An Integrated Approach to Security, Quality, Environmental, Health and Safety Management: Results and Lesson-Learned from a U.S - Israeli Industry Pilot Project

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What is the USISTF?

- US-Israel Science and Technology Foundation is a bilateral initiative of the U.S. Dept. of Commerce and Israel Ministry of Industry/Trade
- Promotes bi-national science & technology collaborations; standardization, harmonization, and education on regulations; training, and processes, policies, and procedures
- Sponsor strategic alliances of mutual benefit that enhance creativity in bi-national science and technology activities
USISTF Program Goals

- At multiple U.S.-Israeli sites, develop and pilot test an integrated Security Management System Standard modeled after ISO 14001 and the principles of continuous improvement
- Simultaneously address security and EH&S matters in a systematic, synergistic and standardized way
- Promote partnering between U.S./Israeli firms
- Share results with participants, ISO, SII, others
- Promote SMS Standards development
Project Goals

- Demonstrate viability of the draft USISTF Security Management System (SMS) Standard in manufacturing environments
- Examine SMS integration with ISO 9001, ISO 14001 and OHSAS 18001
- Assess viability of “all-hazards” risk-based approach using traditional risk methods
- Test the concept of a “unified” QEHS&S management system
The Project Participants

- **The U.S. Demonstration Site:**
  - A small, full service specialty plastics and metals contract manufacturer of advanced, highly engineered parts for Aerospace, Medical and Military applications
  - Quality programs meet U.S. Military specifications and standards
  - AS9100/ISO 9000 Programs under development

- **The Israeli Demonstration Site:**
  - Aerospace/aircraft parts & assemblies, defense and commercial systems production
  - ISO 9001, 14001 and OHSAS management systems certifications
The Pilot Project Approach

- Emphasis on securing comprehensive information (EHS&S) through integrated process-mapping and base-lining
- Develop a comprehensive integrated risk profile
- Develop a unified/integrated QEHS&S MS Document set
- Determine/apply relevant, proven ISO tools and industry best practices
- Stress strategy over tactics
Specific Approaches at U.S. Site

- Use the existing QMS as the base system
- Integrate EHS&S with Q wherever possible and add new procedures only when necessary
- Develop a proactive attitude towards EHS&S
- Focus on value-creation and risk reduction
- Move towards an “instinctive-approach” to EHS&S (Is automatically considered in all business decisions)
Pilot Project Overarching Goals

Demonstrate an integrated Security Management System that:

- **Is cost-effective** *(Maximizes business value)*
- **Is process-based** *(Focused at operations-level)*
- **Is practical and implementable** *(functional and do-able)*
- **Demonstrates verifiable improvements** *(Prove it works)*
- **Maximizes existing knowledge, systems, management tools and resources** *(Not a bolt on system)*
Adoption of multiple and separate Systems consume “Organizational Energy”

They are:

- Inefficient
- Costly
- Waste Resources

Why Integrate Management Systems?
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An Integrated Management System takes all this...

- Emergency Response Plans
- Internal Communications
- Security Plans
- Training
- Records
- Policies
- Inspections
- Calibrations
- Legal Requirements
- SEH&S Audits
- Compliance Programs
- Records
- Corrective Actions
- Objectives & Targets
- Change Management
- Budgeting Cycles
- Performance Management
- Risk Assessments
- Regulatory reports
- Terrorism response
- Pollution prevention efforts
- SEH&S Committees
- Forms
And Turns it into this…
The Plan-Do-Check-Act Model (PDCA)

Continual Improvement

Management
Review

Checking & Corrective Action

Policy

Planning

Implementation & Control

Review

Continual Improvement
Combined (or Unified) SEHS&S Management Systems
Rationale for Using ISO 14001 for Security Management

- Many orgs. have much of an Environmental Management System (EMS) already in place
- Key is to use a systematic approach for planning, controlling and improving security efforts
- ISO 14001 is proven and is accepted worldwide
- Most Management Systems experts agree ISO 14001 is the best MS model in widespread use
Integrated Risk Approaches and Total Organizational Risk

Integrated Risk Approaches Represent the Complete Risk Profile of an Organization

**External Risks**
- Homeland Security
- Natural Disasters
- Environmental Extremists
- Cyber Attacks
- Disgruntled Employees
- Environmental Incidents
- Employee Safety

**“External Risk Profile”**

**Internal Risks**
- IT Security
- Business Continuity
- Physical Security
- Environmental
- Other: Management, Legal, HR, Risks
- Health & Safety
- Emergency Response

Relate to:
The PTI
Integrated Quality Management System

QEHS&S Policy
(Create focus)

Legal & Other Requirements
(Created by laws & contracts)

Integrated Risk Assessments
(Created by activities & impacts)

Targets and Objectives
(Set measurable targets)

Programs & Procedures
- Roles & Responsibilities
- Procedures
- Documentation & Records
- Work Planning
(Establish operational controls)

Training
(Ensures competency)

Self-Assessments
- Metrics
- Audits
- Corrective Actions
(Monitor performance)

Management Reviews
(Ensures continuous improvement)

Continual Improvement

PLAN

DO

CHECK

ACT
Tools in the Integrated SMS Tool Box

- Employee Training Modules
- X-Referenced Table of ISO9-14-OHSAS-SMS Systems Elements
- Stickman pictorial and Document Repository
- Table of Conforming & Cross-referenced Systems Procedures
- Executive Briefings
- Integrated Risk Tool
- Integrated Process-mapping Tool
- Others
Common Elements of an Integrated PDCA Management System

- Policy statement/commitment
- Identification and prioritization of significant vulnerabilities and impacts
- Development of objectives and targets
- Implementation plan to meet objectives and targets
- Checking and follow-up
- Training
- Management review
Pilot Project Accomplishments

- Comprehensive EHS&S baselines and process mapping prepared
- Unified EHS&S risk analysis and prioritization conducted
- Implementation aids developed and tested
Pilot Project Successes

- Validated “all-hazards” risk-based approaches and methodologies

- Demonstrated:
  - viability of ISO 9001 as basis of integration of a unified MS
  - benefits of applying traditional risk methods to security
  - validity of unified risk approaches and methodologies
U.S. Site - Specific Project Successes

- A fully integrated Quality Management Systems document set developed written that conforms to:
  - SMS USISTF (Sept. ‘05 draft)
  - ISO 9001/AS 9100
  - ISO 14001
  - OHSAS 18001

Firm is positioned to secure ISO 14001, OHSAS 18001 (And eventually SMS) Certifications from their single Unified MS (through potentially 1 Registration Audit!)
Short-Term U.S. Site Results/Benefits

- Increased awareness and understanding of EH&S laws/regs.

- Proactive response to identified EHS&S threats/risks - Sr. Director assigned EHS&S responsibilities

- Comprehensive EHS&S risk profile produced using traditional risk models

- Specific EHS&S high risk areas identified and mitigated
Benefits of Integrated Management Systems

- Facilitates joint audits
- Promotes parallel assessments
- Potential benefits and savings in case of certification and third-party registration
- Avoids conflicts and/or duplication
- Common terms/language
- Leverages management buy-in
- Leverages internal resources
- Accelerates development and action
Lessons-Learned

- An integrated SMS can be implemented for modest investments *and* the benefits justify them

- Integrating EHS&S, and Q(!) into a single unified MS is feasible, practical, beneficial and *compelling*

- All-risks approach promoted deeper process examinations and their understanding - leading to improved and more cost-effective mitigation
Key Project Outcomes

- Demonstrated cost-effectiveness of addressing SEHS&Q risks simultaneously
- Project results used by standards-setting organizations (ISO, et al) to develop SMS standards
- Integrated SMS approaches are transportable and transferable to any organization
U.S. Site Long-Range Expectations

- “The integrated Quality Management System is our bridge to the future” (Says the Ops. Director)
- The integrated (QEHS&S) Quality Management System will help the U.S. site:
  - make better decisions
  - unify its on-site management approaches
  - operate (more) safely and healthfully
  - produce less environmental impacts
  - improve security/asset protection

- Improved competitiveness, performance and asset protection
Parting Thoughts...

- Integrated and unified MSs can be the means to increase a firm’s overall efficiency and effectiveness.

- "All-hazards" risk management approach viable.

- Unified MSs can be a central basis for any firm to:
  - improve its competitive standing
  - enhance its performance
  - improve its security
  - while protecting vital assets

- Those with an EMS/ISO 14001 are a leg up.
ERE, Inc. gratefully acknowledges the USISTF, the U.S. and Israeli project partners for the support and backing of this project.

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