



WHY NSF'S NEW ENVIRONMENTAL STEWARDSHIP DISTINCTION MATTERS

By Ulrich Kreuter

Technical Manager, NSF International

NSF International introduced its bottled water certification program in 1984, based on applicable FDA regulations. This program has evolved and progressed through the years to the point where its value and necessity are now firmly established. Based on the steady demand for bottled water certification and in light of all that we have learned about the entire bottling process from water sourcing to customer delivery, NSF clients can now earn the added designation of "Environmental Stewardship" to complement NSF bottled water certification.

Environmental Stewardship differentiates select bottling companies by acknowledging their environmentally responsible actions beyond the required regulatory compliance. These actions include keeping due diligence over their water sources, whether natural or municipal in origin, as well as maintaining more environmentally responsible practices overall.

Origin and Safety: Two Perspectives on Bottled Water

U.S. bottled water certification initially focused almost exclusively on the final product and its processing facility. Regulators placed particular emphasis on standards for safe bottling practices that posed no immediate threat to health. Consequently, third-party certifiers devoted more attention to this area.

In Europe, however, long-established bottled water traditions led to early government regulations. More than 97 percent of all bottled waters are natural mineral waters or spring waters. They are defined by their origin and require in-depth research of origin and original quality. Part of this recognition process always has required that bottlers know their exact water source. Further, European bottlers are obligated to monitor water source safety and assume responsibility for the protection and/or restoration of the purity of the resource.

However, bottled water in countries outside of Europe may come from municipal systems or poorly identified sources. In these instances, bottlers are expected to know at minimum the specific treatment facility from which their water originates, any potential health risks related to this water and its original source, whether deep well, river or lake, etc.

As these examples illustrate, European bottled water standards demand transparency and resource protection by the bottler. NSF's new Environmental Stewardship designation similarly requires that bottlers go beyond standard certification to assume a greater degree of responsibility.

Demonstrating Responsible Stewardship

Bottlers wishing to achieve the Environmental Stewardship mark for their product must first earn the standard NSF bottled water certification. Once this task is complete, bottlers may pursue the Environmental Stewardship distinction by demonstrating responsibility in the three key areas of efficiency, protection and communication.

Efficiency

This category refers to the efficient and responsible use/consumption of resources, raw materials and processing aids including, individually and collectively:

- Water Usage
 - Ratio of water used to produce 1 liter of product
- Energy Efficiency
 - Ratio of energy used to produce 1 liter product
- CO2 Footprint
 - Current circumstances and targets set to become CO2-neutral
- Packaging
 - Actual use of material and targets for improvements in environmental impact
- Chemical Usage
 - Evaluation of environmental impact of used chemicals and use of less-toxic alternatives

- Waste Management
 - Liquid and solid waste treated and controlled, minimization strategies and recycling options
- Environmental Management
 - Implementation of an environmental management system, such as ISO 14000 or the EU Eco-Management and Audit Scheme (EMAS)

Protection

Protection represents the core of the NSF Environmental Stewardship initiative.

For reasons of safety as well as sustainability, bottlers must demonstrate their commitment to protecting their water resource. This requires the bottler to be proactive rather than reactive in managing the water at its source, as end-of-pipe treatment is often insufficient. Preventive measures are essential to secure the resource for the future.

For bottlers who own or lease the source property, proper watershed management is critical. A risk-based approach, which encompasses the entirety of the resource, must be developed and implemented. Existing or potential hazards must be identified. This requires an inventory of the watershed area including surrounding soil, the local geology and ecosystem and the water itself. A detailed map of the watershed should be prepared, illustrating catchment and recharge areas as well as potential risks to the system. A hydrogeological survey will provide further definition to these areas. Additionally, the bottler should either conduct regular testing of the source water or have access to test data, including knowledge of testing frequency and type.

If municipal water is instead the source, the bottler must include the supplier in the risk assessment and know the treatment facility from which the water is derived, in addition to the municipality's primary water source.

Communication

Communication unites the bottler with other stakeholders who also depend on the water resource including area farmers, other manufacturers, sports and nature enthusiasts, and the surrounding community.

Today bottlers often find themselves on the defensive, targeted across multiple media platforms as resource exploiters rather than environmentally conscious business entities and responsible employers. Consequently, the responsibility rests with bottlers to change that perspective by telling their side of the story.

Successful communication on the bottler's part creates greater awareness, increases transparency, eases concerns and nurtures good will within the community. It also educates, advocates and generates positive engagement. When properly executed, communication enables the bottler to have a leading voice in the sustainable management of the water source for the benefit of all.

Achieving The NSF Environmental Stewardship Distinction

As noted previously, the bottler must earn standard NSF bottled water certification prior to pursuing the Environmental Stewardship credential.

Once standard certification is achieved, attention can then turn to gathering the more detailed research and data necessary for this added distinction. Depending on the bottler's existing information, available staffing, etc., the effort may require several months to a year or longer to complete. NSF can assist in guiding the process.

The bottler must provide data derived from a geological study of the water source property and the operation's CO2 footprint at the site, a risk assessment plan and a communications plan. The water's source and extraction processes must be identified, as well as potential risks related to changes in area land use, from crop rotations at nearby farms to plans for new roadways or other development. NSF's stewardship program includes testing for emerging contaminants.

Although the task may seem daunting, quite often the information already exists in land records or is available from other area stakeholders – another good reason to promote communication among the various constituencies!

Excellence Through Stewardship

Once the NSF Environmental Stewardship citation is earned, the bottler gains a significant new differentiator in the increasingly competitive bottled water marketplace. The NSF Environmental Stewardship mark on the bottle shows the company has gone above and beyond standard regulatory requirements to achieve a higher level of transparency, responsibility and leadership.

In addition to granting use of the mark, NSF will also support the bottler's marketing efforts, including featuring the brand on the NSF International online product listings.

Beyond matters of reputation and competitive advantage, those companies that earn the Environmental Stewardship distinction contribute a new chapter to their corporate legacy and set a higher standard for others to follow.

Dr. Ulrich Kreuter oversees all technical aspects of NSF International's bottled water and beverage certification operations in the Europe/Middle East/Africa region. This includes managing all testing and certification, auditing and training services. Dr. Kreuter has more than 25 years of technical and regulatory experience working with the bottled water and beverage industries on research and development projects, and product development.

NSF International

NSF International is a global independent organization that writes standards, and tests and certifies products for the food, water, health sciences and consumer goods industries to minimize adverse health effects and protect the environment (nsf.org). Founded in 1944, NSF is committed to protecting human health and safety worldwide.

NSF founded its Bottled Water Certification Program to provide bottlers across the globe with the most advanced auditing and finished product testing services available. NSF conducts 800 bottled water audits worldwide yearly.

NSF also offers certification to Global Food Safety Initiative (GFSI) schemes including SQF, BRC, FSSC 22000 and IFS as well as certification to ISO 9001 quality management systems.

NSF International is a Pan American Health Organization/ World Health Organization Collaborating Center on Food Safety, Water Quality and Indoor Environment. More information is available at www.nsf.org.

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