OFFICES:

LIGHTING:
If more than 10% of fixtures in a space are being removed, replaced, or modified in any way (even taken out to put in a new suspended ceiling and reinstalled), full compliance with lighting power density (wattage) and lighting controls is required. Multilevel lighting control is now mandatory in all enclosed spaces 100sqft or larger with lighting load of 0.5watts/sqft or more with more than one fixture in the space. Multilevel must now be accomplished with dimming of fixtures in accordance with Table 130.1-A (based on fixture type and wattage).

LED and incandescent fixtures must be accompanied by manufacturer’s cut sheets that specify the total luminaire wattage of the fixture (130.0(c)). Cut sheets may be submitted separate from plans on 8x10 sheets or may be incorporated onto the plan sheets, but must be provided for plan check. If any windows to the exterior are present in an enclosed space with a total glazing area of 24sqft or greater and fixtures installed in the daylit area total 120watts or more, automatic daylighting controls (photocell controls) must be provided and must adjust lighting levels automatically in accordance with Table 130.1-A.

Primary sidelit daylit areas shall be demonstrated on the plans in accordance with 130.1(d)1.B. (If PAF control credits are needed, a secondary daylight area may be controlled and credits taken…control credits cannot be taken for mandatory controls).

If skylights are in the office area(s), skylit daylit zones shall also be demonstrated and fixtures touching the zones shall be controlled automatically in accordance with Table 130.1-A.

Energy forms for lighting:
NRCC-LTI-01-E- all pages
NRCC-LTI-02-E- all pages (these are for PAF credits AND to list all controls being installed and check boxes to indicate which of the standards each control is being provided for….can be more than one).
NRCC-LTI-03-E- all pages
NRCC-LTI-05-E- all pages if Track Lighting is installed
If outdoor lighting other than EM-only is installed on the building for the TI, outdoor lighting forms shall be provided (NRCC-LTO-01-E; NRCC-LTO-02-E; and NRCC-LTO-03-E; all pages of each)
Any sign lighting (typically by separate permit), indoors or outdoors must be accompanied by Energy compliance form NRCC-LTS-01-E, all pages.

ELECTRICAL DISTRIBUTION/VOLTAGE DROP/CONTROLLED RECEPTACLES:
If new distribution panel(s) are being installed, and the system is 50kVA or larger, disaggregation of power is required to be provided (130.5(b)) in accordance with Table 130.5-B, depending on the service size/rating and features being provided.
If new feeders and/or branch circuits are being installed, voltage drop calculations shall be provided on the plans along with the required Energy compliance documents. (130.5(c))
In tenant improvements in existing buildings, controlled receptacles are not required. However, if they are provided, they must meet all requirements of 130.5(d).

Energy forms for electrical distribution/voltage drop/controlled receptacles:
NRCC-ELC-01-E- applicable pages (1-9)

HVAC:
New HVAC units, new ducting, relocated controls (t-stats), new boilers, chillers or any other similar HVAC modifications trigger Energy compliance and provision of compliance documentation.

Energy forms for HVAC modifications:
NRCC-MCH-01-E, all pages (for all projects)
NRCC-MCH-02-E, all pages (mandatory/prescriptive requirements)(must specify the sheet of the plans where all required information has been provided…cannot refer back to forms)
NRCC-MCH-04-E, all pages (acceptance tests)(new ducting, controls, or units)
NRCC-MCH-05-E, all pages (for new single-zone units)
PLUMBING:
If new water domestic water heaters are being installed, compliance forms are required:
NRCC-PLB-01-E, 2 pages
Water closets, urinals, lavatory faucets, showerheads, and water heaters are regulated by Title 20, Appliance Efficiency Regulations. These fixtures, fittings and appliances must be certified by their manufacturer to the Energy Commission to be in full compliance with Title 20 requirements. The manufacturer must submit this documentation to the Commission and their products must be added to the Certified Appliance Database before they may be installed in the state of California. The Database is searchable at this link: https://cacertappliances.energy.ca.gov/Pages/ApplianceSearch.aspx

RETAIL-

LIGHTING:
Same as for Offices, but Retail may use the Tailored Method if using display lighting. Using this method triggers the providing of the following set of forms:
NRCC-LTI-04-E, all pages

ELECTRICAL DISTRIBUTION/VOLTAGE DROP/CONTROLLED RECEPTACLES:
Same as for Offices.

HVAC:
Same as for Offices.

PLUMBING:
Same as for Offices.

COVERED PROCESSES:
Commercial refrigeration is now considered a “covered process” and must be accompanied by Energy compliance forms on the plans whenever the store itself is being provided with commercial refrigeration. If the conditioned floor area of the retail store is <8,000sqft, it is exempt from this requirement. Otherwise, compliance must be demonstrated on the plans for all applicable mandatory measures listed in the Energy Code as well as on the compliance forms:
NRCC-PRC-01-E (must be provided with ANY covered process)
NRCC-PRC-05-E (Commercial refrigeration)

FOOD SERVICE-

ALL THE SAME AS ABOVE, WITH THE FOLLOWING ADDED ITEMS:

COVERED PROCESSES:
Covered processes in restaurants include kitchen exhaust systems, both Type I and Type II:
NRCC-PRC-01-E (must be provided with ANY covered process)
NRCC-PRC-03-E (commercial kitchen requirements)
Many cooking and refrigeration appliances for commercial kitchens are regulated by Title 20 Appliance Efficiency Regulations. These appliances must be certified to the Energy Commission as being compliant with all requirements of Title 20 and must be listed on the Certified Appliance Database in order to be installed in California. The list of appliances that are regulated can be found at the following link:
Go to page 1 (Section 1601. Scope) for a complete list. The document also specifies all required testing and exemptions.

COMMON ‘MISSES’ ON FORMS:
Do not forget to sign, date and provide ALL information on the signature (Compliance forms) forms. These are legal affidavits and must be completed in full. The signature of the Responsible Person must be the signature of the registrant or qualified designer who has provided and signed the applicable plans (mechanical, plumbing, or electrical). Indicate “Conditioned” or “Unconditioned” for all spaces where required.
Complete the header on each form.
All “checklists” on compliance forms shall be completed as instructed on the forms by checking boxes in columns marked “YES” or “NO”.
READ ALL INSTRUCTIONS CAREFULLY!

PLEASE NOTE: Most Tenant Improvements require plans along with Energy Forms based on the 2013 Building Energy Efficiency Standards.
(www.energy.ca.gov)

For Reference: Energy Code Ace (www.energycodeace.com)