

form. Cooling towers are physically the largest footprint of equipment in an industrial facility or a commercial building. Due to the size impediments of cooling towers, most are stored outside with ample room for air flow. Proper location of the cooling tower is essential to its satisfactory operation. Thus, the following recommendations should be considered:

1. Select an open site having an unobstructed air supply and free air motion. Minimum horizontal separation distance between cooling towers and outdoor air intakes, and other areas where people may be exposed, should be considered.

The draft revision of ASHRAE-62, 1989R, recommends a minimum separation of 15 feet between cooling towers and building intakes.

2. Cooling towers should be installed such that its discharge is at an elevation equal to or greater than that of adjacent structures. This allows the exhaust to be carried over the adjacent structure, thus minimizing the potential for re-entrainment. It is easily accomplished by simply raising the tower, whereby the installing contractor can provide supporting steel to elevate the tower to any desired height. An alternate tactic is to incorporate a tower exhaust stack up to or beyond the level of adjacent structures.
3. Interference from other equipment, especially other towers, can raise the local wet bulb temperature from $\frac{1}{2}$ °F to as much as 8 °F above the ambient wet bulb temperature, depending on the size (in terms of both dimension and capacity) of the tower. This is particularly true if these are low velocity exhausts. In order to maintain the separation of air streams and to avoid air restrictions and recirculation, as a general rule of thumb, the well or enclosure should have a gross plan area that is at least 2.5 to 3.0 times that of the tower.
4. Building vents and air intakes can substantially affect tower performance. Consideration should also be given to ensure that the discharge air from the cooling tower is not directed into a building vent or intake louver.
5. Do not locate the cooling tower near heat-generating equipment, exhaust vents or pipes, which could interfere with the temperature of the inlet air and raise the ambient wet-bulb temperature to the cooling tower.
6. Do not install a canopy or roof of any kind over the cooling tower that would deflect discharge air back down and around the cooling tower, and cause recirculation of the discharge air back into the blowers.