Introduction

Joy Keniston-Longrie, PE, REHS, MPH is the Business Unit Manager that oversees Environmental, Health, Safety, Energy & Responsible Care Management certifications. Joy over 25 years of environmental management experiences has dedicated her professional career to making a difference today and for future generations.

Stacey Mack is the Business Unit Manager that oversees the Climate, Forestry and eWaste certifications under the NSF International Sustainability Unit. Stacey has been working in the management systems industry since 2000 and has a passion for helping make positive environmental impacts.

Laura Palombi is a Senior Certification Project Manager for NSF International’s Sustainability Program with subject matter expertise in water, energy, and ecology.
Today’s Topics

- Introduction
- ISO 14001
- Climate Services
- Forestry Services
- eWaste Services
- Water Sustainability Services
- Supply Chain Services
NSF is a Global Leader in Public Health and Safety

Developer of over 90 national consensus standards

Steadfast ties with key associations and government agencies

Pan American Health Organization/World Health Organization Collaborating Center on Food Safety, Water Quality and Indoor Environment

Service provider to thousands of organizations in 168 countries
NSF International Strategic Registrations (NSF-ISR) is a leading global certification body known for superior technical expertise, exceptional customer service, and the highest level of integrity. Through this, we establish the NSF mark as the gold standard of the certification industry.

NSF-ISR offers comprehensive management systems registrations to internationally accepted standards for quality assurance and environmental protection for the automotive, aerospace, forestry, chemical, medical, mining and manufacturing industries.
Who Uses International Standards?

Developed by the International Organization for Standardization - ISO (Geneva)
World’s Most Recognized Authority on Management Systems

Public or Private
Large or Small
Fortune 500 or mom/pop
Governmental or Non-Governmental
For-Profit or Non-For-Profit
Service/Office
Manufacturing/Factory
Field/Forest
Transportation
All Phases & Life-cycle Approach
Geography – worldwide – urban, rural, industrial
Question: ISO

Do you use ISO standards at your organization?

Yes
No

Have you heard of ISO standards and understand their application?

Yes
No
ISO 14001:2015

Globally Most Recognized Environmental Standard

Risk-Based, Life-Cycle, Environmental Performance

Environmental Pillar of Sustainability
SHARED GOALS

Save Money
SHARED GOALS

- Save Money
- Reduce Uncertainty & Increase Predictability
SHARED GOALS

- Save Money
- Reduce Uncertainty & Increase Predictability
- Efficient Use of Resources
SHARED GOALS

Save Money

Reduce Uncertainty & Increase Predictability

Efficient Use of Resources

Improve Environmental Performance
SHARED GOALS

- Save Money
- Reduce Uncertainty & Increase Predictability
- Efficient Use of Resources
- Improve Environmental Performance
- Build Stakeholder Trust
Risk: The Effect of Uncertainty

Likelihood (Occurrence) \times \text{Consequence (Impact)} = \text{RISK}
ECONOMIC

SOCIAL

PERCEPTION/TRUST

ENVIRONMENT

HEALTH/SAFETY
Performance

ECONOMIC

SOCIAL

PERCEPTION/TRUST

ENVIRONMENTAL

HEALTH/SAFETY
International Standards (ISO) Management Framework

- SCOPE
- ORGANIZATIONAL CONTEXT
- LEADERSHIP
- PLANNING
- SUPPORT
- OPERATIONS
- PERFORMANCE EVALUATION
- IMPROVEMENT
International Standards (ISO)

Steps

- Demonstrate Leadership & Commitment
- Set Strategy
- Engage Stakeholders (internal & external)
- Analyze Value Chains & Life Cycle
- Evaluate Risks & Opportunities
- Develop Plan to manage
- Implement
- Evaluate/Check
- Adjust as necessary
- Communicate, communicate, communicate
Continuous Improvement

Objectives

Adjust & Apply

Plan

Do

Act

Check

Implement Plan

Monitor Performance
4.1 Understanding the Organization and its context

Appendix A.4.1 – Examples of internal and external issues which can be relevant to the context of the organization include:

a) **Environmental conditions** that can either affect the organizations purpose or be affected by its environmental impact such as:
   - Climate
   - Land Use
   - Biodiversity
   - air quality
   - Existing Contamination
   - water quality
   - Natural Resource Availability

b) **The external cultural, social, political, legal, regulatory, financial, technological, economic, natural and competitive circumstances** whether international, national, regional or local

c) **Internal characteristics** or conditions of the organization, such as its:
   - Activities
   - Strategic direction
   - Products and services
   - Culture and capabilities (i.e. people, knowledge, processes and systems)
Interested Parties

Internal Interested Parties
- Employees
- Unions
- Top Management
- Contractors
- Suppliers
- Board of Directors

External Interested Parties
- Consumers
- Community
- Regulators
- Legislators
- Shareholders
- Special Interest Groups
- Media
Success Factors

Success of Environmental, Health, Safety, Energy (EHS&E) Management System Depends On:

- Leadership by Top Management
- Commitment from all levels and functions
- Integrate EHS&E Management System into Organizations:
  - Business Practices
  - Strategic Direction
  - Decision Making
  - Aligning with other Business Priorities
  - Incorporating EHS&E management system governance into overall Business Model
Benefits

Successful Environmental, Health/Safety &/or Energy Management System Will assist:

- Prevent or mitigate adverse environmental, injuries, death, disease and energy impacts
- Enhance Beneficial Environmental, Health/Safety &/or Energy Impacts
- Inform Top Management address risks and opportunities
- Demonstrate/Assure Interested Parties an effective Management System
- Create options to contribute to sustainable development
- Improve Environmental, Health/Safety & Energy Outcomes
- Reduce Environmental, Health/Safety & Energy Risks
- Save $, Save Time, Decrease Uncertainty, Improve Outcomes
Planning

Lifecycle Thinking

- Manage environmental aspects:
  - Procured goods
  - Procured services

- Extend organizational control and influence to
  - Impacts of supply chain
  - Impacts associated with product use
  - Impacts of end-of-life treatment or disposal
  - Does not imply a Life Cycle Analysis requirement.
Performance = Measureable Result

- **Energy Performance**: Measureable results related to energy efficiency, use & consumption
- **Environmental Performance**: Performance Related to management of environmental aspects

Effectiveness = extent to which planned activities are realized & planned results achieved
Performance Evaluation

Environmental, Health, Safety & Energy Performance

- Shift in focus from Management System to actual Environmental PERFORMANCE
- Specific environmental objectives consistent with organizations policy commitments
  - Reduce emissions, effluents and waste levels
  - Reduce energy use & greenhouse gas emissions
- Objectives must be:
  - Measurable, Monitored, Communicated, Updated
- How to Achieve Objectives
  - What, Resources, Who, When, Evaluated
ISO 14001:2015 Certification Transition Timeline

2015

July 2, 2015: Final Draft International Standard (FDIS)

2016

September 15, 2015: Start of 3 years transition period to 2018

2017

NSF-ISR Suggests 2017 as your target year for transition to 14001:2015

2018


- Must identify current organizational gaps
- ISO 14001:2004 will not be valid after the 3-year transition period
- Expiration date of certification to ISO 14001:2004 issued during transition needs to correspond to the end of the 3-year period
- Existing ISO 14001:2004 users encouraged to transition early
ISO 14001:2015

- Third Party Independent Verification
- Focus on Environmental Performance
- Focus on Continuous Improvement
- Organization Control & Influence
- Life-Cycle Perspective
- Risk Based
- Interested Parties
ISO 14001 is the Foundation

ISO 14001 Environmental Management Systems
Additional Sustainability Services

- Forestry Certifications
- Climate Services
- Electronic Waste Certifications
Forests are among the most biodiverse and valuable terrestrial ecosystems on the planet and vital for our livelihoods.

Sustainable forestry is the management of forest land to ensure it meets the needs of the present without compromising the ability to meet the needs of future generations by safeguarding indigenous people, protecting the forest ecosystems, and mitigating climate change.

Forestry certification standards cover the full range of activities from land management to material procurement all the way to end products.
Sustainable Forestry Initiative (SFI) Forest Management - Section 2
- ANAB Accreditation & SFI Oversight (Independent Non-Profit Organization)
- Promotes sustainable forestry practices based on 13 Principles, 15 Objectives, 37 Performance Measures and 101 Indicators.
- Requirements include measures to protect water quality, biodiversity, wildlife habitat, species at risk and forests with exceptional conservation value.
- Applies to any organization in the United States or Canada that owns or manages forestlands

Sustainable Forestry Initiative (SFI) Fiber Sourcing – Section 3
- ANAB Accreditation & SFI Oversight (Independent Non-Profit Organization)
- Governs how SFI Program Participants procure fiber from non-certified forestland. This standard encourages the spread of responsible forestry practices, given that about 90 percent of the world’s forests are uncertified

Sustainable Forestry Initiative (SFI) Certified Sourcing – Section 3, Appendix 1
- ANSI Accreditation & SFI Oversight (Independent Non-Profit Organization)
- The SFI Certified Sourcing label and claim standard tell buyers and consumers that fiber in a product comes from a company that is certified to the SFI Fiber Sourcing Standard, or comes from recycled content/certified forest. All fiber must be from non-controversial sources

Sustainable Forestry Initiative (SFI) Chain of Custody – Section 4
- ANSI Accreditation & SFI Oversight (Independent Non-Profit Organization)
- The standard is an accounting system that tracks forest fiber content (certified forest content, certified sourcing & recycled content) through production and manufacturing to the end product.
- Companies can use chain of custody certification to track and communicate forest fiber content using one of three optional approaches for chain of custody: physical separation, average percentage and the volume credit method.
Forestry Certifications

Programme for the Endorsement of Forest Certification (PEFC™)
• ANSI Accreditation & PEFC Oversight (International non-profit, non-governmental organization)
• Based in Geneva, Switzerland, PEFC is an umbrella organization that works by endorsing national forest certification schemes (such as ATFS and SFI). Today there are 43 national members and is the preferred certification scheme for small forest owners
• PEFC works throughout the entire forest supply chain to promote good practice in the forest and to ensure that time and non-timber forest products are produced with respect for the highest ecological, social and ethical standards

American Tree Farm System® (ATFS)
• ANAB Accreditation & ATFS Oversight (Non-profit conservation and education organization founded in 1941) and endorsed by PEFC
• ATSF is the largest and oldest woodland certification system in America
• ATFS promotes private and small land owners to sustain forests, watershed and healthy wildlife habitats

Sustainable Biomass Partnership Framework of Standards (SBP)
• ASI Accreditation (in process) & SBP Oversight
• Industry-led initiative formed in 2013 by major European utilities seeking to sustainable sources from which to import wood pellets for energy production.
• SBP Framework of Standards draft published in 2014 and launched in 2015. Built upon PEFC & FSC framework

Forest Stewardship Council® (FSC®)
• An international, non-profit, organization established in 1993 to promote responsible management of the worlds forests. Competing with PEFC, FSC operates in over 80 countries and is located in Bonne, Germany
• NSF is not accredited to this standard and partners with SCS Global to provide services
• GHG Verification & Validation services are sought to verify a company's efforts for reducing emissions to combat global warming / climate change.

• Third party services were driven by regulatory requirements

• Very large array of services that can be offered and each has its own technical requirements and expertise to understand
Inventory Verifications
- ANSI Accreditation & ARB Accredited
- Provides assurance that reported emissions of GHG’s are fairly stated
- Best for organizations that report emissions to The Climate Registry (TCR), Carbon Disclosure Project (CDP), California Air Resources Board (ARB), Ontario Ministries of Environment (MoE)

Project Verifications
- ANSI Accreditation
- Verification that the GHG project has delivered the emission reductions or carbon sequestration that a project developer asserts
- Project sectors currently include landfill gas, livestock methane, forestry, nitric acid production, ozone depleting substances, and renewable energy
- Registries include: Climate Action Reserve (CAR), American Carbon Registry (ACR), Ontario Ministries of Environment (MoE), Verified Carbon Standard (VCS)

Project Validations
- ANSI Accreditation
- Validation that GHG project is capable of delivering the emission reductions or carbon sequestration that its designers intend

Green Bonds
- Climate Bonds Initiative Accreditation (pending)
- Considered an effective instrument for financing the transition to a low-carbon economy
- The issuer of a green bond pledges to spend the money raised on projects with environmental benefits. Labelling a bond “green” generates more investor interest and makes environmentally-friendly projects easier for investors to find and support
e-Waste can be defined as any electronic waste that is no longer wanted or is now obsolete, whether it works or not.

The United States produces more e-waste annually than any other country and only 12.5% is recycled.

Electronics recycling standards and certification were created when the original equipment manufacturers (OEM’s) and several independent groups saw a need to recover valuable materials and manage the hazardous waste found within it’s devices from going into landfills or being exported to countries not capable of processing them.
Responsible Recycling (R2) Standard
- ANAB Accreditation & Sustainable Electronics Recycling International (SERI) Oversight (Independent Non-Profit Organization)
- Created in 2008 by group consisting of EPA, State Regulators, Recyclers, Refurbishers, OEM’s and NGO’s to also set forth guidelines for Responsible Recycling (of electronics)
- Standard went through large revision in 2014 and “tightened” its requirements to compete more closely with eStewards and now stipulates certification to either RIOS or EMS/OHS

eStewards for Responsible Recycling and Reuse of Electronic Equipment
- ANAB Accreditation & Basal Action Network (BAN) Oversight (Independent Non-Profit Organization)
- BAN formed in 1997 and was named after the Basel Convention, which is the UN treaty that restricts trade of hazardous wastes
- Standard launched in 2003 and is most stringent of all recycling standards and fully encompasses ISO 14001

Recycling Industry Operating Standard (RIOS)
- ANAB Accreditation & Institute of Scrap Recycling Industries (ISRI) Oversight (Independent Non-Profit Organization)
- Created in 2006 to streamline operational elements found in ISO, EMS, OHS for all types of recyclers (not just electronics)
Additional Sustainability Services

Water Sustainability

Supply Chain
Water is one of many emerging risk areas
NSF engages clients in a customized cycle of a la carte services

Navigates sourcing risks: We assist clients in addressing food security and brand reputation risks by building sustainable, resilient, secure supply chains.

A la carte: NSF’s responsible sourcing clients move through five stages, and can engage with NSF at any stage.

Tailored to your concerns: Every business is unique and global challenges impact supply chains in different ways. NSF’s consulting-led approach helps you build sustainable supply chains appropriate to your needs.
Looking Ahead

1. Would you be interested in learning more about Asset Management?
   - Yes
   - No
   - Maybe

2. Would you be interested in learning more about Water Sustainability & Stewardship?
   - Yes
   - No
   - Maybe
THANK YOU!
Contact Us

Joy Keniston-Longrie
Environmental Health & Safety Business Unit Manager
jkenistonlongrie@nsf.org

Stacey Mack
Climate, Forestry and eWaste Business Unit Manager
smack@nsf.org

Laura Palombi
Senior Certification Project Manager, Water Sustainability
lpalombi@nsf.org

www.nsf.org