Sustainable Products Purchasers Coalition

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Manufacturers and Purchasers from around the world are looking for a single format to communicate and find information regarding the sustainability of various products. Frustrated by numerous and varying requests, manufacturers are spending too much time and money on efforts to demonstrate the environmental, social and economic performance of their products. Purchasers are working to track down more sustainable products and finding incomplete and inconsistent information, roadblocks and greenwashing, as they duplicate the efforts of hundreds of purchasers across the globe. Manufacturers and purchasers can more easily communicate the environmental, social and economic attributes (the three pillars of sustainability) of products by creating a single standardized format for this data.

The Sustainable Products Purchasers Coalition (SPPC) is a consortium of businesses, government agencies, and non-profit organizations that is working to move industry and the marketplace toward the development, production, and consumption of more sustainable products. We document the aggregate purchasing power of our member organizations in order to demonstrate to manufacturers that there is a significant and growing market for more sustainable products. Our primary effort is the development of a single standardized user-friendly format for finding and reporting the environmental profile of products, derived from the life cycle assessment (LCA[1])* of the product.

We also provide a forum where purchasers can share their problems and solutions related to finding, purchasing, and using environmentally preferable products. Members can exchange information on products and suppliers and share their research and product specifications. Some members may also use the membership network to find partners for group purchasing.

As a Coalition, we speak as one voice. We ask manufacturers for life-cycle analysis that provides a full transparent accounting of the environmental and social impacts of their products. The strength of our numbers will give us leverage to get the information our members need to make informed purchases.

The SPPC formally incorporated as a 501(c)(6) non-profit organization, and elected a board of directors in January of 2002. In the same month the SPPC had its website up to communicate its goals and criteria to the public and to manufacturers. Membership also commenced in 2002, representing a diversity of consumers who specify, purchase, and use manufactured products including: building materials, office products, cleaning products, automobiles, and furnishings.

[1] *LCA (Life Cycle Assessment) is defined by the International Standards Organization (ISO) as the "compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life cycle." ISO 14040-1997

Organization members can determine product selection based on environmental , social, and economic performance and impact criteria, this is conducted via the Eco-Profile, Social Indicators and Economic Indicators.

In addition, the autumn of 2003 marked the commencement of a membership, education and outreach campaign by SPPC staff in the Northwestern United States. This concerted effort more than doubled membership, and garnered speaking engagements throughout the region reaching hundreds of people and providing opportunities to promote LCA and how to utilize LCA results effectively in organizations.

Eco-Profile

In 2003, with the collaboration and support of some of the world's foremost LCA experts in the review and recommendation process of an environmental product indicator, the Sustainable Products Purchasers Coalition (SPPC) created the Eco-Profile (document a). The Eco-Profile is a single page form on which each impact category of the product Life Cycle Assessment results can be calculated and reported. The Eco-Profile provides a summary of the product's LCA results in an easy to understand format that is easy to compare with other products in the same product class.

Similar to the highly effective and successful Material Safety Data Sheet (MSDS) that created a standardized format for reporting health safety concerns related to individual products, manufacturers use the Eco-profile to report the environmental performance of their product. Utilizing the Eco-profile format, manufacturers report LCA data in accordance with the International Standards Organization (ISO) 14001 series of ISO 14040 standards, and sign an Express Warranty, declaring that the information provided is true and accurate. The result is clear, consistent, and transparent data that enables specifiers and procurement professionals to find the most "sustainable" product and make informed decisions.

The SPPC's ultimate goal is for purchasers, when reviewing comparable products, to be able to simply utilize LCA results to assess the environmental impact of the products they are considering.

The SPPC has made great strides toward developing an industry standard for the dissemination of the environmental performance and impact of products. With buildings representing such a significant amount of our nation's energy consumption, the initial phase of product Eco-profile release will focus on building materials. Indeed, the Eco-Profile is already represented on the website of a manufacturer in the building materials industry. The C&A Floorcoverings product *Habitat ER3 Modular Tile* Eco-profile can be accessed via the SPPC's website home page at: www.sppcoalition.org.

We further anticipate the 15 major manufacturers in this industry sector with whom we are working will utilize the Eco-Profile as a reporting tool for the more than 70 products currently on the market.

Recommended criteria to be used by all LCAs submitted to the SPPC by manufacturers:

Functional Unit	Units will be metric. Manufacturers will define the functional unit for each LCA that includes a unit of time. The functional unit of flooring for carpeting could be 'product-life impacts per meter^2/year' or 'impacts per meter^2/year'. LCAs that use different functional units cannot be directly compared. The SPPC is developing guidance to assist manufacturers in defining a functional unit for their product.
Product-Life Phases	The SPPC will require that all LCAs include the entire life cycle phases of the product from cradle to grave, including: extraction phase, materials processing phase, manufacturing phase, use phase, end-of-life phase and transportation among all phases.
Original vs. Averaged Inventory Data	The SPPC prefers original inventory profile data instead of averaged inventory profile data. Manufacturers will be required to specify what percent of inventory profile data is original and what percent is taken from industry averages. Percentages will be calculated from the numbers of entries in the inventory.

The Eco-Profile will consist of:

a. Results are categorized in the ten comparable LCA impact categories established by the SPPC committee and represent the latest thinking in national and international assessment criteria.

b. Signature of company representative is not posted but text will be generated which shows that "I/we hereby claim the above information to be accurate to the best of my/our knowledge and is conducted in accordance to ISO 14040 series (14040, 14041 and 14042) requirements (including Peer Review) and disclose this information free and without restrictions.

c. Functional units required. Functional requirements are to follow format established by the first entry of each product category and must include a time frame. If a new product category is established, it is up to the manufacture to develop a functional unit that meets industry-established acceptance.

d. The Eco-Profile form must be used. The link for this form will be prominently displayed within the first few inches of the first page of the company's product description page. Company is free to describe other attributes of the product outside the scope of LCA, such as recycled content, etc.

LCA Impact Categories

Impact	Equivalency unit	Methodology source
1 Acidification	milligrams H+	Advanced Statistical Trajectory Regional Air Pollution model (ASTRAP), Shannon 1991, 1992, 1996
2 Climate change/global warming	grams CO2	Intergovernmental Panel on Climate Change (IPCC), 100-year timeframe, 1996
3 Ecological toxicity	grams 2,4-D	US EPA Framework for Responsible Decision Making (FRED), 1999
4 Fossil fuel depletion	megajoules	Building for Economic Sustainability (BEES 2.0), Lippiatt 2000
5 Habitat alteration	Threatened species/m2	US EPA's Tool for the Reduction and Assessment of Chemical and other environmental Impacts (TRACI), Bare, Norris, submitted Journal of Industrial Ecology, 2001
6 Human toxicity	grams toluene	US EPA Framework for Responsible Decision Making (FRED), 1999
7 Particulates	micro DALYs	Disability adjusted life years, Nishioki et al, 00, 02; Levy et al, 00, US EPA 99, and Lopez 96
8 Photochemical smog	grams NOX	Carter 1994 (excludes NOx)
9 Stratospheric ozone depletion	grams CFC-11	Montreal Protocol Handbook, UNEP 1997
10 Water eutrophication	grams N	N-eqs. convert to PO eqs., Heijungs 1992, Lindfors 1995

Table 1 SPPC LCA Impact Categories

The following is an explanation of the impacts corresponding to the various categories.

Acidification is caused by the release of acid gases, mostly from the burning of fossil fuels. Acid rain is a major problem wherever the soils are naturally acidic. The acids dissolve aluminum and other metals from soils to the level at which they become toxic to plants and to aquatic organisms. Acidic rain dissolves cement and minerals in the built environment.

Climate Change/Global Warming: refers to the addition of greenhouse gases to the atmosphere through burning of fossil fuels, agricultural practices and certain industrial practices leads to major changes in the earth's climate system. The overall temperature of the earth rises, more energy goes into storm systems, and desertification increases and at the range of tropical diseases increases. Arctic and Antarctic areas are significantly affected, leading to the melting of the polar ice caps and major changes in the marine ecologies.

Ecological toxicity refers to the effects of toxic substances on plants, animals and other biota in the natural environment. A typical method to measure ecotoxicity is exposing

organisms to a chemical and determining how much of the chemical is required to kill the organisms.

Fossil Fuel depletion refers to the elimination of resources by converting them to a form that is irrecoverable. The burning of fossil fuels is the most obvious form of resource depletion. One often separates resource depletion into depletion of fuels, minerals and water. Resource depletion is a function of the existing technologies for extraction and recycling, as well as the total amount of certain resources on the earth. With the exception of water depletion, resource depletion has no immediate effect on the ecosystem.

Habitat alteration refers to the physical modification of habitat. Natural ecosystems are destroyed to provide for agriculture, roads and urban growth. Habitat alteration is the primary cause of the loss of biodiversity on the planet.

Human toxicity refers to the release of substances into the environment which have toxic effects on human health. Some of the health impacts are cancer causing (carcinogenic) and damage human health in other ways. In order for damage to occur, a person must be exposed to the substance, the substance must be assimilated in the person's body and the received dose to the individual must exceed the body's ability to detoxify it. Potential toxic effects from exposure to industrial and natural substances can include transient irritation, permanent disability and/or death.

Particulates are small particles of airborne material that are mostly derived from combustion processes. Small particulates, especially those smaller than 2.5 microns in diameter cause asthma attacks and other respiratory problems. They are a significant public health problem, and probably affect other organisms as well.

Photochemical smog is caused by the emissions of oxides of nitrogen and volatile organic substances generating ground level ozone in the presence of sunshine. Smog has a direct effect on human health, increasing the incidence of asthma. It also damages plants by reducing their ability to photosynthesize

Stratospheric ozone depletion is caused by emissions of halogenated hydrocarbons such as Freon and other ozone depleting compounds. Ozone in the upper atmosphere is destroyed, leading to "ozone holes" in the high altitudes. The stratospheric ozone layer acts as a sunscreen as well as a greenhouse gas. Its loss increases the ultra-violet (UV) light falling on the earth leading to cancers and cataracts. The UV light also reduces the productivity of plants, affects marine algae and affects the biota in high latitudes. Loss of stratospheric ozone also affects the climate system in ways that are not fully understood.

Water Eutrophication is caused by the addition of excess nutrients to water leading to reduction of available oxygen in the water. Nitrogen and phosphorous compounds are primarily from municipal wastewater and agricultural discharges which enter surface waters. This results in algal blooms that lower the quantity of dissolved oxygen. When Eutrophication removes the oxygen from the water, it kills fish and other organisms.

Harmful algal blooms such as red tides affect humans exposed to the toxic algae, or by eating shellfish that have consumed the toxic algae. An extreme example of this is the "dead zone" covering 20,000 square kilometers of the Gulf of Mexico.

There are several ways to make a decision on the ecologically preferable product given the ecological data. The SPPC offers the highlighter method (which simply compares the categories for the highest number of "winners"), and the normalized and weighted methodologies, which quantifies the magnitude of the impacts and assigns a level of importance to each impact category. This information is available via the SPPC website.

Social Indicators

The SPPC has developed a list of indicators of social sustainability (document b) as the first step towards providing manufacturers with a clear and simple method of reporting social performance.

The direction for this reporting standard has come with assistance from:

- Global Reporting Initiative – GRI
- International Labor Organization – ILO
- UN Global Compact
- Universal Declaration of Human Rights
- Social Accountability International – SAI
- American Federation of Labor – Congress of Industrial Organizations – AFLCIO
- Fair Labor Association – FLA

The social indicators will eventually provide a document that combines elements of the leading social reporting tools that currently exist. In as much, it serves as a survey of existing methods, with all their limitations accepted.

Peer review of this document includes:

- International corporate transparency NGOs
- Institutional Investors and Analysts
- Corporate Sustainability Officers
- Government Purchasing Managers

Economic Indicators

This document, currently in the design stage, will contain criteria for measuring economic sustainability. Criteria will be developed for assessing the manufacturer's economic aspect of sustainability through the Institute for Market Transformation to Sustainability (MTS) and other economic advisors.

Web Development / Member's Forum

The next most vital task for the SPPC is website expansion for the development of the SPPC Member's Forum (document c), a web-based arena for SPPC members to discuss sustainable products with other members. The Member's Forum will be a place where members can share their experience with environmentally preferable purchasing. They can share their interpretations of LCA results or discuss materials for which there is no LCA data yet available. They can share methods and also post any relevant purchasing policy language or other materials to assist one another. They will have access to premium information about manufacturers that have provided comparable LCA data and provide links to that information as well providing a place to review on-line discussions about sustainable products.

With the expansion of the Member's Forum and the anticipated rise in membership and manufacturer participation we project new sources of revenue. Corporate sponsorship of the SPPC website and organization activities will provide sustainable revenue streams and lend credibility.

Beneficial changes to the environment will result from the stated purchase of sustainable products based on LCA information on the website, as well as the proliferation of sustainable product purchasing policy language due to the sharing between members using the forum.

The launch the Member's Forum is set for autumn of 2004.

Conclusion

In a short period of time the SPPC has made several significant achievements. It has led the advancement of LCA as a purchasing tool for more sustainable products. With the Eco-Profile, purchasers can now seek and find information, with relative ease, related to more sustainable products. The introduction of Social and Economic Indicators will soon enhance and expand their ability to make further gains in this area. The Member's Forum will also help the flow of communication and information amongst purchasers about the performance and impacts of products. It will also aid manufacturers in understanding the growing interest in the environmental, social and economic attributes of their products which purchasers are seeking. With increased funding the SPPC will also add more focus to education and outreach, regionally and nationally, related to LCA and sustainable product purchasing.

SPDS

Sustainable Product Declaration Sheet

A. PRODUCT INFORMATION

Product Name | Model No.

Functional Unit

Manufacturers Name

Address

City | State/Prov. | Zip

Contact Person (First / Last)

Phone | Fax

Email Address

B. ENVIRONMENTAL PROFILE SUMMARY

See accompanying detail summary for more information

IMPACT CATEGORIES

1	ACIDIFICATION	milligrams H+
2	CLIMATE CHANGE/GLOBAL WARMING	grams CO_2
3	ECOLOGICAL TOXICITY	grams 2, 4-D
4	FOSSIL FUEL DEPLETION	megajoules
5	HABITAT ALTERATION	Threatened Species m^2
6	HUMAN TOXICITY	grams toluene
7	PARTICULATES	
8	PHOTOCHEMICAL SMOG	grams NOX
9	STRATOSPHERIC OZONE DEPLETION	grams CFC-11
10	WATER EUTROPHICATION	grams PO_2

C. DISCLOSURE STATEMENT

I/We hereby claim the above information to be accurate to the best of my/our knowledge and discloses the information free and without restrictions.

SIGNATURE _____ DATE _____

SPPC Social Indicators

Community Development (% Revenue US$)

		Company	Major Suppliers
Contributions to:	Education	_____	_____
	Public Health	_____	_____
	Arts, Culture	_____	_____
	Civic Infrastructure	_____	_____
	Political Contributions	_____	_____

Project Highlight or Focus: _____

Child Labor

Company Major Suppliers

☐ ☐ Meet the legal standard for child labor practices in all places of business.

☐ We are monitored by a third party (name): _____

☐ Suppliers are monitored by a third party (name): _____

Forced Labor

☐ ☐ Employ no forced labor in any of our places of business.

☐ We are monitored by a third party (name:)_____

☐ Suppliers are monitored by a third party (name:)_____

Workplace Safety and Health

☐ ☐ Are above industry standards for sick days, workplace injuries and/or death.

☐ ☐ Insure proper training of all employees regarding workplace safety (including proper handling/usage of hazardous materials and equipment).

☐ ☐ Address ergonomic safety in all departments in all facilities.

☐ ☐ Maintain an EH&S official department in all facilities

	Company	Major Suppliers
Number of OSHA violations (in last calendar year):	_____	_____
Number of workplace injuries (in last calendar year):	_____	_____
Number of workplace deaths (in last calendar year):	_____	_____

Project Highlight or Focus: _____

Freedom of Association and Collective Bargaining

☐ ☐ Do not place any barriers to employees organizing.

☐ We have the following organizations currently operating: _____

☐ Suppliers have the following organizations currently operating: _____

Project Highlight or Focus: _____

Compensation

☐ ☐ Are meeting legal requirements in all places of business.

☐ ☐ Exceed the legal requirements in all places of business.

☐ We are monitored by a third party (name):_____

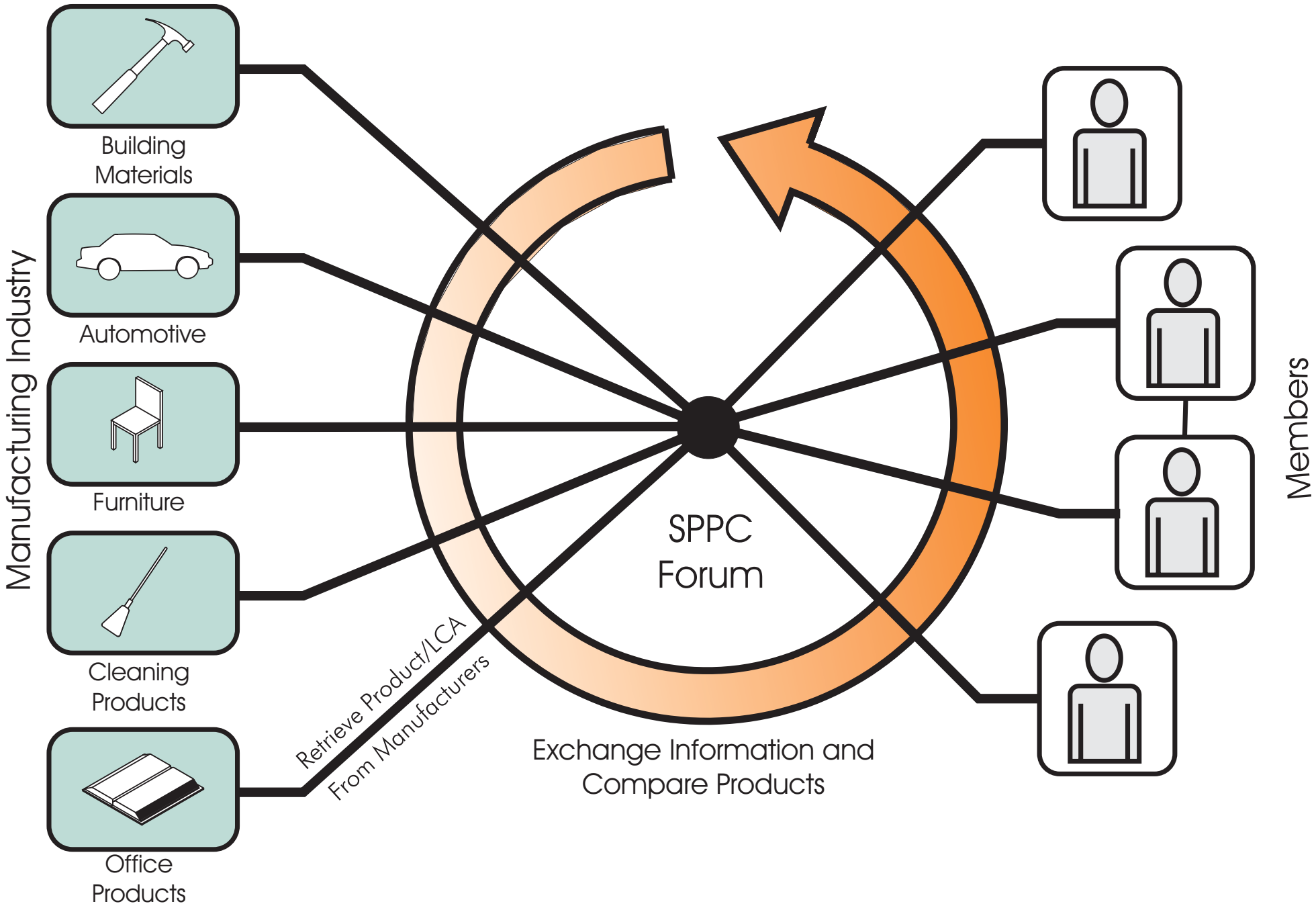
☐ Suppliers are monitored by a third party (name):_____

Project Highlight or Focus: _____

Equal Opportunity and Treatment

☐ Provide an equal opportunity to any and all persons based on no other criteria than merit and past performance.

Project Highlight or Focus: _____


Manufacturing Industry
Building Materials
Automotive
Furniture
Cleaning Products
Office Products
Retrieve Product/LCA From Manufacturers
SPPC Forum
Exchange Information and Compare Products
Members