| | IFICATE OF C | | | | | _ | | | | | | | NV-1 | |
|-----------------------------|---|-------------------------|------------------------|----------------------|-----------------|-----------------------------|--------------------|---------------|------------|--------------------|---------|-----------|---------|----|
| | FIELD INSPEC | TION EN | NERGY | CHE | CKLIST | | | | | 1 | | (Page | 1 of | 5) |
| Project | Name: | | | | | D | ate: | | | Cli | mate Z | Zone: | | |
| | | | | | | | | | | | | | | |
| Project | Address: | | | | | | | | | | Condi | itioned | l Floo | r |
| | | | | | | | | | | | Area: | | | |
| General | Information | | | | | | | | | | | | | |
| Building | Type: | □ Nonres | idential | ☐ Hi | gh-Rise F | esidential | ΠН | lotel/M | otel Gue | est Rooi | m | | | |
| ☐ Schoo | ols (Public School) ght Area for Large F | ☐ Reloca Enclosed Sp | table Pub bace ≥ 80 | olic Scho | ol Bldg. | Conditi | ioned Sp ENV-40 | aces | ☐ Unco | ondition | ied Spa | ces | | |
| | | | | | | morade me | | VVILLI | uommua | ı <i>)</i> | | | | |
| Phase of | Construction: | | | | nstruction | | | with 5 | | Alteration | on | | | |
| | | | | New Co | nstruction | | dition | | | Alteratio | | (file aff | fidavit | :) |
| Approach | th of Compliance: | | Compor | New Cor | nstruction | ☐ Add | dition | | | Alteratio | | (file aff | idavit | () |
| Approach | | | Compor | New Connent | nstruction | ☐ Add | dition | | | Alteratio | | (file aff | ĩdavit | () |
| Approach | th of Compliance: | V or in Deg | Compor | New Connent | nstruction Ove | ☐ Add | dition be TDV | Energy | □ <i>I</i> | Alteration Jncondi | | (file aff | ĩdavit | () |
| Approach Front Or | th of Compliance: | V or in Deg | Compor | New Connent | nstruction Ove | ☐ Addrall Envelop | dition be TDV | Energy | □ <i>I</i> | Alteration Jncondi | | (file aff | idavit |) |
| Approach Front Or | ch of Compliance: rientation: N, E, S, V | V or in Deg | Compor | New Connent | nstruction Ove | ☐ Addrall Envelop | dition be TDV | Energy | □ <i>I</i> | Alteration Jncondi | | (file aff | idavit | |
| Approach Front Or OPAQU | th of Compliance: rientation: N, E, S, V | V or in Deg FIELI FAILS | Compor grees: | New Connent PECT 5 | Ove | ☐ Addrall Envelop NERGY | dition oe TDV | Energy ECK | LIST | Alteration | itioned | 13 | T | |
| Approach Front Or OPAQU | th of Compliance: rientation: N, E, S, V | V or in Deg FIELI FAILS | Compor grees: | New Connent PECT 5 | Ove | □ Addrall Envelop NERGY 7 | dition to TDV | Energy ECK | LIST | Alteration Jncondi | 12 | 13 u | 14 | 4 |
| Approach Front Or OPAQU 1 | th of Compliance: rientation: N, E, S, V | V or in Deg FIELI FAILS | Compor grees: | New Connent PECT 5 | Ove | □ Addrall Envelop NERGY 7 | dition to TDV | Energy ECK | LIST | Alteration Jncondi | 12 | 13 u | 14 | 4 |
| Approach Front Or OPAQU | th of Compliance: rientation: N, E, S, V | V or in Deg FIELI FAILS | Compor grees: _ | New Connent PECT | Ove | □ Add | dition oe TDV | Energy ECK | LIST | Alteration | itioned | | T | |

- 1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
- 2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

| | jan aves noi meer compilance. | | | | | | | | | | | |
|------------|-------------------------------|-----------------|---------------------------|------------|-----------------|--------------------|----------------|----------------|----------|----------------------|------|-------------------|
| FENEST | TRATION SURFACE DETAILS | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 2 |
| Tag /ID | Fenestration Type | Surface Area | Orientation N, S, W, E | # of Panes | Max U-Factor | U-Factor Source | Max (R)SHGC | SHGC Source | Overhang | Conditions Status | Pass | Fail ² |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
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STATE OF CALIFORNIA CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

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| CEC-ENV-1C (Revised 08/09) | | | CALIFORN | NA ENERGY CO | OMMISSION | | |
|---|-------|--|-----------|--------------|-----------|------|--|
| CERTIFICATE OF COMPLIANCE ENV-10 AND FIELD INSPECTION ENERGY CHECKLIST (Page 2 of 5) | | | | | | | |
| Project Name: | Date: | | Climate 2 | | , | | |
| | | | | | | | |
| 3. 1. See Instructions in the Nonresidential C 2. If Fail then describe on Page 2 of the Instructions if necessary. | • | | | | to corre | ect. | |

| | | | | | | | | | | | | | ∥∟ | ╵║⊔∣ |
|--|---|------------|-----------------------|-----------------|-------------------|-----------|-------------------------|----------|-----------|------------------|--------------|---------|------------|-------------------|
| 3. 1. See Instructions in the Nonresidential Compliance Manual, page 3-96. | | | | | | | | | | | | | | |
| 2. If Fail then | 2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. | | | | | | | | | | | | | t. |
| • | Verify building plans if necessary. | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| ROOFING PI | RODU | CT (C | OOL R | OOFS) | | | | | | | | | | |
| (Note if the roofing Performance Appro | | s not CR. | RC certifi | ed, this con | pliance approac | h canno | ot be used). | Go to | Overall 1 | Envelope A | <i>pprod</i> | ich o | r | |
| CHECK APPLI | CABLE | BOX | ВЕГОИ | IF EXE | MPT FROM | THE | ROOFIN | GPR | 2ODU | CT | | | | |
| "COOL ROOF | " REQU | JIREM | ENTS: | | | | | | | | Po | ass | $Fail^{l}$ | NA |
| ☐ Roofing compliance not required in Climate Zones 1 and 16 with a Low-Sloped. 2:12 pitch or less. ☐ ☐ ☐ ☐ | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| ☐ Roofing complian pitch. | ice <u>not</u> req | quired in | Climate 2 | Zone 1 with | a Steep-Sloped v | with less | than 5 lb/fi | t. Gre | ater tha | n 2:12 | | 7 | | □ |
| ☐ Low-sloped Wood | d framed i | roofs in (| Climate Z i | ones 3 and | 5 are exempted s | solar re | lectance and | l therm | al emitt | ance or | | | | |
| | | | | | | | | | | | 4 | 7 | | |
| SRI that have a | U-jacior o | J v.vs9 v | r tower. S | ee Opaque | Surjace Detaus | rooj ass | етвіу, Соій | ımn H | oj env- | 2C. | | | | |
| ☐ Low-sloped Meta | l Building | g Roofs i | n Climate | Zones 3 an | nd 5 are exempted | d solar | relectance a | ind the | rmal em | ittance or | ١, | _ | | |
| SRI that have a | U-factor o | f 0.048 a | or lower. S | See Opaque | Surface Details | roof ass | embly below | v, Colu | mn H oj | ENV-2C. | | 7 | <u> П</u> | |
| ☐ The roof area co | vered by b | uilding i | ntegrated | photovolta | ic panels and but | ilding in | tegrated sol | lar thei | mal pan | els are | | | | |
| avamntad solar | ralactanc | o and the | ormal omi | tance or S | RI. See spredshe | at calcu | lattor at wa | ww.ene | rav ca a | w/title24/ | 4 | 7 | | |
| exemplea solar | retectunce | e unu ine | mui emii | unce or SI | u. See spreusne | ct carcu | iattor at wv | v w .cnc | igy.ca.go |) V/ titic2-4/ | | | | |
| ☐ Roof construction the Cool Roof cr | | | al mass o | ver the rooj | f membrane with | a weigl | it of at least | 25 lb/j | t² is exe | mpt from | 1 | J | | |
| ☐ High-rise residen sloped roofing cr | tial buildii | | otels and | motels with | low-sloped roofs | s in Clir | nate Zones 1 | throug | gh 9, 12 | and 16 are | exemp | oted f | rom the | e low- |
| 1. If Fail then describ | | page of th | he Inspecti | ion Checkli | st Form and take | appropi | riate action i | to corre | ect. Veri | fy building | g plans | s if ne | cessar | ν. |
| | Roof S | Slope | Produc | t Weight | | | | | | | | | | |
| CRRC Product | | - | | C | Product | | ged Solar | | | | | | | 6 |
| ID Number ¹ | ≤ 2:12 | > 2:12 | < 5lb/ft ² | $\geq 5lb/ft^2$ | Type ² | R | eflectance ³ | Emn | itance | SRI ⁵ | | Pa | SS | Fail ⁶ |
| | | | | | | | 1 | | | | | |] | |
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CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

CEC-ENV-1C (Revised 08/09) CALIFORNIA ENERGY COMMISSION

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| CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECK | LIST | ENV-1C (Page 3 of 5) |
|---|----------|-------------------------|
| Project Name: | Date: | Climate Zone: |
| | ' | |

- 1. The CRRC Product ID Number can be obtained from the Cool Roof Rating Council's Rated Product Directory at www.coolroofs.org/products/search.php
- 2. Indicate the type of product is being used for the roof top, i.e. single-ply roof, asphalt roof, metal roof, etc.
- 3. If the Aged Reflectance is not available in the Cool Roof Rating Council's Rated Product Directory then use the Initial Reflectance value from the same directory
 - and use the equation $(0.2+0.7(\rho_{initial}-0.2))$ to obtain a calculated aged value. Where ρ is the Initial Solar Reflectance. From the Cool Roof Rating Council's Rated Product Directory.
- 4. Check box if the Aged Reflectance is a calculated value using the equation above.
- 5. The SRI value needs to be calculated from a spredsheet calculattor at http://www.energy.ca.gov/title24/
- 6. If Fail then describe on this page of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

To apply **Liquid Field Applied Coatings**, the coating must be applied across the entire roof surface and meet the dry mil thickness or coverage recommended by the coatings manufacturer and meet minimum performance requirements listed in §118(i)4. Select the applicable coating:

| ☐ Aluminum-Pigmented Asphalt Roof Coating | ☐ Cement-Based Roof Coating | □ Other |
|---|-----------------------------|---------|
| Discrepancies: | | |
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Required Acceptance Tests

Designer:

This form is to be used by the designer and attached to the plans. Listed below is the acceptance test for Envelope Fenestrations system. The designer is required to check the acceptance tests and list all the fenestration products that require an acceptance test. If all the site-built fenestration of a certain type requires a test, list the different fenestration products and the number of systems. The NA7 Section in the Appendix of the Nonresidential Reference Appendices Manual describes the test. Since this form will be part of the plans, completion of this section will allow the responsible party to budget for the scope of work appropriately.

Enforcement Agency:

Systems Acceptance. Before Occupancy Permit is granted for a newly constructed building or space or when ever new fenestration is installed in the building or space shall be certified as meeting the Acceptance Requirements.

The ENV-2A form is not considered a complete form and is not to be accepted by the enforcement agency unless the boxes are checked and/or filled and signed. In addition, a Certificate of Acceptance forms shall be submitted to the enforcement agency that certifies plans, specifications, installation certificates, and operating and maintenance information meet the requirements of §10-103(b) of Title 24 Part 6. The field inspector must receive the properly filled out and signed forms before the building can receive final occupancy. A copy of the ENV-2A for each different fenestration product line must be provided to the owner of the building for their records.

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| 1 | -15 | |
| | NA. | |

| EC-ENV-1C (Revised 08/09) CERTIFICATE OF COMPLIANCE | | | CALIFORNIA ENERGY COMMISSION ENV-1C |
|---|---|--|---|
| AND FIELD INSPECTION ENERGY CHE | CKLIST | | (Page 4 of 5) |
| Project Name: | | Date: | Climate Zone: |
| | | | |
| Test Description | | ENV-2A | Test Performed By: |
| Fenestration Products Name or ID Requiring Testing or Verification | Number of like Products | Building Envelope Acceptance T | est |
| | | | |
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| | | | |
| Company: Address: | | | Date: If Applicable: CEA # |
| City/State/Zip: | | | CEPE # Phone: |
| Principal Designer's Declaration Statement I am eligible under Division 3 of the California This Certificate of Compliance identifies the enwith Title 24, Parts 1 and 6 of the California Compliance The design features represented on this Certificathis design on the other applicable compliance enforcement agency for approval with this buil | nvelope features ode of Regulation cate of Complian forms, workshe | s and performandons. nce are consistent ets, calculations | ce specifications required for compliance nt with the information provided to document |
| Name: | Signatu | | |
| Company: | |] | Date: |
| Address: | | | License # |
| City/State/Zip: | | | Phone: |
| | | | |
| Envelope Mandatory Measures Indicate location on building plans of Mandatory Envelo | ope Measures N | ote Block: | |
| INSTRUCTIONS TO APPLICANT ENVELOPE CO | OMPLIANCE : | & WORKSHE | ETS (check box if worksheet are included) |

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

CEC-ENV-1C (Revised 08/09)

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| CERTIFICATE OF COMPLIANCE | | ENV-1C |
|---------------------------------------|-------|---------------|
| AND FIELD INSPECTION ENERGY CHECKLIST | | (Page 5 of 5) |
| Project Name: | Date: | Climate Zone: |

| For detailed instructions on the use of this and all Energy Efficiency Standards compliance forms, please refer to the Nonresidential Compliance Manual. | | |
|--|--------|---|
| | ENV-1C | Certificate of Compliance and Field Inspections Energy Checklist. Required on plans for all submittals. |
| | ENV-2C | Use with the Envelope Component Approach. Optional on plans. |
| | ENV-3C | Use with the Overall Envelope TDV Energy Approach. Optional on plans. |
| | ENV-4C | Use when minimum skylight requirements for large enclosed spaces are required in climate zones 2 through 15. Optional on plans. |