receive 10 points, and products that qualify for high-quality receive 15 points.

Commented [RB23]: I added this paragraph. The summary table states that this section should earn 20 points (ignoring the EC) but there are no points given for low in the table. Mid states 10 and High states 15. Would you like me to change that to 10 and 20, 15 and 20, or keep it the same and this section will only be worth 15 points max?

6.1.1 Interior coating (not applicable to industrial maintenance)

Test type	Test	Substrate	Low-quality nonflat or mid-quality flat (prerequisite)	Mid-quality nonflat or high-quality flat (10 points)	High-quality nonflat (15 points)
scrub resistance	ASTM D2486 - e1 Test Method B ¹	plastic	between 120 and 480 scrubs	> 480 scrubs	> 960 scrubs
burnish - 20 cycle	ASTM D6736	plastic	change in gloss between 8 and 16	change in gloss < 8	change in gloss < 2
washability	ASTM D4828 - e1 ¹	plastic	average score between 4 and 8	Average Score > 8	average score ≥ 11

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design life	—	—	8 years	18 years	24 years
¹ As per ACA PCR, the test shall be run in triplicate, taking an average of each individual stain or interior coating. The cleaning solution shall be a solution of 0.5% nonyl phenoxy ethanol, non-ionic detergent, and 0.25% tri sodium phosphate in distilled water. The soilants (stains) shall be hydrophilic – coffee, wine, mustard, pencil, and hydrophobic leneta ST-1.					

6.1.2 Exterior coating (not applicable to industrial maintenance)

Test type	Test ¹	Substrate ²	Low-quality nonflat or mid-quality flat (prerequisite)	Mid-quality nonflat or high-quality flat (10 points)	High-quality nonflat (15 points)
blistering	ASTM D714, ASTM D1006	Southern Yellow Pine, aluminum	After 14 months of exposure there shall be no blistering present	After 22 months of exposure there shall be no blistering present	After 29 months of exposure there shall be no blistering present
erosion	ASTM D662, ASTM D1006	Southern Yellow Pine, aluminum	After 14 months of exposure there shall be no erosion present	After 22 months of exposure there shall be no erosion present	After 29 months of exposure there shall be no erosion present
flaking / peeling	ASTM D772, ASTM D1006	Southern Yellow Pine, aluminum	After 14 months of exposure there shall be no flaking and peeling present	After 22 months of exposure there shall be no flaking and peeling present	After 29 months of exposure there shall be no flaking and peeling present
biologic growth (fungal, alga, and/or mildew)	ASTM D3274, ASTM D1006	Southern Yellow Pine, aluminum	After 11 months of exposure there shall be no biological growth present	After 14 months of exposure there shall be no biological growth present	After 22 months of exposure there shall be no biological growth present
design life	—	—	12 years	24 years	30 years
EU PEF QUV ³	ISO 4628-1	—	600 hours QUV	1,200 hours QUV	2,400 hours QUV

¹ As noted in Section 5.1 of ASTM D1006, the climatic conditions of the test sites should be representative of those of the area in which the paints are to be used.

² Use appropriate substrate (Southern Yellow Pine or aluminum) based on the specified and/or intended use of the coating.

³ ISO 4628-1 defines a system for designating the quantity and size of defects and the intensity of changes in appearance of coatings after specified hours of QUV exposure. None of the following failures should occur before the specified QUV time exposure: blistering, erosion, and flaking / peeling to be evaluated as defined in this table.

6.1.3 Stains

Test type	Test	Substrate	Low-quality design life threshold (prerequisite)	Mid-quality design life threshold (10 points)	High-quality design life threshold (15 points)
blistering	ASTM D714	Southern Yellow Pine	After 6 months of exposure there shall be no blistering present	After 12 months of exposure there shall be no blistering present	After 24 months of exposure there shall be no blistering present

erosion	ASTM D662	Southern Yellow Pine	After 6 months of exposure there shall be no erosion present	After 12 months of exposure there shall be no erosion present	After 24 months of exposure there shall be no erosion present
biologic growth (fungal, alga, and/or mildew)	ASTM D3274	Southern Yellow Pine	After 9 months of exposure there shall be no biological growth present	After 12 months of exposure there shall be no biological growth present	After 18 months of exposure there shall be no biological growth present

6.1.4 Industrial maintenance

Test type	Test	Substrate	Low-quality (prerequisite)	Mid-quality (10 points)	High-quality (15 points)
Corrosivity category	ISO 12944	carbon steel	120 hours humidity; 240 hours salt fog	480 hours humidity; 720 hours salt fog	720 hours humidity; 1,440 hours salt fog
Design life	ISO 12944 durability	carbon steel	2 to 5 years	5 to 15 years	> 15 years
EU PEF QUV ¹	ISO 4628-1	carbon steel	500 hours QUV	1,000 hours QUV	2,000 hours QUV

¹ ISO 4628-1 defines a system for designating the quantity and size of defects and the intensity of changes in appearance of coatings after specified hours of QUV exposure. Assess whether corrosivity levels meet ISO 12944 criteria after listed number of hours.

6.2 Solar reflectivity, odor absorbing - elective options for additional credits

6.2.1 CRRC Standards (roof and wall solar reflectivity)

If certified to the CRRC standard the product shall receive one extra credit point.

6.2.2 Odor reducing

Product reduces odor as per ISO 16000-23 and ISO 16000-24. Target compounds should include formaldehyde, isovaleric acid, pyridine, and methane sulfide, at a minimum

7 Life cycle assessment (LCA)

7.1 Specific achievement thresholds

The purpose of this section is to communicate potential environmental impacts of a coating product through the results of a life cycle assessment (LCA). The coatings industry has published several product category rules (PCRs) meeting ISO 21930, ISO 14025, ISO 14044, and ISO 14040 guidelines. Through use of these PCRs, a more formal and consistent LCA can be completed, known as an Environmental Product Declaration (EPD). Given strong industry adoption of the ACA's PCRs and EPDs, they shall be the basis for satisfying the requirements of this section.

Although EPDs are designed to enable better comparability, comparative assertions (i.e. superiority claims) shall not be made based off the reported EPDs, as differences may be due to data selection, software version, assumptions, and fail to consider the various uncertainties associated with LCA. However,

because a manufacturer can readily control these variables, credit is given for manufacturers who demonstrate an improvement in their LCA results by reformulating or improving the value-chain as compared to the original baseline product (as disclosed in the initial EPD).

Specific achievement thresholds are reported below:

Achievement Level	Achievement Requirement	Supporting References
prerequisite	Product has published a publicly available EPD <u>which has been internally validated</u> consistent with ACA's Product Category Rules for Architectural Coatings or Resinous Floor Coatings and ISO 14071.	ACA PCR, ISO 21930, ISO 14071, ISO 14025, ISO 14044, and ISO 14040.
4 points	Product has published EPD <u>which has been externally validated to be conformant with</u> ACA's Product Category Rules for Architectural Coatings or Resinous Floor Coatings <u>and</u> ISO 14071.	ACA PCR, ISO 21930, ISO 14071, ISO 14025, ISO 14044, and ISO 14040.
4 points	Company has published a formal Action Plan (as described by LEED v4.1) to improve at least the Global Warming Potential (GWP) of the product disclosed in a previously published LCA/EPD conformant with the appropriate Product Category Rules.	see action plan requirements below
4 points	Company has incorporated elements of potential social and/or toxicological impacts of the product in its EPD while still meeting the requirements of ACA's Product Category Rules. ^{1,2} This EPD <u>shall also be externally validated</u> per ISO 14071.	ACA PCR, ISO 21930, ISO 14071, ISO 14025, ISO 14044, and ISO 14040.
4 points	Company has published a formal Action Plan (as described by LEED v4.1) <u>that has also been externally validated</u> to improve the at least the GWP of the product through a previously published LCA/EPD conformant with the appropriate Product Category Rule <u>and</u> ISO 14071.	see action plan requirements below
2-4 points (Depends on GWP Reduction)	Company has decreased the GWP of the initial product through reformulation or a value chain improvement as shown in a second EPD of the revised product/formulation while meeting all comparability	See EPD Optimization Requirements below. ACA PCR, ISO 21930, ISO 14071, ISO 14025, ISO 14044, and ISO 14040.

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	requirements as stated in ISO 21930:2017. This shall be externally validated. Additionally, the company shall publicly disclose how the improvement to GWP was achieved.	
¹ The approved method for reporting potential toxicity via Life Cycle Assessment is the most recent version of the USETox method. The company shall clearly disclose in the EPD and/or any other public supporting documentation that social and/or toxicological impacts are through the lens of LCA and may be characterized by higher than typical levels of uncertainty and/or subjectivity. ² Approved methods for considering social impacts in the Life Cycle Assessment include PSILCA and the guidelines are available at <www.lifecycleinitiative.org/starting-life-cycle-thinking/life-cycle-approaches/social-lca/>. ³ Points are cumulative.		

7.2 EPD action plan requirements

Action plans shall conform to the most recent revision of the LEED guidelines which at the time of the publication of this Standard includes at a minimum:

- description of the LCA conducted including the dataset, software or platform used by manufacturer to complete the analysis;
- identification of the largest life cycle impact areas identified in the analysis and a narrative description of the impact areas targeted for reduction in the action plan;
- description of specific steps anticipated in implementation of the action plan. Include proposed changes in formulation or manufacturing processes that are planned as part of impact reduction strategy; and
- specific dates and a full timeline for completion of all the steps described in the action plan.

7.3 EPD optimization requirements

Any claimed EPD improvement or optimization of GWP shall also include the following:

- the 'revised' EPD shall meet all comparability requirements in ISO 21930:2017;
- the revised EPD and the baseline EPD to which the revised results are being compared shall use the same LCIs for shared materials, database versions, software versions, assumptions, characterizations factors, and LCIA methods are used between the starting point assessment and the revised product. This will likely require updating the initial formulation EPD;
- a short summary document or statement shall be published or included in the 'revised' EPD describing, at least generally, what led to the GWP improvement. No Confidential Business Information (as defined by ISO 21930:2017 and ISO 14025) should be disclosed. Instead a high-level statement or series of statements shall be disclosed publicly. For example, rather than stating that a polymer composition was modified from 45% butyl acrylate, 55% methyl methacrylate to 100% methyl methacrylate, the summary document/statement could state that the polymer was simply reformulated which led to the GWP improvement. Or, rather than stating that the company's fleet changed from one specific type/make of truck to another, it could be stated that the fleet efficiency was improved;
- any LCIA tradeoffs from the GWP optimization shall be disclosed in the summary statement, report, and/or revised EPD to avoid unintended consequences or burden shifting. While it is understood in

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LCA that tradeoffs are often unavoidable, situations where one impact category is reduced by 1% (for example) and several others are made worse by 20% (for example) is not a desirable outcome. All impact categories except Ozone Depletion Potential of the 3 remaining LCIA Impact Categories (Acidification, Eutrophication, and Smog Formation) required by ISO 21930 to report shall be considered and disclosed in the summary report, revised EPD, etc. If tradeoffs leading to an increase in impact greater than 5% from the starting value of the impact category in the initial product EPD occur, a short narrative shall be included describing why that tradeoff occurred and why it is still believed to be acceptable under the pretense of an 'optimized' product via its EPD results; and

— total points awarded as follows for Optimization:

- 2 points – Less than 10% reduction in GWP;
- 3 points – Reduction of GWP greater than 10%, but less than 20%; and
- 4 points – Reduction in GWP greater than 20%.

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8 Product emissions/VOC

8.1 Specific achievement thresholds

All products seeking recognition under this program shall be tested for air quality attributes and shall meet VOC emission limits according to the option selected below in the Prerequisites section of this Standard. Products shall also meet the VOC limits from the California Air Resources Board (CARB) Suggested Control Measure (SCM). The SCM version is stated in the currently applicable version of LEED v4.1.

All products seeking recognition under this program shall meet VOC emission and content limits detailed below. This program is consistent with the product requirements outlined in LEED v4.1. Elective options for additional credits are attainable as detailed below.

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Achievement Level	Achievement Requirement	Supporting References
prerequisite	N/A	
10 points	Meets VOC content limits outlined in one of the applicable standards and for projects in North America, the VOC exempt compounds methylene chloride and perchloroethylene may not be intentionally added	
10 Points	Product meets the VOC content limits outlined in one of the applicable standards and for projects in North America, the VOC exempt compounds methylene chloride and perchloroethylene may not be intentionally added.	
3 elective credits available	See section 8.1.1.3	
¹ Points are cumulative.		

Commented [RB35]: Katherine will update the language to make it clear there are 2 different requirements.

Commented [RB36]: Make all 'extra credits'

Commented [RB37]: The numbers changed so much. Please confirm if this should be 8.2 now.

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8.1.1 VOC emissions evaluation

The compliant product shall comply with Low Emitting Materials in LEED v4.1 utilizing one of the following options.

8.1.1.1 VOC emissions compliance option 1

Product has been tested according to CDPH/EHLB/Standard Method v1.2 and complies with the VOC emission limits in Table 4-1 of the method. Additionally, the range of total VOCs after 14 days (336 hours) was measured as specified in the CDPH Standard Method and is reported (TVOC ranges: 0.5 mg/m³ or less, between 0.5 and 5 mg/m³, or 5 mg/m³ or more). Laboratories that conduct the tests shall have the CDPH Standard Method in their scope of ISO/IEC 17025 accreditation. Products shall be evaluated using the default private office scenario. The statement of product compliance shall include the range of total VOCs and follow guidelines in CDPH Standard Method ["GUIDELINES FOR USE OF STANDARD METHOD AS BASIS FOR A BUILDING PRODUCT CLAIM."] Organizations that certify manufacturers' claims shall have the appropriate certification program under their ISO 17065 accreditation.

8.1.1.2 VOC emissions compliance option 2

Product has been tested according to EN 16516:2017 and complies with the LCI (lowest concentrations of interest) values from Table 1 of the German AgBB Testing and Evaluation Scheme (2015) and a formaldehyde limit of 10 micrograms per cubic meter. Additionally, the range of total VOCs after 28 days was measured as specified in EN 16516 and reported (TVOC ranges: 0.5 mg/m³ or less, between 0.5 and 5 mg/m³, or 5 mg/m³ or more). Laboratories that conduct the tests shall have the AgBB test methodology in their scope of ISO/IEC 17025 accreditation. The statement of product compliance shall include the amount of wet-applied product applied in mass per surface area (if applicable) and the range of total VOCs. Organizations that certify manufacturers' claims shall have the appropriate certification program under their ISO 17065 accreditation.

8.1.1.3 VOC content evaluation

Product meets the VOC content limits outlined in one of the applicable standards and for projects in North America, the VOC exempt compounds methylene chloride and perchloroethylene may not be intentionally added.

Statement of product compliance shall be made by the manufacturer. Any testing shall follow the test method specified in the applicable regulation. If the applicable regulation requires subtraction of exempt compounds, any content of intentionally added exempt compounds larger than 1% weight by mass (total exempt compounds) shall be disclosed:

- California Air Resource Board (CARB) Suggested Control Measure (SCM) for Architectural Coatings.

8.2 Product emissions/VOC - elective options for additional credits

One additional credit may be awarded for meeting one or more of the following for a maximum of 3 additional credits:

- the product's emissions are evaluated using a residential scenario compliant with CDPH/EHLB/Standard Method v1.2 residential scenario;
- the product's emissions are evaluated and shown compliant thru independent laboratory report or third-party certification with CDPH/EHLB/Standard Method v1.2 on an annual basis (at minimum including the previous 2 years prior to certification);
- coating meets the SCAQMD rule 1113 regulatory VOC limits for the selected coating category when

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the SCAQMD category limit is lower than the CARB AIM SCM 2007 VOC limits. If the CARB and SCAQMD VOC regulatory limits are the same, then an extra point shall be awarded only if:

- coatings in the Flat category meet an 10 g/l VOC content requirement; or
- for all other coating categories, the coating regulatory VOC value shall be half or less than the CARB VOC regulatory limit for the coating category. VOC calculations methods for content and regulatory values are contained within the CARB SCM.

9 Low impact materials

As is the case with any sustainability standard, this Standard aims to reduce the paints and coatings industry’s impact on the natural environment. This section in particular is focused on doing so through the use and implementation of low-impact materials. These materials consist of a variety of alternatives with lesser environmental impact than those originally used in the industry. Some examples include: use of bio-based materials which can be renewed sustainably without depleting the environment of additional resources, use of recycled content which reduces the need for additional material mining and extraction, and use of minimal product packaging, specially single-use packaging, to help reduce the amount of waste generated by our industry.

9.1 Bio-based materials use

The United States Department of Agriculture (USDA) defines a bio-based product as, “a product that is composed, in whole or in significant part, of biological products, including renewable domestic agricultural materials, renewable chemicals, and forestry materials... Bio-based products are derived from raw materials such as plants and other renewable agricultural, marine, and forestry materials. Biobased products generally provide an alternative to conventional petroleum derived products.”²⁸ In order to receive credit for this section, a manufacturer shall use one of the three testing options listed in sections 9.1.1, 9.1.2, or 9.1.3 to show compliance to the table listed below.

Achievement Level	Achievement Requirement	Supporting References
prerequisite	The coating manufacturer performs a study.	
1 point	Bio-based materials account for, at least, 5%	
1 point	Bio-based materials account for, at least, 20%	
1 point	Bio-based materials account for, at least, 35%	
¹ Points are cumulative.		

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9.1.1 A product shall be tested and certified under ASTM D6866 – 20 Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis. This testing method provides accurate biobased/biogenic carbon content results to materials whose carbon source was directly in equilibrium with CO₂ in the atmosphere at the time of cessation of respiration or metabolism, such as the harvesting of a crop or grass living its natural life in a field. Special considerations are needed to apply the testing method to materials originating from within artificial environments. Application of these testing methods to materials derived from CO₂ uptake within artificial environments is beyond the present scope of this Standard.

²⁸ <https://www.biopreferred.gov/BioPreferred/faces/pages/AboutBioPreferred.xhtml>

9.1.2 The manufacturer shall provide a copy of the bio-based content certification from the product's raw material supplier(s) to show that the attested product percentage is derived from bio-based materials. These certifications shall comply with ISO Standard 16620-2.

9.1.3 The manufacturer shall provide a copy of the product's raw material supplier(s)' third-party certification of percent fossil material substituted with biomass in the value chain.

9.2 Recycled content use

Similar to bio-based material use, the use of responsibly sourced recycled content helps to reduce the need for additional, nonrenewable extraction of raw materials from the natural environment. In order to receive credit for this section, a manufacturer shall be able to supply certification from their raw material supplier(s) to verify the product's recycled content. Chemically recycled content shall be awarded credit(s) at 100% of the values listed here. Post-consumer recycled content shall be awarded credit(s) at 100% of the values listed here. Pre-consumer recycled content shall be awarded credit(s) at 50% of the values listed here. A maximum of 1 credit can be obtained in this section.

Achievement Level	Achievement Requirement	Supporting References
prerequisite	The coating manufacturer performs a study to determine the feasibility of incorporating recycled content into the product.	
1 point	Recycled content accounts for, at least, 5% by volume of the product.	
1 point	Recycled content accounts for, at least, 20% by volume of the product and the certification is verified by a third-party testing site.	
1 point	Recycled Content accounts for, at least, 35% by volume of the product and the certification is verified by a third-party testing site.	
¹ Points are cumulative.		

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9.3 Low impact suppliers

The use of low-impact material suppliers helps to ensure not only the sustainability of the paints and coatings themselves, but the overall sustainability of the industry's supply chain. A number of different metrics can be used to determine a supplier's environmental impact. For this section, the coating manufacturer shall first establish a program to determine the environmental impact of their raw material suppliers. In order to qualify for this credit, that program shall disclose to the coating manufacturer a supplier's water use, energy use, carbon footprint, waste reduction and discard, at the least. Additional credits can be earned as described throughout this Standard for suppliers willing to disclose additional information such as their use of low-impact materials, their participation in industry sustainability programs, etc. Updated supplier information shall be submitted with recertification.

Achievement Level	Achievement Requirement	Supporting References
prerequisite	The coating manufacturer establishes a program to	

	determine a supplier's environmental impact including water use, energy use, and carbon footprint, at least.	
1 point	Coating manufacturer receives/has on file environmental impact data from, at least, 50% by volume of the formulation of all raw material suppliers.	
1 point	Coating manufacturer receives/has on file environmental impact data from, at least, 75% by volume of the formulation of all raw material suppliers.	
1 point	Coating manufacturer receives/has on file environmental impact data from, at least, 100% by volume of the formulation of all raw material suppliers.	
¹ Points are cumulative.		

Commented [RB46]: 'N/A'

9.4 Product packaging

A manufacturer's choice of product packaging is another important component when considering a product's overall environmental impact. Responsibly sourced recycled packaging materials and the elimination of single-use packaging have been shown to support sustainability and reduce the need for additional resource consumption. Much of what is described herein was taken from California's SB-54 on Solid Waste: Packaging and Products.²⁹ A maximum of 1 credit can be obtained in this section.

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Achievement Level	Achievement Requirement	Supporting References
prerequisite	The coating manufacturer performs a study to determine the feasibility of incorporating sustainable product packaging. The manufacturer also establishes a baseline from which to improve.	
1 point	Coating manufacturer is able to demonstrate a reduction of single-use packaging and priority single-use products of at least 5%.	
1 point	Coating manufacturer is able to demonstrate a 75% reduction of the waste generated from single-use packaging and priority single-use products offered for sale, sold, distributed, or imported in or	

Commented [RB49]: 'N/A'

Commented [RB50]: "Upon recertification" Need language on if it is the initial cert. Stephanie will do this.

²⁹ https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=201920200SB54

	into the country through source reduction, recycling, or composting.	
1 point	Coating manufacturer is able to ensure that all single-use packaging and priority single-use products are recyclable or compostable.	
¹ Points are cumulative.		

9.5 End-of-life product stewardship

End-of-life product stewardship has become expected when considering sustainable options for any coating project. In order to reduce the amount of paint going to landfills through household hazardous waste (HHW) facilities, coating manufacturers and industry representatives have established end-of-life product stewardship programs. In addition to reducing waste, these programs help recycle paint that is able to be reused or reworked rather than disposed of.

"PaintCare is a program of the American Coatings Association (ACA), a membership-based trade association of the paint manufacturing industry. Working through the Paint Producer Stewardship Initiative (PPSI) facilitated by the Product Stewardship Institute (PSI), ACA supported the passage of the first U.S. paint stewardship law in Oregon and established PaintCare in 2009... After successfully demonstrating that the industry can design and deliver a program for post-consumer paint management, the Oregon program became permanent through new legislation in 2013... [Similar laws have passed in a number of additional states since.] In parts of the United States where PaintCare operates, we encourage households, businesses, and individuals to take their unwanted, leftover paint to a PaintCare drop-off site. There it is sorted and managed for reuse, recycling, energy recovery, or safe disposal."³⁰ This is just one example of an acceptable extended producer responsibility program. A maximum of 1 credit can be obtained in this section.

Achievement Level	Achievement Requirement	Supporting References
prerequisite	The coating manufacturer performs a study to determine the feasibility of participating in an extended producer responsibility program.	
1 point	Coating manufacturer implements an end-of-life product stewardship program for 5% of its product lines.	
1 point	Coating manufacturer implements an end-of-life product stewardship program for 20% of its product lines.	
1 point	Coating manufacturer implements an end-of-life product stewardship program for 35% of its product lines.	
¹ Points are cumulative.		

Commented [RB51]: Again if only 1 point is achievable then what is the incentive to meet the higher tier?

Commented [RB52R51]: Remove

Commented [RB53]: Remove the prerequ but the extended producer.... Needs to be defined. Stephanie will define this.

³⁰ <https://www.paintcare.org/about/#/overview?paintcare-inc>

9.6 Regionally sourced products

Materials that can be sourced near a manufacturing facility are themselves, low-impact materials. The closer a supplier is to a customer; the less energy will be used transporting the raw materials. This frequently lowers the cost of the material but also the carbon emissions required to transport the material. This, in turn, lowers the overall carbon footprint of the product itself. A maximum of 1 credit can be obtained in this section.

Achievement Level	Achievement Requirement	Supporting References
prerequisite	The coating manufacturer performs a study to determine the feasibility of sourcing raw materials regionally.	
1 point	Coating manufacturer implements sources all raw materials for the product within 500 miles.	
1 point	Coating manufacturer implements sources all raw materials for the product within 250 miles.	
1 point	Coating manufacturer implements sources all raw materials for the product within 100 miles.	
¹ Points are cumulative.		

Commented [RB54]: Same as above

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Commented [RB57]: Remove 'implements' in all of the table

10 Chemical stewardship

This section pertains to adopting company chemical management policies to reduce potential health, safety and environmental risks associated with new products, existing products, and the manufacturing value chain. Additionally, it also considers product-level chemical disclosures and/or assessments for the product(s) being certified.

10.1 Product material ingredient reporting and optimization

Commented [RB58]:

Achievement Level	Achievement Requirement	Supporting References
prerequisite	1000ppm Disclosure (self-declared)	
1 point	1000ppm Disclosure (externally validated)	
1 point	1000ppm Disclosure (externally validated) plus chemical Action Plan	
1 point	Reformulated Product via Action Plan with Summary as to specific improvement(s).	
¹ Points are cumulative.		

10.1.1 Prerequisite

Create public disclosure for products being assessed under this Standard that use any of the following programs to demonstrate the chemical inventory of the product to at least 0.1% (1,000 ppm):

- manufacturer inventory: The manufacturer has published complete content inventory for the product following these guidelines:
 - a publicly available inventory of all ingredients identified by name and Chemical Abstract Service Registration Number (CASRN) and/or European Community Number (EC Number); and
 - materials defined as trade secret or intellectual property may withhold the name and/or CASRN/EC Number but shall disclose ingredient/chemical role, amount and hazard score/class using either:
 - Greenscreen List Translator (LT) score and/or Full GreenScreen Benchmark (BM); and
 - The Globally Harmonized System of Classification and Labeling of Chemicals rev.6 (2015) (GHS):
 - the hazard screen shall be applied to each trade secret ingredient and the inventory lists the hazard category for each of the health hazards included in Part 3 of GHS (e.g., "GHS Category 2 Carcinogen").
- Health Product Declaration: The end use product has a published and complete Health Product Declaration with full disclosure of known hazards in compliance with the Health Product Declaration open Standard;
- Cradle-to-Cradle: Product has Material Health Certificate or is Cradle-to-Cradle Certified™ under standard version 3 or later with a Material Health achievement level at the Bronze level or higher;
- Declare: The Declare product label shall meet the following requirements:
 - declare labels designated as Red List Free or Declared; and
 - declare labels designated as LBC Compliant that demonstrate content inventory to 0.1% (1,000 ppm).
- Living Product Challenge: The included Declare product label shall demonstrate content inventory to 0.1% (1,000 ppm);
- Product Lens Certification; and
- USGBC approved program: Other USGBC approved programs meeting the material ingredient reporting criteria.

10.2 Product material ingredient reporting and optimization - elective options for additional credits

This section offers additional optional credits that are cumulative.

10.2.1 Disclosure under any of the above programs that require reporting all contained chemicals at greater than or equal to 0.01% (100 ppm) in the product.

10.2.3 Disclosure under any of the above stated programs at greater than 0.1% but declaration is externally validated.

10.2.4 Disclosure under any of the above programs while reporting all contained chemicals greater than 0.01% (100 ppm) in the product and declaration is externally validated.

10.2.5 Externally validated product declaration to at least 0.1% (1000 ppm) under any of the above-named programs and a chemical action plan meeting the below requirements under LEED v4.1:

- description of the screening or assessment platform used by manufacturer to complete the material ingredient screening and analysis;
- identification of the specific green chemistry principles targeted for implementation in the action plan;
- description of specific steps anticipated in implementation of the action plan. Include proposed changes in formulation or manufacturing processes that are planned as part of green chemistry optimization strategy; and
- specific dates and a full timeline for completion of all the steps described in the action plan.

10.2.6 The product has externally validated disclosure through any of the above programs and has successfully completed an action plan and reduced its chemical footprint in terms of potential hazards, exposure, etc., through a reformulation (using the original formula as a baseline). Examples may include:

- reduction in product hazard classification;
- improvements in PPE and engineering control recommendations; and
- chemical substitution.

In addition, a short summary shall be made public disclosing how the product was improved in terms of its chemical footprint.

10.3 Key chemical and risk policies

Document corporate programs to comply with key federal and state chemical safety, risk and hazard communication requirements:

- meet all applicable Federal and State hazard communication standards;
- follow all product labelling and packaging standards such as FHSA, CPSA, PPPA, OSHA Haz Com, P65, FIFRA;
- compliance with all applicable chemical content standards such as TSCA, VOC, etc.;
- compliance with all hazardous material packaging and transportation requirements.

Achievement Level	Achievement Requirement	Supporting References
prerequisite	Compliance with All Federal and State laws.	
¹ Points are cumulative.		

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10.4 Chemical management plan

Achievement Level	Achievement Requirement	Supporting References
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prerequisite	Compliance with Federal and State Labelling Laws	
1 point	Development and disclosure of a Company-wide Chemicals Mgmt. Policy	
1 point	Partial Implementation of Policy	
1 point	Full Implementation of Policy	
1 point	Specific Goals around product improvement through Chemicals Policy	
1 point	Program Externally Audited	
¹ Points are cumulative.		

Commented [RB60]: Delete section, doesn't match language below.

10.4.1 Prerequisite

Implement risk management strategies including label and SDS warnings, personal protective equipment recommendations, and disposal instructions.

10.4.2 Development of policy

Develop and implement a written chemical management plan that identifies company specific procedures to identify chemicals with potential health, safety and environmental concerns. Process shall consider human health, operational safety and environmental impacts of new products and changes to existing products during raw material production, manufacturing, transport, use and disposal (circular economy) to identify at risk chemicals for potential replacement or risk mitigation.

10.4.3 Partial implementation of policy

10.4.3.1 Process shall incorporate the principles of alternative assessment when identifying alternatives to existing chemicals to avoid regrettable chemical substitutions. Process shall be implemented in one business or division.

10.4.3.2 Chemical hazard and regulatory assessments should be reviewed/redone at least every five years as a result of incidents, design, process technology, or regulatory changes.

10.4.4 Full implementation of policy

Same as above but has been implemented across the entire company.

10.4.5 External audit

Obtain an independent evaluation of the participating company's chemicals management and alternatives assessment policies and track implementation progress. Certifications may be conducted via the following mechanisms:

- external peer review;
- qualified consultant; and
- certification programs.

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10.5 Integration of informed chemical substitution into product development and reformulation

Achievement Level	Achievement Requirement	Supporting References
prerequisite	N/A	
1 point	Development and disclosure of policy requiring chemical substitution in all new R&D efforts.	
1 point	Partial Implementation of Policy	
1 point	Full Implementation of Policy	
1 point	Program Externally Audited	
¹ Points are cumulative.		

Commented [RB62]: Make sure table is on top, then all the wording.

10.5.1 Development and Disclosure of policy

Develop strategies and take appropriate action to minimize risks identified by the Chemical Management Plan. Integrate health, safety, and environmental and sustainability considerations as well as product performance into the design, development, and improvement of products and processes. Disclose the policy.

10.5.2 Partial implementation of policy

Further develop the written chemical management plan (Section 10.2) to put in place company specific procedures to reduce chemicals with potential health, safety and environmental concerns.

Commented [RB63]: Check reference

- initiate training programs to acquaint product formulators with the product stewardship principles that guide product development;
- review information on approaches to identify pollution prevention/waste and emissions minimization issues that should be considered during product development; and
- develop plans to integrate learnings from the alternative assessment into the development process for new and existing products and the reformulation of existing products.

10.5.3 Full implementation of policy

Integrate learnings from the assessment into the development process for new products and the reformulation of existing products. Assessments should be reviewed/redone at least every five years or more often as a result of incidents, design, process technology, or regulatory changes for the opportunity to obtain additional green building certification

Develop and adopt a Management of Change (MOC) process that insures HSE issues are addressed and incorporates the activities in any one of the following):

Commented [RB64]: Health Safety Environment

- demonstrate that appropriate health, safety, and environmental issues are raised and addressed by development team at each stage of the process as products and process modifications/improvements are proposed, tested, developed and adopted;
- in addition to the traditional HSE and compliance concerns, ensure issues such as packaging waste, energy and resource consumption, recycling opportunities, etc., are taken into account in design, development and improvement of products and processes; and
- measure / monitor the effectiveness of product development systems in achieving HSE excellence and identify and pursue opportunities for further improvement including benchmarking.

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Commented [RB66]: Delete

10.5.4 External audit

Obtain an independent evaluation of the participating company's alternative assessment program. Certifications may be conducted via the following mechanisms:

- external peer review;
- qualified consultant; and
- certification programs.

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10.6 Targeted chemical elimination

This section applies to following product types:

- interior or exterior architectural paint products and industrial maintenance coatings; and
- factory applied coatings such as wood, powder, automotive, protective/marine or other industrial surface coatings/Original Equipment Manufacturing (OEM) are not included in this category.

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Achievement Level	Achievement Requirement	Supporting References
prerequisite	N/A	
1 point	Development and disclosure of policy	
1 point	Chemical Elimination	
¹ Points are cumulative.		

10.6.1 Development of policy

Develop, implement, and demonstrate improvement in a written targeted chemical elimination program. As an alternative showing evidence that chemicals were chosen based upon a better performing profile based on a comparative hazard assessment of alternatives, and equal or better life cycle impacts.

10.6.2 Chemical elimination

Publicly disclose the implementation of a targeted chemical elimination program that defines the products under review and the targeted chemical hazard elimination benchmarks for the program. Credit may be awarded based on an audited internal company program or based on a company's participation in a qualified external program (e.g. Chemical Action Plans under LEED 4.1):

- partial credit: at least 80% of the bases by volume in one product-line that is covered by this sustainability program/standard are reformulated to remove at least one eligible chemical in the five-year window beginning in 2016;
- full credit: at least 80% of the bases by volume in three or more product-line that is covered by this sustainability program/standard are reformulated to remove at least one eligible chemical in the five-year window beginning in 2016; and
- additional credit shall be awarded if multiple chemicals are removed from a product line.³¹

³¹ Definition of a product line: a product line is defined as a set of interior or exterior architectural paint products. A product line generally consists of multiple types of bases (e.g., flat, semi-gloss, extra-white, gloss) sold under a common brand name.

NOTE — Chemicals identified for elimination in Tier 2 must be selected from the following lists and should not be intentionally added. If unintentionally present (as an impurity) they must not be at a concentration of 0.1% or greater.

10.6.3 United States

- National Toxicology Program- Report on Carcinogens- Known or Reasonably Anticipated Human Carcinogens
- Occupational Safety and Health Administration (29 CFR 1926, Subpart Z)

10.6.4 European Union

- REACh Authorization List
- REACh SVHC Candidate List for Authorization
- CLP Annex VI- Chemicals Classified as:
 - Carcinogen-1
 - Mutagen- 1
 - Toxic to Reproduction-1
 - Respiratory Sensitizers
 - Acute Toxicity via Oral, Dermal or Inhalation- 1, 2 or 3
 - Specific Target Organ Toxicity (SE or RE)- 1
 - PBT, vPvB
 - PMT, vPvM
- Classified as ED on the EU endocrine disruptor assessment list.

10.6.5 Canada

- Substances classified under the Hazardous Product Act as:
 - Carcinogen-1
 - Mutagen- 1
 - Toxic to Reproduction-1
 - Respiratory Sensitizers
 - Acute Toxicity via Oral, Dermal or Inhalation- 1, 2 or 3
 - Specific Target Organ Toxicity (SE or RE)- 1
- CEPA Virtual Elimination List (<https://laws-lois.justice.gc.ca/PDF/SOR-2006-298.pdf>)

10.6.7 International

- Stockholm Convention- Substances listed on Annex A, B or C of the Convention
- Montreal Protocol- Substances listed in Annexes A through F of the Protocol
- Rotterdam Convention- Substances listed in Annex III of the Convention

10.7 Value chain chemicals management

Achievement Level	Achievement Requirement	Supporting References
prerequisite	N/A	
1 point	Development and disclosure of policy assessing value-chain	

Commented [RB69]: Per TG chair discussion this needs to be discussed with the whole JC.

Commented [RB70RB69]: Leave as is

Commented [RB71]: Place these under 10.6.2

Commented [RB72]: Define

	chemical use and optimization and reporting.	
1 point	Partial Implementation of Policy	
1 point	Full Implementation of Policy	
1 point	Program Externally Audited	
¹ Points are cumulative.		

10.7.1 Development of policy

Document and implement a program to assess and communicate the hazards of chemicals used in the value chain along with recommended risk management practices.

10.7.2 Partial implementation of policy

- develop, document and implement a process to communicate chemical hazard information in a timely manner to relevant corporate functions such as R&D, sourcing, marketing and corporate value chain; and
- use this information to improve upon existing risk management strategies in the value chain including:
 - label and SDS warnings;
 - recommendations for personal protective equipment and engineering controls to minimize hazards during processing and handling; and
 - product disposal instructions for existing products.

10.7.3 Full implementation of policy

Complete 1 of the following requirements to achieve full implementation:

- develop direct communication links established with suppliers for HSE information (for example updated SDSes);
- conduct training (In-person, webinars, or other) on chemicals management policy for value chain and/or R&D Personnel.

10.7.4 External audit

Obtain an independent evaluation of the participating company's value-chain chemical assessment program. Certifications may be conducted via the following mechanisms:

- external peer review;
- qualified consultant; and
- certification programs.

11 Safety

11.1 Employee health and safety

Sustainability, Safety, and Social Aspects are the pillars of this standard. The health and safety of workers is a critical component of both the Social and Safety pillars that then allow for the achievement of the third pillar, Sustainability. This section of the Sustainability Program pertains to adopting company health and

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Commented [RB74]: Delete all section 10.7

Commented [RB75]: Stephanie and Paul will reach out to their safety people to get specifics. Also send this to Danielle.

safety policies to track and reduce worker injuries. Please refer to introduction, purpose, scope and definitions for more details.

Achievement Level	Achievement Requirement	Supporting References
prerequisite	Tracking and Reduction of Injury Rate(s)	
1 point	Partial Implementation of Program Policy	
1 point	Full Implementation of Program Policy (add the point from partial implementation as well)	
2 point	Injury Rate Reduction	
2 point	Employee Wellness	
2 point	Ergonomics Program	
2 point	Contractor Program	
1 point	ACA Safety Award	
¹ Points are cumulative.		

11.1.1 Tracking and reduction of injury rate(s)

Occupational Safety and Health Administration (OSHA) regulations require that industrial injuries and occupational illnesses be recorded, classified, and reported in a specific manner.

Companies shall have a system for collecting and evaluating information on adverse events relating to health and safety ("incidents") in order to improve future performance and, in many cases, to meet regulatory requirements.

Review OSHA Injuries and Illnesses Reporting Requirements and assign individual's incident information collection duties.

11.1.2 Policy

The policy shall include a review of the company's existing employee health and safety practices and procedures for data collection and analysis and for record maintenance. The policy shall require periodical analysis of facility statistics against historical data as well as industry statistics to identify significant patterns and trends.

11.1.2.1 Partial implementation of the policy

Document that an Employee Health and Safety program has been implemented and demonstrate through a Management of Change (MOC) process that appropriate health and safety issues are raised and addressed by development team at each stage of the process as products and process modifications / improvements are proposed, tested, developed and adopted.

11.1.2.2 Full implementation of the policy

Implement an Employee Health and Safety program that goes beyond what is required by Federal and State regulations and make the program publicly available.

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NOTE — The following tiers do not have to be done in order.

11.1.3 Injury rate reduction

Demonstrate an illness and injury rate that is below or equal to the most current reported injury average.

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11.1.4 Employee wellness

Document that the health and safety program encourages employees to take an active role in their own health and well-being has been implemented.

11.1.5 Ergonomics program

Implement an ergonomics safety program.

11.1.6 Contractor program

Implement a contractor safety program.

11.1.7 ACA Safety Award of Honor or Commendation

Receive an ACA Safety Award of Honor or Commendation. The Award of Honor is given to member locations in various sized categories which establishes the lowest rate of death and lost workday cases involving days away from work and/or restricted work activities per total employee hours worked for the latest calendar year reported.

The Award of Commendation is given to member locations in various sized categories which establishes the lowest rate of death and days away-from-work cases for the latest calendar year reported.

11.1.8 ACA Safety Award of Excellence

Receive an ACA Safety Award of Excellence (presented to companies in various sized categories for establishing zero death and total lost workday cases for the subject five-year period).

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12 Manufacturing and supply chain management

This standard was developed by the American Coatings Association with aims to reduce the paints and coatings industry's impact on the natural environment. This chapter in particular is focused on doing so through continuous improvement of the manufacturing and supply chain.

Achievement Level	Achievement Requirement	Supporting References
prerequisite	Supply Chain Code of Conduct	
1 point	Manufacturer details the screening process/method it shall use to determine whether a supplier complies with the established Code of Conduct	
1 point	Manufacturer screens all suppliers and documents their compliance status with the Code of Conduct	
1 point	Manufacturer replaces any suppliers not in compliance with the Code of Conduct or implements a detailed work plan to bring them into compliance	

Commented [RB79]: Needs language for below (Stephanie)

Commented [RB80]: Needs language for below (Stephanie)

¹Points are cumulative.

12.1 Prerequisite: Supply Code of Conduct

The paints and coatings manufacturer shall establish a Supply Chain Code of Conduct and develop a means of assessment for its suppliers. The Supply Chain Code of Conduct shall address at minimum:

- no child / forced / bonded labor;
- health and safety procedures and training;
- right of freedom of association;
- nondiscrimination;
- discipline / harassment and grievance procedures;
- fair working hours and compensation; and
- anti-corruption and bribery.

12.2 Supplier assessment

As described in the prerequisite above, each paints and coatings manufacturer shall establish a Supply Chain Code of Conduct as a means of assessing the sustainability of their supply chain. For this credit, manufacturers shall conduct a supplier assessment to document their supplier's compliance with the established Supply Chain Code of Conduct. In order to earn complete credit in this section, 100% of a manufacturer's supply chain shall comply with the Supply Chain code of Conduct and supplier assessments shall be on record to document this. A maximum of 1 credit can be obtained in this section and Tiers shall be completed in succession in order to attain full credit for this section.

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12.3 High-risk supplier assessment

Under the Dodd-Frank Act of 2010, manufacturers are required to document their use of the following four minerals: tantalum, tin, tungsten, and gold (3TG). "Congress enacted Section 1502 of the Act because of concerns that the exploitation and trade of conflict minerals by armed groups is helping to finance conflict in the DRC region and is contributing to an emergency humanitarian crisis."³² In addition to 3TG, a number of other minerals used by the paints and coatings industry have come under suspicion for a high-risk of corruption in their supply chain, including, but not limited to, mica, cobalt, and copper.³³ These minerals are frequently used as important pigments in paints and coatings. Given their high-risk situation, they shall be sourced with caution. In order for a manufacturer to earn credit in this section, they shall show due diligence in assuring their supply chain does not contribute to these global issues. A maximum of 1 credit can be obtained in this section.

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Achievement Level	Achievement Requirement	Supporting References
prerequisite	Supply Chain Code of Conduct	
1 point	Manufacturer determines and documents which of its suppliers are considered "high-risk" based on, but not limited to, the raw materials they supply, the country of manufacture, industry type, and annual spend.	
1 point	Manufacturer determines which of	

³² <www.sec.gov/opa/Article/2012-2012-163htm---related-materials.html>

³³ <www.oecd.org/corporate/mne/mining.htm>

	these high-risk suppliers can be replaced and identifies low-risk alternative sourcing options.	
1 point	Manufacturer replaces all possible high-risk suppliers, and implements extra checks and balances for those that cannot be replaced.	
¹ Points are cumulative.		

Commented [RB83]: Needs language below (Stephanie)

12.4 Optimized sourcing and raw material selection program

Optimized raw material sourcing and selection is an important component of sustainability that paints and coatings manufacturers have a great ability to impact. Under this credit, manufacturers earn credit by creating and implementing an optimized sourcing and raw material selection program. This program shall address, at minimum, a supplier's energy consumption, material efficiency, waste reduction, water consumption, air emissions, and transportation. In order for manufacturers to gain full credit under this section, they shall be able to show preferential selection of raw materials that have achieved recognition in one of these six environmental impact categories without negatively impacting any other category. A maximum of 1 credit can be obtained in this section.

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Achievement Level	Achievement Requirement	Supporting References
prerequisite	Supply Chain Code of Conduct	
1 point	Manufacturer creates and documents an optimized sourcing and raw material selection program for all new suppliers.	
¹ Points are cumulative.		

13 Corporate sustainability

Commented [RB85]: Need to define what corporate is

The purpose of this section is to assess and communicate corporate sustainability initiatives undertaken by the coating manufacturer. Corporate Sustainability is a broad topic and one that may have different meanings or focuses depending on the regions in which the company operates and/or the products it manufactures. As such, not every single criterion listed below shall be achieved in order to receive full credit in this section. This also reflects that companies may have limited resources to pursue such initiatives and realistically may only be able to put a significant focus on a few sustainability areas.

13.1 Sustainability reporting

Sustainability reporting shall conform to the following:

- companies shall use at least the general approach of the GRI standard and shall meet at least GRI Core requirements for a company to be eligible for Tier 2 and beyond:
- a GRI outline shall be published alongside any other sustainability documents/reports per GRI requirements for Tier 2 and beyond.

— a company publishing information pertaining to ESG standards could include standards from the Sustainable Accounting Standards Board, MSCI, TCFD, ISS, Sustainalytics, EcoVadis, UNSDGs, or other internationally-recognized program/platform:

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— information can be shared either via a disclosure specific to one of the standards named above or through a stand-alone ESG summary document designed for the investment community.

— consideration of supplier sustainability programs can be done either through an internal program or through an external platform.

Achievement Level	Achievement Requirement	Supporting References
prerequisite	Company shall publish a Sustainability Report conformant with at least GRI Core requirements, Scope 1 and 2 Carbon Emissions, and information regarding community involvement.	
1 point	Coating Manufacturer publishes an annual Sustainability or Corporate Social Responsibility Report.	
2 point	Coating Manufacturer utilizes ESG reporting (SASB or equivalent) in their Sustainability Report, Annual Report, and/or as a Stand-alone document.	
1 point	Coating Manufacturer has program to assess supplier's sustainability reporting before sourcing from them.	
1 point	Coating Manufacturer requires sustainability reporting information from Suppliers.	
1 point	Coating Manufacturer requires sustainability reporting from suppliers and has formal audit program for results.	
¹ Points are cumulative.		

Commented [RB87]: Need to give specifics/reference (needs to be completed based on....) Doug

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Commented [RB89]: Needs language below

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13.2 Climate change programs

Climate and water programs shall conform to the following:

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— company should use Carbon Disclosure Program for its reporting given its general global acceptance. If another framework is used, the company shall disclose in their reporting why a different framework was selected;

— company may publish its CDP disclosures on its website but is not required as the information is available through the CDP website. If another program is selected, the full disclosure shall be made publicly available on the company's website;

— given the complexity of Scope 3 emissions reporting, not all Scope 3 areas shall be reported to achieve credit. However, at least 50% of total expected emissions from Scope 3 shall be reported to achieve credit in Tier 4. Expected Scope 3 emissions may be determined through a life cycle assessment or recognized external tool;

— consideration of supplier climate programs can be done either through an internal program or through an external platform; and

— goals around water may include washwater reuse, water consumption minimization, and/or water depletion minimization.

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Achievement Level	Achievement Requirement	Supporting References
prerequisite	N/A	
1 point	Coating manufacturer collects and publishes Scopes 1 and 2 information publicly through their website or other recognized and external climate program such as Carbon Disclosure Project.	
1 point	Coating Manufacturer has short-term (less than or equal to 5 year) goals around climate change performance.	
1 point	Coating Manufacturer has long-term (greater than 5 years) goals around climate change performance.	
1 point	Company has program to assess climate impacts of raw material suppliers or Coating manufacturer collects and publishes Scopes 1, 2, AND 3 information publicly through their website or a program such as Carbon Disclosure Project. In addition, Company shall already have climate goals as described in Tiers 2 AND 3.	
1 point	Coating Manufacturer requires climate reporting information from Suppliers and incorporates results into sourcing decisions. Or Coating Manufacturer has a goal meeting Science-Based Targets and/or 2 Degree scenarios.	
¹ Points are cumulative.		

Commented [RB93]: Needs language and more specifics. What is Science-Based Targets and/or 2 Degree scenarios?

13.3 Water programs

Climate and water programs shall conform to the following:

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— company should use Carbon Disclosure Program for its reporting given its general global acceptance. If another framework is used, the company shall disclose in their reporting why a different framework was selected;

— company may publish its CDP disclosures on its website but is not required as the information is available through the CDP website. If another program is selected, the full disclosure shall be made publicly available on the company's website;

— consideration of supplier climate programs can be done either through an internal program or through an external platform; and

— goals around water may include washwater reuse, water consumption minimization, and/or water depletion minimization.

Achievement Level	Achievement Requirement	Supporting References
prerequisite	N/A	
1 point	Coating manufacturer collects and publishes water consumption information publicly through their website or a program such as Carbon Disclosure Project.	
1 point	Coating Manufacturer has short-term (less than or equal to 5 year) goals around water performance.	
1 point	Coating Manufacturer has long-term (greater than 5 years) goals around water performance.	
¹ Points are cumulative.		

Commented [RB95]: What is water consumption? Needs to be scoped out.

Commented [RB96]: Needs language for the text

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13.4 Waste programs

Waste programs shall conform to the following:

— company shall publish waste metrics each year and shall disclose at a minimum non-hazardous and hazardous waste metrics to be eligible in this area:

— hazardous and non-hazardous waste shall be defined based on regulatory definitions for the region(s) in which the company operates; and

— If desired, the company can break waste metrics up based off solid vs. liquid or other physical attributes.

— waste goals can include minimizing waste, increasing material reuse, and/or increasing recycling efforts.

Achievement Level	Achievement Requirement	Supporting References
prerequisite	N/A	
1 point	Coating manufacturer collects and publishes waste	

	consumption information publicly through their website.	
1 point	Coating Manufacturer has short-term (less than or equal to 5 year) goals around waste performance.	
1 point	Coating Manufacturer has long-term (greater than 5 years) goals around waste performance.	
¹ Points are cumulative.		

13.5 Board diversity

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Board diversity shall confirm to the following:

— company shall publish diversity metrics each year and shall disclose at a minimum X (ILO) metrics to be eligible in this area.

— If a company achieves the point for board diversity and then falls out of compliance in subsequent years, a grace period of 180 days will be granted to return to compliance.

Achievement Level	Achievement Requirement	Supporting References
prerequisite	N/A	
1 point	Board has diverse set of directors (>30% women/minority).	
¹ Points are cumulative.		

Commented [RB99]: Women and/or minority

13.6 Community engagement

Community engagement programs shall conform to the following:

— community Engagement programs, policies, metrics, etc. may be described in the company's sustainability reporting, GRI disclosure, and/or ESG reporting;

— reporting may be qualitative, but it should be clear to reviewers that dedicated programs and/or personnel exist for community engagement; and

— consideration of supplier community engagement programs may be done either through an internal program or through an external platform or website.

Achievement Level	Achievement Requirement	Supporting References
prerequisite	Company publishes information regarding its impacts (positive and/or negative – in terms of releases) on local communities in which it operates.	
1 point	Company uses and publishes information pertaining to Environmental Impact Assessments or Social Impact	

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	Assessments that evaluate, manage, and mitigate risks.	
1 point	Engagement with local communities through community advisory panels or equivalent channels.	
1 point	Formal implementation of a stewardship management program (such as Responsible Care) geared towards community impacts.	
1 point	Formal implementation of a community stewardship management program for both company assets and contractor employees.	
1 point	Community Stewardship Management program for Suppliers as well as company-controlled and contracted assets.	
¹ Points are cumulative.		

Commented [RB101]: Continued and active engagement.....

Commented [RB102]: Formal implementation of Responsible Care or an equivalent program geared towards community impacts.

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Commented [RB104]: Change to new language above

13.7 Life cycle thinking

Life Cycle Thinking programs shall confirm to the following:

- company shall qualitatively disclose how it considers impacts from each life cycle phase (raw materials, manufacturing, transportation, packaging, use, and disposal) in its product development and technical organizations:
- this could be reported as a policy, program, and/or metric.
- company may disclose either the percentage of products it manufactures (either by volume or sales) that have undergone a life cycle assessment and/or percentage of products developed in the past year that incorporated elements of life cycle thinking to achieve this tier.

Achievement Level	Achievement Requirement	Supporting References
prerequisite	N/A	
1 point	Company has program in place to consider life cycle concepts as described in ISO 14001.	
1 point	Company publishes what portion of its portfolio or new product development process incorporate life cycle thinking concepts.	
¹ Points are cumulative.		

13.8 Management systems

To get credit for a Management System, sites shall be limited to individual manufacturing facilities. A corporate certification would not be accepted to cover all manufacturing sites.

Achievement Level	Achievement Requirement	Supporting References
prerequisite	N/A	
1 point	Company has sites certified to a management system dealing with sustainability (such as ISO 14001 or equivalent external program).	
1 point	Company also publishes percentage of total sites certified. shall use ISO 14001.	
1 point	Company has public goals regarding certified sites. shall use ISO 14001.	
1 point	All company-owned manufacturing sites are ISO 14001 certified.	
¹ Points are cumulative.		

13.9 External sustainability awards

To earn credit for a sustainability award, the award shall be granted within the past 5 years.

Commented [RB105]: Doug/Jessica will draft this section

Commented [RB106]: Note from Jessica that we need to discuss this time period.

Achievement Level	Achievement Requirement	Supporting References
prerequisite	N/A	
1 point	Company has received a sustainability award from a regionally-, nationally-, or internationally-recognized, external group specific to the sustainability of a product, technology, or facility. This does not include Environmental Management Systems or Certifications.	
¹ Points are cumulative.		

14 Social responsibility

14.1 Social responsibility policy

Company shall develop and disclose a company-wide social responsibility policy. Company shall comply and fully implement the prerequisites and points are awarded based on compliance with tiers as outlined in the table below.

Achievement Level	Achievement Requirement	Supporting References
prerequisite	Compliance with All Federal and State laws and development and	

	disclosure of a Company-wide Social Responsibility Policy	
1 point	Full Implementation of Policy containing a labor and human rights policy section.	
1 point	Full Implementation of Policy containing a diversity and inclusiveness policy section.	
1 point	Full Implementation of Policy containing an outreach and engagement policy section.	
1 point	Full Implementation of Policy containing a corporate contributions and employee volunteering programs policy section.	
¹ Points are cumulative.		

14.1.1 Labor and human rights

Every employee has the right to a safe work environment. Company shall develop an internal Labor and Human Rights Policy that outlines additional, company specific labor policies that aim to further protect and respect the rights of human resources at the local, national, and global levels. The policy shall conform with both the letter and the spirit of all laws and regulations pertaining to labor and human rights in employment. Company shall comply with child labor laws and shall not tolerate any sexual or other unlawful harassment of its employees. Company should implement this policy as outlined in the chart above.

14.1.2 Diversity and inclusiveness

Company shall develop and disclose a company-wide Diversity & Inclusiveness Policy. Company shall implement and promote inclusiveness policies that provide equitable access to opportunities and promotional tracks for all employees. Company shall actively monitor the diversity in its organization through metrics, which shall be updated annually. Company should foster an inclusive culture in which their employees at all levels are equitably encouraged to bring their perspectives. Fostering a company environment where employees are encouraged to draw from a broader range of perspectives, strengthens decision-making by creating opportunities to deepen and focus the organization's impact, ultimately making it more sustainable. The policies shall conform with both the letter and the spirit of all laws and regulations pertaining to equal opportunity and non-discrimination in employment. The policy shall include measurable goals, plans to track metrics related to diversity in the organization and be annually reviewed. Company should implement this policy as outlined in the chart above.

14.1.3 Outreach and engagement

Company shall initiate community outreach efforts that facilitate communication on health, safety and environmental policies and procedures within the relevant communities in which they operate to improve communications and establish goodwill. Company should engage with local communities through community advisory panels, health / safety / environment / diversity / labor coalitions or equivalent channels. Company should implement this policy as outlined in the chart above.

14.1.4 Corporate contributions and employee volunteering programs

Company demonstrates good corporate citizenship via volunteer, in-kind and/or financial contributions. Company shall work to develop an employee volunteer program that promotes employee volunteering in

the community by either creating opportunities on company time or providing paid time off for employees to volunteer their time to benefit the local community. Company should implement this policy as outlined in the chart above.

14.2 Recognition of excellence (external awards) (1 point)

Company receives external recognition for their work in a socially sustainable area such as one of the following: diversity and inclusion awards, volunteering award, community outreach award, and/or charitable giving award. A maximum of one point can be received for meeting this requirement.

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Informative Annex 1

14.3 Key elements of a certification program for drinking water treatment systems and components

The information contained in this Annex 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 Annex 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.

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A certification program for drinking water treatment systems and components should contain the following program elements:

I-1.1 Purpose / Objective

I-1.2 Marking the product

Standards³⁴

The following Standards established and adopted by NSF as minimum voluntary consensus Standards are used internationally:

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Std. #	Standard title
2	Food Equipment
3	Commercial Warewashing Equipment
4	Commercial Cooking, Rethermalization, and Powered Hot Food Holding and Transport Equipment
5	Water Heaters, Hot Water Supply Boilers, and Heat Recovery Equipment
6	Dispensing Freezers
7	Commercial Refrigerators and Freezers
8	Commercial Powered Food Preparation Equipment
12	Automatic Ice Making Equipment
13	Refuse Processors and Processing Systems
14	Plastics Piping System Components and Related Materials
18	Manual Food and Beverage Dispensing Equipment
20	Commercial Bulk Milk Dispensing Equipment
21	Thermoplastic Refuse Containers
24	Plumbing System Components for Recreational Vehicles
25	Vending Machines for Food and Beverages
29	Detergent and Chemical Feeders for Commercial Spray-Type Dishwashing Machines
35	High Pressure Decorative Laminates for Surfacing Food Service Equipment
37	Air Curtains for Entranceways in Food and Food Service Establishments
40	Residential Wastewater Treatment Systems
41	Non-liquid Saturated Treatment Systems
42	Drinking Water Treatment Units – Aesthetic Effects
44	Residential Cation Exchange Water Softeners
46	Evaluation of Components and Devices Used in Wastewater Treatment Systems
49	Biosafety Cabinetry – Design, Construction, Performance, and Field Certification
50	Equipment and Chemicals for Swimming Pools, Spas, Hot Tubs, and Other Recreational Water Facilities
51	Food Equipment Materials
52	Supplemental Flooring
53	Drinking Water Treatment Units – Health Effects
55	Ultraviolet Microbiological Water Treatment Systems
58	Reverse Osmosis Drinking Water Treatment Systems
59	Mobile Food Carts
60	Drinking Water Treatment Chemicals – Health Effects
61	Drinking Water System Components – Health Effects
62	Drinking Water Distillation Systems
140	Sustainable Carpet Assessment
169	Special Purpose Food Equipment and Devices
170	Glossary of Food Equipment Terminology
173	Dietary Supplements
177	Shower Filtration Systems – Aesthetic Effects

³⁴ The information contained in this list of Standards 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 Standards page 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.

Std. #	Standard title
184	Residential Dishwashers
223	Conformity Assessment Requirements for Certification Bodies that Certify Products Pursuant to NSF/ANSI/CAN 60 Drinking Water Treatment Chemicals – Health Effects
244	Drinking Water Treatment Units Supplemental Microbiological Water Treatment Systems – Filtration
245	Wastewater Treatment Systems – Nitrogen Reduction
305	Personal Care Products Containing Organic Ingredients
321	Goldenseal Root (<i>Hydrastis canadensis</i>)
330	Glossary of Drinking Water Treatment Unit Terminology
332	Sustainability Assessment for Resilient Floor Coverings
336	Sustainability Assessment for Commercial Furnishings Fabric
342	Sustainability Assessment for Wallcovering Products
347	Sustainability Assessment for Single-Ply Roofing Membranes
350	Onsite Residential and Commercial Water Reuse Treatment Systems
350-1	Onsite Residential and Commercial Greywater Treatment Systems for Subsurface Discharge
358-1	Polyethylene Pipe and Fittings for Water-Based Ground-Source "Geothermal" Heat Pump Systems
358-2	Polypropylene Pipe and Fittings for Water-Based Ground-Source "Geothermal" Heat Pump Systems
358-3	Cross-linked Polyethylene (PEX) Pipe and Fittings for Water-based Ground-Source (Geothermal) Heat Pump Systems
358-4	Polyethylene of Raised Temperature (PE-RT) Tubing and Fittings for Water-based Ground-Source (Geothermal) Heat Pump Systems
359	Valves for Cross-linked Polyethylene (PEX) Water Distribution Tubing Systems
360	Wastewater Treatment Systems – Field Performance Verification
363	Good Manufacturing Practices (GMP) for Pharmaceutical Excipients
372	Drinking Water Treatment System Components – Lead Content
375	Sustainability Assessment for Water Contact Products
385	Disinfection Mechanics
401	Drinking Water Treatment Units – Emerging Compounds / Incidental Contaminants
416	Sustainability Assessment for Water Treatment Chemical Products
418	Effluent Filters – Field Longevity Testing
419	Public Drinking Water Equipment Performance – Filtration
426	Environmental Leadership and Corporate Social Responsibility Assessment of Servers
455-1	Terminology for the NSF 455 Portfolio of Standards
455-2	Good Manufacturing Practices for Dietary Supplements
455-3	Good Manufacturing Practices for Cosmetics
455-4	Good Manufacturing Practices for Over-the-Counter Drugs
456	Vaccine Storage
457	Sustainability Leadership Standard for Photovoltaic Modules and Photovoltaic Inverters
600	Health Effects Evaluation and Criteria for Chemicals in Drinking Water
14159-1	Hygiene Requirements for the Design of Meat and Poultry Processing Equipment
14159-2	Hygiene Requirements for the Design of Hand-held Tools Used in Meat and Poultry Processing Equipment
14159-3	Hygiene Requirements for the Design of Mechanical Belt Conveyors Used in Meat and Poultry Processing Equipment



***THE HOPE OF MANKIND rests in the
ability of man to define and seek out
the environment which will permit him
to live with fellow creatures of the
earth, in health, in peace, and in
mutual respect.***

Removing all sustainability from the standard



- This would be a product standard
- Withdraw from ANSI as a sustainability standard
- New debate on if the industry needs a product standard
- Create a new scope
- Petition ANSI to create a product standard
- If approved, we can then start from scratch