DOCKETED	
Docket Number:	15-BSTD-02
Project Title:	Residential Compliance Manual and Documents
TN #:	232820-20
Document Title:	2016-CF3R-ENV-23-HERS-QII-InsulationStagepdf
Description:	N/A
Filer:	Corrine Fishman
Organization:	California Energy Commission
Submitter Role:	Public Agency
Submission Date:	4/22/2020 9:54:01 AM
Docketed Date:	4/22/2020

CERTIFICATE OF VERIFICATION		CF3R-ENV-23-H
Quality Insulation Installation (QII) - Insulation Installation		(Page 1 of 5)
Project Name:	Enforcement Agency:	Permit Number:
Dwelling Address:	City:	Zip Code:

A. Quality Insulation Installation (QII) Preparation for Insulation		
01	Air barrier installation and preparation for insulation was done and verified at framing stage prior to insulation being installed. Where applicable, CF3R-ENV21 and 22 compliance documents have been signed off.	
02	All structural framing areas shall be insulated in a manner that resists thermal bridging of the assembly separating conditioned from unconditioned space. Structural bracing, tie-downs, and framing of steel, or specialized framing used to meet structural requirements of the CBC are allowed and must be insulated. These areas shall be called out on the building plans with diagrams and/or specific design drawings indicating the R-value of insulation and fastening method to be used. It is recommended that spray foam be used.	
03	All insulation was installed to the manufactures insulation installation instructions.	
04	Verification Status:	☐ Pass - all applicable requirements are met; or ☐ Fail - one or more applicable requirements are not met. Enter reason for failure in corrections notes field below; or ☐ All N/A - This entire table is not applicable
05	Correction Notes:	
The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met unless otherwise noted in the Verification Status and the Corrections Notes in this table.		

B. Quality of All Installed Insulation		
01	Installed insulation R-values is the same or greater than specified on the CF1R.	
02	No gaps or voids between the insulation and framing.	
03	Gaps between studs shall be filled with insulation.	
04	Batt - ensure the ends are cut so there are no gaps.	
05	Batt - insulation is cut around obstructions like electrical boxes and no gaps exist.	
06	Batt - insulation is not compressed (no stuffing of the insulation into the cavity).	
07	Batt insulation is delaminated around all plumbing and electrical lines in ceilings, walls and floors.	
08	An air barrier is installed at all exposed edge faces of batt, loose fill and SFP insulation.	
09	Loose-fill insulation installed to the minimum installed weight per ft^2 per the manufacturer's labeled R-value specification.	
10	SPF insulation shall be spray-applied to fully adhere to structural assembly framing, floor and ceiling joists, and other framing surfaces within the construction cavity.	
11	SPF - with multiple layers applied, each foam lift (i.e. spray application) adheres to the substrate and foam interfaces.	
12	SPF - if values other than R-5.8 per inch for closed-cell SPF (ccSPF) and R-3.6 per inch for open-cell SFP (ocSPF) are used, the ICC Evaluation Service Report (ESR) number (e.g. ESR-xxxx) will be documented on the CF2R-ENV-03.	
13	ccSPF - in areas where an air barrier is required the foam is at least 2 inches thick.	
14	ocSPF depressions in the foam insulation surface are not greater than 1-inch of the required thickness provided these depressions do not exceed 10% of the surface area being insulated.	
15	ocSPF insulation completely fills cavities of 2x4 inch framing or less.	
16	ocSPF cavities greater than 2x4 inch framing are filled to the thickness that meets the required R-value used for compliance.	
17	SPF installed as an air barrier is sprayed at a minimum of 5.5 inches in thickness for open cell and 2.0 inches for closed cell.	
18	The insulation installer provided a CF2R-ENV-03. Labels or specification/data sheets are attached to the CF2R-ENV-03 for each insulating material. The material datasheet for the installed material meets the performance specifications of the required R-Values. Blown in material also includes insulation material bag labels or coverage charts.	
19	Verification Status:	☐ Pass - all applicable requirements are met; or ☐ Fail - one or more applicable requirements are not met. Enter reason for failure in corrections notes field below; or ☐ All N/A - This entire table is not applicable
20	Correction Notes:	
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C. Ceiling/Roof Insulation		
01	Insulation extends to the outside edge of the exterior top plates and is flush against any ventilation dams/baffles.	
02	Insulation is in direct contact with ceiling so there are no gaps between the ceiling and the insulation.	
03	Chimneys and flues (except for zero clearance) require sheet metal collar around the stack. The collar must be at least as tall as the depth of the insulation. The collar shall be 1" from the chimney/flue for double wall vent, and 6" from the chimney/flue for single wall vent" unless manufacturer requires otherwise. The collar must be sealed to the ceiling with high temperature sealant to prevent air leakage. The insulation is in contact with the sheet metal collar.	
04	Required eave ventilation shall not be obstructed - the net free-ventilation area of the eave vent is maintained	
05	Eave vent baffles are installed to prevent air movement under, or into, the ceiling insulation.	
06	Recessed downlights are covered with insulation. If they are not covered to the same depth as required by the CF1R for ceiling insulation then an area weighted calculation is required. Recessed downlights are AT and IC rated.	
07	SPF insulation shall not be applied directly to recessed lighting fixtures. Recessed downlights where SPF insulation is installed shall: (a) be covered with a minimum of 1.5 inches of mineral fiber insulation, or (b) be enclosed in a box fabricated from 1/4 inch plywood, 18 gauge metal, 3/8 inch hard board or gypboard. Hard board or gypboard do not cause a recessed downlights to meet the zero clearance insulation contact requirements.	
08	Walkways and mechanical platforms are insulated to the same R-value as required by the CF1R for ceiling insulation. If not an area weighted calculation is completed and turned in with this compliance document.	
09	Soffits, chasses, drops have a sealed hard cover and the insulation is in direct contact with the hard cover.	
10	Knee walls – an air dam the full depth of the ceiling insulation is added to the exterior edge of the knee wall so the ceiling insulation overlaps the knee wall to the full depth of the ceiling insulation.	
11	Attic access doors are insulated to the same R-value required by the CF1R for roof insulation and the insulation is permanently attached using adhesive or mechanical fasteners. Preferred method is rigid insulation.	
12	Attic access forms airtight seal from conditioned space to unconditioned space. Vertical attic access requires mechanical compression using screws, or latches.	
13	Attic access must have a dam around the access to at least the same depth as the insulation.	
14	Insulation batts must be cut to fit around cross bracings and truss webs.	
15	Attic rulers appropriate to the material are installed and evenly distributed throughout the attic to verify Depth (one ruler for every 250 ft^2) The rulers are clearly readable from the attic access and scaled to read inches of insulation and the R-value installed.	
16	Loose-fill and SPF insulation - a HERS rater shall measure the installed thickness (include low and high areas) and density of insulation in at least 6 random locations on walls, roof/ceilings and floors to ensure minimum thickness levels and the installed density meets the R-value specified on the Certificate of Compliance, and are consistent with the manufacturer's coverage chart.	
17	Steel-framed kneewalls, skylight shafts, and gable ends, external surfaces of steel studs are covered with insulation	
18	Verification Status:	☐ Pass - all applicable requirements are met; or ☐ Fail - one or more applicable requirements are not met. Enter reason for failure in corrections notes field below; or ☐ All N/A - This entire table is not applicable
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D. Wall Insulation		
01	**Batts, loose fill mineral fiber, mineral and natural wool, and cellulose:** fills cavity and is in contact with air barrier on six sides.	
02	**ocSPF:** completely fill cavities of 2x4 inch framing or less. Not required to fill cavities greater than 2x4 inch framing unless required to meet R-value.	
03	**ccSPF:** insulation is not required to fill the cavities of framed assemblies unless required to meet R-value.	
04	**Double walls and bump-outs** - insulation fills the cavity, or additional air barrier is installed so the insulation fills the cavity and is in contact with the insulation on all six sides unless SPF is used. Insulation shall be installed on the exterior of the double walls/bump-outs.	
05	Low expanding foam used around windows and doors, if allowed by the manufacturer. If not allowed fill cavity with insulation. Batts are not allowed to be stuffed into space.	
06	Electrical panel in exterior insulated wall the panel is air tight and insulation is installed behind the panel.	
07	Skylight shafts and attic knee wall insulation must meet all the requirements for walls and is in contact with the air barrier on six sides unless SPF is used.	
08	Skylight shafts and attic kneewalls insulation shall be in full contact with the drywall or other interior wall finish. Batt insulation must be cut to fit around 2x4's that are laid flat.	
09	Skylight shafts and attic kneewalls shall be completely enclosed by vertical and horizontal framing, including horizontal plates at top and bottom of the insulation.	
10	Band/Rim joists are insulated to the same R-value as the wall.	
11	Verification Status:	☐ Pass - all applicable requirements are met; or ☐ Fail - one or more applicable requirements are not met. Enter reason for failure in corrections notes field below; or ☐ All N/A - This entire table is not applicable
12	Correction Notes:	
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E. Raised Floor Insulation Quality		
01	Insulation is in full contact with subfloor.	
02	Insulation hangers are spaced at 18 inches or less, insulation hangers do not compress insulation.	
03	Netting, or mesh, can be used if the cavity under the floor is filled and in contact with the subfloor.	
04	When daylight basements are adjacent to crawlspaces, if the basement is conditioned the walls adjacent to the crawlspace are insulated to the R-value listed on the CF1R. This includes framed stem walls, and vertical concrete retaining walls.	
05	If access to the crawlspace is from the conditioned area the raised floor includes an airtight insulated access hatch. Where possible locate crawl space access from the exterior.	
06	Verification Status:	☐ Pass - all applicable requirements are met; or ☐ Fail - one or more applicable requirements are not met. Enter reason for failure in corrections notes field below; or ☐ All N/A - This entire table is not applicable
07	Correction Notes:	
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F. Floor Above Garage Insulation Quality		
01	Insulation must be in full contact with subfloor if the air barrier is at the band joist at the garage house wall.	
02	Insulation hangers spaced at 18 inches or less, insulation hangers must not compress insulation.	
03	Netting or mesh can be used if the cavity under the floor is filled and in contact with the subfloor.	
04	If air barrier is at the perimeter of the garage below the conditioned subfloor then the insulation may be placed on the garage ceiling. Perimeter of subfloor must also be insulated.	
05	Verification Status:	☐ Pass - all applicable requirements are met; or ☐ Fail - one or more applicable requirements are not met. Enter reason for failure in corrections notes field below; or ☐ All N/A - This entire table is not applicable
06	Correction Notes:	
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G. Cantilevered Floor Insulation Quality		
01	Insulation is in full contact with cantilevered subfloor. Insulation hangers are spaced at 18 inches or less, insulation hangers do not compress insulation. Netting or mesh can be used if the cavity under the floor is filled and in contact with the subfloor.	
02	Sealed Blocking shall be installed between joists where the wall rim joist would have been located in the absence of a cantilever. Insulation shall be placed on both sides of this block.	
03	Verification Status:	☐ Pass - all applicable requirements are met; or ☐ Fail - one or more applicable requirements are not met. Enter reason for failure in corrections notes field below; or ☐ All N/A - This entire table is not applicable
04	Correction Notes:	
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H. Attached Porch Roof Insulation Quality		
01	Exterior wall at the intersection of the porch roof is fully insulated above, below and behind the roof line.	
02	Where truss framing is used, airtight blocking is used at the top and bottom of each wall/roof section and insulated.	
03	Verification Status:	☐ Pass - all applicable requirements are met; or ☐ Fail - one or more applicable requirements are not met. Enter reason for failure in corrections notes field below; or ☐ All N/A - This entire table is not applicable
04	Correction Notes:	
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I. Determination of HERS Verification Compliance	
All applicable sections of this document shall indicate compliance with the specified verification protocol requirements in order for this Certificate of Verification as a whole to be determined to be in compliance.	
01	

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Verification documentation is accurate and complete.	
Documentation Author Name:	Documentation Author Signature:
Company:	Date Signed:
Address:	CEA/HERS Certification Information (if applicable):
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Verification is true and correct.
2. I am the certified HERS Rater who performed the verification identified and reported on this Certificate of Verification (responsible rater).
3. The installed features, materials, components, manufactured devices, or system performance diagnostic results that require HERS verification identified on this Certificate of Verification comply with the applicable requirements in Reference Appendices RA2, RA3, and the requirements specified on the Certificate of Compliance for the building approved by the enforcement agency.
4. The information reported on applicable sections of the Certificate(s) of Installation (CF2R) signed and submitted by the person(s) responsible for the construction or installation conforms to the requirements specified on the Certificate(s) of Compliance (CF1R) approved by the enforcement agency.
5. I will ensure that a registered copy of this Certificate of Verification shall be posted, or made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a registered copy of this Certificate of Verification is required to be included with the documentation the builder provides to the building owner at occupancy.

BUILDER OR INSTALLER INFORMATION AS SHOWN ON THE CERTIFICATE OF INSTALLATION	
Company Name (Installing Subcontractor, General Contractor, or Builder/Owner):	
Responsible Builder or Installer Name:	CSLB License:
HERS PROVIDER DATA REGISTRY INFORMATION	
Sample Group Number (if applicable):	Dwelling Test Status in Sample Group (if applicable):
HERS RATER INFORMATION	
HERS Rater Company Name:	
Responsible Rater Name:	Responsible Rater Signature:
Responsible Rater Certification Number w/ this HERS Provider:	Date Signed:

CF3R-ENV-23-H User Instructions

A. Quality Insulation Installation (QII) Insulation Stage

6. HERS Rater to select from list:
   a. Pass - all applicable requirements are met.
   b. Fail - one or more applicable requirements are not met. Rater must enter reason for failure in corrections notes field below.
   c. All N/A - This entire table is not applicable.
7. Correction Notes, Rater must enter reason for failure.

B. Quality of All Installed Insulation

20. HERS Rater to select from list:
   a. Pass - all applicable requirements are met.
   b. Fail - one or more applicable requirements are not met. Rater must enter reason for failure in corrections notes field below.
   c. All N/A - This entire table is not applicable.
21. Correction Notes, Rater must enter reason for failure.

C. Ceiling/Roof Insulation

18. HERS Rater to select from list:
   a. Pass - all applicable requirements are met.
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   c. All N/A - This entire table is not applicable.
19. Correction Notes, Rater must enter reason for failure.

D. Wall Insulation

11. HERS Rater to select from list:
   a. Pass - all applicable requirements are met.
   b. Fail - one or more applicable requirements are not met. Rater must enter reason for failure in corrections notes field below.
   c. All N/A - This entire table is not applicable.
12. Correction Notes, Rater must enter reason for failure.

E. Raised Floor Insulation Quality

6. HERS Rater to select from list:
   a. Pass - all applicable requirements are met.
   b. Fail - one or more applicable requirements are not met. Rater must enter reason for failure in corrections notes field below.
   c. All N/A - This entire table is not applicable.
7. Correction Notes, Rater must enter reason for failure.

F. Floor Above Garage Insulation Quality

5. HERS Rater to select from list:
   a. Pass - all applicable requirements are met.
   b. Fail - one or more applicable requirements are not met. Rater must enter reason for failure in corrections notes field below.
   c. All N/A - This entire table is not applicable.
6. Correction Notes, Rater must enter reason for failure.

G. Cantilevered Floor Insulation Quality

3. HERS Rater to select from list:
   a. Pass - all applicable requirements are met.
   b. Fail - one or more applicable requirements are not met. Rater must enter reason for failure in corrections notes field below.
   c. All N/A - This entire table is not applicable.
4. Correction Notes, Rater must enter reason for failure.

H. Attached Porch Roof Insulation Quality

3. HERS Rater to select from list:
   a. Pass - all applicable requirements are met.
   b. Fail - one or more applicable requirements are not met. Rater must enter reason for failure in corrections notes field below.
   c. All N/A - This entire table is not applicable.
4. Correction Notes, Rater must enter reason for failure.