



Emergency Management Issues Special Interest Group Annual Meeting

Hazards Surveys and Inventory Tracking Systems Could they be integrated?

May 2-5, 2011 Charleston Marriott • Charleston, South Carolina



Topics Covered

- Requirements for Hazards Survey update
- Focus on chemical hazards screening
- Inventory-related drivers for an update
- Inventory tracking systems information
- Integration of inventory tracking systems
- Summary/Questions

Hazards Survey Updates

- “Hazards Surveys must be updated every three years...” [Not applicable to this presentation]
- “...and prior to significant changes to the site/facility or to hazardous material inventories...” – DOE O 151.1C.

Hazards Survey Updates

- “Changes that result in a reduction of hazards with no adverse effect on safety or emergency preparedness or response may be included in the next scheduled review and update ...”
 - DOE O 151.1C.
- “The Hazards Survey can be effectively maintained through monitoring of existing administrative processes and tracking systems...” – DOE G 151.1-2.

Hazards Survey Updates

- Major question relevant to this presentation:

Would an identified change in inventory change the overall results of the Hazards Survey?

Screening Hazardous Materials

- Chemical screening criteria:
 - Public Use
 - NFPA Health Hazard Rating
 - Dispersibility
 - Laboratory Scale Quantity
 - Additional Criteria: “PAC-30 Threshold”

Screening Hazardous Materials

- A hazardous material that screens out based on non-inventory related criteria is not of concern, unless an increase in inventory is significant enough to consider it a special hazard.

Screening Hazardous Materials

- Inventory-related chemical screening criteria:
 - Public Use (product package size)
 - ~~NFPA Health Hazard Rating~~
 - ~~Dispersibility~~
 - Laboratory Scale Quantity
 - Additional Criteria: “PAC-30 Threshold”

PAC-30 Threshold

- PAC-30 Threshold is that quantity of material which would result in consequences exceeding PAC at or beyond 30 meters from the release for a worst-case event.

PAC-30 Threshold

- Inventory $<$ PAC-30 Threshold:
release would not result in a classifiable OE.
- Inventory $>$ PAC-30 Threshold:
release could result in a classifiable OE,
and material should be carried forward to
EPHA.

What do you track?

- Increase in product package size
- Increase in chemical inventory exceeding the PAC-30 Threshold
- Significant increases in any chemical inventory
- Addition of new chemicals to the overall inventory

Inventory Tracking System Information

- Hazardous materials info from shipping reports
- Waste tracking info based on shipping reports or NDA data
- Container information
- MSDS info

Benefits

- Information used in the previous revision(s) of the Hazards Survey
- Electronic management allows for easy comparison of inventory to predefined limits
- Very useful for multi-constituent and/or frequently fluctuating inventories

Benefits

- Cost effective way to determine if changes in inventory would affect results of the Hazards Survey
- Approach already effectively applied towards Safety Basis

Summary

- Hazards Survey revisions are often based on inventory changes
- Need could be quickly identified and communicated to analysts by integrating with inventory tracking systems
- This approach is already in use

Questions?



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