



PORTSMOUTH FIRE DEPARTMENT

FIRE PREVENTION BUREAU

Garage Ventilation Testing Procedure and Inspector's Checklist 2024

1. Inspector to verify prior to beginning :

- List of all sensors and their exact locations permanently identified, adjacent to the main gas system controller
- Sign at *all* amber strobes stating not enter the space when flashing at each interior *and* exterior door to the garage
- A 24 hour number for service of the gas system is posted adjacent to the main gas system controller
- City mechanical and electrical inspectors have signed off on the generator. Written/email proof is required
- Documentation that all test gas has been provided by the sensor manufacturer. No other test gases shall be permitted unless authorized
- An exhaust fan (or the main fan) is constantly running at low speed prior to proceeding to step 2

2. Contractor to release 25-50 PPM CO testing gas at sensor(s). Inspector to verify:

- Louver(s) open fan speed increases (where applicable) at 25PPM CO (1st stage/set/trip point)

3. Contractor to release 200-250PPM CO testing gas at sensor(s), inspector to verify:

- Fire alarm system activation at 200 PPM CO (alarm level/point), fire alarm to sound general evacuation signal, gas alarm transmitted (a 5 minute delay on of the gas control alarm relay to fire alarm system is required for this level)
- Fans to run for 15 minute after alarm condition clear (Only for the test: fans shall run for 1 minute after)

4. If Generator is required: Contractor to de-energize utility power to the emergency power panelboard and demonstrate to inspector:

- ATS has successfully transfer load to generator, prior to proceeding to step 6.

5. Contractor to return gas system to normal condition, then: Release 1-10PPM NO₂ test gas at sensor(s). Inspector to verify: *(continued on page 2)*

- Louver(s) open and fan(s) speed increase or turn on at 0.7 – 1.5PPM NO₂ (1st stage/set/trip point) This step is performed under generator power.

6. Contractor to release 5-10PPM NO2 test gas at sensor(s). Inspector to verify:
- Louver(s) still open and fan(s) on maximum, under generator power
 - Gas strobe circuit of FACP energizes at 5PPM NO2 (alarm level/point), fire alarm to sound general evacuation signal, gas alarm transmitted
 - Fans to run for 15 minute after 5 PPM NO2 alarm condition clears.... Only for the test: fans shall run for 1 minute after
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7. If generator is required: Contractor to re-energize utility power to the emergency power panelboard and, demonstrate to inspector:
- ATS has successfully transferred load to utility power, prior to proceeding to step 9
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8. Contractor to return gas system to normal condition, then place it in trouble, inspector to verify:
- FACP indicates a trouble condition (fire alarm shall monitor gas system for troubles)
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9. Contractor to identify to the inspector a breaker lock is secured to the branch circuit overcurrent protection device and disconnect(s) are locked on for:
- Gas system controller(s)
 - Fan motor controller(s)
 - Louver controller(s)

Inspection shall be coordinated to have a Plumbing/Mechanical inspector present, as required. The fire alarm contractor shall be present and the fire alarm shall have been successfully inspected prior. A minimum of 7 days advanced notice is required to schedule this type of inspection, no exceptions. Any deviations from this procedure shall be requested in writing prior to scheduling the inspection.

Any failure shall result in a \$300 re-inspection fee for the 1st re-inspection