2019 CALIFORNIA MECHANICAL CODE RESIDENTIAL CONDENSATE DISPOSAL REQUIREMENTS

Condensate from air-cooling coils, condensing appliances, and the over-flow from evaporative coolers and similar water-supplied equipment or similar air-conditioning equipment shall be collected and discharged to an approved plumbing fixture or disposal area. Air conditioner cooling coils require a condensate drain with a trap in accordance with the manufacturer's instructions [2019 CMC 310.1]. The drain must discharge by gravity to a drywell or an indirect waste, or to a condensate pump that connects to an indirect waste. An indirect waste connection can be made to a janitor sink or laundry standpipe, an accessible inlet on a bathtub overflow, or to a lavatory tailpiece in the unit controlled by the same person controlling the air-conditioned space [2019 CMC 310.6]. Condensate from a high efficiency (Category IV) furnace can be combined with the AC condensate. Condensate cannot be combined with the discharge of a temperature and pressure relief valve [2019 CPC 608.5].

Condensate waste pipes must be at least ¾ in. diameter and slope at least 1/8 inch per foot. Condensate pumps are allowed if interlocked to prevent AC operation during pump failure. Condensate pump discharge tubing must rise vertically to a point where it is possible to connect to a gravity condensate drain [2019 CMC 310.1.1]

<u>Air conditioner cooling coils in an attic or over any other area where leakage could cause damage</u> require protection to prevent damage in the event of a blocked drain. 4 methods are acceptable

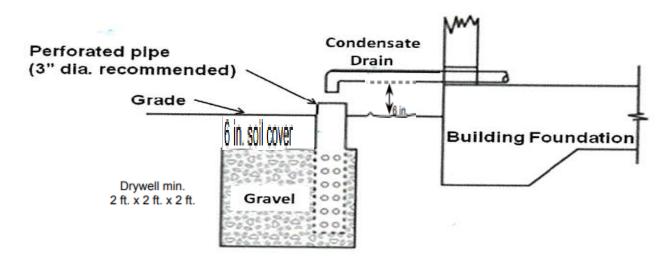
- **1.** a drain pan that extends fully beneath the area of the cooling unit and equipped with a separate drain line:
- 2. a separate drain line at a higher location in the AC unit's drain pan;
- **3.** a drain pan without a discharge line but equipped with a water-level detection device interlocked to the appliance;
- **4.** a water-level detection device interlocked to the appliance typically located in the drain trap. For methods 1 & 2, the discharge pipe must go to a location that is readily observed typically over a window. **[2019 CMC 310.2]** These requirements also apply to high-efficiency (Category IV) furnaces.

A trap is required in accordance with the A-Coil in Attic manufacturer's instructions. The trap depth must be capable of maintaining a Pan drains or AC unit secondary drains must terminate in a readily seal with the air pressure of the coil, and a vent should be installed after the trap. observable location. Draining over a As an alternate to the pan or drain, an window is preferred. interlocked float switch can be installed in the trap in accordance with equipment installation instructions. Pan drain Primary drain Pan Minimum slope = 1/8 inch per foot

Residential condensate is typically terminated in drywells. Drywell specifications are as follows:

- **1.** The minimum size of a residential drywell is 2-foot square by 2 foot deep.
- 2. The nearest edge of the drywell shall be at least 18 inches from any structure or building foundation.
- **3.** The drywell shall be filled with minimum 1" rock.
- **4.** The top of the drywell shall be covered with building paper or plastic sheeting with 6" of earth or concrete above the paper.
- **5.** The condensate pipe from the cooling coil (min. ³/₄") shall connect indirectly to a minimum 1½ in. drainpipe. The indirect connection shall be made by an air break at the edge of the foundation.

DRYWELL:



Notes:

- Size codnensate drain in accordance with Section 309
- Alternate termination point (in lieu of terminating in an approved plumbing fixture
- 3. Acceptable for small residential units only
- 4. Not suitable for clay or expansive soil