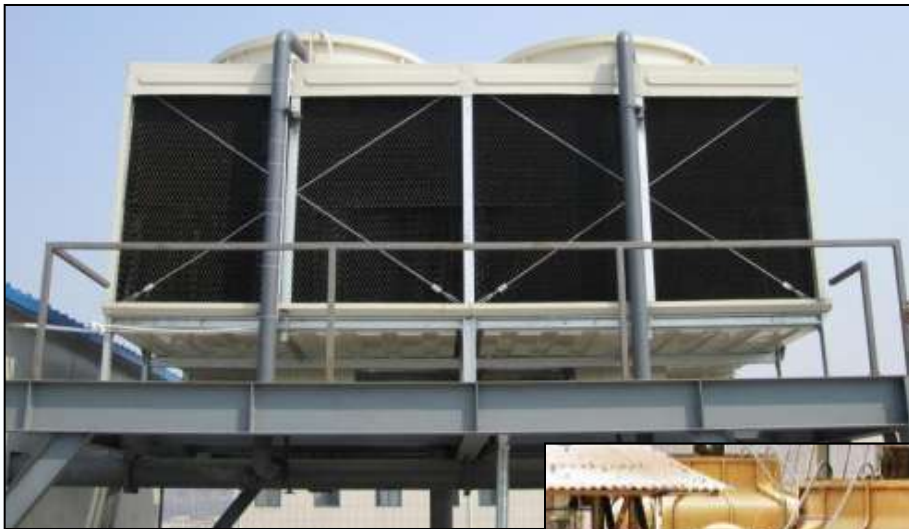


Proper Use of Water Supply for Fresh Water Cooling Towers



14 Jan 2015

OUTLINE

- Background
- Relevant Legislation
- Consequence of Offence
- Prevention of Installation/Replacement of Unauthorized fresh water cooling towers (FWCTs)

Background

Two common types of air conditioning systems in Hong Kong:

- **Air-cooled**

- **Water-cooled**
(generally equipped with FWCTs)



Background

Vetting requirements for proper procurement of water supply for FWCTs:

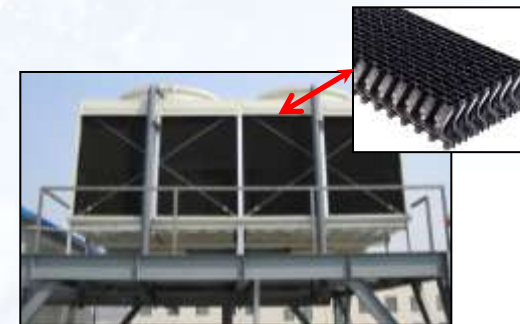
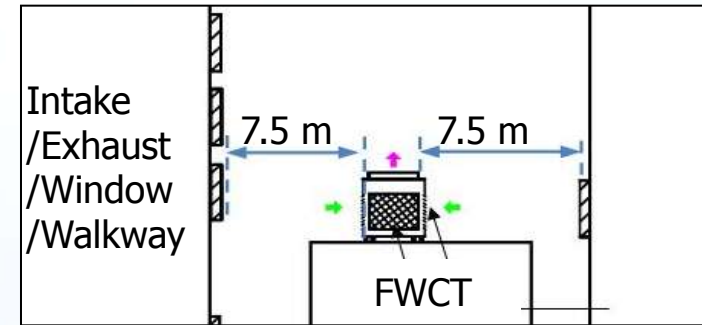
- EMSD is responsible for checking of design and installation of FWCTs, including the 5 requirements for prevention of spreading of *Legionella bacteria*
- WSD is responsible for checking of plumbing connection from the waterworks to FWCTs, including 3 requirements



Background

EMSD's 5 design and installation requirements for FWCTs:

- (1) 7.5 m separation
- (2) Bleed off & water treatment
- (3) Drift eliminator
- (4) Avoid dead legs
- (5) Proper Access



Background

WSD's 3 requirements for supply of water to FWCTs:

- (1) Metered supply
- (2) No leakage of water supply
- (3) Break tank



Background

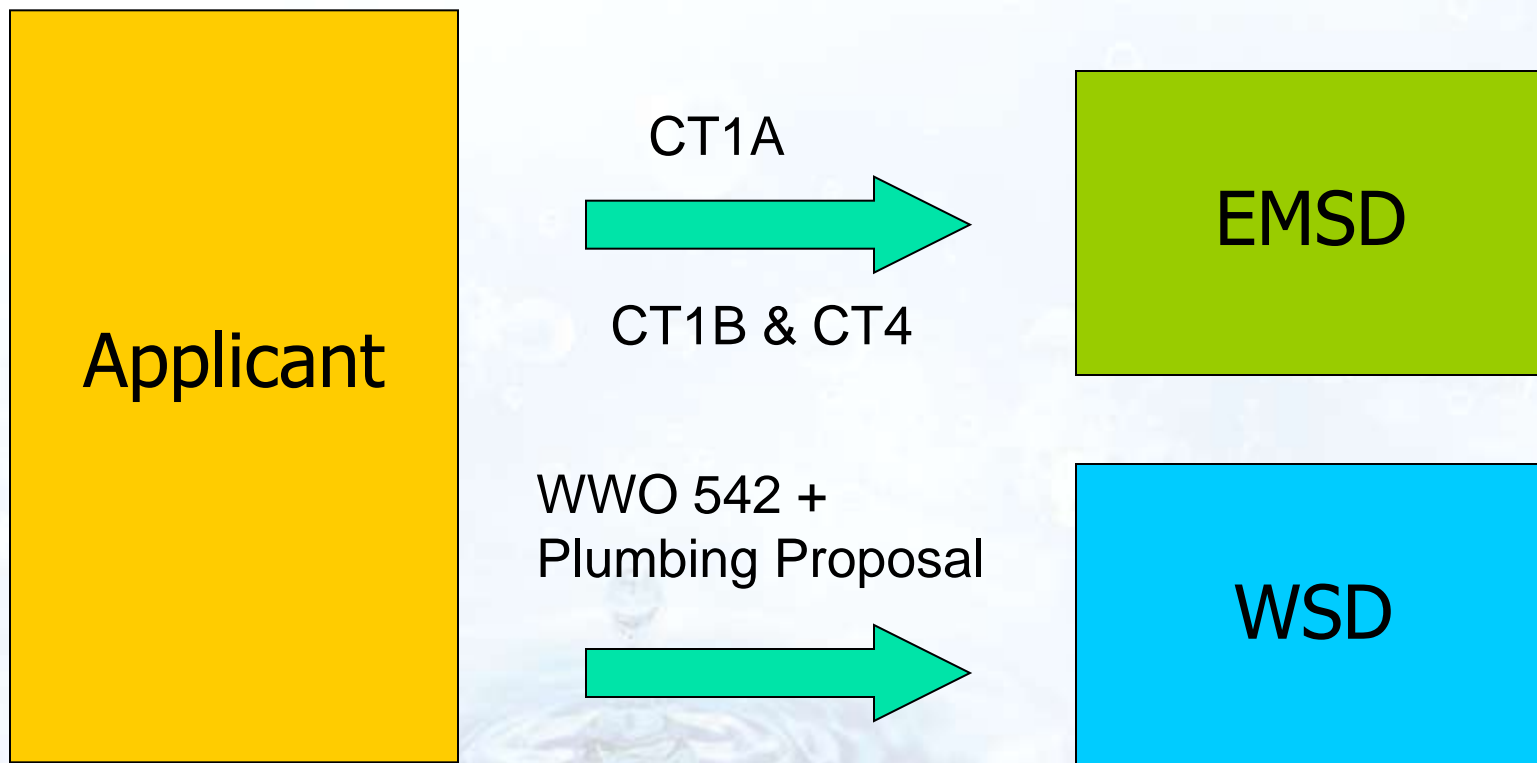


Vetting Procedures:

- Apply to EMSD for participation in FWCT Scheme
- Apply to WSD for water supply (submission of plumbing proposal and undertaking)
- EMSD will notify WSD if FWCTs comply with relevant requirements
- WSD will vet water supply application
- Must comply with other relevant legislation

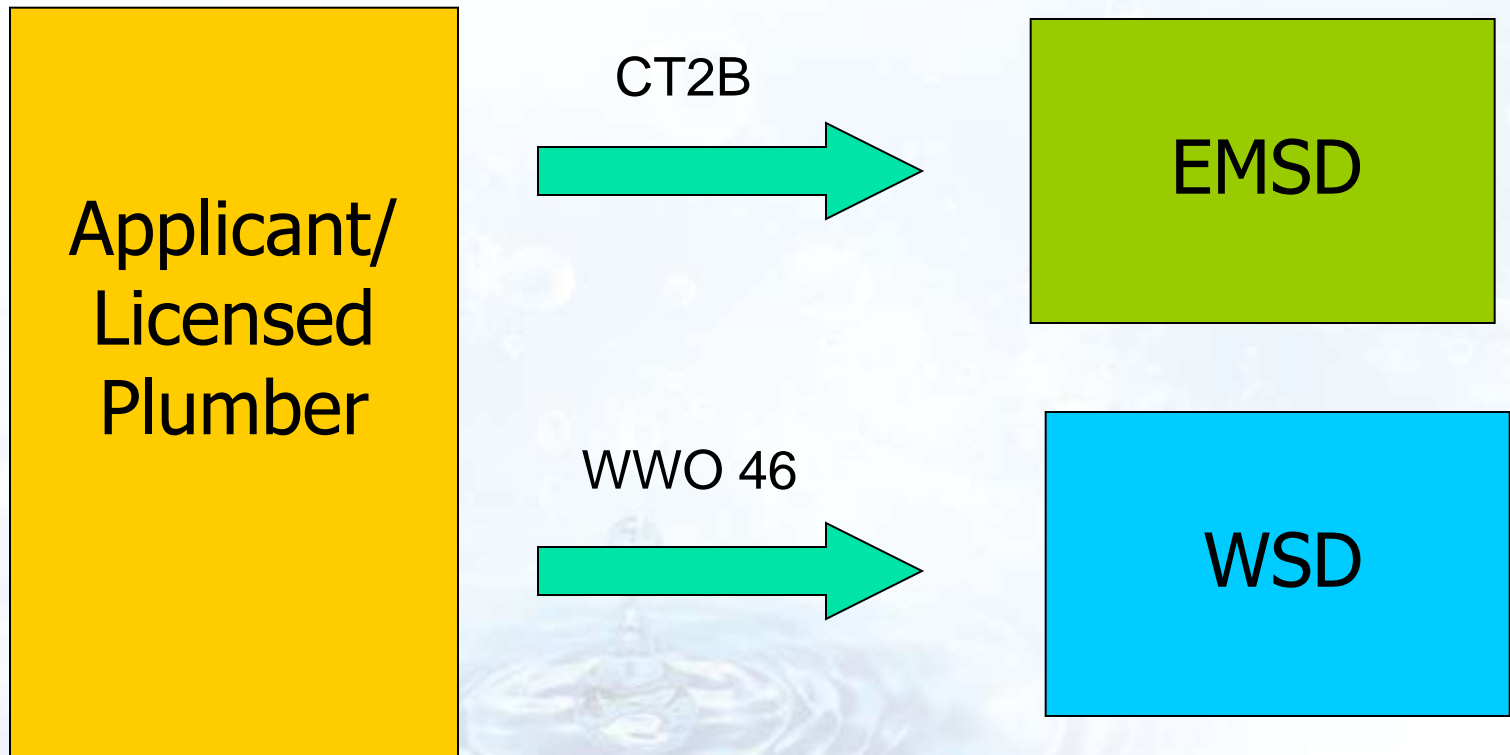
Application Procedure for Water Supply to FWCTs

- Planning Stage



Application Procedure for Water Supply to FWCTs

- Work Stage



Relevant Waterworks Legislation

- Waterworks Regulations (WWR) Reg 13(a): Except with the permission in writing of the Water Authority (WA), no person shall use water from the waterworks for cooling
- Waterworks Ordinance (WVO) Sect 14(1): No person shall, except with the permission in writing of the WA, construct, install, alter or remove a fire service or inside service

Offence

- Due to crowded environment in Hong Kong, not all premises can fully satisfy the 5 requirements of EMSD. In such case, WA will not approve application of water supply for FWCTs
- Any person who makes connection to supply water from the waterworks to FWCTs without the WA's permission contravenes WWO/WWR



Consequence of Offence

- Consumers who make connection from the waterworks to FWCTs and use water to supply FWCTs without WA's permission can be prosecuted and even have their water supply disconnected
- Daily operations of business owners will be affected and associated financial loss could exceed the saving in energy cost



Prevention of Installation/Replacement of Unauthorized FWCTs

- If EMSD's 5 requirements cannot be fully complied with, please do not install or replace FWCTs, or make connection to supply water from waterworks to unauthorized FWCTs. Please consider other types of air conditioning systems



Thank You

For enquiries on FWCTs, please call:

➤ Design & Installation:

EMSD Helpdesk - **3757 6156**

➤ Water Supply:

WSD Helpdesk - **2152 5621/5541**