DPD

Director's Rule 24-2014

Applicant:	Page	Supersedes:
City of Seattle Department of Planning and Development	1 of 3	7-99
	Publication: 12/4/2014	**Effective:** 2/4/2015
Subject: Field Inspection Procedures for Spray-Applied Fire-Resistant Material (SFRM)	**Code and Section Reference:** SBC Section 1705.13	
	Type of Rule: Code Interpretation	
	Ordinance Authority: SMC 3.06.040	
Index:	**Approved** (signature on file) Diane M. Sugimura, Director, DPD	**Date** 6/26/15

BACKGROUND:

The purpose of this Rule is to provide special inspectors with a standard inspection procedure for spray-applied fire-resistant material (SFRM) as required by Section 1705.13 of the 2012 Seattle Building Code. This Rule was developed to provide consistent and accurate inspection methods.

RULE

Authorization

Inspections of SFRM shall be made only by a WABO (Washington Association of Building Officials) approved and registered special inspector unless otherwise approved by the building official.

Only special inspectors registered in the category of SFRM may perform such inspections. They shall be under the supervision of the approved testing/inspection agency.

Approved Plans

SFRM SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY DPD PRIOR TO APPLICATION OF SFRM AS REQUIRED BY DIRECTOR'S RULE 23-2014.

All inspections shall be made in accordance with the DPD-approved shop drawings that clearly identify the classification (sprayed fiber or cementitious mixtures) and density (regular, medium, or high) of SFRM and the thickness of SFRM required for the primary, secondary, and other framing elements.

Members carrying wind and earthquake forces in combination with gravity loads are included in the definition of primary structure. Bracing used to reduce the effective length of a column shall have the same fire-resistance rating as the column.

Structural frame members carrying only wind or earthquake forces are not required to have a fire-resistance rating.

All reductions in thickness of the SFRM at steel beam web penetrations taken as described below shall be noted on the DPD-approved shop drawings.

These shop drawings shall be maintained on the jobsite and be available upon demand by the special inspector. The special inspector shall indicate on the shop drawings where the inspections have been completed.

Request for Inspection and Scheduling

The person doing the work shall request the inspection. The general contractor is responsible for scheduling special inspections in a timely manner.

Frequency of Inspection

Inspections are required for each classification (sprayed fiber or cementitious mixtures) and density (regular, medium, and high) of SFRM applied and for each type of substrate condition encountered (bare, primed, and painted steel). If substrate conditions change during erection, additional inspections are required of the new conditions.

SFRM SHALL NOT BE COVERED PRIOR TO INSPECTION.

Frequency of testing shall be as indicated based on the assemblies listed below.

- **Floor, roof and wall assemblies.** The thickness of the SFRM applied to floor, roof and wall assemblies shall be determined in accordance with ASTM E 605, making not less than four measurements for each 1,000 square feet (92 m^2) of the sprayed area, or portion thereof, in each story.
- **Cellular decks.** Thickness measurements shall be selected from a square area, 12 inches by 12 inches (305 mm by 305 mm) in size. A minimum of four measurements shall be made, located symmetrically within the square area.
- **Fluted Decks.** Thickness measurements shall be selected from a square area, 12 inches by 12 inches (305 mm by 305 mm) in size. A minimum of four measurements shall be

made, located symmetrically within the square area, including one each of the following: valley, crest and sides.

- **Structural Members.** The thickness of the SFRM applied to structural members shall be determined in accordance with ASTM E 605. Thickness testing shall be performed on not less than 25 percent of the structural members on each floor.
- **Beams and Girders.** At beams and girders, thickness measurements shall be made at nine locations around the beam or girder at each end of a 12 inch (305 mm) length.
- **Joist and Trusses.** At joists and trusses, thickness measurements shall be made at seven locations around the joist or truss at each end of a 12 inch (305 mm) length.
- **Wide-flange Columns.** At wide-flange columns, thickness measurements shall be made at 12 locations around the column at each end of a 12 inch (305 mm) length.
- **Hollow structural section and pipe columns.** At hollow structural section and pipe columns, thickness measurements shall be made at a minimum of four locations around the column at each end of a 12 inch (305 mm) length.

Reports

The approved agency shall report the results of their inspections twice a week in writing to the owner or the owner's representative and to DPD. Inspections shall be recorded on separate data sheets for each classification and density of SFRM and substrate condition combination, for example, regular density SFRM over bare steel, or medium density SFRM over primed steel, etc. One copy of these reports shall be maintained on the jobsite.

Inspection Procedure for SFRM

The inspection procedures for SFRM shall be conducted in accordance with the requirements set forth in the Association of the Wall and Ceiling Industry (AWCI) Technical Manual 12-A.

Prior Inspections

Verify that all inspections of structural steel members and connections have been completed in the area to be sprayed before SFRM application is started.

Final Acceptance Inspection

Final inspection shall be made when all corrections are completed. Final inspection of exterior surface shall not be performed until cladding is completed. SFRM shall not show any deep or wide cracks, voids, spalls or any exposure of the substrate upon complete drying or curing. The inspection agency shall submit a final acceptance report and test data sheets to the general contractor and the building official on completion of each floor.