

Office of Gas Safety

Level 1, 369 Royal Parade
Parkville, Victoria 3052
Telephone: 1800 652 563

Locked Bag 3210
GPO Melbourne 3001
Facsimile: 9341 3850



Information sheet No. 28

Confirming flue integrity and effectiveness

Open flued gas appliances and natural draught flue systems

Information sheet No: 28 provides Gasfitters with a procedure for confirming the integrity and the effectiveness of flues.

Application

- This procedure is applicable to gas appliances incorporating flue systems of the open flue type, operating under natural draught conditions.
- This procedure is approved for the use of gasfitters when attending appliances of the above type for
 - Servicing and maintenance
 - Appliance or flue system repair
 - Modification, or
 - Safety inspection.
- The procedure includes both inspection and testing.

Confirming the integrity of the flue system

Detailed inspection of the flue system will confirm its integrity. If faults are found these should be rectified before testing the flue for effectiveness.

Method of inspection

- Primary flue and down draught diverter
 - Examine the assembly for damage and the accumulation of debris from the secondary flue¹
 - Where practicable, and without dismantling any flue element, examine the internal space of the secondary flue (torch required)
- Secondary flue
 - Examine the flue for cracks, damage and continuity where visible
 - Confirm flue joints are sealed
 - Gain access to the flue terminal (cowl) and confirm it is firmly fixed², undamaged and that if it is of the mesh type, that the mesh is complete.

Testing the effectiveness of the flue

Testing the flue system will confirm the safe discharge of combustion products from the flue terminal (cowl).

Where the discharge of combustion products cannot be confirmed by testing additional investigation shall be undertaken to establish the cause and, where faults are found, these must be rectified.

Before testing the flue

- Confirm fixed air vents are unobstructed and check for the presence of exhaust fans
- Check the appliance gas pressure or gas rate

Method of testing

- If an exhaust fan is present switch it on
- Turn on the gas appliance and leave for at least 5 minutes (10 minutes for decorative gas log fires)³
- Position a smoke pellet or hold smoke match(s) inside the draught diverter
 - Confirm that smoke does not 'flow back' into the room
 - Observe the smoke 'plume' from the terminal⁴

NOTES:

1. The accumulation of debris at the draught diverter and heat exchanger is an indicator of faults within the secondary flue and flue terminal.
2. Damaged or loose cowls should be replaced only after an internal examination of the secondary flue.
3. Flue spillage is a characteristic of appliance 'start-up' and may be during the first 5 minutes of operation.
4. Sufficient smoke is required to 'Flood' the flue enabling a plume to be observed. Absence of smoke at the terminal and appliance may indicate a break in the flue within a roof space or other void.