GREEN SEAL™ PROPOSED REVISED ENVIRONMENTAL STANDARD FOR REUSABLE BAGS (GS-16)

BACKGROUND DOCUMENT

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THE MARK OF ENVIRONMENTAL RESPONSIBILITY

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SCOPE

The scope of the Green Seal Reusable Utility Bag Standard (GS-16) issued January 14, 1994 includes "all reusable utility bags". The scope of the proposed revised standard will continue to include all types of reusable utility bags including grocery, retail or shopping bags, tote bags, produce and lunch bags, bank, security and deposit bags, postal bags and sacks, dry-cleaning, garment and laundry bags, and other types of carrier or carryout bags that are designed and meant for hand-carrying a variety of goods or commodities multiple times. The most prominent use of single-use grocery bags is at grocery stores, retail pharmacies or general retailers, but the standard also addresses reusable replacements of single-use bags for other uses including dry-cleaning in hotels and lodging facilities, professional dry-cleaners, and delivery options such as banking, postal or other delivery needs. Since the intent of the reusable bag standard is to address acceptable replacement of single-use bags, the standard includes any of the uses of single-use plastic and paper bags that can be addressed by a reusable option.

The standard does not include food-contact bags such as sandwich bags or take-out or carry-out bags from food retailers. Residual food may affect reuse and additionally, for sanitary reasons, food-contact bags may be intended for single-use. The proposed revised standard will also exclude materials made primarily of leather, synthetic leather or materials derived from animal skin, as these materials would entail additional considerations of the impact on animals, which is not covered appropriately under this standard. Furthermore, while the use of these materials does not preclude the use of carrying food items, these materials are not typical materials for bags designed and intended for carrying grocery and retail items.

The scope of the standard is in line with international, domestic and corporate efforts that are primarily targeted at reducing the free distribution of single-use plastic bags at retail pharmacies and supermarkets. China recently banned plastic bags with a thickness of 0.025 mm or less and the prohibition includes a call for return on cloth bags and shopping baskets (CNN, 2008). Domestically, several cities are banning plastic bag use or are considering legislation. The San Francisco Plastic Bag Ordinance passed March 2007 bans the use of single-use plastic bags at retail pharmacies and supermarkets in favor of compostable, paper and reusable bag options (SF Ordinance 81-07). Los Angeles voted to impose an impending plastic bag ban by 2010 (LA Times, 2008) and Westport, Conn became the first East Coast city to pass a plastic bag ban (Conn Post, 2008). Several other U.S. cities are reported to either be considering bans or enacting similar measures to reduce the plastic bag use. For example, Seattle passed legislation that will impose a tax on plastic bags (Seattle Times, 2008). Based on the growing concern, some retailers are enacting their own measures. Whole Foods has stopped offering plastic bags at checkout and instead offers rebates if customers bring their

own bags (NYTimes, 2008). Several other grocery stores and retailers, like Target and Sam's Club, now offer reusable bags for purchase.

While much of this legislation and recent effort is targeted towards single-use plastic bags, paper bags are not the best alternative. Life-cycle studies have demonstrated that the manufacture of paper bags generates air pollution, industrial waste, and energy-use and therefore may not be the preferable option to plastic bags from an environmental perspective (Franklin and Associates, 1990). Further, life-cycle studies have also indicated that reusable bags are clearly the preferable option to both paper and plastic bags (Environment Australia, 2002). Therefore, this standard is intended to define leadership levels for reusable utility bags that can provide a feasible replacement for single-use bags, including both plastic and paper.

PRODUCT-SPECIFIC PERFORMANCE REQUIREMENTS

Minimum number of uses

The main advantage of a reusable bag over a single-use bag is the number of uses it can withstand during its useful life. In a 2006 report, the Food Marketing Institute stated the average consumer makes 1.9 trips to the grocery store per week (FMI, 2006). Given 52 weeks in a calendar year, that would result in 98.8 trips to the grocery store per year for the average consumer. The Overview of Carryout bags in Los Angeles County report assumes a lifetime of 2 years for reusable bags (LA County, 2007). The Australian report *Plastic Shopping Bags – Analysis of Levies and Environmental Impacts*, assumes an expected life of 104 trips (or one trip per week) for 2 years for reusable bags and 3 years for a plastic polypropylene "smart box" (Environment Australia, 2002). Given the 1.9 trips per week of the average consumer and an assumed life of 2-3 years, the minimum life cycle of a reusable bag should be ~300 uses for its useful life. The Green Seal Standard (GS-16) issued in 1994 required 300 minimum uses carrying typical loads and the Canada EcoLogo CCD-100 Reusable Bag Standard issued 1996 requires 300 uses carrying 10 kg under wet conditions. Since those standards were issued, there has been a dramatic increase in the amount of reusable bags available as well as improvements in technology and structural integrity. Current government procurement programs are citing a useful life of 3-5 years (Seattle RFP5108, 5/23/08), which roughly equals 500 minimum uses. Therefore, in order to address current leadership levels in the marketplace, Green Seal is revising limits for longer lasting products and is proposing a limit of 500 minimum uses carrying 10 kg (22 lbs) under wet conditions. Green Seal recognizes that the scope of the proposed standard includes a variety of different types of bags, particularly a number of product categories for which 10 kg (22 lbs) may not be applicable. For those bags with a volume of 3000 g/cm^3 or less, Green Seal proposes to require a minimum of 500 uses given 2 kg (4.4 lbs) carrying capacity.

While there are no standard or industry-wide accepted methodologies for testing reusable bags, there are test methods outlined in the EcoLogo CCD-100 Reusable Bags (under Environmental Choice Program Acceptable Test Procedure ATP001) and the Korea EL312 Bags Standard. The GS-16 Appendix details the acceptable methodology to test

minimum number of uses. The test method includes immersing the product in water, suspending the bag from a hook or other device, adding the proper weight to the bag and mechanically lifting the bag to a certain height for the required amount of number of uses. Damages or defects, including holes, broken stitches or seam failures would constitute failure. Alternative test methods may be used, but proper documentation about the procedure, tools and measurement must be received that ensures that the test method was conducted under reputable and reproducible test conditions.

Reinforcement of hand and shoulder straps

For reusable bags, the useful life in many ways is determined by the strength of the hand or shoulder straps. A good quality bag should have hand and shoulder straps that are reinforced in order to ensure that the maximum number of uses will be achieved by the end-user. The proposed standard includes requirements for reinforcement of hand and shoulder straps. Manufacturers can document compliance by demonstrating stitch reinforcement such as double-stitching (secondary stitches that cover the same fabric as original stitches), reinforced sewing (a series of close set stitches in a zigzag pattern) or backstitching (stitches that are the opposite direction of the original stitches). Other stitch reinforcements or other types of reinforcements, such as additional material, rivets or other strengthening parts will also be accepted as long as it is documented and demonstrated appropriately. A similar requirement is included in the Japan Eco Mark Product Category No. 101 “Bags and Suitcases Version 1.0”, Category C “Fabric Bags” and the Korea Eco-label EL312 Bags standard includes a requirement for testing the secureness of hand and shoulder straps.

For bank, security, deposit bags or other bags that are closed by a zipper, the zipper area should be reinforced or designed such that the zipper and/or zipper slider can be replaced. The zipper portion of these types of bags is used more frequently and may be worn out prior to the end of the useful life of the bag. If the zipper is reinforced or designed to be replaced, the product is more likely to be utilized for the full extent of its useful life. A similar requirement is included in the Japan Eco Mark Product Category No. 101 “Bags and Suitcases Version 1.0”, Category C “Fabric Bags”.

Colorfastness to wet/dry crocking

One of the determinants of a quality textile is that the color does not bleed from the fabric by rubbing (crocking). Many reusable bags, particularly for the retail and grocery uses, will likely be carried by a shoulder strap, which under typical conditions will expose the fabric of the bag to continuous rubbing. A quality bag should maintain its color and have minimal color rub-off under both wet and dry conditions, as bags may be exposed to rain, sweat, and condensation from food and other moisture conditions. In addition, a requirement for colorfastness will ensure that if dyes are added, that the dyes are durable and will not rub off. Tests for colorfastness will be applicable regardless of raw material source, including recycled materials. From the user’s perspective, any bag that does not have adequate colorfastness may not be used to the extent of its useful life. Colorfastness to wet/dry crocking is included in the Canada EcoLogo CCD-100 Reusable Bag standard and Korea Eco-label EL312 Bag standard. In addition, the requirement is included in a number of other textile related standards including Nordic Swan Textiles Skin and

Leather, Australia GECA 19-2007 Textiles and European Union Eco-label for Textiles. Green Seal is proposing the crockmeter method for at least a level 2 or 3 for wet rubbing and at least level 4 for dry crocking using crockmeter method International Organization for Standardization (ISO) 105 X12-2001 *Textiles – Tests for Color Fastness – Part X12: Color Fastness to Rubbing* or American Association of Textile Chemists and Colorists (AATCC) Method 8-2007 *Colorfastness to Crocking: AATCC Crockmeter Method* or Method 116-2005 *Colorfastness to Crocking: Rotary Vertical Crockmeter Method* or Government of Canada, Canadian General Standards Board CAN/CGSB 4.2 *Textile Test Methods No 22-2004 Colourfastness to Rubbing (Crocking).*

PRODUCT-SPECIFIC HUMAN HEALTH AND ENVIRONMENTAL CRITERIA

An EPA Sector Notebook Project of the Textile Industry identified areas of focus for pollution prevention in the textile sector. It addressed raw material sourcing and chemical substitution as well as good operating procedures (EPA, 1998). In addition, it is imperative to include consideration for the social aspects of the manufacturing process. Therefore, based on prior studies about textiles and including the social aspects, the life-cycle impacts of a reusable bag can be summarized in three major areas of impacts: (1) raw material sourcing, (2) production and processing of the product and (3) social aspects of production. The Global Organic Textile Standard (GOTS), developed by the International Working Group on the Global Organic Textile Standard, was designed to define international recognized organic requirements of textiles. The collaborators include the Organic Trade Association in the US, Japan Organic Cotton Association, Soil Association in England and International Association Natural Textile Industry in Germany. While the GOTS covers textile products broadly, its outline, which includes raw material sourcing, production impacts, and minimum social criteria, provides a useful guideline in the development of a standard for reusable bags.

Raw Materials

Natural materials

Natural materials are proposed to be defined as ingredients that come from or derived from biological products or renewable materials, materials of mineral origin, forestry or agricultural materials (including plant, animal, and marine materials) and that do not contain genetically modified organisms and have been processed without irradiation. Natural materials include types of cotton, hemp, flax, jute, bamboo and other types. As mentioned in the Scope, the standard excludes materials made primarily of leather, synthetic leather or materials derived from animal skin. In the case of natural materials, one of the major considerations is the chemical use and water resources needed to grow and produce the raw material. Within the category of natural fibers, the raw material of the product is proposed to be certified organic or conversion period certified by the United States Department of Agriculture National Organic Program (USDA NOP) or certified by any International Federation of Organic Agricultural Movement (IFOAM) accredited or internationally recognised certifier, including certification under the Global Organic Textile Standard (GOTS). If the product is comprised of two or more materials, each material shall be certified or conversion period certified organic. The USDA

National Organic Program (NOP) is a marketing program housed within the USDA Agricultural Marketing Service. NOP developed national organic standards and established an organic certification program. The definition for organic, developed by the National Organic Standards Board adopted in April 1995, is the "ecological production management system that promotes and enhances biodiversity, biological cycles and soil biological activity. It is based on minimal use of off-farm inputs and on management practices that restore, maintain and enhance ecological harmony." The USDA NOP develops standards and oversees the production, handling, and labeling standards for organic agricultural products in the United States and accredits certifying agents to ensure the products meet USDA standards. While the purview of the USDA NOP is typically over food and food-related products, some raw materials of reusable bags may be considered under this legislation. In addition, the raw material can be certified organic or conversion period certified[1] according to IFOAM. IFOAM is a worldwide member organization that seeks to lead and develop the worldwide organic movement. Its Organic Guarantee System includes stakeholder-developed standards for organic production and processing as well as accreditation criteria for certification bodies. The GOTS program as mentioned earlier outlines requirements of organic textiles. The intent is to provide credible assurance to the end-user by setting criteria from the raw material sourcing to the production and processing and to the social aspects. Certification under GOTS requires that the raw materials meet a recognized national or international organic standard and are certified by an accredited IFOAM or internationally recognized certifier. Requiring organic certification for natural materials will ensure that the chemical and resource use during the production and processing of the natural raw material has been considered.

Synthetic materials

Synthetic materials are defined as materials derived from synthetic (man-made) sources and materials derived from other sources (including natural materials) that mimic synthetic (man-made) materials in its final state. Examples of synthetic materials include woven and nonwoven polypropylene, nylon, polyester, acrylic and rayon. Materials such as materials derived from bamboo but are processed chemically such that it loses the natural bamboo properties and are designed to mimic polyester fibers will be considered synthetic materials under this standard. Synthetic materials may utilize fossil fuel resources, such as petroleum or gas, but may serve useful purposes as an effective replacement of single-use bags in terms of waste reduction (less single-use plastic bags are consumed), resource consumption, availability, convenience and usability. Life-cycle studies show that woven reusable HDPE (such as an IKEA bag), though derived from a synthetic source, would reduce the environmental impacts when compared to a single-use HDPE in all aspects including material consumption, greenhouse gas potential, energy use and less persistence as litter. In addition, the woven reusable HDPE bag also resulted

[1] The organic certification is dependent on the practices used on the farm and growing facilities and for many, the transition period can be challenging and it make take time to completely convert to the new system based on soil fertility and the other considerations. Many farms and growing facilities are not able to obtain organic certification, but are actively converting to organic practices and are considered valid while within a certain conversion period. The details of the conversion period are described in more detail in existing organic certification standards.

in less material consumption, less greenhouse gas production and less energy use when compared to a calico (cotton) bag (Environment Australia, 2002). However, bags made from synthetic materials, such as the woven reusable HDPE have a higher potential to create litter, since much like single-use plastic bags, synthetic materials may take a significantly long time to biodegrade (if ever). Therefore, if bags made from synthetic materials are recycled, compostable or reused as part of take-back program, they can become part of a closed-loop system and reduce the amount of materials that enter the waste stream. Woven and nonwoven polypropylenes are considered #5 plastic resins and are capable of being recycled. Nylon is capable of being recycled and is currently accepted as part of a take-back system (Chico Bag Zero Waste Program). Polyester as a fabric is capable of being recycled and recycled polyester is available as a raw material. However, being "capable of being recycled" will not necessarily meet the standard, as the term "recyclable" is defined in the proposed standard in accordance with the Federal Trade Commission environmental marketing guidelines (FTC Part 260) as such, "the material can be collected in a substantial majority of communities, separated or recovered from the solid waste stream and used again, or reused in the manufacture or assembly of another product through an established recycling program." There is a distinction between a material that is "capable of being recycled" and those materials that are accepted in a substantial majority of communities in either curbside or drop-off facilities. In many cases, the materials that are capable of being recycled are not accepted due to limited resources of the waste management facilities, challenges of separating the material or the problem of a constant, uncontaminated source from users. However, the collection facilities for localities and municipalities cannot be overburdened by the recyclability of new types of products for which they are not equipped to process. Therefore, in order to meet the requirement, the manufacturer will have to provide documentation that the material is currently being accepted by existing municipalities in the localities where the product is distributed such that recycling is available to a substantial amount of end-users or demonstrate participation a take-back system. The term "recyclable" is defined as such, to be in accordance with the FTC and to not complicate and overburden the existing system, but to ensure that synthetic materials can be feasibly incorporated into a realizable closed-loop system. If products are made of two or materials, the total combination of the raw materials shall be recyclable, compostable or accepted as part of a take-back program. If a synthetic material is compostable in a municipal composting facility, the manufacturer shall provide documentation about the availability of the composting facilities in accordance with the distribution of the product as well as instructions for the end-user about proper disposal.

Post-consumer materials

Reusable bags can be made from a variety of post-consumer materials such as recycled PET (plastic bottles), recycled cotton/polyester, recycled cloth sails from sailboats, recycled rice bags and recycled potato chips bags or empty juice containers. Post-consumer materials are proposed as material that would otherwise be destined for solid waste disposal, having completed its intended end-use and product life cycle. Post-consumer material does not include materials and by-products generated from, and commonly reused within, an original manufacturing and fabrication process. Reusable bags that are made of post-consumer materials should have at least 95% post-consumer

content materials by weight of the finished product. If products are made of two or more post-consumer materials, the total combination of raw materials shall be at least 95% post consumer material content by weight of the materials in the final product. Post-consumer materials may include secondhand textiles, such as used clothing, billboards, sails from sailboats, potato chip bags, juice boxes as well as post-consumer materials such as polyethylene terephthalate (PET) that are processed into fiber and reconstituted. Post-consumer material will include those materials that go through minimal processing such as cleaning, sorting and reweaving in the case of potato chip bags, cutting and reshaping in the case of billboards or stitching or forming in the case of juice boxes and sails. In addition, post-consumer material will also include materials that go through a substantial amount of processing that includes the breakdown of the original material, the formation of fiber and the reconstituting of a product based on the fiber created. In the instances where the post-consumer materials undergoes any processing, the creation of the raw material must meet the requirements under the processing and production section of the standard, including additives, bleaching, chemical solvents and other material treatments. Incorporating post-consumer waste provides the benefit of reducing the waste stream which saves landfill space, reduces the impact on waste management facilities and closes-the-loop by sourcing from waste stream material. The standard requirement does not include pre-consumer (i.e. post-industrial) waste as the benefit of post-consumer material is to divert materials from the waste stream for materials that have reached the end of its useful life. Pre-consumer textile waste can be made into a number of products and is not as likely to be destined for disposal as a substantial amount of pre-consumer textile waste is currently diverted in the industry (Council for Textile Recycling, 2008).

Production and Processing

Some of the raw materials may undergo an extensive production and processing phase in order to create the final product. The production and processing may include chemical treatment of the fibers, including bleaching, additives for structural integrity or a variety of other purposes and additions of dyes for product coloring. Use of potentially harmful chemicals may pose environmental or human health effects throughout the life-cycle of the product. In terms of human health, use of toxic chemicals expose the workers during the manufacturing process and may contribute to dangerous waste or emission waste products. There may be residual amounts of chemicals retained in the fabric, which could expose the user as the fabric breaks down with use over time. Finally, during the disposal, if there are any toxic chemicals that are intertwined in the fabric and the bag is disposed by landfill or incineration, those chemicals have the potential to contaminate water or be released into the air. In addition, there is a greater imperative to prohibit the use of dangerous chemicals for textiles, because many post-consumer textiles are often shipped to third-world countries (CTR, 2008) where they are likely used until they break down. In terms of reusable bags, Green Seal wishes to limit and reduce to the extent feasible, the use of potentially hazardous chemicals used in the production and processing of the product. Other international programs for textiles specifically address the issues of harmful chemicals in the production process.

The Oeko-Tex 100 standard is the textile testing standard of the International Association for Research Testing in the Field of Textile Ecology, Zurich, Switzerland. It covers the

chemical production and processing of a textile product depending on article groups. The article groups are baby products, products with direct contact to skin, product without direct contact to skin and decorative materials. Products that are certified under the Oeko-Tex 100 standard have been verified to follow the requirements of the chemicals and processing limits for each article group, for an extensive list of prohibited chemicals that includes formaldehyde, heavy metals, pesticides, chlorinated phenols, phthalates, organic tins, other chemical residues (including carcinogens and allergens), biological active agents and flame-retardant chemicals, chlorinated benzenes and toluenes, colorants (dyes) and includes a volatile emission limit. The GOTS lists chemicals that are prohibited in the production and processing phase which include aromatic solvents, phenols, complexing agents and active detergents such as alkylphenol ethoxylates (APE's), linear alkybenzene sulfonates (LAS), ethylene diamine tetra acetic acid or its salts, fungicides and biocides, halogenated solvents, heavy metals, and quaternary ammonium compounds. It also lists prohibited chemicals by their European Union risk phrases, including carcinogens, mutagens and reproductive toxins. The GOTS also lists toxicity limits including oral toxicity, aquatic toxicity and biodegradability and bioaccumulative requirements. Green Seal will accept Oeko-Tex 100 and GOTS certification that the production of the material has been validated and none of the prohibited chemicals were utilized. The Oeko-Tex 100 and the GOTS standard prohibits chemicals similar to the ones proposed in the Green Seal standard, but may include additional specific prohibitions. This approach is consistent with other international ecolabel standards for textiles (Australia, New Zealand, European Union, Japan and Korea) also address the processing and use of chemicals, including dyes, pigments and printing due to the environmental and human health impacts.

Since products are not required to be certified by Oeko-Tex 100 or the GOTS program, Green Seal includes the list of chemicals prohibited. Green Seal references carcinogens, mutagens and reproductive toxins as well as any chemicals known to release or product carcinogens, mutagens and reproductive toxins. Formaldehyde is carcinogenic to humans (IARC group 1) and is a prohibited ingredient. To be protective, Green Seal is prohibiting chemicals that release formaldehyde over time. Green Seal references known lists for carcinogens with the priority for international and national lists to follow the guidance of ISO 14024. This includes IARC, NTP, EPA, and OSHA. Green Seal is proposing to prohibit the use of chemicals known to cause reproductive toxicity and include both male and female reproductive toxins and developmental toxins. California Prop 65 is the most readily available and accepted source for these compounds. Mutagens will also be prohibited and defined according to the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) criteria for germ cell mutagenicity. In addition to carcinogens, mutagens and reproductive toxins, some of the prohibited chemicals include potentially hazardous solvents that may be used during processing. Those chemicals and solvents are listed specifically and include alkylphenol ethoxylates (APE's), linear alkybenzene sulfonates (LAS), ethylene diamine tetra acetic acid (EDTA) or its salts and halogenated organic solvents. Potentially hazardous additives or treatments, such as bleaching or use of chlorine-based compounds, addition of optical brighteners or use of ozone-depleting compounds as defined by the US EPA are also prohibited. Heavy metals may be used in the stripping or de-pigmentation and

conversely, may be contained in the addition of dyes, pigments and printing. Heavy metals can bioaccumulate and present human health and environmental risks and are prohibited. Phthalates have been proven endocrine disruptors and may be contained in some synthetic materials as a plasticizer or as part of printing process. The addition and use of phthalates is prohibited. One type of synthetic material is polyvinyl chloride (PVC), which has concerns about the impacts of the production of PVC and the disposal of PVC materials as it is not readily recyclable and may hamper recycling efforts (WA Toxics, 2008). The PVC prohibition is in accordance with the production and processing and does not preclude the use of at least 95% post-consumer materials such as vinyl billboards. However, products made of virgin PVC will be prohibited by the standard, as virgin PVC does not fulfill any of the three raw material requirements. The chemical requirements will be evaluated by the processing and production documentation, company policy or protocol and will be confirmed by a manufacturing site visit. As stated above, the manufacturer may also demonstrate compliance with the production criteria with documentation that it meets the Oeko-Tex 100 standard or the *General Requirements for Chemicals* and *Additional Specific Requirements for Processing and Related Chemicals* under GOTS.

Insert or Liner

Some reusable bags are accompanied by a rigid bottom that provides support and structural integrity, which is important for carrying heavy items, such as a gallon of milk. If the reusable bag is accompanied by such an insert or liner, it must be comprised of at least 95% post-consumer content by weight, be recyclable, compostable or accepted in a take-back program. The insert or bottom liner cannot prevent the bag from being recycled, composted or accepted as part of a take-back program. If the insert or liner has different intended disposal than the bag, instructions shall be provided for proper disposal. As some reusable bags have a rigid bottom to help with support, the insert or liner must meet the same requirements (post-consumer content, recyclable, compostable or accepted in a take-back system), since during the end-use phase of the product, the plastic bottom will likely be considered part of the reusable bag and will likely be disposed or returned in conjunction with the original bag, unless instructions indicate otherwise. For example, a plastic liner be made of PET (#1) plastic and can be recycled in a curbside program while the bag is made of PP (#5) plastic and is accepted as part of a take-back program. In this instance, instructions for the end-use of the product shall state that the liner can be recycled in the curb-side program and the polypropylene bag should be returned to the grocery retailer as part of the take-back program. Ideally, the insert or liner should be recycled in the same stream as the reusable bag itself or separated as part of a take-back program. Post-consumer content inserts or liners, such as those made from cardboard, may be disposed of in landfills, but they have the added benefit of redirecting the waste stream initially.

Social Responsibility

In addition to raw material sourcing and chemicals that can be used with the production, the working conditions and fair treatment of workers is an important consideration for the manufacturing and trade of reusable bags. Due to the rapid growth of reusable bags, raw materials and finished products may be produced with unregulated labor and

environmental practices and shipped and distributed internationally. While some reusable bag manufacturers are cognizant of this concern and have established policies regarding socially responsible practices during production, Green Seal wishes to ensure that quality social criteria are in place during the production of a Green Seal-certified reusable bag. The intent of the social responsibility requirement is to establish a baseline and ensure quality treatment and working conditions as related to the production of reusable bags. Manufacturers shall demonstrate that they meet the following requirements: Freedom of Association & Collective Bargaining, which means that workers are free to elect to join unions and that their bargaining power is respected; the Freedom of Labor that prohibits bonded and child labor; the Freedom from Discrimination, which does not allow discrimination based on age, race, sex, political affiliation or social caste that will inhibit opportunities. In addition, Freedom from Discrimination addresses use or tolerance of corporal punishment or use of physical or verbal abuse or intimidation. Other requirements include the Occupational Health and Safety, that establishes a minimum safe working conditions and training to minimize injury and accidents as well as Conditions of Employment that guarantee regular employment, living wages and working hours that are not excessive. Those 5 requirements: (1) Freedom of Association & Collective Bargaining (2) Freedom of Labor (3) Freedom from Discrimination (4) Occupational Health and Safety and (5) Conditions of Employment are all elements that are included in the *Minimum Social Criteria* of the GOTS. In addition, those 5 areas are also addressed in the Fairtrade Labeling Organization International (FLO) Generic Producer Standards for both Small Farm Organizations and Hired Labor Situations. FLO International is a nonprofit organization that serves as the umbrella organization of multiple fair-trade initiatives worldwide. There are two sets of Generic Producer Standards, depending on the working structure, the Small Farm's Organization or Hired Labor Situations, but both outline the requirements as stated above. Green Seal wants to ensure that reusable bags are produced in a socially responsible manner, as it is an important consideration in the effects on the community as those products are made and distributed. In order to assess for those 5 requirements, Green Seal will accept certification under the GOTS program or FLO International certification or will assess those qualifications independently.

PACKAGING REQUIREMENTS

Since the product is a reusable bag that is meant to be carried and can be readily promoted without primary packaging, there should be no individual packaging or disposable primary packaging, not including shipping or transport packaging. Primary packaging at retail or individual sale level would create waste and add to the waste stream, when individual packaging of reusable bags is not necessary.

LABELING REQUIREMENTS

The labelling of reusable bags shall be on the product itself or on a label or tag that is physically attached to the product. The label should adhere to the Rules and Regulations under the Textile Fiber Products Identification Act 16 CFR Part 303, regardless of

whether or not the product is federally required to do so. The federal labelling requirements for textile, wool and fur products (Textile 16 CFR Part 303) requires a label listing that lists the fiber content, the country of origin and the identity of the manufacturer or other third-part responsible for marketing or handling the item. Although the federal regulation does not necessarily cover bags, backpacks or laundry bags, Green Seal believes that the labelling of the raw material source is important and is requiring the label in accordance with the Textile Fiber Products Identification Act in order to ensure that the labelling will be consistent for all reusable bags under the standard, regardless if the product is legally required to do so. Since raw material sourcing is an important factor in the life-cycle of a reusable bag, the label will provide important information to end-user. In addition, a tag or label will help provide information that is readily available to consumers and other end-user about the fiber content, the location of the source material and the manufacturer associated with the product. A label may also provide additional resources for a bag manufacturer either to adhere to the consumer education requirements or use of the Green Seal logo. If there is an organic certification, the information for the organic material shall be listed on the label, tag or on the product as well.

In addition, the standard includes consumer education. Reusable bags are preferable to single-use bags, but with the increased proliferation of reusable bags readily distributed and available, they must be used and reused in order to provide a life-cycle benefit over single-use bags. Therefore, it is a crucial element that the manufacturer should state on clearly on the label, a tag, or the bag itself, the message that the bag is intended for reuse. While a consumer may intuitively understand this meaning, the reusable bag should reiterate the intent of the "reuse" quality of the bag. In addition, if a bag or insert or liner is recyclable, compostable or accepted through a take-back system, the bag should contain the instructions for the consumer so that the proper venues can be sought in returning the bag to the closed-loop system.

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