



Installation of New Equipment in Existing Buildings

Directions to verify the adequacy of the structural system for the new equipment loads for building owners.

CODE REFERENCE

2019 California Building Code (CBC)

FINDINGS

When significant numbers of new equipment is installed in existing buildings, the following procedure shall be followed to verify the adequacy of the structural system for the new loads:

1. All vertical load carrying elements shall be verified for adequacy in resisting the additional loads. A complete load path shall be considered all the way to the foundation.
2. The tributary mass (dead load) of the level where the new equipment is installed shall be calculated (except at ground level). If the weight of the equipment exceeds 5% of the calculated dead load at that level (or the weight assumed in the original calculations), a seismic evaluation of the diaphragm and related items (i.e. anchorage, shear transfer, etc.) shall be performed and remedial work shall be performed as necessary.
3. The total mass of the entire building shall be calculated. If the weight of the equipment exceeds 5% of the calculated building dead load (or the weight assumed in calculating base shear in the original design), a complete seismic evaluation of the building shall be performed and appropriate remedial work shall be addressed as necessary.