Best Available Cooling Tower Technology for Legionnaires’ Disease Risk Management Quiz

Recent cooling tower legislation for mitigating the risk of Legionnaires’ disease focuses on routine cleaning of the cooling tower. While good water treatment and maintenance is very important, this quiz will help one think through what role readily available technology that reduces the root cause risk of Legionnaires’ disease from cooling towers can play as an important part of one’s Legionella risk management planning.

Grow Questions
1) Legionella can grow in stagnant cold water basins.
   - True
   - False

2) What standard typical flow rate within a basin is least likely to allow Legionella to breed?
   A) 0-1 feet per second
   B) 1-2 feet per second
   C) 5-7 feet per second

3) Eliminating algae from the cooling tower reduces the chances for Legionella to breed and improves biocide effectiveness.
   - True
   - False

4) Better coverage of the fill media with square distribution patterns and variable flow capability reduces the potential for Legionella growth because:
   A) There is less scale build up in the fill media due to improved water flow in the fill
   B) Void areas in the fill media encourages scaling, a primary food source for Legionella
   C) Both A and B
   D) Neither A nor B

Spread Questions
5) Cooling towers spread Legionella through drift emissions, the small water droplets that feel like a sprinkling rain when walking near a cooling tower.
   - True
   - False

6) The best cooling tower fan location for the least drift emissions is:
   A) Top
   B) Side
   C) Bottom

7) If I owned a facility with a cooling tower that operates near human beings, I would prefer a cooling tower that has the following drift rate:
   A) 0.005%
   B) 0.002%
   C) 0.0004%