SCOPE OF WORK
Multiple FAA ATCTs/FSS
Stair Pressurization Systems Services Contract

1. **GENERAL:** The Federal Aviation Administration (FAA), Western Service Area, Technical Operations in maintaining compliance with applicable model building and national fire codes, and Occupational Safety and Health Administration (OSHA) regulations, requires contract Stair Pressurization System testing services. The Contractor must inspect, certify, and adjust as identified, associated components in existing stair pressurization systems (SPS) installed in the FAA Air Traffic Control facilities listed in attachment 1.

2. **PROVISIONS:** The Contractor must provide all personnel, transportation, salaries, insurance, equipment, materials, health and medical coverage, training, and services as required to evaluate, test, adjust, inspect and certify existing stair pressurization systems and equipment, and associated building system components.

3. **QUALIFICATIONS:** Experienced, trained and certified personnel must perform all inspection, testing and certification of SPS equipment and components, and any adjustments and repairs as authorized in advance by FAA. Personnel must possess as a minimum, National Environmental Balancing Bureau (NEBB) certification, and be experienced with the systems being serviced. The Contractor must possess a current NEBB certification. A copy of the certification must be submitted to the FAA before performing this work.

4. **REQUIREMENTS:** The work must include:
   - Advance coordination with the designated FAA point of contact.
   - Security screening and obtaining badges, if required.
   - Coordination with appropriate local authorities.
   - Conducting necessary inspection, certification, and repair site visits. **The contractor must test each facility 2 times per year (biannually**), approximately 6 months apart.
   - Performing annual inspections, operational testing and certification of the SPS, and SPS equipment and components according to NFPA 92A, ASHRAE, and applicable 29 CFR 1910 requirements.
   - Perform all tests required to complete all attached FAA SPS Testing and Inspection Forms, including door pull forces, fan RPM, flowrate, current draw, and other applicable requirements not specifically identified here, (Flow rate measurements are not required for Kenai and Bethel based on the fan type). The form must include a statement acknowledging that the system is operating normally.
   - Inspect all smoke management dampers.
   - Identifying any required repair or maintenance problems found in existing FAA stair pressurization systems.

SCOPE OF WORK (Continued)
Stair Pressurization Systems Services Contract

5. **DELIVERABLES:** Within 10 days following each site visit, the Contractor must provide FAA the following:
   - Certification of Stair Pressurization Systems: Submit certification documents to confirm the inspected fire protection system complies with applicable model building or national fire codes or standards, and/or applicable OSHA regulation(s). Certification documents must follow requirements identified in appropriate National Fire Protection Association (NFPA) publications. All certification documents and written reports must be typed and clearly legible.

6. **SCHEDULE:** Testing, inspection, adjustment, and repair services for the SPS must be scheduled to coincide with work schedules at each Tower facility. FAA will verify all proposed site visits. All scheduling will be coordinated with the FAA.

7. **MINOR REPAIRS:** Repairs may be authorized by the CO and will be a modification of this contract. As authorized by the CO, the Contractor must, if possible, perform minor repairs during the testing effort, and must submit an itemized invoice separately listing labor and material costs.

8. **OTHER REPAIRS:** The Contractor must identify deficiencies and repairs needed. Repairs work will be identified to the FAA COR and CO and must be authorized by the CO through contract modification. No repair work will proceed until authorized by the CO. All work must follow applicable NFPA Codes and Standards, and applicable portions of FAA Specifications. The Contractor must submit a written trip report to FAA within five (5) working days following the site visit. Reports must be prepared as follows:

   a) If repairs are recommended or deficiencies are noted, the Contractor must provide a site-specific, system-specific trip report. The report must include, at a minimum, a detailed system condition description, associated risks with continued operation, recommended corrective actions to repair and certify the system, and a detailed cost proposal, including additional airfare and expenses, and all trades costs to correct identified deficiencies.

Scope of Work (Continued)
Stair Pressurization Systems Services Contract

9. **CRITICAL FACILITIES:** Air Traffic Control Towers (ATCTs) are active air traffic facilities and must remain operational with minimal disruption of service or operations. Some facilities may only allow testing and inspection during off-peak hours (evening, early morning). The Contractor must coordinate all on-site activities with appropriate FAA personnel. FAA activities may supersede ATCT access at any time.

10. **FIRE ALARM SYSTEMS:** Stair Pressurization Systems are connected to the Fire Alarm Systems (FAS). Therefore, close coordination with on-site FAA technicians is critical to ensure the FAS are silenced during execution of the SPS testing. All systems must be properly re-set upon completion of SPS testing.

11. **DRAWINGS:** The FAA will provide the Contractor drawings, as needed.

12. REFERENCES:

- 29 CFR 1960.20, Alternate Standard for Fire Safety in Airport Traffic Control Towers
- 29 CFR 1910, General Industry Standards
- 29 CFR 1926, Construction Industry Standards
- NFPA 101, Life Safety Code (latest edition)
- NFPA 70, National Electric Code (latest edition)
- NFPA 72, National Fire Alarm Code (latest edition)
- NFPA 92A, Recommended Practice for Smoke-Control Systems (latest edition)
- International Mechanical Code (latest edition)
- International Plumbing Code (latest edition)
- International Fire Code (latest edition)
- International Building Code (latest edition)
- Other NFPA publications as applicable (latest editions)
- ASHRAE
- Federal Aviation Administration Master Specification for the Design and Installation of a Stair Pressurization System (FOR REFERENCE ONLY)

SCOPE OF WORK (Continued)
Stair Pressurization Systems Services Contract

13. **WORK HOURS:** All inspection, testing and certification activities must be accomplished during normal business hours. (8:00 a.m. - 5:00 p.m.), unless directed to off-peak hours as identified in Item 9. above.

14. **DELIVERABLES:** The Contractor must provide the original certification documents as required and an electronic copy to FAA within 10 workdays after completing the site visit.

15. **FINAL APPROVAL AND ACCEPTANCE:**

a). If repairs are authorized, the FAA will accept work performed by the Contractor following an inspection. The inspection must include complete system inspection and testing. Approval will be provided in writing. All required submittals will have been provided to, reviewed, and accepted in writing by the FAA including:

1) System operation and maintenance manuals
2) Warranties
3) Contractor record drawings and CDs,
4) Test reports,
5) Spare parts,
6) Special tools and training

b.) System software changes stored in RAM must have been transferred into permanent memory and verified in writing by the Contractor.

16. **TESTING**

a). System Tests

All system testing must be scheduled with the Contracting Officer's Representative (COR). Stair pressurization system testing must be conducted according to the requirements of NFPA 92A, ASHRAE, and the manufacturer's instructions.

The Contractor must provide the FAA written certification verifying the installation, operation and performance of all equipment was inspected, tested and certified. A NEBB certified technician must certify the SPS system, equipment, devices, and components comply with applicable codes, manufacturer's recommendations and is in proper working order.

The Contractor must perform a pre-acceptance test to ensure system operation and compliance with the referenced codes and this specification.

SCOPE OF WORK (Continued)
Stair Pressurization Systems Services Contract

b). Acceptance Testing for Repairs or Equipment Modifications

Upon completion of the installation of new equipment, or major modifications to existing equipment and prior to the inspection, the Contractor must perform and document, in an approved format, system tests as required herein. All acceptance tests must be performed in the presence of the FAA or its designated representatives.

The Contractor must provide all materials, equipment, coordination and personnel necessary to perform and document all required tests. Provide test equipment listed in NFPA 92A, Section 5.3.2. All test equipment must be subject to the RE's approval.

Acceptance testing of the fire alarm and/or detection systems only if they are modified or new fire alarm or detection equipment is installed during repair or modification of the SPS, must include at a minimum, but not be limited to:

Items 1-5 will be coordinated by FAA and performed by a fire alarm company:

1) All new fire alarm conductors, including shielding conductors, must be tested for continuity, shorts to ground and shorts between pairs.
2) One hundred percent of existing and new automatic alarm initiating devices must be functionally tested for proper actuation of the stair pressurization system. In addition, a minimum of 10 percent of manual alarm initiating devices must be tested in accordance with NFPA 72, Chapter 10.
3) All supervisory functions of modified fire alarm circuits must be functionally tested.
4) Correct labeling of all switches must be verified.
5) Testing of the new bypass and manual control switches on the fire alarm system for the stair pressurization system must be tested.

Items 6-10 will be performed by Contractor in coordination with FAA personnel and fire alarm company:

6) Measure pressure differentials between the stairs and all occupied spaces, and those that could be occupied as requested by the FAA.
7) Test the force required to open doors from all adjacent spaces to the stairs as requested by the FAA.
8) Testing the system on emergency power.
9) Verification of proper installation of any air duct enclosures, fire-stopping and fire-stop systems.
10) Any additional tests, required by the referenced codes, standards, or criteria, or by the FAA, must be performed.

SCOPE OF WORK (Continued)
Stair Pressurization Systems Services Contract

11). Documentation of these tests must be provided to the FAA Representative and the Contracting Officer at the completion of the test. This documentation must include, as applicable:

Items a-g will be documented and submitted by fire alarm company:

a. Date and time of each test.
b. Outside and inside air temperatures at the beginning and end of each test.
c. Approximate wind speed and direction.
d. A description of each test performed.
e. Pressure differential between the stairway and each adjacent space.
f. Maximum force (measured in pounds using a spring scale) to start the door in motion.
g. Maximum force (measured in pounds using a spring scale) to open the door to the minimum required width.

Items h-j will be documented and submitted by the Contractor:

h. A checklist of each fire alarm device and circuit tested, indicating the results of each test.
i. The names and signatures of the individuals conducting and witnessing each test.
j. A complete printout of the fire alarm system program produced by the system printer, where installed. This printout must be produced and dated upon completion of all required contractor testing/verification, including any modifications necessary prior to final acceptance testing.

d). Final Inspection and Tests

The Contractor will arrange with the FAA for final inspection and witnessing of the final acceptance tests. The FAA will witness the final acceptance test.

The Contractor will provide the FAA with a completed FAA Life Safety System Inspection and Test Report, and record drawings, as applicable at completion of testing.

ATTACHMENT 1. LOCATIONS AND REQUIRED TASKS

1. **Air Traffic Control Tower (ATCT) or FSS** – Stair Pressurization System Testing and Certification must be performed at the following:

- Anchorage International Airport ATCT
- Merrill Field ATCT
- Kodiak ATCT
- Kenai ATCT
- Fairbanks International Airport ATCT
- King Salmon ATCT
- Bethel ATCT
- Juneau ATCT
- KTN FSS

2. **ATCT Stair Pressurization Systems and Required Adjustments and repairs**
    - If required, will be awarded under contract modification.