Safe Workplace Practices: A Communications Toolkit

2013 Spray Polyurethane Foam Alliance (SPFA) Convention & Expo
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EPA’s SPF Workgroup

- Partnership with:
  - Occupational Safety and Health Administration (OSHA)
  - National Institute for Occupational Safety and Health (NIOSH)
  - The Consumer Product Safety Commission (CPSC)
  - The Agency for Toxic Substances and Disease Registry (ATSDR)

- Working with industry and other stakeholders to:
  - Improve availability of comprehensive hazard information
  - Develop and communicate best practices
  - Address use of inaccurate or misleading marketing claims
  - Address exposure assessment data and research gaps
Overview

- EPA has been working with the polyurethanes industry to identify best practices and develop useful tools to prevent harmful worker and consumer exposures to uncured SPF chemicals.

- Professional SPF installers and helpers need to follow workplace precautions to prevent exposure to diisocyanates and other harmful chemicals.

- Promoting safer work practices is essential to the handling and use of polyurethane products, not only for the protection of the applicators and helpers, but for other trade workers, building occupants, and residents.
Worker Protection Hierarchy

• Source reduction: eliminate/substitute hazard.
• Establish a work zone, source or worker isolation or enclosure.
• Use engineering controls, such as ventilation.
• Communicate health & safety hazards.
• Work practice controls: maintenance of equipment, prevention of spills and leaks, training, job rotation, application procedures, policy, etc.
• Use of Personal Protective Clothing & Equipment (PPE), last resort.
Why are Best Practices Important

- Airborne contaminants are generated during the application process
  - Vapors, aerosols, and mists generated during spraying
  - Dusts/particulates during trimming/cutting/grinding
  - Vapors also emitted during curing
- Workers and others in the area can breathe harmful airborne contaminants or get them on the skin/eyes
- Best Practices can help reduce exposures to contaminants
Our Approach

- Identify established practices for engineering or process efficiencies and control technologies to reduce exposures and environmental releases.
- Review existing worker training materials and practices addressing the use of PPE and other control technologies.
- Solicit recommendations for innovative practices from industry and field experts.
- Evaluate the potential reduction in exposures by implementing specific control technologies or practices.
EPA conducted a targeted review of training materials, journal articles, and other H&S materials to:

- Identify job related tasks;
- Capture safe work practice(s);
- Identify the exposure reduction/prevention potential of the safe work practice; and
- Identify other relevant information (i.e., pros and cons) associated with the safe work practice.
Targeted Interviews

- SPF trade associations, industry representatives, including contractors, applicators, and other building science professionals.

- Interviewees were asked for information on effective controls and safe work practices related to:
  - Spray equipment, application techniques, and environmental considerations
  - Ventilation
  - Workplace isolation
  - PPE (e.g., respiratory protection, gloves, coveralls)
  - Information and training (e.g., hazard communication and technical training)
“Safer Workplace Practices Checklist for SPF Application and Related Activities”

(September, 2012)

- Tool to foster communication between the applicator, other site workers, and the client and to serve as a reference on the day of applications. Includes the following:
  - Site Communication
  - Spray Zone Isolation
  - Environmental Conditions (temp, humidity and moisture)
  - SPF Application (equipment and material considerations)
  - Safe Work Practices
  - Protective Clothing and Equipment
  - Housekeeping Practices
“Self-Evaluation Checklist of Safe Workplace Practices” *(February, 2013)*

- A more comprehensive tool of practices and strategies to protect workers and promote the safe use of SPF.
- SPF contractors use for periodic assessment of their current practices and identify areas for improvement.
- Includes the following:
  - Over 175 Activities (safer work practices)
  - Potential for exposure & impact on worker exposure
  - Four key-operation phases: on-going, pre-application, application, and post-application.
  - Themes: training & certification; advanced planning; hazard communication.
  - Continued research/data needs
Continued Knowledge Gaps

- Knowledge gaps and barriers to implementation include:
  - Crawl spaces and other tight spaces may pose challenges to ventilation and safe egress.
  - Heat stress can be a significant hazard and a barrier to full skin protection.
  - Clearer guidance regarding waste disposal and drum reconditioning would be beneficial.
  - Product emissions.
Draft Ventilation Guidance for Spray Polyurethane Foam Application

(September, 2011)
Next Steps

- EPA will continue to work closely with other federal partners, the SPF industry, and other interested parties.
- SPF workgroup’s intention is that the best practice guidance tools provide support to SPF contractors, applicators, and helpers and that it be included in Safety Data Sheet binder along with other guidance hazard communication and guidance materials housed on the SPF rig.
Where to Get More Information

- Spray Polyurethane Foam Alliance’s website at http://www.sprayfoam.org/
- ‘Seal and Insulate with ENERGY STAR® Program’ at http://www.energystar.gov/index.cfm?c=manuf_res.pt_insulation