



**Compatibility of Chemicals  
and the Integrated Safety Management  
System**

**SAWG  
Workshop 2000**

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# Compatibility of Chemicals and the Integrated Safety Management System

## Issue Raised

- Hazards associated with the presence of chemicals in DOE facilities are not being adequately addressed

## Actions Taken by Team Chartered by Chemical Safety Topical Committee.

- Enhance the Integrated Safety Management System to address chemical hazards

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## Background

- Chemical Safety '99 Workshop for DOE and contractor managers in Washington, D.C. in December of 1999
- Discussion about the need for drivers to increase attention paid to chemical hazards
- Several action teams established
- One important existing driver – Integrated Safety Management System (ISMS)
- Action team established to enhance ISMS recognition of chemical hazards

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## Goals of ISMS Action Team for Enhancement of ISMS for Chemicals

- Review ISMS implementing guidelines to determine enhancements that would improve the evaluation of chemical hazards
- Develop Lines of Inquiry (LOI's) for use by people tasked with reviewing the adequacy of chemical management programs
- Identify Performance Measures (PM's) which could be used to evaluate the quality of chemical management programs

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## Status of Actions on Goals - Complete

- Enhancements to ISMS implementing guidelines provided to Director, Safety Management Implementation Team, on March 20, 2000
- LOI's provided to Bill McArthur, EH-52, for inclusion on the Chemical Safety Homepage on March 27, 2000
- PM's provided to Bill McArthur, EH-52, for inclusion on the Chemical Safety Homepage on March 27, 2000

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## Examples of Deliverables

### ISMS guideline enhancements

- Call out chemical safety/hazards explicitly
- Call out the use of subject matter experts in chemical
- Reference the Chemical Management Handbook
- Recognize the existence of safety documentation for hazards other than nuclear

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## Lines of Inquiry

- What is the process used to identify potentially hazardous chemicals that are used or stored in the facility? What hazard analyses are conducted for such chemicals and for chemical processes in the facility? Do the work packages reflect a well-developed planning process that incorporates potential chemical safety concerns?
- Has pollution prevention (substitution with a non-hazardous material or reduction in quantity used) been considered, when applicable, as a way to prevent or mitigate chemical hazards?

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## Performance Measures

- Chemical Procurement Cycle Time
- Chemical Use and Storage Trends
- Chemical Excess Program Measures
  - Monthly, provide the cost savings generated through chemical reutilization on-site, and off-site sales and donations.
  - Monthly, determine the waste avoidance costs for those chemicals that were dispositioned