

IPA DEBATE CLUB QUESTION 2 (IPADCQ-2)

Editor's Note: The following answers have been received from various IPA members in response to the above question which was published in IPT January 2019.

IPADCQ-2: (a) Share your experience towards Horizontal Geyser Performance and function in high rise residential buildings over 15 stories.

IPADCQ-2: (b) What is the most acceptable discharge of cooling tower blow down into storm water drain or in-house STP? Are there guidelines available on these from PCB or MoEF?



ANSWERS TO THE DEBATE CLUB QUESTION 2 (IPADCQ-2)



Response by M K Gupta
Managing Director - MKG Consultants, New Delhi

- (a) As per my experience, the feedback about use of horizontal geyser is that it is not preferable as compared to vertical geysers. This is especially true for high rise residential buildings. In fact, there have been many incidents when the horizontal geyser has not performed to full capacity, there has been regular leakage and, in fact in some cases, incidents of damage to the geyser have occurred.
- (b) In my opinion, there are no fixed guidelines available about the discharge of cooling tower blow down. Generally, people discharge this either into external storm water or into the STP by considering the increased capacity. Presently, in few cases, I have seen people treating the discharge by generating solid salt through evaporation after mixing with RO reject water if any is available.



Response by Nilesh Gandhi
CEO – Ace Consultants, Pune

- a) The advantage with vertical geyser over horizontal is that one can make most use of the stratification effect. In a vertical geyser you can draw more percentage of the total volume as hot water above 40-42 oC.
- b) Cooling tower blow down is having very high TDS and CPCB has given guidelines for connection of any effluent to land, water body. When we connect to storm water drainage that means water body in the last stage, the TDS limit is 2100 ppm. So if your CT blow down is above 2100ppm you cannot discharge it to storm water line. If you have bigger capacity of STP and you work out the volume of CT discharge and check what is TDS of diluted STP treated water then you can connect to STP again based on 2100ppm TDS level.