

Hazard Survey Process

ES&H Coordinator Meeting

December 17, 2008

Requirements

- DOE order 151.1C
 - “The Hazard Survey...identifies the generic types of emergency events and conditions...involving or affecting the health and safety of personnel, the environment...and the potential impacts of such emergencies to be addressed by the DOE Emergency Management System.”

Requirements

- “...the Hazards Survey provides a hazardous materials screening process for determining whether further analysis of the hazardous materials in an Emergency Planning Hazards Assessment (EPHA) is required.”

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“...must be periodically reviewed and, as necessary, updated prior to significant changes to the facility/site or inventories, but not less than every 3 years.”

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General Approach

- Much of the information is already documented in the following areas:
 - CMS reports
 - ECR's
 - ESR's
 - Haz-Waste manifests
 - FUA's
 - Other DOE and Federal reporting requirements
 - Safety, Occ. Safety, Effluent controls, Env. Reports, etc

Approach is based on a release of hazardous materials

Hazard Survey

- 5 Step process

- 1 – Describe the facility and identify the hazards
- 2 – Screen Hazardous Materials for EPHA
- 3 – Identify the generic types of emergency events and conditions that apply
- 4 – Qualitatively describe potential health, safety, environmental, or security impacts
- 5 – Identify planning and preparedness requirements

Step 1 - Facility Description

- Characterization – Office, warehouse, laboratory, etc.
- Number of workers normally assigned
- Special Designations – Nuclear Facility, Rad Facility, Haz-Waste site, Treatment/Storage / Disposal, etc.
- Haz-mat, other than standard office products and cleaning supplies, are stored or used

Step 2 - Chemical Screening

- Common use exclusion
- NFPA health rating of null, 3, or 4 *and*
- Co-located Quantity greater than
 - 5 gallons liquid
 - 40 pounds solid
 - 10 pounds gas
- *And* dispersible with a $V_p > 1$ mm Hg or 10 μ m size

Then a Quantitative EPHA analysis is required

Step 3 – Generic Events

- Fires and Explosions
- Natural phenomena
- Spills
- Malevolent acts
- Catastrophic accidents
- External hazards that affect facility
- Release of aggregation of small quantities

Step 4 – Describe Events

- Using the events in step 3, qualitatively describe the impacts

eg: Fire – Workers killed by smoke or fumes...

Step 5 - Preparedness

- Maintain response forces (ERO)
- Notifications / Communications
- Inspections
- Admin or engineering controls
- PPE
- Work planning

Involvement

- Office of Emergency Management
- Building Manager
- Local Emergency Coordinator
- CMS Manager
- ES&H Representative
- Facility Support Representative
- Environmental Compliance Representative
- Other SME's

Schedule

- Zone concept

1. AGS area (911, 902, 930, 919, 958, 815.....)
2. RHIC
3. Sewage Treatment Plant
4. Empty (Glass hole) } Quarterly summary
5. Empty (NSLS II) } EPHA Facility Drills
6. Apartment area / motor pool
7.
8.

OEM Review Process

- Local Emergency Plans
 - Assembly areas assessment
 - HVAC control process
 - Accountability / communications
 - Tone Alert Radios
- *Hazard Survey*
- Protective action drills (Evac / SIP)

Questions?

Be safe and have a very Merry Christmas!