

QUALITY INSULATION INSTALLATION – FRAMING STAGE CHECKLIST

CEC-CF-4R-ENV-21 (Revised 05/12)

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF FIELD VERIFICATION AND DIAGNOSTIC TESTING		CF-4R-ENV-21
Quality Insulation Installation (QII) - Framing Stage Checklist		(Page 1 of 2)
Site Address:	Enforcement Agency:	Permit Number:

Quality Insulation Installation (QII) Framing Stage Checklist

Air barrier installation and preparation for insulation must be done at framing stage before insulation is installed. If there are any “No” answers, rows not filled out, or a signature missing then this is not a valid form and cannot be accepted by the building department or HERS rater.

SPF insulation can be considered an air barrier when the bottom and top plates of vertical framing and both ends of horizontal framing, including band and rim joists, are sprayed to completely fill the cavity adjacent to and in contact with the framing to a distance of 5.5 inches away from the framing for open cell SPF (ocSPF) or 2.0 inches away from the framing for closed cell SPF (ccSPF). SPF can be considered as an air barrier with less than the above thickness when a product data or specification sheet is provided that shows the product meets an air permeance no greater than 0.02 L/s-m² at 75 Pa pressure differential when tested in accordance to ASTM E2178 or ASTM E283.

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 specific 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.

✓ FLOOR AIR BARRIER			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All gaps in the raised floor to unconditioned space or to outside larger than 1/8” filled with foam or caulk. (NA if SPF meets conditions above)
Yes	No	NA	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All openings in the raised floor including second floors, such as under a tub where the drain penetrates the floor are sealed. (NA if slab on grade)
Yes	No	NA	
✓ WALL AIR BARRIER			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All gaps to outside larger than 1/8” filled with foam or caulk. (NA if SPF meets conditions above)
Yes	No	NA	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All openings in top and bottom plate to the outside in interior and exterior walls, including holes drilled for electrical and plumbing larger than 1/8” filled with foam or caulk. (NA if SPF meets conditions above)
Yes	No	NA	
<input type="checkbox"/>	<input type="checkbox"/>		Rope caulk, foam gasket, or caulking bead under exterior sole plate of the home.
Yes	No		
<input type="checkbox"/>	<input type="checkbox"/>		All gaps around windows and doors caulked or foamed. Low expanding foam recommended if allowed by window manufacturer. (Stuffing with fiberglass not acceptable)
Yes	No		
✓ ATTIC INSPECTION			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Attic rulers appropriate to the material installed are evenly distributed throughout attic to verify depth. (NA if SPF or batt)
Yes	No	NA	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Number of rulers installed _____ Attic area (sqft) _____ ÷ 250 = _____ minimum number of rulers installed. Must round up. (NA if SPF or batt)
Yes	No	NA	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ventilation baffles installed at all eave vents to prevent air movement under or into insulation. (NA if SPF meets conditions above)(NA if unvented attic)
Yes	No	NA	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Net free-ventilation area of the eave vent maintained from eave vent, past insulation, to attic space. (NA if no eave vents or SPF)
Yes	No	NA	
✓ CEILING AIR BARRIER			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All draft stops in place to form a continuous ceiling air barrier no gaps larger than 1/8”. (NA if SPF meets conditions above)
Yes	No	NA	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All dropped ceilings/soffits covered with hard covers. Gaps around or in the hard cover larger than 1/8” filled with foam or caulk. (NA if no drops)
Yes	No	NA	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Openings around flue shafts fully sealed with flashing and caulked. (NA if no flue shafts)
Yes	No	NA	

Registration Number: _____ Registration Date/Time: _____ HERS Provider: _____
2008 Residential Compliance Forms May 2012

QUALITY INSULATION INSTALLATION – FRAMING STAGE CHECKLIST

CEC-CF-4R-ENV-21 (Revised 05/12)

CALIFORNIA ENERGY COMMISSION

**CERTIFICATE OF FIELD VERIFICATION AND DIAGNOSTIC TESTING** **CF-4R-ENV-21****Quality Insulation Installation (QII) - Framing Stage Checklist****(Page 2 of 2)**

Site Address:	Enforcement Agency:	Permit Number:
----------------------	----------------------------	-----------------------

<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	Piping shaft openings fully sealed and caulked. (NA if no pipe shafts)
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	Penetrations through the ceiling air barrier from electrical boxes in the ceiling, fire alarm boxes, etc. sealed with caulk or foam. (NA if no penetrations)
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	All duct chases, fireplace chases, and double walls sealed air tight at the ceiling level. All gaps into shafts larger than 1/8" filled with foam or caulk (NA if none of the above or SPF meets conditions above)

✓ GARAGE ROOF/CEILING AIR BARRIER FOR TWO STORIES (no conditioned space over garage)			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	Air barrier installed at joists in garage to house transition (between floors). No gaps larger than 1/8" allowed. (NA if SPF meets conditions above)
✓ GARAGE ROOF/CEILING AIR BARRIER FOR TWO STORIES (conditioned space over garage)			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	If insulation is to be installed at subfloor then subfloor has no gaps over 1/8". Air barrier installed at joists in garage to house transition (between floors). Use of SPF meeting conditions above as the air barrier satisfies the requirement to seal the gaps.
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	If insulation is to be installed at ceiling of garage then ceiling and joists to the outside have no gaps over 1/8". (NA if SPF meets conditions above or no conditioned space over garage.)

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.

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