

|   |                            |                       |
|---|----------------------------|-----------------------|
| <b>CERTIFICATE OF FIELD VERIFICATION AND DIAGNOSTIC TESTING</b>           |                            | <b>CF-4R-ENV-22</b>   |
| <b>Quality Insulation Installation (QII) - Insulation Stage Checklist</b> |                            | <b>(Page 1 of 3)</b>  |
| <b>Site Address:</b>  | <b>Enforcement Agency:</b> | <b>Permit Number:</b> |

*QII credit not allowed if any steel framing in the building including structural framing (Hardy Framing etc.).*

**Insulation Stage Checklist**

| FLOOR INSULATION         |                          |                          |   |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | All floor joist cavity insulation installed to uniformly fit the cavity side-to-side and end-to-end. (NA if floors slab on grade).  |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Insulation in full contact with the subfloor, NO gaps. (NA if floors are slab on grade).  |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Insulation in contact with air barrier on all five sides. (ends, sides, back). NA if floors are slab on grade.  |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Batts cut to fit around wiring and plumbing, or split (delaminated). (NA if loose fill, SPF, or slab on grade).   |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Batt insulation has continuous support. (NA if loose fill, SPF, or slab on grade).  |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Insulation R-value same or greater that listed on CF-1R.  |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | SPF insulation properly adhered to avoid gaps and provide an air seal   |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | SPF (Spray Polyurethane Foam Medium Density) insulation the average thickness is equal to or greater than that listed on the CF-1R and the minimum thickness shall be no more than 1/2 inch less than the required thickness for the R-value. (NA for other forms of insulation). |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>SPF</b> list the required floor cavity R-value from CF-1R, R-____. List tested average depth of insulation ____ in X 5.8R = ____ R this is the installed R-value and must be equal to or greater than listed on CF-1R (NA for other forms of insulation)                       |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Measure thickness of insulation in 6 random measurements. Must be within 1/2 inch of the required depth.  |
| Yes                      | No                       | NA                       |   |

| ✓ WALL INSULATION        |                          |                          |   |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Standard depth cavities insulation fills cavity and touches air barrier on all six sides. (NA if SPF used and meets the required R-value).  |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | All double walls and bump-outs, the insulation fills the cavity or additional air barrier installed so that the insulation fills the cavity. Insulation touches all six sides. (NA if SPF used and meets the required R-value). |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Behind tub/shower, walls under stairs, and fireplace, insulation touches air barrier on five sides. Not required to fill the space. Cavity required to be air tight.  |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>BATTS</b> , not a single void/depression deeper than 3/4" in ANY stud bay. (NA if loose fill or SPF)   |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>BATTS</b> , voids/depressions less than 3/4" allowed as long as the area is not greater than 10% of the surface area for each stud bay. (NA if loose fill or SPF).   |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Loose Fill</b> no gaps or voids of any depth allowed. (NA if batts or SPF).  |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Any gaps between studs or insulation larger than 1/8" must be filled with insulation or foam.   |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | All Rim-joists to the outside insulated.  |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Special attention must be paid to corner channels, wall intersections, and behind tub/shower enclosures insulated to proper R-Value.  |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | All skylight shafts and attic kneewalls insulated with minimum R-19.  |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Insulation in <b>full</b> contact with drywall or wall finish of skylight shafts and attic kneewalls.   |
| Yes                      | No                       | NA                       |   |

  

|                          |                          |                          |   |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Wall insulation same or better than what is listed on the CF-1R.      |
| Yes                      | No                       | NA                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | SPF insulation properly adhered to avoid gaps and provide an air seal |
| Yes                      | No                       | NA                       |   |

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| <b>Quality Insulation Installation (QII) - Insulation Stage Checklist</b> |                            | <b>(Page 2 of 3)</b>  |
| <b>Site Address:</b>  | <b>Enforcement Agency:</b> | <b>Permit Number:</b> |

|                             |                          |                          |   |
|-----------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | SPF (Spray Polyurethane Foam Medium Density) insulation the average thickness is equal to or greater than that listed on the CF-1R and the minimum thickness shall be no more than 1/2 inch less than the required thickness for the R-value. (NA for other forms of insulation).   |
| Yes                         | No                       | NA                       |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | SPF list the required floor cavity R-value from CF-1R, R-____. List tested average depth of insulation ____ in X 5.8R = ____ R this is the installed R-value and must be equal to or greater than listed on CF-1R (NA for other forms of insulation)  |
| Yes                         | No                       | NA                       |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | Measure thickness of insulation in 6 random measurements. Must be within 1/2 inch of the required depth   |
| Yes                         | No                       | NA                       |   |
| <b>✓ CEILING INSULATION</b> |                          |                          |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | <b>BATTS</b> there must not be a single gap/void/depression deeper than 3/4". (NA if loose fill or SPF).  |
| Yes                         | No                       | NA                       |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | <b>BATTS</b> voids/depressions less than 3/4" allowed as long as the area is not greater than 10% of the surface area for each stud bay. (NA if loose fill or SPF).   |
| Yes                         | No                       | NA                       |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | <b>NO</b> gaps or voids allowed for loose fill and SPF. (NA if batts).  |
| Yes                         | No                       | NA                       |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | All ceiling insulation installed to uniformly fit the cavity side-to-side and end-to-end.   |
| Yes                         | No                       | NA                       |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | Insulation in full contact with the ceiling, NO gaps.   |
| Yes                         | No                       | NA                       |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | Insulation in contact with air barrier on all five sides.   |
| Yes                         | No                       | NA                       |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | <b>Batts</b> cut to fit around wiring and plumbing, or split (delaminated). (NA for loose fill or SPF).   |
| Yes                         | No                       | NA                       |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | <b>Batts</b> taller than the trusses must expand so that they touch each other over the trusses. (NA for loose fill or SPF).  |
| Yes                         | No                       | NA                       |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | <b>SPF</b> the average thickness is equal to or greater than that listed on the CF-1R and the minimum thickness shall be no more than 1/2 inch less than the required thickness for the R-value. (NA if loose fill or batts).   |
| Yes                         | No                       | NA                       |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | Insulation fully fills cavity below any plywood platform or cat-walk. If SPF used then minimum 3 inches. (NA if no platforms or cat-walks)  |
| Yes                         | No                       | NA                       |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | Attic access gasketed   |
| Yes                         | No                       | NA                       |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | Attic access insulated with rigid foam or batt insulation using adhesive or mechanical fastener. R-value same as ceiling R-value listed on CF-1R  |
| Yes                         | No                       | NA                       |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | Recessed light fixtures covered full depth with insulation. If SPF used then other forms of insulation used to cover or enclosed in a box fabricated from 1/2-inch plywood, 18 ga. sheet metal, 1/4-inch hard board or drywall  |
| Yes                         | No                       | NA                       |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | Wall insulation same or better than what is listed on the CF-1R   |
| Yes                         | No                       | NA                       |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | <b>Loose Fill</b> Insulation at proper depth – insulation rulers visible and indicating proper depth and R-value for blown in insulation. (NA for batts or SPF).  |
| Yes                         | No                       | NA                       |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | <b>Loose Fill</b> Insulation <b>uniformly</b> covers the entire ceiling (or roof) area from outside of all exterior walls. (NA for batts or SPF).   |
| Yes                         | No                       | NA                       |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | <b>Loose-fill</b> mineral fiber insulation meets or exceeds manufacturer's minimum weight and thickness requirement for the target R-value. Target R-value _____ Manufacturer's minimum required weight for the target R-value _____ (pounds-per-square foot). Sample weight _____ (pounds per square foot).  |
| Yes                         | No                       | NA                       |   |
| <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | Manufacturer's minimum required thickness at time of installation _____ (inches) Manufacturer's minimum required settled thickness _____ (inches). Number of days since loose-fill insulation was installed _____ (days). At the time of installation, the insulation shall be greater than or equal to the manufacturer's minimum initial insulation thickness. If the HERS rater does not verify the insulation at the time of installation, and if the loose-fill insulation has been in place less than seven days the thickness shall be greater than the manufacturer's minimum required thickness at the time of installation less 1/2 inch to account for settling. If the insulation has been in place for seven days or longer the insulation thickness shall be greater than or equal to the manufacturer's minimum required settled thickness. Minimum thickness measured (inches). |
| Yes                         | No                       | NA                       |   |

|   |                            |                       |
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| <b>Quality Insulation Installation (QII) - Insulation Stage Checklist</b> |                            | <b>(Page 3 of 3)</b>  |
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|   |                                |                                |  |
|---|--------------------------------|--------------------------------|--|
| <b>✓ GARAGE ROOF/CEILING INSULATION FOR TWO STORIES(no conditioned space over garage)</b> |                                |                                |  |
| <input type="checkbox"/><br>Yes   | <input type="checkbox"/><br>No | <input type="checkbox"/><br>NA | Insulation installed at joists against the air barrier in the garage to house transition (between floors). All wall insulation requirements above must be met. (NA if conditioned space over garage).  |
| <b>✓ GARAGE ROOF/CEILING INSULATION FOR TWO STORIES(conditioned space over garage)</b>    |                                |                                |  |
| <input type="checkbox"/><br>Yes   | <input type="checkbox"/><br>No | <input type="checkbox"/><br>NA | If insulation is to be installed at subfloor then the insulation must <b>also</b> be installed at joists against the air barrier in the garage to house transition (between floors). All ceiling and wall insulation requirements above must be met. (NA if no conditioned space over garage). |
| <input type="checkbox"/><br>Yes   | <input type="checkbox"/><br>No | <input type="checkbox"/><br>NA | If insulation is to be installed at ceiling of garage then the joists to the outside must be insulated and all the insulation requirements listed above must be met. (NA if no conditioned space over garage).   |
| <input type="checkbox"/><br>Yes   | <input type="checkbox"/><br>No | <input type="checkbox"/><br>NA | SPF insulation properly adhered to avoid gaps and provide an air seal  |
| <input type="checkbox"/><br>Yes   | <input type="checkbox"/><br>No | <input type="checkbox"/><br>NA | SPF (Spray Polyurethane Foam Medium Density) insulation the average thickness is equal to or greater than that listed on the CF-1R and the minimum thickness shall be no more than ½ inch less than the required thickness for the R-value. (NA for other forms of insulation).                |
| <input type="checkbox"/><br>Yes   | <input type="checkbox"/><br>No | <input type="checkbox"/><br>NA | <b>SPF</b> list the required floor cavity R-value from CF-1R, R-____. List tested average depth of insulation ____ in X 5.8R = ____ R this is the installed R-value and must be equal to or greater than listed on CF-1R (NA for other forms of insulation)                                    |
| <input type="checkbox"/><br>Yes   | <input type="checkbox"/><br>No | <input type="checkbox"/><br>NA | Measure thickness of insulation in 6 random measurements. Must be within ½ inch of the required depth  |

#### DECLARATION STATEMENT

- I certify under penalty of perjury, under the laws of the State of California, the information provided on this form is true and correct.
- I am the certified HERS rater who performed the verification services identified and reported on this certificate (responsible rater).
- The installed feature, material, component, or manufactured device requiring HERS verification that is identified on this certificate (the installation) complies with the applicable requirements in Reference Residential Appendices RA2 and RA3 and the requirements specified on the Certificate(s) of Compliance (CF-1R) approved by the local enforcement agency.
- The information reported on applicable sections of the Installation Certificate(s) (CF-6R), signed and submitted by the person(s) responsible for the installation conforms to the requirements specified on the Certificate(s) of Compliance (CF-1R) approved by the enforcement agency.

|  |   |  |
|--|---|--|
| <b>Builder or Installer information as shown on the Installation Certificate (CF-6R)</b> |   |  |
| Company Name: (Installing Subcontractor or General Contractor or Builder/Owner)          |   |  |
| Responsible Person's Name:   | CSLB License:                                     |  |
| <b>HERS Provider Data Registry Information</b>   |   |  |
| Sample Group # (if applicable):  | <input type="checkbox"/> tested/verified dwelling | <input type="checkbox"/> not-tested/verified dwelling in a HERS sample group |
| <b>HERS Rater Information</b>  |   |  |
| HERS Rater Company Name:   |   |  |
| Responsible Rater's Name   | Responsible Rater's Signature                     |  |
| Responsible Rater's Certification Number w/ this HERS Provider:                          | Date Signed:                                      |  |