Project teams must determine the cooler capacity from standard heat gain calculations (see ASHRAE Handbook - Fundamentals) or by using DM approved computer program and select equipment with appropriate effectiveness, such that comfort temperature of no less than 28 °C is maintained.

To ensure that the circulation water is always safe and clean, treated water must be used and legionella risk assessment must be evaluated as outlined in *Regulation 406.01: Legionella Bacteria and Building Water Systems*.

ASHRAE Handbook—HVAC Applications, Chapter 52: Evaporative Cooling, provides additional guidance on evaporative cooling.

COMPLIANCE DOCUMENTATION

Table 502.20(1): Documents Required

Project Stages	Submittal Documents
Design Permit Application	1. Air-conditioning layout for the building 2. Indirect evaporative cooling system specification.
Construction Completion Application	1. Final approved layout showing the location of evaporative cooling system and capacity. 2. Indirect evaporative cooling system manufacturer data sheet.
After Completion	1. Performance and commissioning report.

REFERENCES AND ADDITIONAL INFORMATION

American Society of Heating, Refrigerating and Air-Conditioning Engineers. (2015). ASHRAE Handbook—HVAC Applications: Chapter 52, Evaporative Cooling.

Zhiyin Duan, Changhong Zhan, Xingxing Zhang, Mahmud Mustafa, Xudong Zhao, Behrang Alimohammadisagv, Ala Hasan c. (2012). Indirect evaporative cooling past, present and future potentials. Renewable and Sustainable Energy Reviews 16 (2012) 6823–6850.