

## **Seattle Fire Prevention Division**

220 3rd Avenue South Seattle, WA 98104 SFD\_FMO\_SystemsTesting@seattle.gov

## SYSTEM TEST REPORT

Version 09-2024

| ѕмок                           | E CONTROL                           | STATUS                 |                       |                       |  |  |  |  |
|--------------------------------|-------------------------------------|------------------------|-----------------------|-----------------------|--|--|--|--|
| Confidence Test                | Deficiency Repair Test              | 🗆 Red                  | 🗌 Yellow              | 🗌 White               |  |  |  |  |
| Use this Smoke Control form    | n to report annual inspection, test | ing and maintenance    | of smoke control sys  | tems that are         |  |  |  |  |
| required by the Building Coo   | de for purposes of providing a tena | able environment for   | the evacuation or rel | location of occupants |  |  |  |  |
| such as hoistway and stairw    | ell pressurization systems and oth  | er smoke control sys   | ems.                  |                       |  |  |  |  |
| Building Information (all ma   | ndatory)                            |                        |                       |                       |  |  |  |  |
| Premises Name:                 |                                     | Premises Address:      |                       |                       |  |  |  |  |
| Contact Name:                  |                                     | Contact Phone:         |                       |                       |  |  |  |  |
| Contact Address:               |                                     | Contact Email:         |                       |                       |  |  |  |  |
| System Inventory (Mandato      | ory for new systems, optional wh    | en submitting confid   | ence test on existing | ; system).            |  |  |  |  |
| Attach Rational Analysis* (Ir  | ۱ Seattle, 2021 SBC 909.21.2 provi  | des an exception allo  | wing no               |                       |  |  |  |  |
| rational analysis for elevator | r hoistway pressurization for low-r | ise buildings, may se  | lect N/A)             |                       |  |  |  |  |
| Attach Detailed Design Doc/    | /Control Diagram* N/A is allowed    | for this option in low | rise projects         |                       |  |  |  |  |
| in Seattle until further notic | e, per SDCI (as of 2/2024)          | •                      |                       |                       |  |  |  |  |
| Attach O&M Manual includi      | ng testing procedures and frequer   | ncies (NFPA 92 Sectio  | n 1)* In              |                       |  |  |  |  |
| Seattle, not required for pro  | pjects permitted under 2018 code    | or earlier - these pro | ects may              |                       |  |  |  |  |
| select N/A.                    |                                     |                        |                       |                       |  |  |  |  |
| Attach Oper'l Testing Docun    | nentation from Commissioning (NI    | PA 92 Section 7.1)*    |                       |                       |  |  |  |  |
| Attach Integrated Test Plan    | (NFPA Chap 4 and IFC 901.6.2)* In   | Seattle, only require  | d for high-           |                       |  |  |  |  |
| rise buildings, and only requ  | ired for buildings permitted under  | r 2018 code or later.  | Otherwise             |                       |  |  |  |  |
| select N/A.                    |                                     |                        |                       |                       |  |  |  |  |
| Attach Code Alt, if Any*       |                                     |                        |                       |                       |  |  |  |  |
| Attach Other                   |                                     |                        |                       |                       |  |  |  |  |
| Attach Test Results from An    | nual Confidence Test*               |                        |                       |                       |  |  |  |  |
| Fire/Building Code Edition (   | Year) 🗌 N/A                         |                        |                       |                       |  |  |  |  |
| Smoke Control Permit # (or     | N/A) 🗌 N/A                          | Fire Alarm Permit #    | (or N/A)              | 🗆 N/A                 |  |  |  |  |
| Building Permit # (or N/A)     | □ N/A                               | Mechanical Permit      | # (or N/A)            | 🗆 N/A                 |  |  |  |  |
| Integrated Testing – Test Du   | ue Date (month/year) (buildings p   | ermitted under 2018    | SBC and later):       |                       |  |  |  |  |
| Smoke control nanel?           |                                     | Location of smoke (    | ontrol                |                       |  |  |  |  |
| (mandatory) *                  | 🗌 Yes 🛛 No                          | nanel (mandatory)      | *                     |                       |  |  |  |  |
| (mandatory)                    |                                     | parter (mandatory)     |                       |                       |  |  |  |  |
| Building has a building mana   | agement system that interacts wit   | h the smoke control s  | system.               |                       |  |  |  |  |
| (mandatory) *                  |                                     |                        |                       | res N/A               |  |  |  |  |
| Description (select all that a | pply)                               |                        |                       |                       |  |  |  |  |
| Dedicated smoke contr          | ol system (not used for everyday v  | ventilation)           | □ Yes                 |                       |  |  |  |  |
| Non-dedicated smoke of         | control system                      |                        | □ Yes                 |                       |  |  |  |  |
| Stairwell pressurization       | ۱                                   |                        | 🗆 Yes                 |                       |  |  |  |  |

| Zoned smoke control   |   |                               | Yes                               |  |  |  |  |  |  |
|---|---|-------------------------------|-----------------------------------|--|--|--|--|--|--|
| Elevator pressurization   |   |                               | Yes                               |  |  |  |  |  |  |
| Vestibule pressurization  |   |                               | Yes                               |  |  |  |  |  |  |
| Smoke refuge area pressurization  |   |                               | Yes                               |  |  |  |  |  |  |
| Lobby pressurization system   |   |                               | Yes                               |  |  |  |  |  |  |
| Smoke management for large volun  | ne spaces   |                               | Yes                               |  |  |  |  |  |  |
| Equipment   | # of devices/items  |                               |                                   |  |  |  |  |  |  |
| Guidance for Dampers: This smoke cont   | rol system inventory  | must include dampers that a   | are part of the sequence of       |  |  |  |  |  |  |
| operation of the smoke control system, p  | operation of the smoke control system, part of setting up the pressure boundaries, and/or controllable from the smoke |                               |                                   |  |  |  |  |  |  |
| control panel. The annual smoke control   | test does not require   | e damper inspection except i  | if pressurization and other smoke |  |  |  |  |  |  |
| control functional performance reveals c  | leficiencies, in which  | case further investigation is | required. These dampers must      |  |  |  |  |  |  |
| also be included in TCE in the "damper" i   | inventory for the buil  | ding, and require full inspec | tion, testing and maintenance as  |  |  |  |  |  |  |
| part of required Damper testing (4 or 6 y   | ear cycle).   |                               |                                   |  |  |  |  |  |  |
|   |   |                               |                                   |  |  |  |  |  |  |
| Smoke control fans  |   |                               |                                   |  |  |  |  |  |  |
| Dedicated supply fans   |   | _                             |                                   |  |  |  |  |  |  |
| Dedicated exhaust fans  |   |                               |                                   |  |  |  |  |  |  |
| Variable speed fans   |   | _                             |                                   |  |  |  |  |  |  |
| Building HVAC Activation  |   | _                             |                                   |  |  |  |  |  |  |
| Barometric Dampers  |   | _                             |                                   |  |  |  |  |  |  |
| Modulating Dampers  |   |                               |                                   |  |  |  |  |  |  |
| Pneumatic Dampers   |   |                               |                                   |  |  |  |  |  |  |
| Motorized Eire/Smoke Dampers  |   | _                             |                                   |  |  |  |  |  |  |
| Automatic Closing Doors   |   | _                             |                                   |  |  |  |  |  |  |
| Automatic Closing Doors   |   | _                             |                                   |  |  |  |  |  |  |
| Control Air Isolation Valvos  |   | _                             |                                   |  |  |  |  |  |  |
| Control All Isolation Valves  |   | _                             |                                   |  |  |  |  |  |  |
| According Decay   |   | _                             |                                   |  |  |  |  |  |  |
| Accordion Doors   | Quantita  |                               |                                   |  |  |  |  |  |  |
| Variable Frequency Drives   | Quantity:   | Manufacturer:                 | Wodel #:                          |  |  |  |  |  |  |
| Pressurized shafts  | <u># Of Shafts</u>  |                               |                                   |  |  |  |  |  |  |
| Hoistway shafts   |   | _                             |                                   |  |  |  |  |  |  |
| Stairway shafts   |   |                               |                                   |  |  |  |  |  |  |
| Inspection & Testing Agency Informatio  | n   |                               |                                   |  |  |  |  |  |  |
| Company Name:   |   | Phone:                        |                                   |  |  |  |  |  |  |
| Address:  |   | Emergency Phone:              |                                   |  |  |  |  |  |  |
|   |   | Email:                        |                                   |  |  |  |  |  |  |
| Certified Technician/Installer Information  | on - Must comply wit  | th RCW 19.27.720. SFD SC-I    | TM and SC-1 certificate holders   |  |  |  |  |  |  |
| have obtained credentials complying with RCW 19.27.720.   |   |                               |                                   |  |  |  |  |  |  |
| Technician/Installer Name:  |   | 1                             |                                   |  |  |  |  |  |  |
| Certification No:   |   | Cert Type:                    |                                   |  |  |  |  |  |  |
| Test Information  |   |                               |                                   |  |  |  |  |  |  |
| Date of Test  |   |                               |                                   |  |  |  |  |  |  |
| The items on the checklists below shall be inspected and tested. This list does not constitute all of the required inspecting |   |                               |                                   |  |  |  |  |  |  |
| and testing of the fire and life safety system. Refer to the CURRENT FIRE CODE AND REFERENCED NFPA 92 STANDARD and            |   |                               |                                   |  |  |  |  |  |  |
| the MANUFACTURER'S INSTRUCTIONS for weekly, monthly, and quarterly inspecting and testing requirements. ONLY                  |   |                               |                                   |  |  |  |  |  |  |
| SELECT N/A FOR ITEMS THAT DO NOT EXIST AT THE BUILDING, DO NOT USE N/A TO INDICATE THAT A TEST OR RESULT IS                   |   |                               |                                   |  |  |  |  |  |  |
| NOT AVAILABLE.  |   |                               |                                   |  |  |  |  |  |  |

| PR                 | -TEST CHECKS AND DOCUMENTATION   |                                  |                            |  |  |  |  |  |  |
|--------------------|--|----------------------------------|----------------------------|--|--|--|--|--|--|
| AV(<br>Fire<br>ava | DID "FALSE ALARMS" TO FIRE DEPARTMENT BY PUTTING THE FIRE ALARM SYSTEM IN TEST MOD<br>Alarm System (FAS) into test mode and/or taking other precautions may cause preventable ala<br>ilable, select N/A. Mandatory for systems commissioned under 2021 code or later.  | )E. Failure to<br>Irms. If docur | place the<br>nents are not |  |  |  |  |  |  |
| 1                  | 1 <b>Commissioning documents.</b> The following documents are stored in the fire command center (or document cabinet/building engineer's office where no FCC is required), and an additional copy has been uploaded as ar attachment to the "premise" record in The Compliance Engine.   |                                  |                            |  |  |  |  |  |  |
|                    | a. Rational analysis supporting the types of smoke control systems employed (IBC 909.4 and IFC 909.21.2). Only use N/A for elevator hoistway pressurization for low-rise buildings in Seattle. (2021 SFC 909.21.2)   | □ <sub>Yes</sub>                 | □ n/A                      |  |  |  |  |  |  |
|                    | b. Detailed design document and control diagrams (IBC/IFC 909). In Seattle, control diagrams for stairway or elevator hoistway pressurization systems in low-rise buildings may be located at the fire alarm control panel (SFC 909.15).   | □ Yes                            | □ N/A                      |  |  |  |  |  |  |
|                    | c. Copy of all operational testing documentation from acceptance testing (IFC 909.18.8.3).   | 🗌 Yes                            | 🗆 N/A                      |  |  |  |  |  |  |
|                    | d. O&M Manual including testing procedures and frequencies (NFPA 92 Section 7.1).  | 🗌 Yes                            | □ N/A                      |  |  |  |  |  |  |
|                    | e. Integrated Test Plan (NFPA Chapter 4 and IFC 901.6.2) (required for buildings permitted under 2018 code or later).  | 🗆 Yes                            | 🗆 N/A                      |  |  |  |  |  |  |
| INS                | PECTIONS   |                                  |                            |  |  |  |  |  |  |
| 2                  | Required signs, placards, and labels are provided on doors and system controls.  | 🗌 Yes                            | 🗌 No                       |  |  |  |  |  |  |
| 3                  | Dampers controlled by the smoke control system have been visually<br>inspected and maintained with no deficiencies noted in a manner that<br>satisfies the code requirement for full damper testing and maintenance every<br>4 years (or every 6 years for hospitals, OR the dampers are not due for<br>testing/maintenance (see periodic testing frequency in 2019 NFPA 80,<br>19.5.1.2). | □ Yes                            | 🗌 No                       |  |  |  |  |  |  |
| 4                  | All other inspections required by the Fire Code or NFPA 92 Chapter 7 and 8 have been completed with no deficiencies found.   | Yes                              | 🗆 No                       |  |  |  |  |  |  |
| Op                 | tion 1: SUMMARY OF PERIODIC TESTING USING THE O&M TEST PLAN CREATED AT TIME OF C   | OMMISSION                        | ING (OR A                  |  |  |  |  |  |  |
| NE                 | N/REVISED TEST PLAN PRODUCED BY A QUALIFIED ENGINEER)  |                                  |                            |  |  |  |  |  |  |
| It a               | 1 O&M test plan was created during commission and is available, you must use that plan to gu<br>posting and testing program.   | lide your peri                   | iodic                      |  |  |  |  |  |  |
| 5                  | Airflow quantities and pressure differences have been determined for the following<br>locations, from locations coinciding with acceptance test locations, and results have been<br>compared to acceptance measurements and no deficiencies identified. 2018 NFPA 92,<br>8.6.3.<br>a. Across smoke barrier openings.<br>b. At the air makeun supplies                                      | □ Yes                            | □ No                       |  |  |  |  |  |  |
|                    | c. At smoke exhaust equipment  |                                  |                            |  |  |  |  |  |  |
| 6                  | The operation of the correct outputs for each given input was observed and no deficiencies found 2018 NEPA 92, 8,6,5,3   | □ Yes                            |                            |  |  |  |  |  |  |
| 7                  | The tests have also been conducted under standby power if applicable and no deficiencies found. 2018 NFPA 92, 8.6.5.4.   | 🗆 Yes                            | 🗆 No                       |  |  |  |  |  |  |
| 8                  | If the smoke control system or the zone barriers have been modified since<br>the last test, acceptance testing was conducted on the portion modified, no<br>deficiencies were identified. 2018 NFPA 92, 8.7.2.   | 🗆 No                             | □ N/A                      |  |  |  |  |  |  |

| 9           | If the smoke control system or the zone barriers have been modified since<br>the last test, documentation has been updated and uploaded to TCE to<br>reflect these modifications or changes. 2018 NFPA 92, 8.7.3.  |      | Yes        |      | No       |   | N/A |
|-------------|--|------|------------|------|----------|---|-----|
| 10          | I have completed all other testing and inspection requirements from the<br>Operations and Maintenance Manual and NFPA Chapter 7 and 8, and no<br>deficiencies have been found that have not already been noted. If<br>deficiencies were found and not reported above, select No and indicate each<br>deficiency include location, equipment, and corrective action needed. |      |            |      | Yes      |   | No  |
|             | Deficiency 1:  |      |            |      |          |   |     |
|             | Deficiency 2:  |      |            |      |          |   |     |
|             | Deficiency 3:  |      |            |      |          |   |     |
| 11          |  |      |            |      |          |   |     |
| 11          | System equipment has been maintained in accordance with manufacturer's recommendations. If manufacturer recommended maintenance is missing or needed, select No and indicate each deficiency include location, equipment, and corrective action needed.  |      |            |      | Yes      |   | No  |
|             | Deficiency 1:  |      |            |      |          |   |     |
|             | Deficiency 2:  |      |            |      |          |   |     |
| 12          | Deficiency 3:  |      | :£         |      |          |   |     |
| 12          | system is past due for integrated testing and testing was not part of your ITM sco   | pe). |            |      | Yes      |   | No  |
| 13          | If deficiencies were found during integrated testing, check No and note them in t<br>remarks box, include location, equipment/system, and recommended resolution   | he   |            |      | N/A      |   | No  |
| 14          | The results of the tests have been documented in the O&M log.  |      |            |      | Yes      |   | No  |
| Proc        | eed to section "FINAL CHECKS, MANDATORY TAGGING, AND REPORTS".   |      |            |      |          |   |     |
| Opt         | ion 2: SUMMARY OF ALTERNATE TESTING PROCEDURE  |      |            |      |          |   |     |
| Use         | instead of Option #1 if the O&M testing plan created during commissioning is no  | ong  | er availab | le.  |          |   |     |
| BRE         | AKOUT GLASS (OBSOLETE) (Check N/A for questions 15 and 16 if the building on   | ly h | as operab  | le w | indows.) |   |     |
| B15         | The building has Tempered Breakout Glass O   | bera | ble Windo  | ows  |          |   |     |
| B16         | The tempered breakout windows have 2-inch white dots located on the  |      | Yes        |      | No       |   | N/A |
| B17         | The tempered breakout windows are unobstructed.  |      | Yes        |      | No       |   | N/A |
| GEN         | ERAL   |      |            |      |          |   |     |
| B8          | The building smoke removal system(s) operate on the activation of the fire   |      | Yes        |      | No       |   | N/A |
| <b>D</b> 40 | alarm.   | _    |            | _    |          | _ |     |
| B19         | The sequence of actions to activate the smoke control system is in the proper  |      | Yes        |      | NO       |   | N/A |
| B20         | The fans operate property  |      | Vec        |      | No       |   | Ν/Δ |
| B21         | The smoke and fire dampers work properly.  |      | Yes        |      | No       |   | N/A |
| B22         | The fans operate on emergency power  |      | Yes        |      | No       |   | N/A |
| B23         | The fans work on manual controls.  |      | Yes        | П    | No       |   | N/A |
| B24         | The manual override, if provided, works for all fire/smoke dampers and/or  |      | Yes        |      | No       |   | N/A |
|             | smoke dampers.   |      |            |      |          | _ | -   |
| B25         | The smoke removal system provides six air changes per hour.  |      | Yes        |      | No       |   | N/A |
| B26         | List the measurement method and equipment used to test air flow (upload file to  | the  | 2          |      |          |   |     |
|             | inventory section of The Compliance Engine).   |      |            |      |          |   |     |

| STA   | STAIRWAY AND ELEVATOR SHAFT PRESSURIZATION  |        |             |        |            |       |          |  |
|---|---|--------|-------------|--------|------------|-------|----------|--|
| B27   | Stair shafts have flush.  |        |             |        | Yes        |       | N/A      |  |
|   | Airflow - Cubic Feet Per Minute (CFM)   |        |             |        |            |       |          |  |
| B28   | Measurements were taken from shaft and the main occupied area.                        |        | Yes         |        | No         |       | N/A      |  |
| B29   | Readings were taken at every 5th floor.   |        | Yes         |        | No         |       | N/A      |  |
| B30   | Elevator shaft pressures measure 0.15" in water pressure differential or              |        | Yes         |        | No         |       | N/A      |  |
|   | greater (non-sprinklered shaft).  |        |             |        |            |       |          |  |
| B31   | Elevator shaft pressures measure 0.10" in water pressure differential (100%           |        | Yes         |        | No         |       | N/A      |  |
|   | automatic sprinklered building).  |        |             |        |            |       |          |  |
| B32   | Stair shaft pressures measure between 0.15" and 0.35" in water pressure               |        | Yes         |        | No         |       | N/A      |  |
|   | differential for mid-rise buildings (Seattle Building Code) and 0.10" and 0.35"       |        |             |        |            |       |          |  |
|   | in high-rise buildings.   |        |             |        |            |       |          |  |
| B33   | Life safety core type building has 0.05" in water pressure differential               | _      |             | _      |            |       |          |  |
|   | between pressurized core and tenant area.   |        | Yes         |        | No         |       | N/A      |  |
| B34   | All doors (stairway and elevator) open and close correctly with fans running.         |        | Yes         |        | No         |       | N/A      |  |
|   |   |        |             |        | -          |       | ,        |  |
| B35   | Gaskets are in good condition on stair doors.   |        | Yes         |        | No         |       | N/A      |  |
| HOI   | STWAY OPENING PROTECTION (OTHER THAN ELEVATOR PRESSURIZATION)                         |        |             |        |            |       |          |  |
| 36  | Other hoistway opening protections such as enclosed elevator lobby, smoke             |        | Yes         |        | No         |       | N/A      |  |
|   | curtains, slam shut smoke doors have been inspection, tested and                      |        | 100         |        |            |       | ,,,      |  |
|   | maintained to codes and standards under which they were permitted, with               |        |             |        |            |       |          |  |
|   | no deficiencies found Answer No and provide description if deficiencies               |        |             |        |            |       |          |  |
|   | observed  |        |             |        |            |       |          |  |
| EIN!  |   |        |             |        |            |       |          |  |
| Put   | the Fire Alarm/monitoring system back into service and/or other precautionary n       | neasi  | ires that v | vere   | made to r  | esto  | ore fire |  |
| alar  | m system to normal operation (includes removal of protective coverings.)              | neus   |             |        |            | 0000  |          |  |
| 37  | A current red (impaired), vellow (deficient) or white (normal operations) tag         |        |             |        |            |       |          |  |
| _   | was placed on the fire alarm control panel indicating the system's status             |        | Yes         |        | No         |       |          |  |
|   | consistent with my inspection today.  |        |             |        |            |       |          |  |
| 38  | The color of the tag is:  |        | Red         |        | Yellow     |       | White    |  |
| 39  | I will provide a copy of the confidence test report to the owner                      |        | Yes         |        | No         |       | White    |  |
| 10  | I will submit this test report to the fire department through TCF                     |        | Ves         |        | No         |       |          |  |
|   |   |        | 103         |        | 110        |       |          |  |
| Ву а  | ccepting this statement I, the certified technician shown on this form, certify that  | t this | fire prote  | ctio   | n system(s | ) has | s been   |  |
| prop  | perly inspected for functional operation in accordance with the current Fire Code     | (FC)   | used by th  | ne de  | epartment  | that  | t has    |  |
| juris   | diction and NFPA Standards adopted by the FC for this system. Any deficiencies f      | ounc   | l are noted | t in t | he report  | and   | have     |  |
| bee   | n reported to the building Owner/Manager for corrective action. By accepting th       | is sta | itement, I  | furt   | her attest | that  | lam      |  |
| prop  | perly certified by the City of Seattle (and State of Washington if required for the v | vork)  | to perfor   | m th   | e work do  | cum   | ented    |  |
| in this report, or exempt from those requirements. Finally, by accepting this statement I attest that the contractor on whose |   |        |             |        |            |       |          |  |
| behalf this report is submitted holds the appropriate Washington State licenses should any be required for the work           |   |        |             |        |            |       |          |  |
| aocumentea in this report.  |   |        |             |        |            |       |          |  |
|   | I am authorized to submit this report for the certified                               |        | (In         | itial  | s of Emplo | yee)  |          |  |
|   | technician who has accepted this statement.   |        |             |        |            |       |          |  |
| SIGNATURE (OPTIONAL)  |   |        |             |        |            |       |          |  |
| Signature of Technician   |   |        |             |        |            |       |          |  |
|   |   |        |             |        |            |       |          |  |
|   |   |        |             |        |            |       |          |  |

## This Document Is For Informational Purposes Only

To submit reports to SFD, use the online forms at <u>www.thecomplianceengine.com</u>.