



## CREW LEADER Field Guide

### Perform an exterior and interior visual/sensory inspection

Candidate performed exterior walk around  
Candidate performed interior walk around

### Conduct health and safety tests

#### **Combustion Safety and Efficiency Tests**

Candidate properly conducted combustion gas leakage testing  
Candidate properly recommended soapy solution to verify positives  
Candidate completed visual inspection of flue system for problems  
Candidate identified existing heating / cooling system components safety concerns

#### **CAZ Testing**

Candidate set up home for natural conditions  
Proper manometer setup  
Candidate correctly measured baseline pressure differential  
Set up home in worst case condition (**NOT A SCOREABLE ITEM**)  
All exhaust appliances running  
Correct door closures - measured quantitatively or qualitatively  
Air handler operation impact checked  
Candidate correctly measured worst-case CAZ depressurization  
Candidate calculated minimum draft pressure based on existing weather conditions  
Candidate checked for worst case spillage in heating system  
Candidate checked for worst case spillage in DHW  
Candidate correctly identified time limits for spillage based on BPI Standards  
Candidate correctly determined if the appliance passes the spillage test  
Candidate identified what steps should be taken if it does not pass (ask candidate)  
Candidate correctly performed worst case draft test on DHW  
Candidate made appropriate recommendations according to BPI standards (using correct table)  
Candidate compared diagnostic results to appropriate table in the BPI standards

#### **CO Testing**

Candidate tested ambient CO outdoors  
Candidate tested ambient CO indoors  
Properly interpreted measurements  
Candidate measured heating system flue gas CO during combustion safety testing  
Candidate conducted Steady State Efficiency test on heating plant  
Candidate accurately measured heat rise delta T  
Candidate measured DHW flue gas CO during combustion safety testing  
Candidate appropriately applied BPI action levels based on test results for CO in the flue  
Candidate monitored ambient CO levels in the CAZ during entire combustion safety tests  
Candidate checked for items, excessive debris inside oven  
Candidate's sampling location appropriate for the oven test  
Candidate appropriately applied BPI action levels based on test results for CO in oven

### Conduct diagnostic tests

#### **Blower Door Test**

Candidate set combustion appliances to pilot or disabled them  
Candidate properly set-up the blower door frame/shroud/fan  
Candidate properly set-up the manometer  
Candidate properly set-up house for testing  
Candidate correctly measured baseline pressure differential  
Candidate accurately took CFM50 measurement  
Candidate discussed ventilation needs in relation to ASHRAE 62.2 2010

#### **Pressure Pan Test**

Candidate properly set-up the manometer  
Accurate measurements taken  
Candidate properly interpreted the results of the pressure pan testing

#### **Pressure Diagnostics**

Candidate measured zonal pressure differential to one appropriate zone  
Candidate properly interpreted the results

### LAB Section

#### Maintain Quality Control

Candidate identified need to check for deviations from the workscope

Candidate identified need to report any deviations from the workscope  
Candidate verified the need to ensure installers track material usage

**Set Up Containment Area (non lead-safe) - Window/Door Prop**

Candidate prepared area for containment set up  
Candidate identified interior area to be protected with containment  
Candidate identified exterior area to be protected with containment  
Candidate displayed ability to cover entire interior space with proper protective material  
Candidate displayed ability to cover exterior space at least 3 feet from the exterior wall  
Candidate maintained quality control by verifying that the containment area is complete (visual ONLY)  
Candidate completed airsealing props within the contained space  
Candidate maintained containment integrity while completing the air sealing props

**Air sealing measures - Single Attempt Only; Performed within Window/Door Prop**

**Large Opening Prop**

Candidate identified leaks and bypasses on the prop  
Candidate selected appropriate materials for prop  
Candidate displayed ability to seal gaps and cracks  
Candidate maintained quality control by verifying that the seal is complete (visual ONLY)  
Large Opening prop smoke test - test the prop with smoke to verify seal

**Large Opening with Heat Source Prop**

Candidate identified leaks and bypasses on the prop  
Candidate selected appropriate materials for the prop  
Candidate selected appropriate sealant for the prop  
Candidate displayed ability to seal gaps and cracks  
Candidate checked that the seal is complete  
Candidate looked for potential fire code violations  
Candidate maintained quality control by verifying that the seal is complete (visual ONLY)  
Large Opening with Heat Source prop depressurized - test the prop with smoke to verify seal

**Clean up**

Candidate returned unused material to a central location  
Candidate returned tools to a central location  
Candidate properly contained and disposed of materials and waste  
Candidate cleaned work area  
Candidate made note of the need to restore occupant belongings