
Establishing 21st Processes for NNSA ISMS

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- λ ISM will remain the core of DOE's future safety programs**
- λ NNSA will emphasis development of High Reliability Organizations with strong safety cultures**
- λ Currently NA-17 is working on processes to verify Contractor Assurance Systems (CAS)**
- λ NNSA LOCAS processes are consistent with the DOE Voluntary Protection Program (VPP)**

λ **Effectively managing ISM risks...**

- » Exposure to Environmental, Safety and Occupational Health (ESOH) factors is a major concern for NNSA Sites, where employees handle chemicals, are exposed to hazardous conditions and require training in safe handling of materials and processing procedures. As an organization, DOE/NNSA sites are accountable for the materials used, the amount of emissions they put into the environment and the waste that's generated and disposed.
- » The cost of ISM noncompliance can be extremely high.

- λ **10 CFR 851.21 requires documented Hazard Identification and Assessment Processes**
- λ **10 CFR 851.22 requires documented Hazard Prevention and Abatement Processes**
- λ **10 CFR 851 compliant Industrial Hygiene Programs must document results of baseline and periodic surveys to identify and evaluate potential worker health risks**
- λ **10 CFR 851 requires electronic medical records**
- λ **Sites are reporting Non-compliance with 10 CFR 851 Hazard Analysis requirements**

λ **Implementation of DOE ISM within NNSA has...**

- » Improved worker safety and health but...
 - Work control processes at the activity level are often found to be ineffective
 - Analysis of reported events shows that implementation has been inconsistent with varying degrees of success
 - Lack of a consistent NNSA approach to work control has impacted NNSA's ability to fully implement ISM.
 - Outcomes are based on lagging indicators
 - Lagging indicators have become static and do not provide enough information to mitigate concerns at the earliest opportunity.

λ **Every Environment, Safety and Health (ES&H) professional across NNSA needs access to real-time, “need to know” employee health hazard information anywhere within the NNSA complex, anytime they need it. Concerns include:**

- » Lack of ability to readily retrieve/analyze employee health hazard exposure information to mitigate concerns.
- » Lack of compatibility or consistency among local sites with regard to employee health hazard data and records
- » Format for electronic health record/system is undeveloped
- » Health hazard information is not readily available in a consistent format at the local level
- » Challenges in meeting HIPAA requirements due to existing inconsistent and multiple employee health data collection/records systems in use

λ **Solution - An integrated ES&H ISM platform**

- » A web-based integrated solution for tracking, evaluating and controlling employee health hazards throughout an employee's DOE/NNSA career.
 - Provide DOE and contractor ES&H professionals, operational managers and supervisors with “real-time” data so that they may apply immediate options for reducing safety and health threats.
 - Provide employees with “real-time” ES&H data regarding their work environment and authorized work tasks.
 - Provide a consistent approach to work control that will reduce error-likely situations.
 - Provide integrated information management system for IH, Chemical Management, Safety, Fire Protection, Emergency Management, Environment and Occupational Medicine.
 - Provide an electronic format for employee medical records

λ An integrated ES&H platform will...

- » Improve management & control of worker hazards
- » Improve ISM performance
 - Hazard ID, Select and implement Controls, Perform Work Safely and Feedback and Improvement
 - Can act as the work authorization gate for approving work.
- » Improve CAS/LOCAS
 - Enable Sites to consistently track and manage both lagging and leading indicators for assurance of contractor ISM programs.
- » Standardize ES&H tracking and reporting systems.
- » Enable Sites to fully comply with ES&H regulatory requirements (10CFR850, 10CFR851, etc.)
- » Enable Sites to consider moving beyond ISM into VPP.