



Procedures for Documenting Texas In-Plant Inspections

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Forms Used to Document Inspections

The following forms are used to document inspections of the in-plant construction of industrialized housing and buildings for the Texas Industrialized Housing and Buildings (IHB) program.

- **In-Plant Inspection – Summary of Units Inspected – Cover Page of Inspection Report, Form #IHB 210** – This is the cover sheet for all in-plant inspection reports. This sheet summarizes information that TDLR needs for entry into the IHB database and to monitor the performance of the third-party inspectors and manufacturers. ***Form must be completed for every inspection.***
- **Plant Inspection Procedural Checklist, Form #TDLR 022ihb** – Summarizes the Texas procedures for in-plant inspections of industrialized housing and buildings for the inspector. ***Form must be completed for every inspection.***
- **Residential Energy Inspection Summary Sheet, Form #IHB 212R** – Summarizes the results of the energy compliance portion of the inspection for residential buildings. The IECC defines “Residential Buildings” as one- and two-family dwellings, multiple single-family dwellings (townhouses), and Group R-2, R-3, and R-4 buildings three stories or less in height above grade line. ***Form must be completed for every inspection of residential buildings.***

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- **Commercial Energy Inspection Summary Sheet, Form #IHB 212R** – Summarizes the results of the energy compliance portion of the inspection for residential buildings. ***Form must be completed for every inspection of commercial buildings that are not considered residential under the IECC.***
- **In-Plant Inspection – Monitoring of System Testing, Form #IHB 213** – Summarizes the results of the system testing portion of the inspection. ***This form is only for every inspection where testing is observed – do not complete this form if you do not observe testing.***
- **In-Plant Inspection – Deviation Report, Form #IHB 214** – Used to document deviations observed by the inspector. ***This form is only used when deviations are observed.***
- **In-Plant Inspection – Form to Clear Deviations from Previous Inspections, Form #IHB215** – Used to clear deviations that were not cleared during a previous inspection. ***This form is only used when there are deviations from a previous inspection to clear.***
- **In-Plant Inspection – Possible DRA Approval Error, Form #IHB 216** – Used to document possible plan review errors in approved documents. ***This form is only used when possible DRA approval errors are discovered.***

General Information Required on Each Inspection Form

Part A of each form requires the inspector to complete the following information:

- **Inspection Date** – The date of the inspection is required on every page of the inspection report.
- **Page number** – The page number is required on the ***Summary of Units Inspected***, Form #IHB 210, on the ***In-Plant Deviation Report***, Form #IHB 214, and on the ***Form to Clear Deviations from Previous Inspections***, Form #IHB 215. This is not the total number of pages in the inspection report, but is the number of sheets for that form.
- **Manufacturer** – Enter the name of the manufacturer in this field. This information is required on the first page of the ***Summary of Units Inspected***, Form #IHB 210, and the first page of the ***Possible DRA Approval Error***, Form #IHB 216.
- **Manufacturer Reg. #IHM** – Enter the Texas registration number of the manufacturer in this field. The manufacturer's reg. # is required on every page of the inspection report.
- **Inspector Name** – The name of the Texas approved third party inspector is required on the first page of the ***Summary of Units Inspected***, Form #IHB 210 and the ***Possible DRA Approval Error***, Form #IHB 216.
- **Inspector Reg. #IHI** – The Texas registration number of the approved third party inspector is required on the first page of each form used to document the inspection.
- **Inspection Agency** – The name of the Texas approved third party inspection agency is required on the first page of the ***Summary of Units Inspected***, Form #IHB 210 and the ***Possible DRA Approval Error***, Form #IHB 216.

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- **TPIA Reg. #IHIA** – The Texas registration number of the approved third party inspection agency is required on the first page of the *Summary of Units Inspected*, Form #IHB 210 and the *Possible DRA Approval Error*, Form #IHB 216.

Summary of Units Inspected, Form #IHB 210

Part B requires the inspector to provide some basic information concerning the current and past inspections.

- **Date of Last TX Inspection:** This is the date of the last TX in-plant inspection performed by any TX approved third party inspection agency or third party inspector. This date determines when increased frequency of inspections may be required – see the inspection procedures for more information.
- **Total # Units Inspected Today's Inspection:** This is the total # of TX units inspected during the current inspection. Each separate floor must be counted.
- **1.** Check this box if you witnessed tests. If you witnessed tests during the inspection, then check this box. Also, enter the number of TX in-plant inspections since tests were last observed.
- **2.** Check this box if the manufacturer is on an increased frequency of inspections – see the inspection procedures for more information on when increased frequency of inspections is required.
- **3.** Check this box if the manufacturer's QC/QA inspectors are verifying energy compliance with their approved energy inspection checklist. If the manufacturer is not verifying compliance with the energy inspection checklist, then there should also be a deviation report completed as the manufacturer is not complying with the IHB rules and their inspection procedures.
- **4.** Check this box if you have any comments or concerns about the current inspection – document in Part E of the form
- **5.** Check this box if the inspector has completed and attached a possible DRA approval error (see form #IHB 216).
- **6.** Check this box if the manufacturer has plans and QC manual approved to the current mandatory building codes (2015 International Codes and the 2014 NEC – effective date of adoption was 8/1/2017). This is a check that the manufacturers are in compliance with the latest mandatory building codes.
- **7.** Check this box if any of the units inspected began construction prior to the effective date of the new mandatory building codes, 8/1/2017. If there are a mixture of units, that is some started prior, and some started after the effective date, then show which ones started prior to the effective dates in Section E of the report. For example, if the units on lines 1 and 2 started construction prior to the effective date, then you could state that in Section E (line number is sufficient, it is not necessary to give the actual serial numbers)

Part C is used by the inspector to document all units inspected for Texas on this date. More space is provided on the back of the form if needed. Make a copy of the back side of the form

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if additional space is needed to summarize additional units. The following information is completed in Part C of the form:

- **Unit ID Number** – This is the serial or ID number of the modular unit assigned by the manufacturer. Each floor must have a different serial number. If a building is made up of more than one modular floor, then list each separate floor. List all units inspected during the inspection, including those inspected to clear deviations from a previous inspection. Do not list A and B units of a building on the same line – **LIST ONLY ONE MODULAR UNIT (OR FLOOR) PER LINE.**
- **TX Decal or Insignia #** - This is the serial number of the Texas label that the manufacturer has assigned to the unit. This field may be left blank if the manufacturer has no labels on hand or has not yet assigned a label.
- **IF?** – “IF” means “Increased Frequency.” If the manufacturer has been placed on **Increased Frequency** (see inspection procedures for when increased frequency is required), then use this field to indicate if this is the 1st, 2nd, or 3rd inspection for the unit.
- **Station/Phase** – This is the station or phase of construction where the unit was inspected.
- **Model # or Project Name/Plan Approval Date** – Provide a description of the plan set for each unit inspected, including the plan approval date.
- **# of Deviations** – List the number of deviations found for each unit inspected
- **C?** – “C” means “Confiscated.” Check this box if the Texas label for this unit was **Confiscated.**
- **Total # Uncorrected Deviations Previous Inspection** – Provide the number of uncorrected deviations existing from a *previous* inspection for the units inspected. **This information is provided only on the first page of the Summary of Units Inspected.**
- **Total # Uncorrected Deviations This Inspection** – Provide the number of deviations documented on *THIS* inspection **that were not corrected before the end of the inspection. This information is provided only on the first page of the Summary of Units Inspected.**
- **Total # Deviations This Inspection** – Provide the total number of deviations from *this* inspection, both corrected and uncorrected. **This information is provided only on the first page of the Summary of Units Inspected.**

Part D is used to provide a count of the number of units that were inspected for corrections of deviations from previous inspections. If the inspector cleared deviations from a previous inspection, then document those deviations on form #IHB 215 and indicate the total number of units inspected for corrections from a previous inspection during the present inspection.

Part E is used by the inspector to document concerns or comments that the inspector has about the inspection, the performance of the manufacturer, or any other information relevant to the inspection and the manufacturer’s performance.

Plant Inspection Procedural Checklist, Form #TDLR 022ihb

Part B is a checklist of procedural requirements for TX in-plant inspections. The purpose of the checklist is to help the third-party inspector ensure compliance with the requirements of the in-plant inspection procedures. The inspector is required to explain any NO answers to the questions in Part D of the form. Answer questions in the affirmative unless procedures were not followed. For example, the question that asks if the inspector inspected units with uncorrected deviations from last inspection and documented on present inspection should be answered YES if there were no units to inspect for previous deviations. However, if there were units to inspect for previous inspections and you did not inspect, then answer NO and indicate why in Part D of the form.

Part C is used by the inspector to explain all NO answers from Part C. If the answer was No to any question in part B, then you must show why here.

Part D is used by the inspector to document reasons for confiscating decals. If decals were confiscated, then you must show why here.

Residential Energy Inspection Summary Sheet, Form #IHB 212R

This form is used to document the energy code compliance of residential buildings. The IECC defines “Residential Buildings” as one- and two-family dwellings, multiple single-family dwellings (townhouses), and Group R-2, R-3, and R-4 buildings three stories or less in height above grade line. Form must be completed for every inspection of residential buildings.

Part B is used by the inspector to document what the manufacturer is using as the energy compliance checklist required by §70.70 of the IHB rules. If the manufacturer is not using any energy compliance checklist, then this must be documented as a deviation and steps must be taken to ensure that the manufacturer starts using an energy compliance checklist. The manufacturer should be placed on increased frequency of inspections until the manufacturer starts using the energy compliance checklist as part of the in-plant inspection traveler.

The manufacturer is required to have a separate energy compliance checklist that they use to verify energy compliance during construction of the building – if they are not inspecting each item on the checklist and noting the result on their in-plant energy compliance checklist, then they are not in compliance with the IHB rules.

Part C is a checklist used by the third-party inspector to check for compliance of items related to energy compliance – this is not a complete list of checks that may be needed to ensure energy code compliance. The inspector is required to perform a complete energy compliance check of all visible construction at the time of the inspection. Items that do not comply must be documented as deviations.

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Some items may not be applicable to a particular building or may need to be checked during installation of the building. The industrialized builder will be required to have their Council approved inspector complete these inspection items during installation of the house.

Part D is a note section that the inspector can use to document concerns or comments that the inspector has about the energy compliance of the houses inspected during that inspection.

Commercial Energy Inspection Summary Sheet, Form #IHB 212C

This form is used to document the energy code compliance of commercial buildings -- if the building doesn't meet the definition of a residential building in the IECC, then it is considered a commercial building for the purposes of the energy code.

Part B is used by the inspector to document what the manufacturer is using as the energy compliance checklist required by §70.70 of the IHB rules. If the manufacturer is not using any energy compliance checklist, then this must be documented as a deviation and steps must be taken to ensure that the manufacturer starts using an energy compliance checklist. The manufacturer should be placed on increased frequency of inspections until the manufacturer starts using the energy compliance checklist as part of the in-plant inspection traveler.

The manufacturer is required to have a separate energy compliance checklist that they use to verify energy compliance during construction of the building – if they are not inspecting each item on the checklist and noting the result on their in-plant energy compliance checklist, then they are not in compliance with the IHB rules.

Part C is a checklist used by the third-party inspector to check for compliance of items related to energy compliance – this is not a complete list of checks that may be needed to ensure energy code compliance. The inspector is required to perform a complete energy compliance check of all visible construction at the time of the inspection. Items that do not comply must be documented as deviations.

Note that the ***Energy Inspection Summary Sheet*** is designed to check for compliance to the International Energy Conservation Code – some items may not be applicable for units designed to meet ASHRAE 90.1. In addition, some items may not be applicable to a particular building. For example, a restroom building that is not heated or cooled would not be required to comply with the envelope or HVAC requirements of the energy code. However, the water heating equipment and the lighting would have to comply.

Part D is a note section that the inspector can use to document if some items are not applicable in Part C. You must indicate why in this section. You may also use this section to document concerns or comments you have about the energy compliance of the units inspected.

Monitoring of System Testing, Form #IHB 213

Part B is used by the inspector to document any system testing that the inspector observed during the inspection. A failed test is not a deviation. However, failure to determine the cause of the failure, correct the problem, and retest is a deviation and must be documented as a deviation. Failure to follow the approved test procedures and/or to use test equipment that has not been calibrated, is not functioning properly, does not meet code requirements, or does not match the list of equipment in the approved manual must be documented as a deviation. In addition to pass or fail, the following tests also require the inspector to record information about the test:

- **Dielectric Strength Test** – Record if the test equipment is AC or DC, the voltage used to conduct the test, and the amount of time of exposure to the voltage (1 second or 1 minute)
- **Potable Water Test** – Record if the test was by water or air pressure and the pressure used for the test in psi. Note that use of an air pressure test for plastic pipe must be documented as a deviation.
- **Drain, Waste, and Vent** – Record if the test is a water test or air pressure test – if air pressure record the pressure used for the test in psi.
- **Gas System** – Record the pressure used for the test.
- **Concrete Slump Test** – Record the required slump and the slump achieved. The required slump will be found in the approved plans and/or compliance control manual and should include accept/reject criteria. For example, the required slump may be 3” +/- 1.” A slump achieved that is outside these parameters would be a deviation of the approved design package.
- **Concrete Compression Test** – Record day of test, i.e., 7-day, 14-day, or other and the amount of days of the test. Record the required strength and the tested strength. The test passes if the required strength is achieved within the parameters of the approved design package and the mandatory building codes.
- **Concrete Cylinders Taken** – Record the number of cylinders taken during the concrete pour. The test passes if the cylinders are taken in accordance with the procedures in the manual.
- **Other Concrete Tests** – Describe any other concrete tests observed. Procedures for tests must be included in the approved compliance control manual.
- **Other Required Testing** – Document any other tests observed. Procedures for tests must be included in the approved compliance control manual.

In-Plant Deviation Report, Form #IHB 214

Part B is used to document deviations and action taken to correct the deviations. Do not complete this form if no deviations are noted. The form is continued on page 2 – make copies of page 2 if further pages are needed. The following information is completed in this section:

- **Item #** - Assign a consecutive item number to each deviation documented
- **Unit ID Number** – List the serial number of all modular units that are affected by the deviation.

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- **Description of Deviation Observed** – Describe the deviation. The description must be clear and concise so that others will understand the problem. Description may include sketches and/ or attachments that show the problem, such as a detail in the plans – write the inspection date, the manufacturer’s registration number, and the inspector’s registration number on any attachments. If construction does not match approved plans and the manufacturer will have the approved plans revised and approved to match the as built construction, then the deviation must clearly describe the as built construction
- **Description of Correction Action Observed** – Describe the corrective action taken to clear the deviation – construction to correct the deviation may not be covered until inspected by the third-party inspector. Corrective actions that require revisions to the approved plans must be approved (bear an approval stamp and date) before the deviation may be cleared. Verbal approvals by the manufacturer’s Design Review Agency (DRA) are not allowed. This information is completed by the inspector, not the manufacturer.
- **References** – Provide the code reference or a description of the approved plan or detail for the deviation.

Form to Clear Deviations from Previous Inspections, Form #IHB 215

Use this form to document the corrective actions witnessed to clear deviations that were not cleared on a previous inspection. ***Do not use this form to clear deviations from the PRESENT inspection.***

Part B contains instructions for documenting units inspected on the summary sheet of the inspection report. Make sure that you list the units inspected in Part C of the Summary form and enter the total number of units inspected in section D of the Summary form.

Part C is used to document the actual corrective actions taken to clear deviations from a previous inspection.

- **Date of Previous Inspection** – Enter the date of the previous inspection deviation report.
- **Deviation Item #** - Enter the item number from the previous inspection deviation report.
- **Serial Number** – Enter the serial number of each unit with this deviation that has been cleared on this inspection.
- **Corrective Action** – Enter the corrective action taken to clear the deviation. Corrective actions that require revisions to the approved plans must be approved (bear an approval stamp and date) before the deviation may be cleared. Verbal approvals by the manufacturer’s Design Review Agency (DRA) are not allowed. This information is completed by the inspector, not the manufacturer.
- **Reg. #IHI** – Enter the registration number of the inspector who originally observed the deviation (if different from current inspector).

Possible DRA Approval Error, Form #IHB 216

This form is used to document possible plan review errors discovered by the inspector during an in-plant inspection. If an inspector finds that a DRA approved document does not comply with a section of the mandatory building codes or IHB law and rules, and the manufacturer does not agree or will not revise the document, then the inspector must complete this form and submit it to the Department for further review. Note that if an inspector knows that a DRA approved document does not comply with the mandatory building codes or law and rules, then the inspector must document it as a deviation on the inspection report.

Part B is used to describe the document in question. The following information is completed in this section:

- **Document Description** – Describe the document in question. Provide the model #, project name or number, or other identifying information, including the specific page(s) or sheet number(s) in question.
- **Approval Date** – This is the date the document was approved by the DRA.
- **Code or Rule Reference** – This is the section of the mandatory building codes or law and rules that pertains to the possible approval error.
- **Unit ID Numbers** – These are the serial numbers of the units that may be affected by the possible approval error.
- **Date Received by Department** – *Do not complete – for Department use only.*
- **Review Number** – *Do not complete – for Department use only.*
- **Date of Response from DRA** – *Do not complete – for Department use only.*

Part C is used to describe the approval that you are questioning. Use this section to provide a complete description of the problem and why you believe that it was approved in error. You may attach other documents as an aid, such as drawings of details, commentary from codes, etc. – write the inspection date, the manufacturer’s registration number, and the inspector’s registration number on any attachments.

Part D is used for the ***DRA Response – Do not complete this section.*** If the Department agrees that there is a problem, then the report will be forwarded to the responsible DRA for response and corrections. This section will be used by the DRA to respond to the Department.