भारतीय प्रौद्योगिकी संस्थान तिरुपति
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pdates on Water Supply and Treatment Measures for the Hostels in North Campus (Des and Malhar Hostels)

1 message

Director IITT <director@iittp.ac.in> Mon, Sep 2, 2024 at 3:22 PM
To: All members <all@iittp.ac.in>

Dear Students,

This is to provide you with an update on the Institute's continuous measures to address the ongoing challenges with the supply of quality and quantity of water in the North Campus Hostels.

We had a detailed discussion on Sunday with the student representatives, including the General Secretary, Hostel Affairs Secretary, and other hostel representatives, where we comprehensively and holistically considered the concerns and suggestions.

Understanding the Issue:

The water supply challenges we are facing originate from the complex nature of the sources of water on the Campus. We draw water from multiple sources, including the Telugu Ganga Canal (30 km away) through the Summer Storage Tank (7km away) and our campus pond. The water is being treated at the water treatment plant (WTP) which is operating near Pond 1. The WTP will work effectively to supply potable water up to certain levels of input water parameters.

Unfortunately, the quality of this water has fluctuated with very high levels of turbidity due to the heavy rains last November/December 2023 and caused difficulties in maintaining consistent treatment standards. To handle this, a pre-water Treatment Plant (pWTP) unit work was taken up to be executed through CPWD. This unit is in the final stages of commissioning, but fine-tuning the system to handle these variations is taking time. However, due to minimized turbidity levels of the canal water being received from Feb/March 2024, were are able to supply treated water as per the requirements.

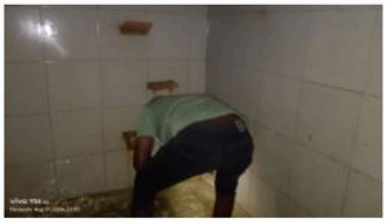
Now due to rains during July/Aug 24, again the pond water and canal water became highly turbid. Further, the water we have been receiving from the Telugu Ganga/Summer Storage Tank is of late coming with high algae content. This has considerably impacted the WTP performance leading to production of turbid and colored water. This water further developed occasional microworms, probably in overhead tanks and distribution pipes.

Steps taken up:

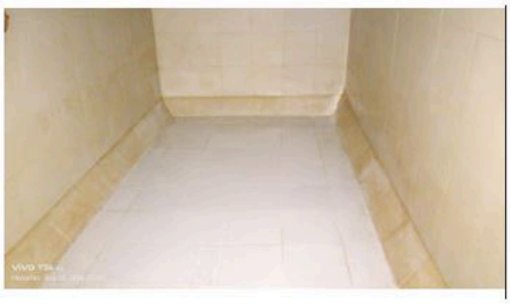
1) Cleaning of the water tanks and addition of chlorine dose in the distribution line.

The storage water tanks have been cleaned regularly to remove the settled soil particles at the bottom. The frequency of cleaning the tanks has also increased in recent times. Furthermore, all the water pipes in each hostel are being cleaned with chlorine to remove the worms that may have developed colonies. This process is also taken up regularly to provide clean and hygienic conduits. Some of the field pictures showing the above cleaning process are shown below.

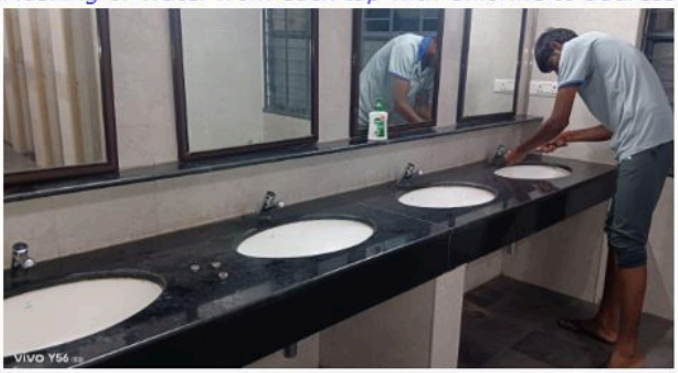
During the Cleaning of H Hostel tanks at Night.

After the Cleaning - H Hostel Over Head Tank.

Flushing of Water from each tap with Chlorine to address Worms



2) Fixing the dosages of coagulants to stabilize the pre-WTP process. Due to varying parameters of the water sources, the system requires optimal dosage adjustments. The Engineering Unit is actively working with CPWD and equipment manufacturers to fix these technical issues at the earliest possible. Furthermore, an **internal core committee (water & wastewater task force)** with members having expertise is being constituted to come up with solutions as quickly as possible to develop a comprehensive and permanent solution.

Pre-WTP Unit

3) **Temporary Water Supply Arrangements**:

While we make these adjustments, we have implemented temporary measures to ensure that you have sufficient good-quality water for essential activities. Considering the current situation, we have arranged to pump borewell water to both North Campus hostels. The borewell water is of good quality. Further, we have cleaned the overhead tanks in the hostels thoroughly, ensuring that the water quality reaching the bathroom taps is good quality. On average, each hostel (G and H) receives a minimum of 30,000 liters of water daily, equating to approximately

50-60 litres per student. Please note that for flushing recycled water is used, which is over and above this.

Please use this water judiciously to ensure a steady supply for everyone. It is important to use this water carefully to avoid shortages. Every drop counts and your cooperation is vital in making sure everyone has enough.

We have installed water flow meters in both hostels to monitor water supply and consumption. As on 31 Aug 2024, Hostel H received 34,000 litres over 22 hours, and Hostel G received 23,000 litres over 20 hours. The current pumping rate to each hostel is 2,000 Litres per Hour and the pumping duration is 16 to 18 hours per day. We kindly request all students to cooperate and avoid unnecessary wastage. The presentation is enclosed as a reference for understanding.

A Call for Responsibility:

We have noticed some instances where water fixtures, like shower caps and health faucets, have been tampered with or removed by the students, leading to unnecessary water wastage (The presentation is enclosed as a reference for understanding). With such instances of leakages, though the water is being pumped to overhead tanks, water levels are not rising as expected based on the pumping rates. This not only affects your fellow students but also makes it harder for us to manage the water supply effectively. I urge everyone to be mindful and responsible in their water use and stop water leakages. By doing so, you are helping us manage this situation more effectively for everyone's benefit.

We understand how crucial a reliable water supply is for your daily life, and I assure you that we are doing everything in our power to address these issues. We are hopeful that the upgraded WTP will be fully operational soon, providing a long-term solution to these water quality issues. In the meantime, I ask for your patience and understanding. We are all part of this campus community, and by working together, we can navigate this challenging time.

We are committed to resolving these issues as quickly as possible

Thank you for your understanding and cooperation.

Best Regards,
Satyanarayana

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