

QUALITY CONTROL INSPECTOR Field Guide

v.9.27.2013

Standards of Reference

SWS – Standard Work Specification

Technical Standards for the Building Analyst Professional

Clarifications to Technical Standards for the Building Analyst Professional

ASHRAE 62.2-2010

Verify worker compliance with safety rules

Candidate identified measures that would have required fall protection Candidate identified appropriate respirator requirements in the scope of work Candidate identified appropriate PPE in relation to work in confined spaces Candidate identified appropriate PPE in relation to the general work requirements of the work scope Candidate identified potential jobsite hazards

Address work problems

Candidate reviewed the work in relation to the work plan Candidate identified the need to run diagnostic tests Candidate checked for missed opportunities

Evaluate client satisfaction regarding the in-process work

Candidate asked the homeowner about the work when it was in-process Candidate made note of homeowner's answers Candidate accurately determined the satisfaction level of the homeowner based on the conversation

Review client file and the work scope

Candidate reviewed the audit Candidate reviewed the work order Candidate interpreted diagnostic test results in relation to the work scope

Perform an exterior and interior visual/sensory inspection

Candidate performed exterior walk around Candidate performed interior walk around Candidate verified installed components listed on the work order Candidate noted any audit discrepancies Candidate noted any damage potentially caused by workers Candidate documented any non-conformances

Evaluate client satisfaction

Candidate interviewed the homeowner regarding level of comfort and satisfaction with the work

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 indentified existing heating / cooling system components safety concerns Candidate measured the temperature of the domestic hot water at the tap

CAZ Testing

Candidate set up home for natural conditions Proper manometer setup (GATED ITEM) Candidate correctly measured baseline pressure differential Set up home in worst case condition (NOT SCOREABLE) 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 (GATED ITEM) 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

Duct Pressurization Test

Candidate properly set-up the manometer Pressure tap appropriate Accurate measurement

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

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

Fan Flow

Candidate accurately compared existing exhaust flow ventilation with rated capacity

Determine pass/fail of the work - Identify work problems

Candidate reviewed the results of the visual/sensory inspection Candidate reviewed the results of diagnostic tests Candidate compared diagnostic results with the post-test data Candidate made a determination of pass or fail of the work based on the results Candidate noted the work problems if the result was a fail

Perform spot checks

Candidate mentioned the need to perform spot checks on in-process work Candidate mentioned performing random sampling of job site documents

Evaluate installed measures against the field guide, SWS and state/local codes

Candidate compared work completed with acceptable practices Candidate made appropriate conclusion based on the findings Candidate identified work that does not meet acceptable practices Candidate determined if the problem was material problem or a work problem

Close out the project

Candidate ensured all punch-list items were completed Candidate ensured all relevant signatures were obtained

Maintain files and records

Candidate discussed how they maintain job logs and notes Candidate discussed how they maintain information on active complaints Candidate discussed how they maintain information on any job anomalies