

Proper Paint Spray Booth Maintenance Prevents Fire Losses

General precautions

Disastrous fires costly to production and profits can be prevented by proper maintenance of paint spray booths.

The inside and outside of spray booths should be kept clear of all material and equipment not essential for the actual spraying operation. Only a small working supply of material should be kept by the booth at any one time. Combustible material should never be stored near spray booths. A clear space of at least 10 feet around all spray booths will prevent a fire from spreading if one should break out during spraying operations. Care should be taken to keep all fresh sprayed articles well removed from the booths and placed in areas provided with adequate ventilation.

Scheduled cleaning is a “must”

Flammable materials, when allowed to accumulate, increase the potential of fire. The interior of the spray booth, including the exhaust system components and sprinkler heads, must be cleaned of paint residue regularly. If plastic or paper bags are used to keep sprinkler heads clean, they must be changed when they become coated with overspray – daily if necessary. Cleaning interiors of booths may be facilitated by applying coating compounds to prevent residue from adhering to the booth.

Low flash point solvents such as gasoline or lacquer thinner must not be used for cleaning. Cleaning and scraping of residues should be done with brass or bronze nonsparking tools.

Residue disposal

Scraping and sweepings should never be left in piles on the floor or in uncovered containers. They should be wet down immediately, placed in metal containers with metal covers, and removed to a safe location, outside the building.

Hazardous waste material

UL listed metal waste containers, with self closing covers, should be provided wherever rags or waste are impregnated with sprayed material. The contents of the waste containers should be properly disposed of, to a safe outside location, at least once daily or at the end of each shift.

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Mechanical exhaust system

The exhaust system is designed to draw the overspray through a collecting system which may be wet (waterfall type) or dry (filter bank).

If dry filters accumulate heavy overspray residues they will clog the exhaust system and restrict air velocity through the exhaust system. Maintenance procedures should be established to ensure replacement of dirty and clogged filters.

Filter gauges

Dry filter banks should be equipped with a filter gauge with an electrical switch arranged to sound an alarm and shut off the air supply to the spray gun in the event the air velocity is inadequate.

(See Loss Prevention Data Guide F.13483 for additional information on ventilating systems).

Avoid using the same spray booth for spraying different finishing materials

Spray booths used for the spraying of Pyroxylin lacquer finishes should not be used for spraying other materials unless the booth and ventilation system is thoroughly cleaned.

Alternating paint finishes and mixing deposits of Pyroxylin materials with varnish, oil base stains, etc. can cause spontaneous heating and eventual self-ignition.

“No smoking” control in paint spraying areas

“No smoking” signs in large letters in contrasting color backgrounds should be conspicuously posted and the rule should be strictly enforced.

Employee training

Spray painting safety depends on the employees operating the equipment and the knowledge and understanding they have of the process. Management should establish an effective and on-going training program for all employees involved in such work. Qualified personnel should provide training for normal process procedures, as well as for emergency procedures in the event of a fire.

Closing time inspections

When the building is closed for business each night, it is important to carefully check the entire spraying area for potential fire hazards. The majority of after business fires can be prevented by a well managed, carefully supervised closing time self inspection program.

The loss prevention information and advice presented in this brochure are intended only to advise our insureds and their managers of a variety of methods and strategies based on generally accepted safe practices, for controlling potentially loss producing situations commonly occurring in business premises and/or operations. They are not intended to warrant that all potential hazards or conditions have been evaluated or can be controlled. They are not intended as an offer to write insurance coverage for such conditions or exposures, or to simply that Great American Insurance Company will write such coverage. The liability of Great American Insurance Company is limited to the specific terms, limits and conditions of the insurance policies issued.
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