

# **Smoke Control Acceptance Test Form**

This form is used by Seattle Department of Construction and Inspections (SDCI) to confirm that smoke control subsystems have been inspected and the completed system tested by a certified SC-1 technician. This form is not to be used for atriums which require more detailed reporting. High-rise buildings under the 2018 SBC may include this form in their required final report. Until this form is fully accessible, if you have issues using it, please email SDCI Commissioning staff at sci\_commissioning@seattle.gov

Test completed date:	
Building name:	
Building address:	
Building permit number:	Testing contractor name:
General contractor name:	Testing contractor email and phone number:
Superintendent name:	SC-1 technician name:
Superintendent email and phone number:	SC-1 technician email and phone number:

#### SFD SC-1 Certification number and expiration date: \_\_\_\_\_

## **Building Attributes**

Applicable Building Code SBC: 2015 2018 2021

This is a high-rise building: Yes No

This is a fully sprinkled building: Yes No

Number of pressurized stairway shafts:	
--	--

Number of pressurized hoistway shafts: \_\_\_\_\_

Number of Smoke Control (SC) fans: \_\_\_\_\_\_

Number of dampers in SC system: \_\_\_\_\_

## **Pre-Test Conditions**

Building envelope completed, and successful air leakage test results uploaded into permit.

Partitions or seals that will not be in place at the issuance of the Certificate of Occupancy are not permitted at the time of testing.

All opening and penetration protection, electrical wall plates, smoke seals, thresholds, and door sweeps in the boundary between the pressurized space and adjacent spaces shall be in place when the test is performed.

Final doors, closers, and hardware in place and operable in stairwells.

Stair shafts, hoistways, egress corridors complete, and SC shaft final inspection passed by building inspector.

Elevator contractor has completed mechanical testing and adjustments.

Ducting, fans, and dampers completed, and fire/smoke damper inspection passed by mechanical inspector. **Permit number:\_\_\_\_\_** 

FA electrical permit final inspection passed by electrical inspector. Permit number:\_\_\_\_\_

Electrical service, smoke control fans, legally required service or emergency generator, and fire pump inspections passed by electrical inspector. **Permit number:**\_\_\_\_\_

Seattle Fire Department (SFD) AS-3 certified sprinkler technician approves of sprinkler system as ready for SC testing.

Signature: \_\_\_\_\_\_ Certification number: \_\_\_\_\_\_

SFD certified Fire Alarm FA-1 Tech approves fire alarm as programmed, pre-tested and ready for SC testing.

Signature: \_\_\_\_\_\_ Certification number: \_\_\_\_\_\_

If permitted under 2018/2021 SBC/ SFC, an Integrated Test Plan (ITP) complying with NFPA 4-4.5.1 has been developed and will be used for testing.

By signing below, I verify all pre-test conditions, <u>listed above</u>, have been met. I understand that failing to complete these will result in a retest of the system.

General contractor or representative: \_\_\_\_\_

Signature: \_\_\_\_\_\_

# **Acceptance Test**

If an ITP has been developed by the Engineer of Record, follow that testing procedure, and attach it to this document. Attach extra forms when additional testing conditions exist or where further documentation of pressurized stairways, hoistways or floors is required.

1. FA and HVAC systems shall be in normal status to begin test

Test operation of all smoke control fans by initiating of detection device once per zone. Smoke detectors to be tested with smoke or aerosol per NFPA 72-14.4.3.2.

Verify SC fans and dampers operate properly for all test scenarios

Verify proper indications of components, and alarm conditions at SC panel for all test scenarios

Verify shutdown of each SC fan on detection of smoke on second duct detector

Verify duct detectors are rated for velocity of the duct

Test operation of all SC fans on water flow

Test manual operation of all fans and operable dampers from SC panel

Verify all smoke barrier opening protection automatic closing devices operate properly for all test scenarios

Document door opening forces and pressure readings across boundaries on included forms for all pressurized stairwells and pressurized elevators at both normal, alternate, or no recall configurations, if applicable.

If the pressurization system is adjusted for operation of elevator doors on Phase II operation, then Phase I operation must be retested. If pressurization is adjusted, the entire pressurization system must be retested, and must satisfy all the requirements of the code.

- 2. Test with loss of power by opening the main disconnect at the service with full SC operating to verify all fans resume pressurization and dampers maintain proper positioning on standby power.
- 3. Test for proper latching and prioritization of alarm conditions.

Verify proper elevator posturing by initiating primary recall at lobby smoke detection device.

Confirm pressure meets code requirements and design specifications.

Initiate smoke event at primary recall lobby smoke device.

Once condition is verified at panel, ensure elevator posturing and pressure remains code compliant.

Conduct the same procedure by initiating a device in the general alarm area (IE adjacent corridors).

Verify pressures are maintained at hoistway and stairway openings.

## **Post-Test Requirements**

General contractors will submit this Smoke Control Acceptance test form along with the control diagrams into the <u>Seattle Services Portal</u>.

Schedule a Smoke Control Commissioning Inspection for the Construction (CN) or Phased (PH) permit through the <u>Seattle Services Portal</u>.

Affix a system tag on the system showing its status consistent with SFD Administrative Rule 9.02.

Upload the completed SFD Smoke Management System report using the template "Smoke Control Install no/SI" into <u>The Compliance Engine</u>. Review SFD's Acceptance Test FAQ for additional information.

# Attestation

By accepting this statement, I the certified technician shown on this form, attest that this Smoke Control System has been properly inspected for functional operation and shaft pressure in accordance with the current administrative rules, NFPA standards, Building and Fire codes adopted for use by the City of Seattle.

Signature of SC-1 Technician:\_\_\_\_\_

Date: \_\_\_\_\_

Stair \_\_\_\_\_ Number of floors served \_\_\_\_\_\*

Pressure measured in inches of  $H_20$ , high rise between .10 and .35, low rise minimum .15, and maximum allowing for door force of less than 30 lbs to start, 15 lbs full open.

Differential pressure measured between \_\_\_\_\_ adjacent space or \_\_\_\_\_ dwelling units

Floor #	Primary Recall	Secondary Recall	No Recall Pressure	Door Force -	Door Force -
	Pressure	Pressure		Start	Full

Hoistway pressurization operates during stairway pressurization Yes OVA

\*Print additional forms if needed.

Stair \_\_\_\_\_ Number of floors served \_\_\_\_\*

Pressure measured in inches of  $H_20$ , high rise between .10 and .35, low rise minimum .15, and maximum allowing for door force of less than 30 lbs to start, 15 lbs full open.

Differential pressure measured between \_\_\_\_\_ adjacent space or \_\_\_\_\_ dwelling units

The stairwell relief vent airflow is at or above the code minimum: Yes No N/A

Floor #	Primary Recall	Secondary Recall	No Recall Pressure	Door Force -	Door Force -
	Pressure	Pressure		Start	Full
		<u> </u>			l

Hoistway pressurization operates during stairway pressurization Second Yes N/A

Hoistway \_\_\_\_\_ Number of floors served \_\_\_\_\_ \*

Hoistway primary recall floor \_\_\_\_\_

Hoistway secondary recall floor \_\_\_\_\_

Pressure measured in inches of  $H_2O$  between .10 and .25.

Differential pressure measured between 🗆 adjacent elevator landing or 👘 dwelling unit

Floor #	Primary Recall	Secondary Recall	No Recall
	Pressure	Pressure	Pressure

Elevator doors operate properly under pressure on all floors \_\_\_\_\_

All stairway pressurization SC fans start upon activation of Hoistway SC fans \_\_\_\_\_

Hoistway \_\_\_\_\_ Number of floors served \_\_\_\_\*

Hoistway primary recall floor \_\_\_\_\_

Hoistway secondary recall floor \_\_\_\_\_

Pressure measured in inches of  $H_2O$  between .10 and .25.

Differential pressure measured between 🗆 adjacent elevator landing or 👘 dwelling unit

Floor #	Primary Recall	Secondary Recall	No Recall
	Pressure	Pressure	Pressure

Elevator doors operate properly under pressure on all floors \_\_\_\_\_

All stairway pressurization SC fans start upon activation of Hoistway SC fans \_\_\_\_\_

#### Hoistway SC Fan\*

Hoistway \_\_\_\_\_ Pressurization fan

HP Voltage	Number of belts	or Direct Drive
------------	-----------------	-----------------

	Test conditions 1	Test conditions 2	Test conditions 3
RPM			
Operating			
frequency			

Hoistway SC Fan

Hoistway \_\_\_\_\_ Pressurization fan

HP \_\_\_\_\_ Voltage \_\_\_\_\_ Number of belts \_\_\_\_ or Direct Drive \_\_\_\_\_

	Test conditions 1	Test conditions 2	Test conditions 3
RPM			
Operating			
frequency			

Stair SC Fan\*

Stair \_\_\_\_\_ Pressurization fan

HP \_\_\_\_\_ Voltage \_\_\_\_\_ Number of belts \_\_\_\_ or Direct Drive \_\_\_\_\_

	Test conditions 1	Test conditions 2	Test conditions 3
RPM			
Operating			
frequency			

Stair SC Fan

Stair \_\_\_\_\_ Pressurization fan

HP \_\_\_\_\_ Voltage \_\_\_\_\_ Number of belts \_\_\_\_\_ or Direct Drive \_\_\_\_\_

	Test conditions 1	Test conditions 2	Test conditions 3
RPM			
Operating			
frequency			