

RFQ/066/17 – Supply of water treatment equipment

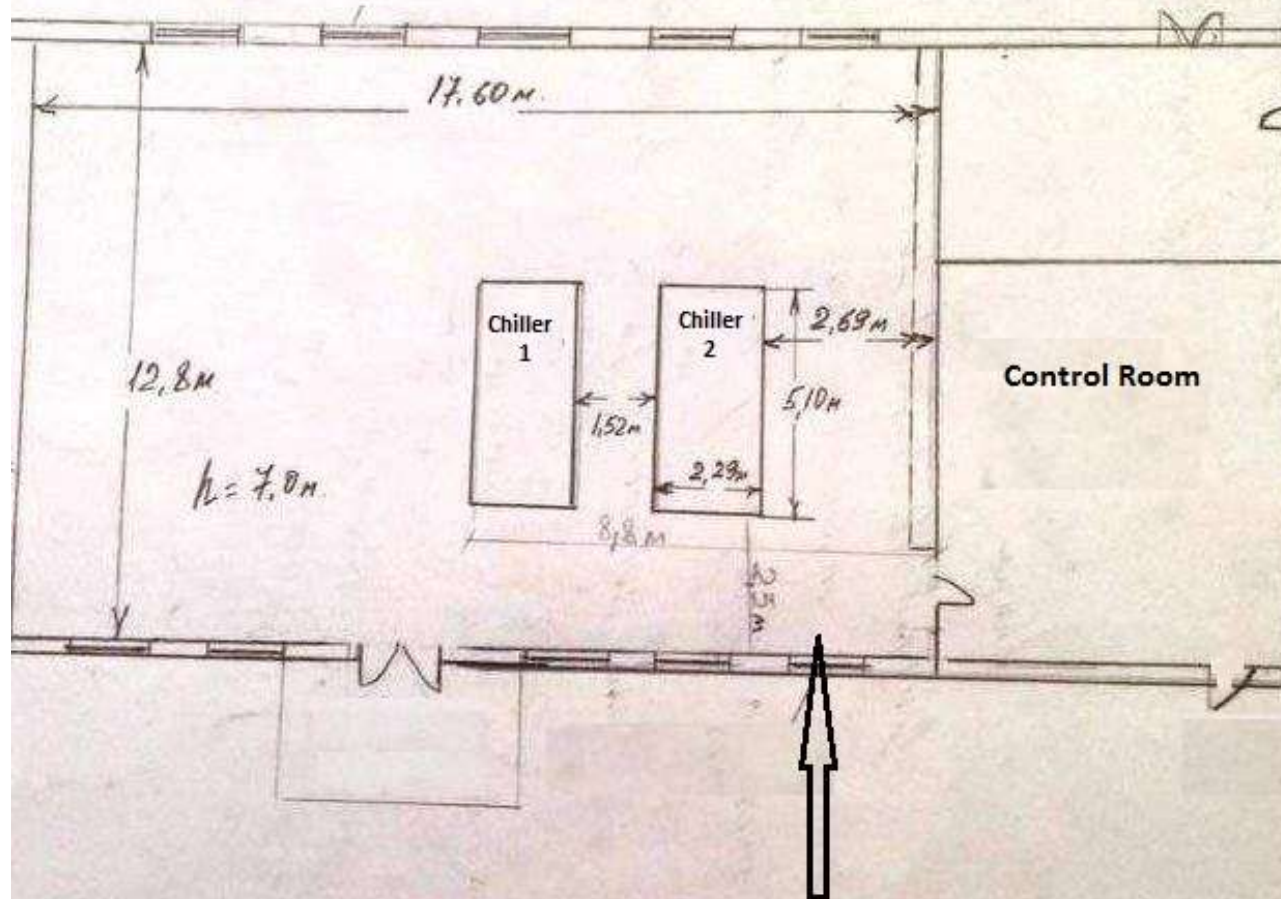
Summary of Questions and Answers

Note: By “water treatment equipment”, “water treatment unit” and “water treatment system”, it is referred to the compact, fully automatic pre-tested equipment including all necessary parts which will allow controlling/avoiding corrosion, bacterial contamination and scale in cooling system of refrigeration equipment.

#	Questions	Answers
1.	Are we supposed to treat the water from the closed recycling circuit (1) or the water that is being added to that circuit (2)?	<i>There are two open type cooling towers which will be filled up with 8-10m³ water each season (once a year). During the season water will be added up due to evaporation loss, drift loss, etc. Therefore, treatment of water is needed for filled and added water during exploitation.</i>
2.	If treating the water from the Cooling Towers closed system we need to know its quality - a water analysis or test.	<i>Please refer to amendment to RFQ/066/17, table 2 for water analysis.</i>
3.	We're talking about a two-open type cooling towers, isn't it? I imagine we need two kinds of treatments, isn't it? 1st. Water Treatment unit for water that is needed for filled up the system (around 8-10 m3 water each season -once a year-) plus the extra water that will be added up due to evaporation loss, drift loss, etc. during exploitation (volume depends on mentioned conditions).	<i>Yes, you are right. There are two open type-cooling towers in the circulation system and we need a unit for water treatment system, which includes filtering. The RFQ/066/17 intends procurement of pre-mounted pre-designed water treatment system, which will be used to receive required water quality (please refer to Table 1 – Water quality requirements) from existing raw water (please refer to Table 2 – Existing raw water analysis).</i>
4.	Filtering system for water that is already in the system, isn't it?	<i>The offered water treatment unit should include filtering system.</i>
5.	Being open type cooling towers, normally it's requested by the manufacturer that the existing water should be filtered so to protect the system from physical particles that could damage the pipes. Is it like this this time?	<i>Absolutely, it is requested by the manufacturer to avoid corrosion, bacterial contamination and scale in heat exchangers of chillers. Table 1 is the requirement received from the manufacturer of the chillers.</i>
6.	Water requested (TABLE 1) is worse than Raw Water (Table 2). So...water treatment would not be needed (at least regarding diluted salts)	<i>We do understand that some parameters are in compliance with required water quality parameters. On other hand, as per RFQ/066/17 there must be “One controller (display) for all functionalities and information readings, preferably in Russian language, including automatic dosing and bleed from cooling tower.” Therefore, there should be one controller for water treatment system which will control automatic dosing and bleed when and if needed to receive required water</i>

		<i>quality as per Table 1 of the RFQ.</i>
7.	We need to know the water TSS level. Input Water quality and requested water quality.	The extract from input water analysis is provided as Table 2 and requested water quality as Table 1. Please note that in case of water quality parameters change in future, there should be a controller to adjust the parameters by dosing chemicals, bleeding, etc.
8.	What about the requested system flow? Tender mentions 8-10 m3 but...in how much time needs to be filtered. And what about the water lost due to evaporation loss, drift loss, etc. We would need an aprox. flow and time to filter that flow. Otherwise we may not offer an accurate offer and bids could differ a lot one from the other.	Filtering capacity is 1 m3/h which includes water lost due to evaporation loss, drift loss, etc.
9.	Normal Cooling Towers System use to be a Filtering Station, will do nothing against bacterial contamination. If this is requested, we need to know the infection level (concrete analysis).	This is an upgraded and cleaned system, only testing of the system is conducted. We assume that there is no bacterial contamination yet, and needs to be controlled in case of appearance.
10.	Please, confirm us that water to be filtered it's 48,8 l/s. Or am I wrong?	Filtering capacity is 1m ³ /h.
11.	Kindly clarify the exact plant capacity in terms of Quantity (m3/hr) of water expected to be treated.	The treated capacity of water is 1m ³ /h.
12.	Are the two cooling towers separated? Has each tower its own accumulation tank or do they have a common accumulation tank? Is the tank/tanks recovery is controlled by a mechanical floating valve? If it isn't, how is it made?	Yes, there are two cooling towers and each tower has its basin with floating valve. However, we are planning to install the water treatment system in the machinery room before the chillers, whereas the cooling towers are located outside the building (please see attached drawings). On the other hand, it is expected that the water treatment system will control bleeding as well, when needed.

Machinery Room



Place for Water Treatment System

Cooling Towers

