

SECTION 22 08 00-IRV**COMMISSIONING OF ISO ROOM VENT SYSTEM****PART 1 - GENERAL****1.1 DESCRIPTION**

This specification is specifically written to test the newly segregated ventilation systems for building 203 Isolation and Special Needs Patient Rooms. The COR will serve as the Commissioning Agent in the commissioning process.

1.2 COMMISSIONED SYSTEMS

Contractor shall provide documentation and testing of the new DWPS as well as the training of the VA's Operation and Maintenance personnel on the operations and controls of the system and its associated motor control center.

1.3 SUBMITTALS

- A. The contractor shall schedule a meeting with the VA COR to go over his testing procedures for the new DWPS before the actual test.
- B. Refer to Section 01 33 23 SHOP DRAWINGS, PRODUCT DATA, and SAMPLES for other submittal requirements.

PART 2 - EXECUTION**2.1 CONSTRUCTION INSPECTIONS**

- A. Contractor shall perform inspections during the construction process as required by all the specification sections listed in this project. Report all results to the COR via the daily project reports required under Section 010000.

2.2 CONTRACTORS TESTS

In order to quickly turn over a room back into service by the VA, each room system shall be tested immediately after completion, not waiting for all 8 systems to be completed and tested together at one same event. The tests shall be incorporated into the project schedule. Contractor shall provide no less than 7 calendar days' notice of testing. The COR will witness the tests.

PART 3 - COMMISSIONING PROOF TESTING**3.1 NEGATIVE PRESSURE PROOF TEST:**

Each new ventilation system shall be tested with witness by the COR to demonstrate that it can provide uninterrupted negative air pressure to each associated patient room. Test shall be conducted using a calibrated negative air pressure monitor to be supplied by the contractor so as not

to rely on the replacement monitor to be permanently installed under the project. This shall also serve as a calibration test for that new air pressure monitor and alarm system of the project.

- A. Each system shall first be tested with all doors of the room including the adjoining bathroom and Ante Room (as applicable) closed. Run system for minimum 15 minutes for this test.
- B. Next test with the room entrance door (or double doors) fully opened. Run system for minimum 10 minutes.
- C. Next test with the room entrance door (or double doors) closed but the adjoining bathroom door opened. Run system for minimum 10 minutes.
- D. Next test with both the room entrance door (or double doors) and the adjoining bathroom door opened. Run system for minimum 5 minutes.

The above will complete the testing for a Special Needs Patient room. For the Isolation Patient Room which has an attached Ante Room, add the following tests:

- E. Tested with all doors of the room including the adjoining bathroom and Ante Room-into-Patient Room door closed but open the Ante Room entrance door for 5 minutes.
- F. Next test with all doors closed but open the Ante Room-to-Patient Room door for 5 minutes.
- G. Repeat E and F above with the door to the adjoining bathroom fully opened.

3.2 VENTILLATION FAN/MOTOR BALANCING

Contractor shall demonstrate to the COR that the fan/motor unit of the new system is free of vibrations at full loading conditions which is with all the doors fully open at each room/system which would represent the full load condition for the room. This can be done either before or after the negative pressure proof tests listed above. Use the appropriate vibration sensor mounted on the fan-to-motor shaft for the demonstration. If the test failed to show that the mechanism is fully balanced, after rebalancing by the contractor, the system must again be tested at the full load condition. And if the negative pressure proof testing failed requiring the raising of motor and fan speed to increase the system performance, then the fan-motor balancing test must also be repeted.

PART 4 - TRAINING OF VA PERSONNEL

Contractor shall provide training of the operation and troubleshooting for the DWPS motor control system to VA operation and maintenance personnel after its installation. It shall be provided by a factory authorized personnel.

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