READY TO INSPECT — FIELD CHECKLIST

Gas detection system annual maintenance checklist

The annual gas detection system service is the deep pass: the measurements, cleanings and tests a quarterly round doesn't reach. This checklist keeps the full service on record with the photos that make it defensible later. Work is commonly verified against IMC (mechanical code), the applicable building code, manufacturer's published instructions. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The controls service lead inspects and documents; the licensed tech performs and documents the bump test and calibration. When: Once a year, timed with the calibration visit so the whole detection-to-ventilation chain is proven end to end while the tech is on site.

Notice and history

- [ ] Occupants, monitoring and the owner told before test gas is applied
  Owner, zone occupants, any monitoring company and kitchen or plant staff told test gas can trip alarms, fans and shutoffs, and when outputs will be held.
  No photo required
- [ ] Controller event log reviewed for the year
  Alarm, fault and inhibit events since the last annual read or exported from the controller, each alarm matched to a cause and repeat faults flagged.
  No photo required

Sensor inventory and condition

- [ ] Every sensor accounted for and matched to the panel and area served
  Field head count matches the controller, each zone still covers the space it serves, remodeled areas checked for gaps in coverage.
  2 photos required
- [ ] Mounting height measured at each head against the design
  Measured, not judged by eye: low for heavier-than-air gases, high for lighter-than-air gases such as natural gas, and CO heads at the height the design shows.
  1 photo required
- [ ] Heads cleaned and inspected
  Grease, dust and moisture cleared from each head per the manufacturer, cell housings intact, no corrosion at terminals.
  1 photo required
- [ ] Sensor cell install and end-of-life dates recorded at each head
  Beyond the quarterly read: each cell's date label compared with the manufacturer's rated life, cells at or near end of life replaced and the new date labeled.
  1 photo required

Calibration support

- [ ] Calibration gas cylinder label and expiry date photographed
  Certified cylinder's gas and concentration match what the manufacturer's method calls for at each sensor, the cylinder is in date and its regulator suits it.
  1 photo required
- [ ] Bump test and calibration by the tech observed and logged
  Test gas applied by the certified tech, response and setpoints recorded, sensors reading zero on clean air after calibration.
  1 photo required
- [ ] Inhibit or calibration mode cleared on every channel
  Any inhibit, bypass or calibration mode the manufacturer's method used is cleared, the controller shows normal monitoring and every output is armed again.
  1 photo required
- [ ] Calibration record on file with as-found and as-left readings
  The certified tech's record lists each sensor, the gas cylinder used, as-found and as-left readings and the next due date, filed with the owner.
  No photo required

Full interlock verification

- [ ] Relay assignments compared with the design sequence
  Controller relay outputs, alarm levels and delays match the design sequence of operations, with no output reassigned or disabled since commissioning.
  No photo required

- [ ] Alarm-to-ventilation sequence proven for each zone
  Each detection zone driven to alarm confirms its exhaust fan, dampers, alarms and any shutoff respond, then returns to normal.
  2 photos required

Return to service

- [ ] Shutoffs reopened, outputs reset and panel back to normal
  Any shutoff valve reopened and appliances relit by a qualified person, fans and dampers back to their normal sequence, controller showing normal with no faults.
  1 photo required

- [ ] Owner and monitoring told the system is back, report sent
  Owner and monitoring told detection is back in service, and the inventory, replaced cells, calibration record and interlock results sent to the owner.
  No photo required