

Evaluation of Chemical Inventory Systems

For Emergency Management
across the DOE Complex

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05/07/2007



Approach

- 3-month study
- Qualitative interviews of CIS stakeholders
- 5 DOE sites visited
- 10 DOE sites canvassed by phone
- Focus on Emergency Management needs
- Issues and gaps identified – field perspective
- Best practices and recommendations



DOE Sites Visited

- Brookhaven National Laboratory
- Los Alamos National Laboratory
- Pacific Northwest National Laboratory
- Sandia National Laboratories/NM
- Savannah River Site



DOE Sites Canvassed

- Argonne National Lab
- Hanford (Fluor)
- Idaho National Lab
- Lawrence Berkeley National Lab
- Lawrence Livermore National Lab
- Nevada Test Site
- Oak Ridge National Lab
- Pantex Plant
- Sandia National Lab/CA
- Stanford Linear Accelerator Center



CIS Characteristics of Interest

- System design
- Content accuracy
- Content consistency
- System linkage
- Intended use versus adapted use
- Tracking and inventory updating processes



Value to Emergency Management

- Hazards survey support
- On-going preparedness
 - Day-to-day hazards monitoring
- Emergency Response
 - Real-time information on hazardous materials at risk
- To increase CIS value
 - Understand key CIS features to meet EM needs
 - Identify cost-effective actions to improve CIS performance



Key CIS Features

- Captures key chemical container characteristics
- Integrated with chemical procurement system
- Direct link to each chemical MSDS
- Ensure CIS interface is user-friendly



Key CIS Features

- Include maximum quantities for non-exempted chemicals
- Implement data-quality programs for EM use of CIS
- Information available to EM through user-generated reports



Key CIS Features

- Automated notifications built in to CIS
- Integrated with other hazardous chemical tracking systems
- Develop formal training for CIS users
- Provides real-time access to up-to-date information



Key CIS Features

- Captures and retains information on historical usage of hazardous materials
- Used to reduce or eliminate hazardous materials
- Design is flexible and supports current and anticipated EM needs



Best Practices

- Automated notifications
- Hazards reduction programs
- Thresholds built into CIS
- Integrated management approach to EM and CIS management



Information Sharing among Sites

- EMI-SIG Subcommittee on Hazards Assessment
- EFCOG – Chemical Safety/Lifecycle Management
 - Benefits of Lifecycle Management to EM
 - Hazards Survey, EPHA results used to prioritize chemical lifecycle actions



Path Forward for Individual Sites

- Conduct internal site survey
- Identify site-level gaps and needs
- Determine current status versus
 - CIS key features
 - DOE requirements
 - Best practices
- Develop prioritized list of site-appropriate actions
 - Cost/time/resource
 - Existing “best practices”
- Develop joint plan of action with CIS management organization



Questions



Acknowledgement

Project funded by DOE-HQ
under Contract No. DE-AC05-06OR23100

