Hazardous Substance Incident Surveillance Program

Monitoring Chemical Releases for Planning and Prevention

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Photo credit: NATO.org

Presentation Overview

- HSIS History and Summary
- Data Collection and Use
- HSIS Data: Interesting Facts
- How can HSIS help ECHO members?

Photo credit: Heaven Sent Natural Products
www.heavensentnaturalproducts.com

National Toxic Substance Incidents Program

The National Toxic Substance Incidents Program (NTSIP) helps prevent or reduce harm caused by spills and leaks of toxic substances. Through NTSIP, the Agency for Toxic Substances and Disease Registry (ATSDR) collects and combines information from many sources. NTSIP information can be used to prevent or plan for responses to toxic substance spills and leaks. NTSIP has three key features: the national database, state surveillance, and response teams.

On January 5, 2005 in Graniteville, SC a train crash released 90 tons of chlorine gas killing 9 people and injuring 250 more. (Photo courtesy of EPA)

National database

Working with the US Department of Transportation, ATSDR has built a national database of toxic substance incidents. Combining data from different sources gives a clearer picture of why and where incidents are occurring. This allows officials to plan for or prevent them. NTSIP information is available to federal agencies, state and local officials, emergency responders, researchers, and others.

State surveillance

Seven states (Louisiana, New York, North Carolina, Oregon, Tennessee, Wisconsin, and Utah) contribute data to NTSIP. The state health departments collect information about spills that happen in these states. The health departments also map the locations of toxic substances. This includes places that toxic substances are made, stored, used, and shipped. Collecting these data along with spill data will help identify high priority problem areas. States can then target and evaluate prevention efforts. ATSDR and states will promote safer substances and processes, known as green chemistry, in high priority communities and industries as a primary means of prevention. Other state and federal agencies and their partners can use these data to learn more about reducing harm caused by toxic substances.

Response teams

State and local health departments can request help responding to large-scale toxic substance spills. Through its Assessment of Chemical Exposures (ACE) teams, ATSDR can provide

- data collection tools
- scientists to help collect exposure information, and
- scientists to help to collect and test samples.

NTSIP is modeled in part after ATSDR's former Hazardous Substances Emergency Events Surveillance (HSEES) Program.

For more information about NTSIP visit our website www.atsdr.cdc.gov/ntsip/ or email us at NTSIP@cdc.gov.

For assistance with handling a chemical emergency dial the CDC Emergency Operations Center at 770-488-7100.

For non-urgent information about ACE email ATSDRACE@cdc.gov.

For historical HSEES information visit www.atsdr.cdc.gov//HS/HSEES/.

Agency for Toxic Substances and Disease Registry
Division of Health Studies

CS 10_212742

HSIS Summary

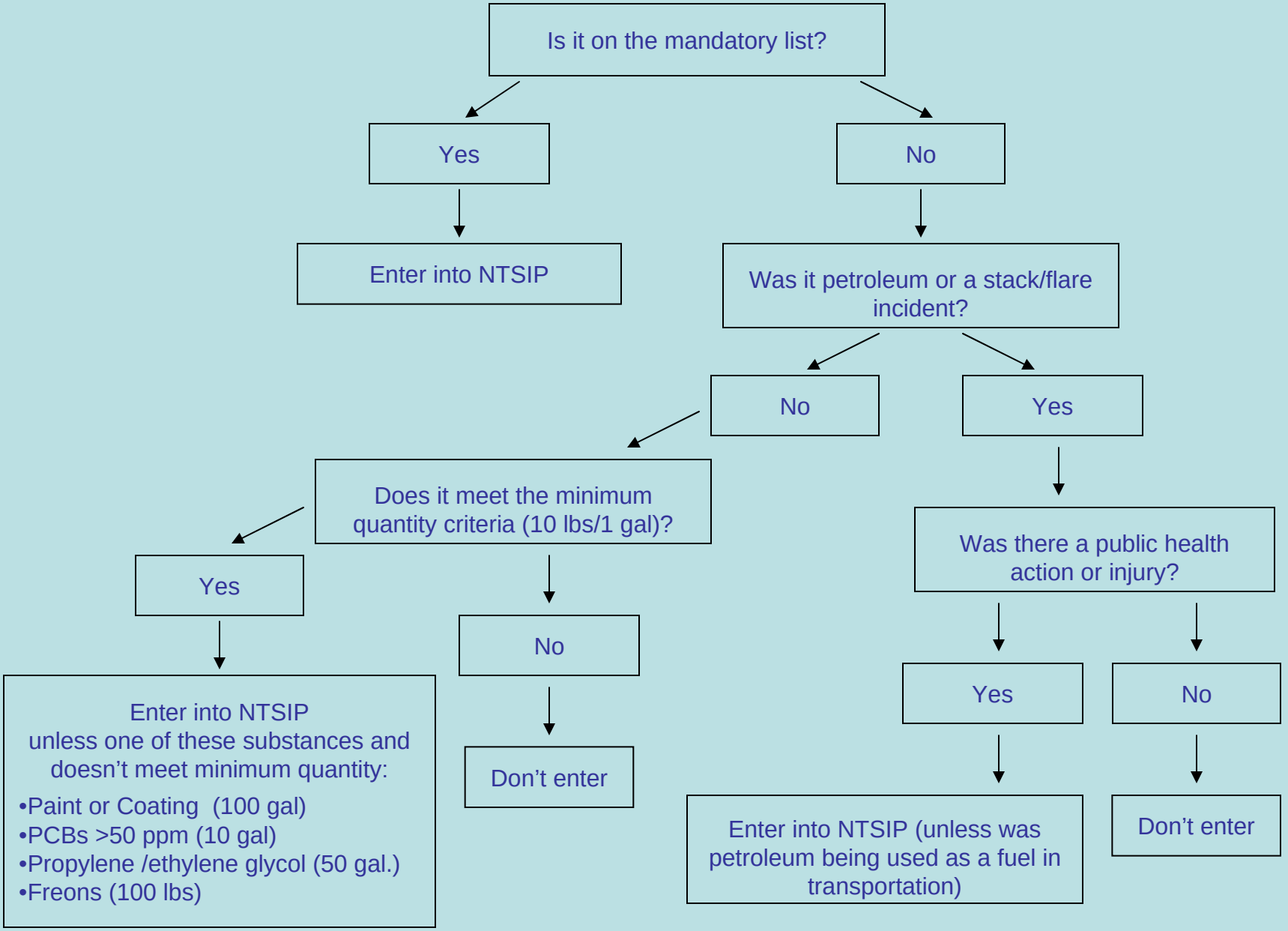
Mission: To protect workers and the public from hazardous substance exposure

National Toxic Substance Incidents Program

- Funded by the Agency for Toxic Substances and Disease Registry (ATSDR)
- ATSDR charged with implementing health aspects of CERCLA and SARA Title III
- 7 NTSIP states including OR
- Excludes most incidents with petroleum-related products

NTSIP
National Toxic Substance Incidents Program

Decision-Making Tree for Entering Incidents into NTSIP



OR HSIS Program

- Hazardous substance release surveillance
  - Acute hazards <72 hours
  - Reporting partners: OERS, ODOT, OSFM, media, etc
- Putting the Data to Use

  -Hazard Identification

  1) Maps

  2) Accident Prevention education
- Green Chemistry
  - Seeks to develop alternatives to reduce hazardous substance use and demand

Photo credit: dismantra.com

Oregon Incident Data 2005-2009

Top Chemicals involved in Incidents

- Paint
- Ammonia
- Sodium Hydroxide
- Adhesives
- Hydrochloric acid

- Sulfuric Acid
- Ethylene Glycol
- Polychlorinated biphenyls (PCBs)
- Mercury

Oregon Incident Data 2005-2009

- 541 Fixed Facility events
- 418 Transportation events

- Most events occurred in the Transportation, Warehousing, or Manufacturing industries
- 34 evacuations ordered

Photo credit: Process Technology Material Consultants ptmcinc.com

Primary cause for occupationally-related chemical incidents:

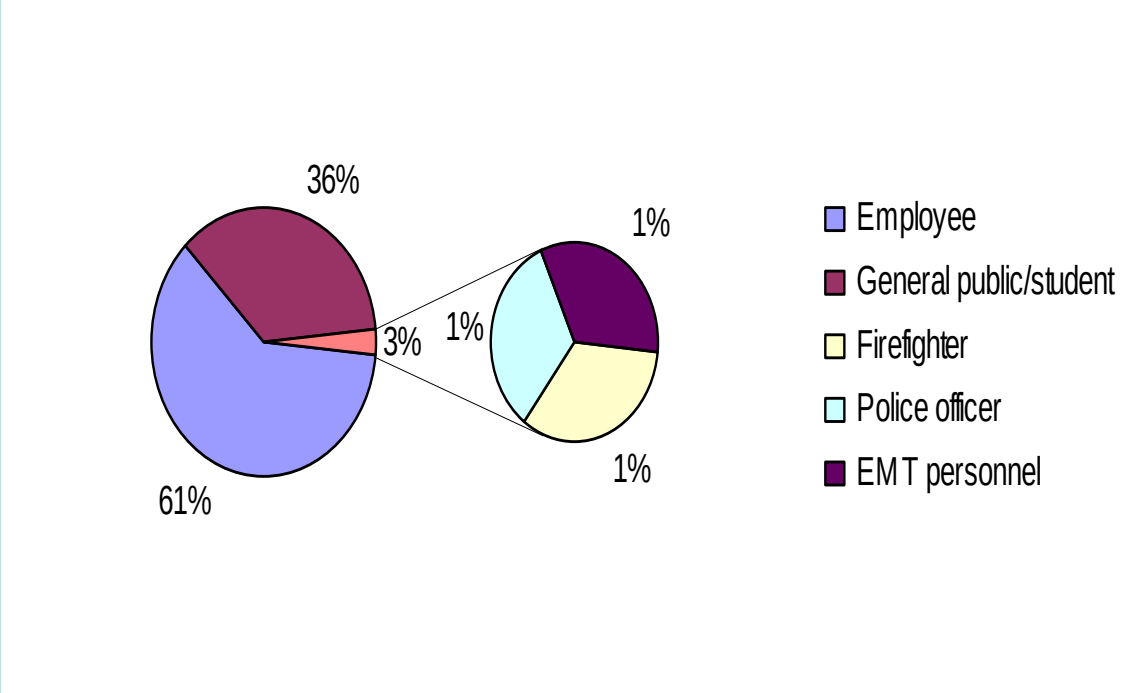
Human Error

Oregon Incident Data 2005-2009

Occupational Injury: Type of Work and Symptom

64 on-the-job incidents with injury:

- Most were spills (58)
- 18 involved Acids
- 3 involved Bases
- 7 involved Ammonia
- 2 involved Chlorine



HSIS and Green Chemistry

Green Chemistry aims to develop chemicals, processes, or materials which pose less harm to humans and the environment.

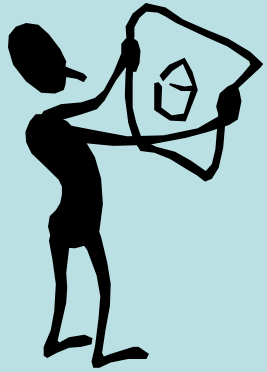
Green Chemistry can help business reduce hazards to workers and communities, reduce shipping costs, and find an edge on competition.

Examples in Oregon:

- Formaldehyde-free wood adhesive (Columbia Forest Products)
- Vegetable oil-based rubber (NIKE)
- Less toxic janitorial product line (Coastwide Laboratories)

Photo credit: Big Lots.com and Yale Center for Environmental Law and Policy

HSIS and ECHO



- HSIS can develop community Chemical Hazard maps to present to ECHO
  - Maps can help ECHO conceptualize overall community threat in any hazard
  - Maps can help ECHO members see opportunities for improvement
- HSIS can provide resources to help business find safer alternatives
- HSIS wants to hear success stories about safer processes or chemicals from ECHO members which reduce costs and protect workers and NW Portland

For more information

- Oregon HSIS program

  http://www.oregon.gov/DHS/ph/hsees/index.shtml

- NTSIP program

  http://www.atsdr.cdc.gov/ntsip/

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