



**SPFA CONTRACTOR SAFETY
AND
PRODUCT STEWARDSHIP PROGRAM**

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The Guide is not intended to provide specific advice, legal or otherwise, on particular products or processes. In setting up foam operations, users of the Guide should consult with their own legal and technical advisors, their suppliers, and other appropriate sources (including but not limited to product or package labels, technical bulletins, or sales literature), which contain information about known and reasonably foreseeable health and safety risks of their proprietary products and processes. SPFA, its members and contributors do not assume any responsibility for the user's compliance with any applicable laws and regulations, nor for any persons relying on the information contained in this Guide.

SPFA does not endorse the proprietary products or processes of any manufacturer or user of spray polyurethane foam or related products. Those manufacturers who are solely responsible for the accuracy and completeness of the data have provided information about individual manufacturer's products contained herein.

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FOREWARD

*By John P. Nolan
(Former Chairman of SPFA)*

The importance of comprehensive safety and health programs is increasingly recognized in industry and government. Under current federal Occupational Safety and Health Administration (OSHA) standards, employers involved in construction activities must have appropriate safety programs that are necessary to comply with the requirements of the OSHA construction industry standards. Compliance with these requirements is often easier to demonstrate if a company has a broad-based safety program that covers all the common elements of a construction project. In California and some other states, such a program is commonly called an "Injury and Illness Prevention Program," and may be required under state safety and health regulations or state employee's compensation programs. For example, if your employees use power tools during the course of completing your projects, you must have a section about power tools. In addition, your program must include sections that deal specifically with those hazards that are unique to your operation. These would include, for example, a Hazard Communication Program, a Respirator Program, a Fall Protection Plan specifically for roofing and/or building envelope, a policy covering Department of Transportation regulations, etc.

The Spray Polyurethane Foam Alliance (SPFA) Contractor Safety and Product Stewardship Program (CSPSP) starts with the assumption that companies already have an Injury and Illness Prevention Program in place. If your company does not have these written policies in place then you must adopt and implement a program before you can meet the requirements of the CSPSP. Not having a comprehensive program makes it more difficult to show that you comply with OSHA standards, increasing the risk of huge fines when an inspection does occur.

The CSPSP's purpose is to provide a format and the forms to assure that a contractor's existing policies are actually carried out as a part of doing a project. These completed forms are intended to become a permanent part of the job records so that if necessary, you could more easily show that you followed pre-established safety procedures and mitigated any problems that may have developed.

The SPFA Board of Directors and the Staff invite all SPFA member contractors to become signatory members of the SPFA Contractor Safety and Product Stewardship Program (CSPSP). We believe that it is essential that all SPF contractors join this program to insure the growth, viability and integrity of our industry. By signing the form at the end of this manual, you will be agreeing to implement these policies and procedures on all of your projects where there is a potential to create a significant liability problem.

The program will be operated under the following guidelines:

- A. This is a voluntary program. Members will not be excluded from SPFA membership if they elect not to join the Contractor Safety and Product Stewardship Program.
- B. SPFA Staff will establish a listing of SPFA member companies who are signatory to the CSPSP. This listing may be published or otherwise used by SPFA to promote the interests of SPFA and its member companies.

- C. SPFA/CSPSP members are encouraged to be active participants in helping to improve the program. Anytime a CSPSP contractor discovers a deficiency in the program, it should be reported so that the program can be evaluated and changed as required.
- D. Members will be able to make reference to their CSPSP membership in promotional documents, claims, disputes, lawsuits, etc.; however, no claim will be permitted that SPFA in any way verifies or certifies that contractor members have implemented the CSCSP.
- E. Members will be required to re-certify that they comply with the requirements of the SPFA CSPSP annually, and that they have programs that comply with current requirements.

SPFA CONTRACTOR SAFETY AND PRODUCT STEWARDSHIP PROGRAM

INTRODUCTION

The purpose of this program is to deal with two separate, but very closely related areas of concern for our entire industry.

The Occupational Safety and Health Administration (OSHA) published guidelines on comprehensive safety and health programs in 1989. Although not presently a requirement, the program outline is believed by many to be helpful in reducing injury and illness on the job if implemented effectively. Members who follow the guidance contained in the SPFA program will have a solid foundation on which to build a program to comply with OSHA regulations.

The first area of concern is the actual safety of the contractor's employees, the client's employees and the general public during all phases of the application of a SPF system. An effective way to address this concern is to adopt a comprehensive safety program. A complete safety program will include: 1) the written programs describing how you train your employees and set up a safe working environment for the kinds of tasks and activities your employees perform, 2) a systematic method for documenting your safety compliance activities and compliance of your employees with company safety policies and procedures, and 3) the necessary investment in the equipment and tools, including appropriate personal protective equipment, needed for a safe working environment. In addition to greatly reducing the chances of having an accident or incident in the first place, a good safety program will lead directly to higher employee morale, performance and profitability. If maintained over a period of time, it can lead to more positive benefits, such as lower employees' compensation and liability insurance rates for your company, greater participation and support from our supplier community as industry professionalism increases, and the attraction of a larger pool of qualified people into our industry.

The second area of concern is protecting your company from liability. In today's litigious environment a lawsuit, whether it is viable or frivolous, can have a serious or even catastrophic impact on your company, as well as on other segments of our industry. This includes the contractor, the system compounders, and even the chemical and raw material suppliers. If a contractor does not have a comprehensive safety and health program, there is a much greater likelihood that an incident or accident that results in personal injury or property damage will become a larger liability problem. A contractor who aggressively implements a well-documented pro-active safety program will, in the event of an incident, be less likely to have a liability problem, and if one does develop, will be able to provide a positive defense to claims of negligence or egregious behavior

An equally important concern is our obligation to use our suppliers' products in a responsible manner, in accordance with the instructions published in their product literature, specifications and Material Safety Data Sheets. We call this Product Stewardship, and our responsible handling of the chemicals we use as contractors is vital to our continued success and

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growth as an industry. In the litigious environment in which we all do business, a contractor who behaves in a reckless manner puts our entire industry at risk.

AS AN EXAMPLE...

Let's demonstrate how important your safety and product stewardship strategy are by examining how two hypothetical contractors, Company ABC and Company XYZ, react to the following situation:

Our contractors are installing a SPF roof system on an occupied building. One of the client's employees, still irritated by a bad restaurant meal the night before, is further aggravated because he cannot park in his usual spot because of the SPF project activity, and he takes note of the drums and equipment as he walks into the building. When he begins to feel nauseous and dizzy two hours later, he decides it is the chemicals he saw in use that are making him sick, and telephones OSHA to complain before leaving early. By the end of the week he has also found a lawyer in the yellow pages, and a lawsuit has been filed against the contractor and his suppliers.

Contractor ABC likes to keep a low profile, doesn't believe in joining trade associations and doesn't need a written safety program because his employees all know what they're doing. He doesn't like to hand out MSDS information to clients or employees because it just gets people upset over nothing. When the OSHA inspector shows up on the job the next morning, his people can't explain what an MSDS is, have never heard of a respirator fit test, and can't recall any recent safety meetings. Contractor ABC will spend many miserable hours dealing with the resultant OSHA citations and fines; and if he is unfortunate enough to be the subject of a deposition in a subsequent lawsuit, he will have no reasonable defense.

Contractor XYZ, on the other hand, is able to show the OSHA inspector his written safety and health plan, his Hazard Communication Program, copies of MSDS forms for all chemicals on the jobsite and documentation of training and regular safety meetings. Furthermore, his employees are knowledgeable about respirator requirements, fall protection, personal protective equipment, and how to interpret an MSDS. If the inspector does find any minor violations, the fines may be reduced or eliminated because Contractor XYZ's written program and documentation show a "good faith effort" at compliance. Later, during the lawsuit deposition, Contractor XYZ is able to produce all of the above information plus document his MSDS review with the client, a pre-job safety meeting, HVAC make-up air review, overspray plan, and carefully documented history of problem-free uses of these products on many previous projects. As a member of SPFA, he is able to further document his professionalism and training through his commitment to abide by the SPFA Contractor Safety and Product Stewardship Program (CSPSP).

Which contractor do you think will be around in the long run?

FALL PROTECTION POLICY

BASIC STRATEGY FOR THE PROGRAM

To assist you in developing and improving your safety program and product stewardship, we have outlined the following strategy and provided some sample plans and forms to assist you in the development of your company-specific program to comply with OSHA standards:

I. Contractor Safety & Product Stewardship Program

- A. Your program must include the following core elements, plus other elements as required to include all of your company's construction activities (see 29 CFR 1926)
 - 1. Management leadership and employee participation
 - 2. Hazard identification and assessment
 - 3. Hazard prevention and control
 - a. Fall Protection Policy (sample included)
 - b. Respiratory Program (sample included)
 - 4. Information and training
 - a. Hazard Communication Program
 - b. Tailgate Safety Meetings
 - c. Accident/incident investigation
 - 5. Record Keeping
 - a. OSHA Log 200
 - b. Completed project records
 - 6. Evaluation of program effectiveness

II. SPF Project Set-Up

- A. SPF Project Check List (sample included)
- B. Pre-Job MSDS Notification and Review Form (sample included)
- C. Pre-Job Client-Contractor Safety Plan Checklist (sample included)
- D. Post-job Client-Contractor Safety Incident Checklist (sample included)
- E. Safety Meeting Report (sample included)
- F. Fire Prevention Policy Statement
- G. Supervisor's Safety Checklist (sample included)

III. Overspray Control Plan

- A. Overspray Control Policy (sample included)
- B. Overspray Information Letter (sample included)
- C. Overspray Abatement Form (sample included)
- D. Overspray Incident Report (sample included)

IV. Compliance Agreement

FALL PROTECTION POLICY

In the construction industry in the U.S., falls are the leading cause of worker fatalities. The Company recognizes that accidents involving falls are generally complex events frequently involving a variety of factors. Consequently, this policy deals with both the human and equipment-related issues in protecting employees from fall hazards during SPF operations. The purpose of this policy is to ensure the protection of all employees from fall hazards, through training and the proper selection and use of fall protection systems.

Responsibility:

The Company Safety Officer is _____. He/she is solely responsible for implementing this policy and has full authority to make necessary decisions to ensure a safe working environment free of uncontrolled fall hazards. This authority includes the spending authority necessary to implement the policy. The Safety Officer will develop written instructions as necessary covering the use of specific fall protection systems, and is the sole person authorized to amend these instructions.

The Company has expressly authorized the Safety Officer to halt any operation of the Company where there is danger of serious personal injury. This policy includes fall hazards.

Training (29 CFR 1926.503):

Employees must receive training in the following areas prior to assignment to SPF projects: (a) the nature of fall hazards in the SPF building envelope application environment; (b) the correct procedures for erecting, maintaining, disassembling, and inspecting fall protection systems, (c) the correct procedures for handling and hoisting of materials and equipment; and (d) the employees role in the Company's fall protection policy.

ROOFING APPLICATIONS

Low-Slope Roofs -- 29 CFR 1926.501(b) (10):

Roofing projects on low-slope roofs (pitch less than 4 in 12) with unprotected sides (parapet less than 39" high) and edges six (6) feet or more above lower levels shall be protected from fall hazards by the use of a guardrail system, warning line system and/or safety monitoring system. On roofs fifty (50) feet or less in width, the use of a safety monitoring system without a warning line system is permitted.

Guardrail System – A system of protecting the roof edge or roof openings with a top rail height of 42", midrails as required, and capable of withstanding a force of 200 pounds in any outward or downward direction. The components and construction of the system shall conform to the requirements of 1926.502(b).

Warning Line System – A system of lines and stanchions conforming to the requirements of 1926.502(f) erected around all sides of the roof work areas not less than six (6) feet from the

FALL PROTECTION POLICY

roof edge. When mechanical equipment is in use, the warning line must be not less than ten (10) feet from the roof edge perpendicular to the direction of mechanical equipment operation.

Safety Monitoring System – A system using a trained competent person meeting the requirements of 1926.502(h) to monitor the safety of employees on the roof. The monitor must be close enough to work operations to communicate orally with the employees and must have no other duties to distract from the monitoring function. All employees in the work zone being monitored must promptly comply with fall hazard warnings issued by safety monitors.

Steep Roofs -- 29 CFR 1926.501(b) (11):

Roofing projects on steep-slope roofs (pitch of 4 in 12 or greater) with unprotected roof edges (parapet less than 39 inches high) more than six (6) feet above lower levels shall be protected from fall hazards by the use of a personal fall arrest system.

Personal Fall Arrest System – A system consisting of an anchorage, connectors, lifeline, and a body harness with shock-absorbing lanyard, together with any other special attachments or fittings required for the specific use so that the system conforms to the requirements of 1926.502(d). Personal fall arrest systems shall be inspected prior to each use for wear damage or other deterioration. Defective components must be removed from service. Anchorages shall be installed by a trained, qualified employee and shall be capable of supporting at least 5,000 pounds. Anchorages used to attach personal fall arrest systems shall be independent of any anchorage being used to support or suspend platforms or equipment.

Hoist Areas -- 29 CFR 1926.501(b) (3):

Employees in a hoist area shall be protected from falling by a guardrail system or personal fall arrest system. If a portion of the guardrail must be opened to land material, and if the worker must lean through the opening or lean over the roof edge during hoisting, that worker must be protected by a personal fall arrest system.

Guardrail System – A system of protecting the roof edge or roof openings with a top rail height of 42", midrails as required, and capable of withstanding a force of 200 pounds in any outward or downward direction. The components and construction of the system shall conform to the requirements of 1926.502(b).

Holes -- 29 CFR 1926.501(b) (4):

Holes in the roof (including skylights without burglar bars or other certified screens) that are more than six (6) feet above lower levels must be protected with covers or guardrails. Covers shall be capable of supporting twice any anticipated load from employees or equipment, be secured in place, and be labeled "HOLE" or "COVER" in accordance with the requirements of 1926.502(i).

FALL PROTECTION POLICY

Roof Access:

Access to the roof on a typical roofing project will be by way of the building roof hatch, a safety scaffold stair tower, or (most often) by a ladder. When ladders are used, the following precautions must be observed:

1. Inspect the ladder carefully for worn or damaged parts.
2. Use only Type I Commercial/Industrial rated ladders.
3. Stand the ladder up using the proper technique.
4. The ladder must extend three (3) feet above the top of the roof edge or parapet.
5. The ladder must be set up on level ground and at the proper angle.
6. The ladder must be tied off at the top of the wall.

Interior Applications:

Scaffolds – Scaffolding used in SPF building envelope applications are typically “fabricated frame scaffolds” consisting of a platform supported on fabricated end frames with integral parts, horizontal bearers, and intermediate members conforming to the requirements of 1926.450-454. Each scaffold and scaffold component shall be capable of supporting without failure, its own weight and at least 4 times the maximum intended load applied or transmitted to it. Scaffold planks and platforms less than 10 foot shall extend not less than 6 inches and not more than 12 inches from the support frame. Supported scaffolds with a height to base ratio of more than four to one (4:1) shall be restrained from tipping by guying, tying, bracing or equivalent as described in 1926.450.

Ladders – Each self-supporting portable ladder shall be capable of supporting at least four times the maximum intended load and comply with the requirements of 1926.1053. When ladders are used, the following precautions must be observed:

1. Inspect the ladder carefully for worn or damaged parts.
2. Use only Type I Commercial/Industrial rated ladders.
3. Stand the ladder up using the proper technique.
4. The ladder must be set up on level ground and at the proper angle.

Personal Fall Arrest System – A system consisting of an anchorage, connectors, lifeline, and a body harness with shock-absorbing lanyard, together with any other special attachments or fittings required for the specific use so that the system conforms to the requirements of 1926.502(d). Personal fall arrest systems shall be inspected prior to each use for wear damage or other deterioration. Defective components must be removed from service. Anchorages shall be installed by a trained, qualified employee and shall be capable of supporting at least 5,000 pounds. Anchorages used to attach personal fall arrest systems shall be independent of any anchorage being used to support or suspend platforms or equipment.

IMPORTANT - Contractors should be advised that OSHA regulations are constantly being modified. It is the contractor’s responsibility to be abreast of these changes.

RESPIRATOR PROGRAM

Purpose:

The purpose of this operating procedure is to ensure the protection of all employees from respiratory hazards, through proper use of respirators. Respirators are to be used only where engineering control of respirator hazards is not feasible, while engineering controls are being installed, or in emergencies.

Responsibility:

The company Safety Officer is _____. He/she is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure success of this program. This authority includes the spending authority necessary to implement and operate the program. The Safety Officer will develop written detailed instructions covering each of the basic elements in this program, and is the sole person authorized to amend these instructions.

The Company has expressly authorized the Safety Officer to halt any operation of the Company where there is danger of serious personal injury. This policy includes respiratory hazards.

Program Elements:

1. The Safety Officer will develop detailed written standard operating procedures governing the selection and use of respirators that depend on a tight-fitting seal for efficacy on Company job sites, using the NIOSH Respirator Decision Logic as described in NIOSH 42 CFR-Part 84, *Respiratory Protective Devices*. Outside consultation, respirator and chemical suppliers, and other recognized authorities will be consulted as necessary regarding proper selection and use. These detailed procedures will be included as appendices to this respirator program as they are developed. Only the Safety Officer may amend these procedures.
2. Respirators will be selected on the basis of hazards to which the worker is exposed. All selections will be made by the Safety Officer. Only MSHA/NIOSH-certified respirators will be selected and used.
3. The user will be instructed and trained in the proper use of respirators and their limitations. Both supervisors and employees will be so instructed by the Safety Officer or his designee. Training should provide the employee an opportunity to handle the respirator, have it fitted properly, test its facepiece-to-face seal, wear it in normal air for a long familiarity period, and finally to wear it in a test atmosphere. Every respirator wearer will receive fitting instructions, including demonstrations and practice in how the respirator should be worn, how to adjust it, and how to determine if it fits properly.
4. Respirators should not be worn when conditions prevent a good face seal. Such conditions may be a growth of beard, sideburns, or temple pieces on glasses. No employee of the

Company who is required by his duties to wear a respirator may wear a beard. The worker's diligence in observing these factors will be evaluated by periodic checks.

5. Where practicable, respirators will be assigned to individual employees for their exclusive use. To assure proper protection, the facepiece fit will be checked by the wearer each time the wearer puts on the respirator. This will be done by following the manufacturer's facepiece-fitting instructions.
6. Training will establish proper procedures for the regular cleaning and disinfection of respirators. Those issued for the exclusive use of one employee will be cleaned after each day's use, or more often if necessary. Those used by more than one worker will be thoroughly cleaned and disinfected after each use. The Safety Officer will designate a venue for the maintenance and cleaning of respirators and develop detailed written cleaning instructions.
7. Provisions will be made for suitable storage of respirators at each site where their use is required.
8. Respirators used routinely will be inspected during cleaning. Worn or deteriorated parts will be replaced. Respirators for emergency use such as self contained devices will be thoroughly inspected at least once a month and after each use. Inspection for SCBA breathing gas pressure will be performed weekly.
9. Appropriate surveillance of work area conditions and degree of employee exposure or stress will be maintained.
10. There will be regular inspection and evaluation to determine the continued effectiveness of the program. The Safety Officer will make periodic inspections of all work sites where respirators are used to ensure compliance with the respiratory protection programs.
11. Persons will not be assigned to tasks requiring the use of respirators unless it has been determined that they are physically able to perform the work and use the equipment. The Company's consulting physician will determine what health and physical conditions are pertinent. The respirator user's medical status will be reviewed annually. When a physical examination is required by the physician, the physician will provide a written evaluation documenting that the employee is capable of wearing and performing the requirements of the job, designating any restrictions on use that are medically appropriate.
12. Only certified respirators will be used.

Approved:

President

SPF Applications:

1. Applicators of spray polyurethane foam (SPF) and other systems containing isocyanate products will be provided with respirator protection. A half-face air-purifying (charcoal cartridge type) respirator may be adequate for protection against exposure to isocyanates in spraying foam in some roofing applications but is not recommended for interior applications. **It is the responsibility of the contractor to make respirator recommendations based on air monitoring data specific to the type of conditions encountered at the job site. OSHA requires a cartridge change out schedule every 8 hours of use.** Each application must be assessed according to OSHA Regulations in order to recommend the appropriate respirator. If data is not available that suggests the application is appropriate for an air-purifying respirator, a type C air supplied respirator will be used. Applicators of spray polyurethane foam (SPF) and other systems containing isocyanate products will be provided with a fresh air supplied (Type C) respirator.
2. Only Grade D air will be used to supply a Type C mask. This may be supplied by a certified oil-free compressor manufactured for this purpose, or other suitable air compressor or in-plant air source, which is equipped with a filtering system, CO monitor and alarm.
3. Support personnel and applicators of other coating products will be provided with half-face air-purifying (charcoal cartridge type) respirator equipped with the appropriate chemical cartridge. In locations with limited ventilation, such as interior applications or within a windscreen, support personnel will wear a Type C air supplied respirator as specified in items 2 & 3 above.

ROOFING PROJECT CHECKLIST

CLIENT _____

DATE: _____

LOCATION: _____

JOB NO: _____

	Checklist Item	Date	By
1.	Submittals:		
2.	Materials ordered/shipping:		
3.	Pre-Construction meeting with Client:		
	Community Right-to-Know / MSDS delivery:		
	Safety checklist review with Client:		
	Overspray Plan / Overspray letter:		
	Discussion of Special Hazards of Client Site		
4.	Mobilization:		
	Pre-job safety meeting:		
	Jobsite set-up – ground:		
	Jobsite set-up – roof top:		
	Access:		
	Pull Up Station:		
	Edge warning and/or fall restraint:		
	Skylights/openings in roof:		
	Hazard identification:		
	Power lines above or beside roof:		
	Gas lines:		
	Conduit on roof or parapet walls:		
	High voltage equipment on roof:		
	Hot stacks, exposed steam lines:		
	Hazardous materials from Client operations:		
5.	Install Roofing System:		
	Weekly Safety Meetings:		
	Supervisors safety site review:		
6.	Clean-Up and demobilize job:		
	Final inspection with Client:		
	Post-job safety and incident review:		
	Warranty inspection:		
7.	Other:		
	Salesman/Estimator:		
	Site Supervisor:		

BUILDING ENVELOPE PROJECT CHECKLIST

CLIENT _____

DATE: _____

LOCATION: _____

JOB NO: _____

	Checklist Item	Date	By
1.	Submittals:		
2.	Materials ordered/shipping:		
3.	Pre-Construction meeting with Client:		
	Community Right-to-Know / MSDS delivery:		
	Safety checklist review with Client:		
	Overspray Plan / Overspray letter:		
	Discussion of Special Hazards of Client Site		
4.	Mobilization:		
	Pre-job safety meeting:		
	Jobsite set-up – staging area:		
	Jobsite set-up –: inside building		
	Access:		
	Fall restraint:		
	Temporary flooring		
	Hazard identification:		
	High voltage electrical boxes:		
	Gas lines:		
	Conduit within building:		
	Hazardous materials from Client operations:		
5.	Install SPF System:		
	Weekly Safety Meetings:		
	Supervisors safety site review:		
6.	Clean-Up and demobilize job:		
	Final inspection with Client:		
	Post-job safety and incident review:		
	Warranty inspection:		
7.	Other:		
Salesman/Estimator:			
Site Supervisor:			

MEMORANDUM

FROM: _____
Health & Safety Department

RE: Federal & State Hazard Communication Regulations

_____, herein called the Company, has developed a program to ensure that both our employees and non-employees, such as subcontractors or building tenants, will receive specific training concerning potential chemical hazards associated with the SPF building envelope operations in their workplace. This "Written Hazard Communication Program" may be viewed at any office of the Company. The Company's policy on the training of non-employees consists of this cover letter and attached enclosures.

An employee of the Company will give a brief explanation of the literature included within this package. The purpose of this is to provide all information available about materials that the Company will be using and storing during the project. The MSDS covers the following topics: Manufacturer Identification (including address and telephone number), Hazardous Ingredients/SARA III Information, Physical/Chemical Characteristics, Fire and Explosion Hazard Data and primary routes of entry, exposure limits; carcinogenicity statement; emergency/first aid procedures; date of preparation or revision; Reactivity Data, Health Hazard Data, Precautions for Safe Handling and Use, Control Measures and Disclaimer.

Federal regulations, enforced by OSHA, have mandated that all employees have "right-to-know" about the chemical hazards in their workplace. The Company supports this regulation and is supplying this information to meet the requirements. You are required to pass portions of this information down to the parties concerned within your company. In that regard, please provide all health hazard information you have available from other sources (other contractors, etc.) relating to this project, to a representative of the Company and we will transmit this information to our employees.

By: _____ Title: _____

MATERIAL SAFETY DATA SHEET (MSDS) NOTIFICATION AND REVIEW

This form lists all the hazardous materials that will be used during the course of this sprayed polyurethane foam installation. Our equipment trailer contains miscellaneous materials in minimal quantities. The MSDS for those materials are located in the MSDS binder kept inside the trailer.

PRIMARY MATERIALS:

- | | |
|-----------------------------|------------------------------------|
| 1. Primer (if applicable) | 6. Solvent (if applicable) |
| 2. Foam - 'A' Component | 7. Thermal Barrier (if applicable) |
| 3. Foam - 'B' Component | 8. Vapor Retarder (if applicable) |
| 4. Coating (if applicable) | 9. _____ |
| 5. Granules (if applicable) | 10. _____ |

The material safety data sheets for the above referenced materials are enclosed in this package.

Job Name and Number: _____

Building Occupant Representative: _____
(Company Name)

Building Address: _____

Acknowledged By: _____ Date: _____

SPF Contractor Representative: _____ Date: _____

Owner Name (if applicable): _____ Date: _____

General Contractor Name (if applicable): _____ Date: _____

Pre-Job Form 1
CLIENT-CONTRACTOR SAFETY PLAN CHECKLIST

Job Number: _____ Project Name: _____

Our Safety Program requires that you, our Client, work closely with our Project Management team and/or on-site Supervisor to eliminate safety and liability problems before they arise. We believe that the best way to achieve this is by taking a pro-active approach. The first step is to identify specific areas of concern for safety and liability issues. This will allow us both the opportunity to make necessary arrangements to prevent potential problems.

Please use the attached checklist as an aid in developing a safety plan for this project.

HAZARD COMMUNICATION:

(If yes: Explain)

- | | | |
|---|-----------|----------|
| 1. Pre-Job MSDS Exchange: | Yes _____ | No _____ |
| 2. Overspray & Exposure Abatement Plan: | Yes _____ | No _____ |
| 3. Building Make up air, vents, fans, etc. | Yes _____ | No _____ |
| 4. Spill prevention clean up and disposal plan: | Yes _____ | No _____ |
| 5. Asbestos-containing materials present | Yes _____ | No _____ |
| 6. Work area/access by others and other trades: | Yes _____ | No _____ |

GENERAL SAFETY:

- | | | |
|--|-----------|----------|
| 7. Pre-job safety meeting: | Yes _____ | No _____ |
| 8. Bi-weekly tailgate safety meetings: | Yes _____ | No _____ |
| 9. Fall prevention job specific plan: | Yes _____ | No _____ |
| 10. Unusual client caused hazards: | Yes _____ | No _____ |
| 11. Client access to work areas: | Yes _____ | No _____ |
| 12. Material storage area: | Yes _____ | No _____ |
| 13. Security of staging and storage areas: | Yes _____ | No _____ |
| 14. Building egress restrictions: | Yes _____ | No _____ |
| 15. Fire prevention and response plan: | Yes _____ | No _____ |
| 16. Electrical hazards: | Yes _____ | No _____ |
| 17. Check the deck or floor for dangerous areas: | Yes _____ | No _____ |
| 18. Substance abuse prevention plan: | Yes _____ | No _____ |
| 19. Lock out/tag out needed: | Yes _____ | No _____ |
| 20. Thermal barrier needed: | Yes _____ | No _____ |

Contractor Representative: _____ Date: _____

Building Occupant Representative: _____
(Company Name)

Building Address: _____

Acknowledged By: _____ Date: _____

Owner Name (if applicable): _____

Acknowledged By: _____ Date: _____

General Contractor Name (if applicable): _____

Acknowledged By: _____ Date: _____

If any safety or product stewardship incidents occur during the project, complete a written description of the incident and documentation showing how the incident was mitigated. Complete Form II after the job is completed.

Post-Job Form II
JOINT CLIENT-CONTRACTOR SAFETY INCIDENT CHECKLIST

Job Number: _____ Project Name: _____

The above project was completed by _____ on _____. A Client/Employee Protection Plan was implemented before the job began. Areas of concern were identified and a job specific safety plan was developed.

Please use the attached checklist to identify any safety incidents reported. Attach copies of any problems reported and how they were mitigated.

A. To the best of my knowledge, no safety or product stewardship incidents occurred during the project.

Contractor Representative: _____ Date: _____

Building Occupant Representative Name: _____

Building Address: _____

Acknowledged By: _____ Date: _____

Owner Name (if applicable): _____

Acknowledged By: _____ Date: _____

General Contractor Name (if applicable): _____

Acknowledged By: _____ Date: _____

B. The following safety or product stewardship incidents occurred and were properly mitigated.

1. _____
2. _____
3. _____

The appropriate documentation is attached.

Contractor Representative: _____ Date: _____

Building Occupant Representative Name: _____

Building Address: _____

Acknowledged By: _____ Date: _____

Owner Name (if applicable): _____

Acknowledged By: _____ Date: _____

General Contractor Name (if applicable): _____

Acknowledged By: _____ Date: _____

SAFETY MEETING REPORT

CONDUCTED BY: _____

DATE: _____

LOCATION: _____

JOB NO.: _____

	Print Employee Name	Employee Signature
1		
2		
3		
4		

Supervisor's Monthly Check List:	
Reviewed MSDS information on the following products (new or updated):	
Fire Prevention Plan Review	
Flame sources (pilot lights, ovens, water heater, etc.)	
"Hot" work schedule	
Fire watch (required for hot work)	
"Hot" Work shields	
Fire extinguishers	
Emergency Response	
Filed new or updated MSDS information in job site binder.	
Fall Prevention Plan review:	
Access type:	
Pull up station:	
Scaffolding	
Fall restraint system:	
Ladders	
Edge warning lines/monitoring system (roof applications)	
Railings	
Legal parapet wall (roof applications)	
Skylights (roof applications)	
Other:	
Hazard Review:	
Power lines above or beside roof (roof applications)	
Loose roofing materials (roof applications)	
Electrical power boxes	
High-pressure gas lines (ammonia, steam, etc.):	
Low-pressure gas lines (natural gas, oxygen, etc.):	
Overhead (falling objects, beams, etc)	
Hazardous materials from client's operations:	
Confined spaces	
Other:	
Review of Respirator Program:	
Review specifications and key project guidelines:	

FIRE PREVENTION DURING CONSTRUCTION

POLICY STATEMENT

It is the policy and recommendation of the Spray Polyurethane Foam Alliance that all interior applied spray polyurethane foams receive a thermal barrier having an index of 15, as soon as possible after the initial application, except when specifically approved by a building code official based on fire tests specific to the application.

Fire is a serious concern during construction, repair and retrofit projects because there may be exposed SPF and potential for exposure to open flame from welding and cutting torches from allied during certain construction sequences. While fires involving polyurethane foam during construction are rare, they do happen and they are preventable. Good practice suggests the following safety precautions at the construction site

- Conduct job safety meetings with other trades before, during and after SPF application
- Provide warning signs and labels on the job site where the trades are performing hot work are most likely to see them
- Keep other trades from working in the application area until a thermal barrier is applied
- Assess potential fire hazards during the SPF application to determine if fire watch during application is required.

Trades performing “hot” work should:

- Comply with the requirements of OSHA regulations 29 CFR 1910.252, Welding, Cutting, and Brazing.
- Ensure the protection of combustibles such as SPF by moving the work to a location free of combustibles.
- If the work or the SPF cannot be moved, ensure the SPF is shielded during ignition with a suitable welding or fire blanket.
- Provide a fire watch when; the combustible material is closer than 35 feet from “hot work”, wall or floor openings within a 35-foot radius expose combustible materials in adjacent areas, including concealed spaces in walls or floors, combustible materials are adjacent to the opposite side of partitions, walls, ceilings, or roofs and are likely to be ignited.

All trades should:

- Ensure there is an adequate supply of appropriate fire extinguishers in convenient locations. (Note: personnel must be trained in order to use fire extinguishing equipment)
- Waste material such as foam trim, paper, solvent, etc.) should be disposed of daily in a designated location with due regard for their combustibility characteristics.
- If a fire occurs that cannot be immediately extinguished, evacuate the area at once and call the fire department.

Safety and Health Information Resources

OSHA Regulations:

- OSHA 29 CFR 1926, *Safety and Health Regulations for Construction*
- OSHA 29 CFR 1901.1, *Draft Proposed Safety and Health Program Rule*

(Website: OSHA.gov)

Phone: 202-693-1999)

NIOSH Publications:

- NIOSH 42 CFR 84, *Respirator Protective Devices*

(Website: cdc.gov/niosh/homepage.html)

Phone: 800-356-4674)

API Safety and Health Documents and Videos:

- AX-128, *Drum Handling Information Kit*
- AX-151, *Guidelines for the Responsible Disposal of Containers and Wastes from Polyurethane Raw Materials Processing*
- AX-171, *Video on Safety Aspects of Spray Polyurethane Foams and Coatings.*
- AX-178, *PMDI User Guidelines for Chemical Protective Clothing Selection*
- AX-197, *MDI Transportation Guidelines: Information for Drivers*
- API Technical Bulletin: *Fire Safety Guidelines for Use of Rigid Polyurethane Foam and Polyisocyanurate Foam Insulation in Building Construction*

(Website: Polyurethane.org)

Phone: 703-741-5661)

SPFA Technical Bulletins and Safety Information:

- AY-126, *Thermal Barriers for The Spray Polyurethane Foam Industry*
- Accreditation Course 101, Chapter 1, *Health, Safety and Environmental Aspects of Spray Polyurethane Foam and Coverings*

(Website: sprayfoam.org)

Phone: 800-523-6154)



SUPERVISOR'S SAFETY CHECKLIST

	OK	Out of Service	Returned To Shop	Not Available
• First Aid Kit				
• Fire Extinguisher (as required per application, at least one for every room)				
• Eye Wash				
• Material Safety Data Sheets (MSDS) Binder				
ELECTRICAL				
• Power Supply Cords				
• Panel				
• Outlets				
• 110 Volt Cords				
• Power Tools (See Back)				
• Test Equipment				
AIR SYSTEMS				
• Air Hoses & Fittings				
• Controls & Regulators				
• Air Compressor				
• Breathing Air System Test: all filters and alarms				
HIGH PRESSURE SYSTEMS				
• Hoses & Fittings				
• Gauges				
• Bleed Off Valves				
EQUIPMENT				
• Ladders				
• Trailers				
- Tires				
- Break-away System				
- Hitch				
• Paint Guns & Tips				
• Safety Lines, Full Body Harnesses & Lanyards				
• Drum Dolly				
• Scaffolding				
• Forced ventilation (fans, etc.)				
• Fuel Containment Drums				
• Absorbent				
• Trimming tools				



OVERSPRAY CONTROL POLICY

Spray Foam Contractors continue to have a number of overspray incidents each year. In our review of this situation, the Safety Committee has found that a wide variety of strategies, i.e. parking control, car covers, etc. are being used by our member contractors around the country. The purpose of this memo is to help you create a consistent and successful policy for dealing with the "overspray issue".

It is important that you take a very pro-active approach to this situation. You will need to partner with your clients to create a successful solution. The first step in this process will be for your salesperson/estimator to identify the scope of the overspray hazard. You must then evaluate the level of risk and adopt one or more of the following strategies in order to deal effectively with this issue.

Plan A - The overspray issue is handled as a part of the proposal/contract procurement process.

Plan B - Following the receipt of a contract, the overspray issue is addressed in a separate meeting/contact with the client. There are often other issues that need to be addressed at this point in the process such as protecting the building occupants from vapors, work permits, etc.

Plan C - The issue is addressed at the pre-job meeting.

Plan D - There is no overspray hazard.

Plans A, B, and C should result in the creation of an Overspray Abatement Plan (see the attached sample form). An informational letter, such as the attached "Spray Foam and Overspray", should be included in a "client hazard information" package together with MSDS forms and other safety information. Ideally, your representative should sit down with the Client and review the information in these two documents in a positive and pro-active atmosphere. Together, you should decide which of the options listed on the Overspray Abatement Form are best suited to the particular situation. If at all possible, both parties should sign the Overspray Abatement Form.

Once an Overspray Abatement Plan has been adopted, your on-site supervisor will have the primary responsibility for seeing that it is carried out. While getting parking lots closed, cars moved or covered, and masking windows, doors, floors, etc., or changing work areas to suit conditions are time consuming and often frustrating tasks for goal-oriented production supervisors; remember that it is always less expensive to avoid an incident than to deal with the consequences of one.

It is important for both parties to understand that each has an obligation to advise vehicle owners of the potential problem and that you will try to do what you can, within reason, to abate the problem. If you have done this you will have reduced your liability if an overspray incident



occurs and you will have created a climate in which a more reasonable solution can be worked out.

An important part of this pro-active approach is to find a qualified firm with a demonstrated ability to clean foam overspray off of cars before you need them. This will more than likely be a “detailing” shop and not a shop whose primary business is painting cars. Get them to view your company as a long-term (if, hopefully, infrequent) partner and not as a “fast buck” opportunity.

You may also wish to stock your trailer or truck with several kits of the "magic clay" type cleaner. If an overspray incident is brought to your attention, your employees can clean foam residue off auto glass safely using this product. Be very cautious, however, about having your employees attempt to clean painted surfaces unless they are capable and experienced with these clay products.

When an overspray incident does occur, your employees at the site should be trained to have two conditioned responses:

Response No. 1 - Your employees at all levels should be trained to be polite and responsive to any claimant. Avoid confrontation and respond to their questions in a positive way, assuring them of a prompt referral to management.

Response No. 2 - Your employees should be clear on whom to notify within your company when an incident occurs – either a supervisor on site or manager at the office. In either case, management should address the problem and not run from it. A claimant who is ignored will quickly become angry, more expensive to deal with, and a public (and customer) relations disaster.

No one likes dealing with overspray, but you will get, by far, the best results if you remain positive, informative and creative.

Attachments:

1. Overspray Information Letter
2. Overspray Abatement Form
3. Overspray Incident Report Form

SPRAY FOAM ROOFING AND OVERSPRAY

_____ will be installing a sprayed-in-place polyurethane foam system at your facility during the period of _____ to _____. This system is composed of polyurethane foam, which is formed by combining an “A” side (di-isocyanate), and a “B” side (polyol). This foam is the same material used to insulate your refrigerator, your Coleman cooler, to make foam rubber seat cushions, furniture, and even pillows. This product is all around us. Fully reacted polyurethane foam is not considered a hazardous material under OSHA's Hazard Communications Standard (29 CFR 1910.1200).

Although we take precautions to avoid it, it is possible for small particles to drift in the wind and land on cars in the immediate vicinity of the spraying operation. If the overspray has not dried before this happens, it may develop some adhesion to glass and paint. Since the particles are extremely small, soft, and sensitive to ultraviolet radiation, they will weather off. Normal washing can facilitate this process. Do not try to remove the particles with rubbing compound or by buffing. Do not wax or seal the surface, as this will protect the foam from the weathering process. If allowed to weather off, the foam overspray will disappear completely with no residual effects whatsoever. It is different from paint overspray in this regard. This process will take several weeks, depending on such factors as the amount of sunshine your car receives, overspray particle size and to some extent how often the car is washed.

The first step in the weathering off process is that the foam starts to turn yellow and brown as it oxidizes. With less sun, such as occurs in winter or foggy conditions, it will take longer for the foam to disappear but it will disappear, so please be patient.

If you detect foam overspray on your windshield (your windshield wiper blades will sound different as they cross the droplets of foam or with the sun at a certain angle it will seem like there are tiny diamonds on the glass); please let us know right away. Our crews carry a detailing product, which miraculously wipes away the overspray. They will clean your vehicle's windows in just a few minutes. If you choose to clean the glass yourself, you should use one of the clay cleaning products. **WARNING:** do not use this clay product in an attempt to remove the overspray from the paint finish or mirrors yourself as you may damage the paint system finish. This is particularly true if your car's paint system has a clear coat finish.

To Repeat: By far, the best course of action is to allow the overspray to weather off naturally. With this approach, there is no chance of damaging the paint film.

Note: Removing overspray from glass using the clay will not damage or pit the glass.

If you wish to talk to someone at our office regarding this matter, please call _____.

Sincerely,

President



OVERSPRAY INCIDENT REPORT

Claimant: _____ Date: _____

Address: _____

City/State/Zip: _____

Tel: _____

Project/Address: _____

Supervisor: _____ Salesperson: _____

Report submitted by: _____

Make: _____ Model: _____ Year: _____

Color: _____ License #: _____ State: _____

Did a Supervisor see the car? Yes No Is it our overspray? Yes No

Were the windows cleaned? Yes No

Did claimant receive our SPRAY FOAM & OVERSPRAY handout? Yes No

ACTION:



SPFA CONTRACTOR SAFETY AND PRODUCT STEWARDSHIP PROGRAM

Compliance Agreement

I, _____, agree that _____ will
Name Company Name

implement the Spray Polyurethane Foam Alliance (SPFA) Contractor Safety and Product Stewardship Program (CSPSP) beginning on the ____ day of _____, 2000 and ending on the ____ day of _____ 2001.

I further agree to re-certify on an annual basis that I will comply with the SPFA Contractor Safety and Product Stewardship Program.

(Print Name)

Title

Signature

Date

Date Received by SPFA _____ Signature _____