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Multifamily ventilation comments

Additional submitted attachment is included below.

TAYLOR ENGINEERING

To:	CEC
From:	David Heinzerling
Subject:	Docket # 19-BSTD-03, 2022 Energy Code Pre-Rulemaking – General HVAC Comments
Date:	March 9, 2021

Below are some of our comments on the 2022 Energy Code Pre-Rulemaking

1. Delete section 120.1(b)

   Rationale:

   a. The ventilation requirements for high-rise residential buildings are now covered under section 160.2, so this whole section should be removed as it is confusing to have crossed out "high-rise residential buildings" as not applicable to Subchapter 3 but then include section 120.1(b). Perhaps this was included only to highlight what changed before it was moved.

2. Revise section 160.2(b)2Aivb:

   a. The mechanical ventilation system shall comply with one of the following subsections 1 or 2 below. All dwelling units in a multifamily building shall use the same ventilation system type. The system type installed throughout the building shall be only one of the following ~~three~~ two types: ~~supply, exhaust~~compartmentalization~~,~~ or balanced.

   Rationale:

   b. It is confusing wording to refer to three types and then list only two. I understand that compartmentalization involves either supply or exhaust, but still confusing.

3. Revise section 160.2(b)2Aivb1:

   a. Balanced Ventilation. A balanced ventilation system shall provide the required dwelling-unit ventilation airflow per section 160.2(b)2Aiva. Demand-controlled mechanical exhaust per section 160.2(b)2Avic shall not be included in ventilation requirement. Systems with heat recovery or energy recovery that serve a single dwelling unit shall have a fan efficacy of ≤1.0 W/cfm; or

      Rationale:

   b. It could be reasonably interpreted that if you have a kitchen hood or light-switch operated bathroom exhaust fan, that in order to have balanced ventilation, you need to vary your supply rate to match the exhaust rate, which is not standard practice and not a reasonable requirement. The balanced ventilation should only be the required ventilation rate per section 160.2(b)2Aiva without any consideration for demand-controlled mechanical exhaust. I believe this is the intent, but it is not clearly stated.