EMSD EE CT1A (11/2010)

Fresh Water Cooling Towers Scheme for Air Conditioning Systems
Application for Participation (Preliminary Assessment)

To: Director of Electrical and Mechanical Services

Part A: (To be completed by the Designer of the installation(s))

1. General details:
   Building name: ____________________________
   Building address: ____________________________
   Building type: * Commercial / Educational / Government / Hospital & Healthcare / Hotel / Logistics / Public Transport / Public Utilities / Industrial / Science & Technology Estate / Other (please state) (the scheme is only for non-domestic buildings)
   Quantity of cooling towers *installed/to be installed: ____________
   Gross floor area served by the air conditioning installation under this application: ____________ m²

2. Air conditioning system:
   System status: *New / Replacement
   In case of replacement, the existing heat rejection is dissipated through: *Air-cooled Condenser (incl. Air-cooled radiator) / Fresh Water Cooling Tower / Seawater Cooling Tower / Pumped Sea-water Once-through / Other (please state) ____________
   Cooling capacity: ____________ kW Heat rejection capacity: ____________ kW
   Estimated peak daily make-up water demand by cooling tower(s): ____________ m³

3. Cooling tower installed location:
   Installed location: *Roof / Podium / Indoor / Other (please state) ____________

<table>
<thead>
<tr>
<th>(a) Any critical air intake / exhaust ¹ or operable window nearest to cooling tower(s): *Yes / No</th>
<th>Direct separation</th>
<th>Horizontal separation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outdoor air intake</td>
<td>______ m</td>
<td>______ m</td>
</tr>
<tr>
<td>Exhaust air outlet</td>
<td>______ m</td>
<td>______ m</td>
</tr>
<tr>
<td>Operable window</td>
<td>______ m</td>
<td>______ m</td>
</tr>
<tr>
<td>(b) Any public access or pedestrian thoroughfares near the cooling tower exhaust: *Yes / No</td>
<td>Areas of public access</td>
<td>______ m</td>
</tr>
<tr>
<td>Pedestrian thoroughfares</td>
<td>______ m</td>
<td>______ m</td>
</tr>
</tbody>
</table>

¹ Critical outdoor air intake refers to fresh air intakes of the building air conditioning systems (e.g. PAU, AHU, lift vent) or any air intake that draws fresh air into the building. Critical exhaust air outlet refers to kitchen exhaust, toilet exhaust, carpark exhaust or any exhaust outlet of which the emitted air can contaminate the cooling water or pollute the cooling air.
* delete as appropriate
4. Noise emitted from cooling tower installation(s):

Area Sensitivity Ratings: *A / *B / *C

(Refer to s. 2.3.2 & 2.3.3 of Technical Memorandum under Noise Control Ordinance (Cap 400))

<table>
<thead>
<tr>
<th></th>
<th>Day</th>
<th>Evening</th>
<th>Night</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptable Noise Level in the area:</td>
<td>dB(A)</td>
<td>dB(A)</td>
<td>dB(A)</td>
</tr>
<tr>
<td>Direct distance between the cooling tower exhaust outlet and the nearest NSR:</td>
<td>m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building type of nearest NSR:</td>
<td>*Residential / Commercial / Other (please specify)</td>
<td></td>
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</tr>
</tbody>
</table>

5. Reuse of bleed-off water for flushing purpose:

(Refer to s. 2.3.2 & 2.3.3 of Technical Memorandum under Noise Control Ordinance (Cap 400))

Estimated peak daily bleed-off volume: _________ m³
Estimated peak daily demand for flushing: _________ m³

If the bleed-off water is not reused for flushing purpose or there is other discharge arrangement other than reusing for flushing, please specify the discharge arrangement and state the reason(s) in a separate sheet.

6. Commencement and completion dates of cooling tower installation:

Anticipated commencement date: _______________ Anticipated completion date: _______________

7. Information to be submitted with this application form:

- Site plan of the premises / building(s) showing the nearest noise sensitive receiver(s), location of the cooling tower installation, its separation distance from the nearest adjacent building.
- Drawing(s), including plan(s) and section(s), to legibly show the cooling tower installation(s), the nearest critical operable window, outdoor air intake and exhaust air outlet (see footnotes in Page 1 for details) and their separation distances from cooling tower(s).

(Note: Separation distance should be the closest distance between the cooling tower exhaust and the operable window / outdoor air intake; and between the cooling tower intake and the exhaust air outlet.)

8. Other requisite information

To facilitate WSD’s consideration of giving permit of use of fresh water, the following information will be submitted once available to confirm the provision as soon as possible before work commencement:

(a) Provision of effective drift eliminator (with performance of drift emission rate not exceeding 0.005%)
(b) Piping schematic diagram for the condensing water system to show (i) effective water treatment arrangement; and (ii) discharge of bleed-off water for reuse for building flushing purpose.
(c) Dead legs have been avoided as far as practicable to prevent stagnant water, and where unavoidable, purge valves are provided to the dead legs for regular draining.

I, as the designer of the installation(s), confirm that the above submitted information is accurate.

Signature of Designer: ___________________________ Date: _______________
Full Name of Designer: ___________________________
Company: ___________________________
Tel No.: __________________ Fax No.: _______________
Correspondence Address: ____________________

* delete as appropriate
**Part B**: (To be completed by the owner of the installation(s))

I, as the owner of the cooling tower installation(s), wish to apply for the use of fresh water for the cooling tower(s) via the Scheme, and I fully understand the conditions and obligations of participation.

Signature of Owner or his Representative: ___________________________ Date: ___________________________
Full Name of Owner or his Representative: ___________________________ Company Chop: ___________________________
Company: ___________________________ Tel No.: ___________________________ Fax No.: ___________________________
Correspondence Address: ___________________________________________

**Part C**: (to be completed by EMSD for internal use)

File Ref.: EEO/WC/13/01/
Cooling Tower Registration No.: PS-
Applicant Ref. No.: ___________________________

Having checked Form CT1A and associated plans / drawings, the application submitted by ___________________________________________ to use fresh water for the cooling tower installation(s) via the Scheme at (address of premises) __________________________________________________________ is ___________________________.

□ supported in principle.
□ not supported, because ___________________________.

________________________________________
Post: ___________________________

Telephone Number: ___________________________
Date: ___________________________

C.c. Director of Water Supplies (Attn: SE/CS(HK/K/NT*))
Director of Buildings (Attn: SBS/D3)