

Spray Finishing/Booth Plan Submittal Guide



This guide is to assist in the Construction permitting and Operational permitting process for the South Salt Lake Fire Department. A permit is required for the installation and construction as well as an annually renewable operations permit for spray finishing/booths per sections 105.5.47 and 105.6.22 of the *International Fire Code*.

GENERAL INFORMATION:

This guide is intended to clarify the minimum the South Salt Lake Fire Department requirements to obtain applicable permits for all spray finishing operations involving the:

- Application of flammable or combustible paint, varnish, lacquer, stain, resins, or other flammable or combustible liquid applied as spray by compressed air, airless or hydraulic atomization, steam, electrostatic or other methods or means in continuous or intermittent processes.
- Dip tank operations in which articles or materials are passed through contents of tanks, vats, or containers of flammable or combustible liquids, including coating, finishing, treatment, and similar processes.
- The application of combustible powders by powder spray guns, electrostatic powder spray guns, fluidized beds, or electrostatic fluidized beds and the application of dual-component coatings of Class I or Class II liquids when applied by brush or roller in quantities exceeding 1-gallon (4L).

Such operations must obtain all applicable South Salt Lake City and South Salt Lake City Fire Department permits. Additional applications and permits from other Salt Lake County or State of Utah entities may be required. All spray finishing operations performed inside of a building shall be conducted in an approved spray booth, spraying area, or spraying room approved for such use.

NOTE: Non-applicability: This guide does not apply to spray finishing utilizing flammable or combustible liquids which do not sustain combustion, including liquids that have no fire point when tested in accordance with ASTM D92 and liquids with a flashpoint greater than 95°F (35°C) in a water- miscible solution or dispersion with a water and inert (noncombustible) solids content of more than 80 percent by weight.

Due to the wide-ranging and diverse applications represented by Spray Finishing Operations, this guide is intended only to offer basic information and guidance and does not intend to represent a complete review or determination of all South Salt Lake City Fire Department requirements, laws, and ordinances governing this subject.

APPLICABLE CODES:

The following codes and standards apply to this permit.

- 2021 International Building Code (IBC).
- 2021 International Mechanical Code (IMC)
- 2020 National Electrical Code (NEC).
- 2021 International Fire Code (IFC).
- NFPA 30 2021 Edition, *Flammable and Combustible Liquids Code*.
- NFPA 33 2018 Edition, *Spray Application Using Flammable or Combustible Materials*.
- NFPA 34 2018 Edition, *Dipping and Coating Processes Using Flammable or Combustible Liquids*.

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- NFPA 654 2020 Edition, *Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids*.

SUBMITTAL REQUIREMENTS:

- **CONSTRUCTION DOCUMENTS/PERMIT:** A Building Permit will be required from the Community Development Department.
- Plans, drawings, and Manufacturer's cut sheets for the HVAC System, Automatic Fire Extinguishing System, and Electrical will be a differed submittal to the Fire Marshal's Office for review and approval.
- **OPERATIONAL PERMIT:** A completed South Salt Lake Fire Department: Hazardous Materials Permit Application will also need to be submitted for approval and inspection.

****PLEASE NOTE:****

Due to the complexity of these requirements, it is recommended that the applicant retain a Licensed and Certified Fire Protection company prior to submittal.

PRE-REQUISITE:

OPERATIONAL PERMIT:

A completed South Salt Lake Fire Department: Hazardous Materials Permit Application will also need to be submitted. A hazardous material inventory list identifying the type and quantity of all hazardous materials planned along with their respective Safety Data Sheet (SDS) sheets for materials including solvents, paints, treatments, powder coating materials, and similar hazardous materials shall be provided as part of the submittal process.

HOW TO SUBMIT: Documents are to be submitted electronically. Consolidate your pdfs apply using the following link: <https://forms.gle/jPaikuMCc1ajwV8V9>. For other application options please contact our office by calling 801-483-6043 (option 3).

COMMUNICATION: Once your plans are submitted and approved you will receive a permit number. Plan status can be checked by emailing firepermits@sslc.gov or by calling 801-483-6043 (option 3).

CONTACT PERSON ON APPLICATION: Ensure that the correct contact person is provided on the application. This will be the correspondent who receives all the email updates and correction comments once the plan is submitted.

ADDITIONAL INFORMATION NEEDED: If you receive a Plans Review Comments letter, the Fire Marshal's Office has reviewed your submittal and there is additional information needed for the review to proceed. It will be placed back in the Review Queue as soon as the additional information is received.

PLANS APPROVED: Once plans are approved, and fees are verified, an email will be sent to the contact person. Inspections are scheduled after any outstanding fees are paid.

PLANS-CORRECTIONS REQUESTED: Once a Plans Review Comments letter is issued an email with the letter will be sent to the contact person along with the redlined plans.

FIRE PLAN REVIEW STAFF CONTACT LINK: Emailing firepermits@sslc.gov or by calling 801-483-6043 (option 3).

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RE-SUBMITTALS, REVISIONS, AND RENEWALS:

- **CORRECTIONS:** Corrected plans are to be submitted using firepermits@sslc.gov. A corrections letter describing the changes shall be provided with your revised submittal. **Please Note:** The redlined plans are already on file and do not need to be submitted again.
- **AS BUILDS/REVISIONS:** If plans are revised after approval; revisions will need to be submitted and approved prior to **FINAL** system acceptance. As Builds/Revisions are to be submitted the same manner as the original submittal. The following items should be included with a revision.
 - All changes should be **clouded and keyed** to Plan Revision# (Permit Number).
 - A revision letter shall also be provided indicating what changes were made and where they occur.
 - A copy of the original approved plans should be included.
- **RENEWAL:** After approval of your initial permit, the permit will be set up on an automatic reminder. Approximately 30-60 days prior to the expiration of your permit, a renewal notice will be emailed to you with instructions for the renewal.

INSPECTION OPTIONS/INSPECTION SCHEDULING:

- Inspections can be scheduled by emailing firepermits@sslc.gov or by calling 801-483-6043 (option 3).
- Inspections are to be scheduled by the contractor doing the work.
- Inspections must be scheduled at least 48 hours in advance.
- The Job Card, any Conditions of Approval and Approved/Stamped Plans must be on site at all times and available for Inspection. If documents are not on site, there will be no Inspection.

OTHER INFORMATION: The following provides specific interpretations necessary for the design and review of the applicable project documents but does not represent or identify all applicable requirements. Note that when conflicts between applicable code requirements arise, the most restrictive requirements of the International Building Code (IBC) and the International Fire Code (IFC) shall apply:

- The maximum amount of hazardous materials allowed for storage and use shall not exceed the amounts identified in the building and fire codes. If these amounts are exceeded, the overall occupancy will be defined as a Group H, Division 2 (H-2) occupancy.
- Spray finishing operations conducted within buildings used for Group A (assembly), Group E (educational), Group I (institutional), or Group R (residential) shall be located in a spray room(s) protected with an approved automatic sprinkler system and separated vertically and horizontally from other areas by at least a minimum 1-hour fire barrier in accordance with the IBC. In other occupancies, spray finishing shall be conducted in a spray room, spraying area, or spray booth that are compliant to IBC and IFC requirements. Compliant spray rooms or booths further include pre-engineered/ pre-manufactured rooms or booths listed or approved by a nationally recognized testing laboratory for the applicable hazards.
- Code compliant spray rooms, spraying areas, and spray booths enclosing spray finishing operations that use flammable or combustible liquids are not in of themselves, code defined as representing Group H occupancies.
- Liquid paint mixing and storage areas are defined as representing Group H, Division 3 occupancies. Mixing rooms larger than 500-square feet shall be located on an outside wall. Powder preparation room(s) is defined as representing Group H, Division 2 occupancies.
- Powder coating and similar operations can generate sufficient quantities of finely divided dust particles that meet the code definition of "Combustible Dusts" and if suspended in air and ignited, could result in rapid burning or potential detonation. As such, any building or portion of a building or area having a

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combustible dust hazard is defined as a Group H, Division 2 occupancy without code exception or modification.

- Combustible dust producing operations require special dust collection, ventilation, mechanical, electrical, and other such systems specifically listed and approved for the unique hazards represented by this type of operation.
- At no time shall spray applied finishes, powders, or similar operations be applied outside of the listed spray booth or spray room. In addition, the following statement must be placed on the plans and posted within the painting area. "Spray applied finishes shall not be used outside of approved spray booth or spray room".
- Electrical wiring and equipment for spray finishing operations using flammable or combustible liquids and in combustible dust areas shall be designed in accordance with IBC, IFC, the National Electrical Code (NEC), and other applicable codes, standards, and regulations as adopted or amended by the South Salt Lake City Fire Department.
- The mechanical ventilation and exhaust systems shall comply with applicable IBC, IFC, UMC, and other requirements as adopted by the South Salt Lake Fire Department.
- Each spray booth/spray room shall have an independent exhaust duct system discharging to the outside. Air exhausted from spray finishing operations shall not be re-circulated back into the building.
- A fire department inspection clearance and function test is required before a Certificate of Occupancy will be issued.