

# **IBA Home Energy Conservation Program Auditor Procedures (2011)**

## **ACCEPT CLIENT & SET UP INITIAL AUDIT**

- ❑ Respond to e-mail – yes to accept client or no to reject client (48 hours to respond). If no answer within 48 hours, audit may be reassigned.
- ❑ Call client. If client is site-built and does not have other non-paid deferral issues, setup audit appointment within 24 hours of accepting client. Make appointment date as soon as client is available, but no more than one week later than date of call. Put notes in client's on-line file under work order note for date of call to client (if left message) and date scheduled to perform audit. Non-paid deferral issues are identified in the deferral procedures. For example, the home must have permanent heat to be weatherized. If gas is turned off and the client has gas appliances we must wait until the gas is turned on. Notify IBA of the situation.

## **INITIAL AUDIT**

- ❑ Reminder call to client. IBA recommends a call the evening before and again before leaving to travel to client's home. IBA can not reimburse for a trip that results in non-entry into the house.
- ❑ Upon arriving at the client property, knock and introduce yourself as an auditor for the IBA Home Energy Conservation Program. Show identification if the client requests. If client does not answer door (1<sup>st</sup> missed appointment) then leave an IBA door hanger filled in with your information and the 1<sup>st</sup> missed appointment box checked and call client to reschedule. If client does not answer door (2<sup>nd</sup> missed appointment) then leave an IBA door hanger filled in with your information and the second missed appointment checked and notify the IBA Client Services Manager.
- ❑ After introducing yourself to the client, evaluate ambient and interior Carbon Monoxide Levels prior to and immediately upon entering the home. Elevated carbon monoxide levels where abatement is not possible may be immediate grounds for deferral. IBA does not have funds to replace stoves.
- ❑ Conduct a health and safety/deferral inspection using the IBA Health & Safety Inspection/Deferral Checklist and the IBA Moisture Assessment Form.
- ❑ If a deferral, document through photographs and explanations, explain ALL reasons to client, and secure client's signature on IBA Moisture Assessment form with energy conservation "will not" proceed. Stop audit. Submit (1) IBA Health & Safety Inspection/Deferral Checklist; (2) IBA Moisture Assessment Form; and (3) photographs, explanations and other documentation by uploading directly into the client's on-line file. A deferral letter will be sent by IBA to client within ten working days informing them of the deferral standards and appeals procedure.
- ❑ If not a deferral, complete and secure client's signature on the IBA Moisture Assessment form identifying that energy conservation "will" proceed.
- ❑ Check for working smoke detectors and working CO detectors (program requires one working smoke detector per floor and one working CO detector per floor in appropriate places). Replace batteries and/or install on floors where none currently exist or are not working. Determine appropriate locations: stairways, bedrooms, and kitchens. Install per manufacturers' specifications. In homes where a hard wired smoke detector is not working, a battery operated smoke detector should be installed next to the hard wired unit. Auditors may be reimbursed for batteries, smoke detectors, and CO detectors by including cost on each client's initial audit invoice and include copies of the receipts for the purchased batteries, smoke detectors, and CO detectors.
- ❑ Present client with:
  - 1) IBA Client Education handout.
  - 2) EPA pamphlet "Renovate Right, Important Lead Hazard Information for Families, Child Care Providers, and Schools".
  - 3) EPA pamphlet, "Mold, Moisture, and Your Home."

4) Consumer Product Safety Commission Carbon Monoxide Questions and Answers – CPSC Document #466.

- ❑ Secure client’s initials by each item (including the smoke detectors and CO detectors even if you didn’t install) and client’s signature on the Client Consent Form – Release of Liability and Waiver of Claims – 2011 (NEW FORM) before continuing. If client refuses to initial and sign, inform them energy conservation will not proceed. Notify IBA.
- ❑ If client is currently using unvented space heaters, complete and submit the Unvented Space Heaters Form. If client refuses to allow IBA to remove unvented space heaters that do not qualify to be kept, inform them energy conservation will not proceed. Notify IBA.
- ❑ Complete Dwelling Information and Building Specifications Form.
- ❑ If furnace is electric, complete Electric Furnace Form.
- ❑ If furnace is a heat pump, complete Heat Pump Form.
- ❑ If furnace is gas (natural or L.P.), complete Gas Appliance Form 2011 (NEW FORM).
- ❑ If new furnace is necessary, complete a NEAT or MHEA Audit and Heating Load Calculation Forms.
- ❑ Complete Water Heater Form 2011 (NEW FORM).
- ❑ Complete Gas Cook Stove and Oven Form.
- ❑ Complete Blower Door Testing Results Form. When ordering blower door directed air sealing, IBA expects improvement of: Initial Blower Door Reading + Minimum Ventilation Rate (MVR) divided by 2 = Target Final Blower Door Reading. The average time ordered for blower door directed air sealing should be:

<u>Difference between Blower Door &amp; MVR</u>	<u>Amount of Blower Door Air Sealing Time Ordered</u>
0 to 300	1 hour
300 to 800	2 hours
800 to 1600	3 hours
1600 to 3200	4 to 6 hours
3200+	6 to 8 hours

- ❑ Complete Pressure Diagnostics Form 2011. (NEW FORM)
- ❑ Complete Daily Safety Test-Out/Worst Case Drafting Form 2011. (NEW FORM)
- ❑ Sketch of residence when needed for shell contractors to determine the thermal boundary or additional air sealing areas.
- ❑ Submit information from Dwelling Info and Building Specifications Form and Blower Door Testing Results Form by key stroking directly into new forms in each client’s on-line file.
- ❑ Complete Site-Built Work Order by key stroking directly into the on-line work order form in each client’s file. Pictures required for requests for door and window repairs and/or replacements; water heater replacement; furnace and/or heat exchanger replacements; electrical, structural and other hazards; others as necessary for repairs and/or replacements. Always include air filter size on work order if replacement filters are ordered. **A Special Circumstance Item may be ordered when an item is necessary that needs to be completed in order for the greatest potential of energy savings and determined not to be performed on a regular basis. IBA requires that charges for special circumstance items are based on time and material with a set standard for an hourly rate. IBA requires its contractors to utilize a set hourly labor rate based on the prevailing wage for each contractor’s applicable county. IBA requests that invoices are broken down by labor and**

**materials. At least two cost comparisons are required for the material cost of a special circumstance item.**

- ❑ Submit the Moisture Assessment Form by itself by uploading the hand-written, signed form in .pdf format directly into the client's on-line file.
- ❑ Submit all other necessary completed forms (client consent, furnace, water heater, cook stove, heat load calculation, NEAT or MHEA audit, pressure diagnostics and daily safety test-out/worst case drafting forms) by uploading the hand-written forms as a .pdf in each client's on-line file or by faxing as a single fax to 317-245-2142.

**INTERIM AUDIT**

- ❑ Perform the interim audit while the mechanical contractors are still at the home.
- ❑ Re-print on-line work orders to ensure you are inspecting from the most current work ordered.
- ❑ If combustion work that requires an interim audit was ordered, inspect each mechanical item on work order and check off that it was completed appropriately by checking the inspected box for each item.
- ❑ If new furnace is installed, complete New Furnace Installation Inspection Form.
- ❑ If furnace repair work was done, complete appropriate sections on Furnace form (electric, heat pump, or gas).
- ❑ If water heater repair work was done, complete the appropriate sections on the Water Heater Form.
- ❑ If gas cook stove and oven repair work was done, complete the appropriate sections on the Gas Cook Stove and Oven Form.
- ❑ Run an interim blower door test and identify reading on Blower Door Testing Results Form. Keystroke these findings into the already existing on-line form created during the initial audit.
- ❑ Complete Pressure Diagnostics Form.
- ❑ Complete the Daily Safety Test-Out/Worst Case Drafting Form.
- ❑ Submit all other necessary completed forms (furnace, water heater, cook stove, pressure diagnostics and daily safety test-out/worst case drafting forms) by uploading the hand-written forms as .pdfs in each client's on-line file or by faxing as a single document to 317-245-2142.
- ❑ If failed interim, explain reasons for failing in work order notes section. Follow up with contractors on audits that fail and schedule the follow up audit to coincide with the last day of work to avoid another failure. Notify IBA of failure through IBAEnergy.org.
- ❑ If interim passes, contact shell contractor to let them know to begin work.

**FINAL AUDIT**

- ❑ Perform the final audit while the shell contractors are still at the home.
- ❑ Re-print on-line work orders to ensure you are inspecting from the most current work ordered.
- ❑ Inspect each item on work order and check off that it was completed appropriately by checking the inspected box for each item.
- ❑ If furnace is gas (natural or L.P.), complete "final section" of Gas Appliance Form 2011.
- ❑ Complete Water Heater Form 2011 "final section".
- ❑ Complete Pressure Diagnostics Form "final section".
- ❑ Run a final blower door test and identify reading on Blower Door Testing Results Form. Keystroke these findings into the already existing on-line form created during the initial audit.

- ❑ Complete the Daily Safety Test-Out/Worst Case Drafting Form. Record the final outdoor temp, final furnace draft pressure, and final re-test draft on water heater numbers by key-stroking on the Blower Door Testing Results form.
- ❑ If audit passes, go over work done with client, instruct client on how to use any new equipment, explain any CO issues addressed by IBA to the client, identifying what was corrected and how, show client that all equipment is working properly, and secure client's signature on Client Completion Sign-Off Form.
- ❑ Submit all other necessary completed forms (Gas Furnace Form, Water Heater Form, Pressure Diagnostics Form, Daily Safety Test-Out/Worst Case Drafting Form, Client Completion Sign-Off Form) by uploading the hand-written forms as .pdfs in each client's on-line file or by faxing as a single document to 317-245-2142.
- ❑ If failed final, explain reasons for failing in work order notes section. Follow up with contractors on audits that fail and schedule the follow up audit to coincide with the last day of work to avoid another failure. Notify IBA of failure through IBAEnergy.org.
- ❑ After at least 3 attempts in 10 days to contact client to schedule a final, request an alternate completion by submitting the required information. It is not fair for contractors to have to wait on payment due to a client's non-responsiveness.

#### ADMINISTRATIVE UPDATES

- ❑ **ALL IBA AUDITORS MUST USE THE NEW INTELLIGENT FIELD GUIDE FOR ANY JOBS THAT BEING INITIALLY AUDITED AFTER AUGUST 15, 2011. PLEASE CHECK IN THE PRIMARY NOTES (THE GRAYED OUT SECTION) TO FIND OUT WHICH JOBS REQUIRE WHICH SET OF GUIDELINES AND FORMS.**
- ❑ IBA will no longer be weatherizing mobile homes as IBA is unable to update the website for the extensive changes to the mobile home priority list in time. For any audits after August 15 – it is the auditors' responsibility to defer any homes that are mobile homes (these deferrals will be unpaid). Any combined structure which has mobile home components (i.e. belly, skirting, etc.) must be deferred. Work on mobile homes audited before August 15<sup>th</sup> are to be worked on using the old field guide rules and old forms.
- ❑ Whenever 2 part foam is used, the new allowable amount is 1 ½".
  - IBA Auditors will still mark "IFD-6515: 2 part foam foundation wall 3" line item on the work order. IBA's internal production review team will adjust the work order amount, material costs, and labor costs before the work order is assigned to a contractor. The material cost for 1 ½" foam will be \$2.00 per sq. ft. The labor cost for 1 ½" foam will be "A Counties" - \$1.30 per sq. ft., "B Counties" - \$1.40 per sq. ft., and "C Counties" - \$1.50 per sq. ft.
  - IBA Auditors will still mark "IBS-6401: Insulate Band Joist / 2 part foam 3" line item on the work order. IBA's internal production review team will adjust the work order amount and material costs before the work order is assigned to a contractor. The material cost for 1 ½" foam will be \$2.25 per lin. ft. The labor costs will remain the same.
- ❑ Whenever an exterior chimney is requiring a re-line this must be done with an insulated metallic chimney liner system. Add clearance to combustibles as needed once a liner is installed. IBA auditors will still mark "HS-1126: Install 4" flue liner". IBA's internal production review team will adjust the work order amount, material costs, and labor costs before the work order is assigned to a contractor. The material cost for a 4" insulated metallic chimney liner will be \$9.00 per lin. ft. The labor costs will remain the same.
- ❑ Un-insulated ceilings are R-7 or less. Partially insulated ceilings are R-8 to R-19. Insulation is still to be added to meet R-38.

- ❑ IBA Job Notes to be put in Work Order Notes Section - Auditors and contractors must keep IBA abreast of contact with clients and each other through information input into the W.O. Notes section. The latest note should be put at the top of the list and should include date, person reporting, and brief description (i.e. client contacted 6/6/2010 left message; interim scheduled for 6/8/2010).
- ❑ IBA Auditor Reassignment of Jobs - IBA will re-assign initial, interim and final audits for any jobs that are in the same status for more than 5 days where notes do not reflect delay being caused by client. Auditors should strive to schedule, complete, and submit interim and final audits the same day the contractors are finishing their work.
- ❑ Auditor invoices will only be paid after initial work order approved, interim submission approved, and final job approval. Submissions missing documentation will not be processed until all information is received and approved. Auditor invoices will no longer be processed until all required paperwork is completely submitted in existing and uploaded forms. Auditors must provide documentation to substantiate items ordered on initial work orders. Auditors must make sure information is complete when submitting forms. Auditors must make sure all completion criteria items (i.e. utility companies, final blower door numbers, etc.) are submitted. Completion criteria list is available on download info section of web site under IBA HEC Completion Criteria.
- ❑ If a client contacts the auditor directly to notify them the conditions causing deferral are repaired, then the auditor needs to notify IBA to reactivate client.
- ❑ Items on work order need to be geared towards ENERGY SAVINGS. Keep Health and Safety to a minimum. For example: Bath fans should only be ordered when moisture conditions in a bathroom call for them. If a bathroom has a window, do not order a bath fan. Consider the conditions of the home and the number of occupants using the bathroom.
- ❑ Blower Doors must be run during Blower Door Directed Air sealing.
- ❑ If pressure pan readings are less than 2 we should not be doing duct sealing.
- ❑ Follow the priority checklist on page 2-2 in the Indiana Intelligent Field Guide.
- ❑ Review forms and make sure necessary work to fix items on forms are included in the work order.
- ❑ Air sealing should be used to eliminate the STACK EFFECT. Focus high and low.
- ❑ Each work order should include the following when not already existing in the home: Faucet aerators, low flow shower heads, water heater blankets (when they are not foamed on the inside), water pipe insulation 6' on the hot side and 6' on the cold side, user friendly gas shut-off valves, and compact fluorescent light bulbs in lights that are used more than 2 hrs a day. Only standard CFL bulbs will be installed. Auditor must identify the number of standard bulbs and wattage needed in the home.
- ❑ Replace mercury thermostat with non-programmable, non-battery back up when HVAC will already be going to job for other items. This should not be the only item for HVAC to go to a job.
- ❑ Gutters should be used when there could be a possibility of creating a moisture problem with work we are completing. Always try to repair existing gutters prior to replacement.
- ❑ Always try to repair and air seal existing doors and windows first. Only in extreme situations should a door or window be replaced.
- ❑ When using Special Circumstances include your recommended pricing for material and labor.
- ❑ Don't order cleaning A Coil when there is no central air conditioning.
- ❑ Do not ask for range hood replacements or repairs in site built homes.
- ❑ IBA can repair gas cook stoves, but cannot replace them.
- ❑ It is typically cost prohibitive to replace a boiler furnace and few contractors are qualified to work on them. Probable deferral.