

Report on Water Purification System at Raidighi College

1. Introduction

Access to clean and safe drinking water is fundamental to the health and well-being of individuals in any institution. In recognition of this necessity, **Raidighi College**, located in West Bengal, has prioritized the installation of an efficient **water purification system** to ensure that students, faculty, and staff have access to purified drinking water. The college has deployed multiple **Aquaguard water purifiers**, with a combination of **30-litre purifiers** and a **smaller unit at the Principal's office**, to cater to the needs of its large population.

This report outlines the features, installation, and benefits of the water purification system at Raidighi College, with a focus on the **Aquaguard purifiers** and their role in ensuring the provision of clean drinking water across the campus.

2. Overview of the Water Purification System

Raidighi College, like many educational institutions, faces the challenge of providing clean drinking water to a diverse population. The college's water supply, which may be sourced from local municipal supplies or borewells, is treated using an advanced water filtration system to ensure that it meets the highest standards of safety and purity. The college has installed **four 30-litre Aquaguard water purifiers** at strategic locations across the campus, along with a **small Aquaguard unit at the Principal's office** to ensure that staff and visitors have easy access to safe drinking water.

The decision to use **Aquaguard water purifiers**, a trusted and reliable brand in water purification, was based on their reputation for delivering high-quality filtration, removing harmful contaminants, and ensuring safe drinking water for all users.

3. Details of the Water Purifiers at Raidighi College

3.1 Four 30-Litre Aquaguard Water Purifiers

The college has deployed four **30-litre Aquaguard water purifiers** in common areas, such as classrooms, faculty rooms, and student canteens. These larger purifiers are designed to cater to the high volume of water needs in areas with significant foot traffic, ensuring that the water remains available throughout the day.

Key Features:

- **Capacity:** Each unit has a **30-litre storage capacity**, which is ideal for meeting the needs of large groups of people, such as students and faculty. The purifiers are able to store a sufficient amount of water, ensuring availability even during periods of high consumption.
- **Multi-Stage Filtration:** The Aquaguard purifiers use a **multi-stage filtration process** to remove various contaminants, including bacteria, viruses, harmful chemicals, and suspended particles. This system typically includes a **pre-filter**, **activated carbon filter**, **UV (Ultraviolet) filtration**, and **RO (Reverse Osmosis)** membranes, depending on the water quality and purifier model.
- **UV & RO Technology:** The purifiers employ **UV technology** to kill any harmful microorganisms and **RO filtration** to remove dissolved salts, heavy metals, and other

impurities. The combination of UV and RO technologies ensures that the water is free from harmful pathogens and chemicals, making it safe for consumption.

- **Advanced Monitoring Systems:** The purifiers come equipped with **digital displays** and **auto shut-off** mechanisms to ensure proper functioning. These features also alert the maintenance staff when the filters need to be replaced or when the water storage is running low.
- **Low Maintenance:** The purifiers are designed to be low-maintenance, with **easy-to-replace filters** and **self-cleaning capabilities**, reducing the need for frequent servicing and ensuring long-term performance.

3.2 Small Aquaguard Water Purifier at Principal's Office

In addition to the four 30-litre purifiers, a **smaller Aquaguard unit** has been installed in the **Principal's office**. This unit serves the administrative staff and visitors to the office, ensuring that clean drinking water is readily available in a high-traffic administrative area.

Key Features:

- **Compact Design:** The small unit is designed for lower capacity requirements but still offers the same level of water purification as the larger units. It typically has a **5-8 litre capacity**, making it suitable for the office environment where fewer people use the purifier.
- **Reverse Osmosis and UV Filtration:** Like the larger units, the smaller Aquaguard purifier utilizes **RO** and **UV filtration** technologies to ensure the water is free from contaminants, including bacteria, viruses, and dissolved solids.
- **Ease of Use:** The smaller purifier is user-friendly, with a simple dispensing mechanism, ensuring that the staff in the Principal's office can access safe drinking water without any complications.

4. Installation Process

The installation of the water purifiers at Raidighi College was carried out by professional technicians from the **Aquaguard service team**. The process included:

4.1 Site Survey and Planning: Before installation, a thorough site survey was conducted to identify the best locations for the water purifiers. The aim was to place the purifiers in areas where they would be easily accessible to the maximum number of students and staff, while also ensuring that the units were connected to a reliable water supply.

4.2 Installation of Larger Purifiers: The four 30-litre purifiers were installed in high-traffic areas, including student canteens, faculty rooms, and classrooms. Each unit was connected to the main water supply, and necessary plumbing adjustments were made to ensure smooth water flow into the purifiers.

4.3 Installation of Smaller Purifier: The smaller Aquaguard purifier was installed in the Principal's office, with special consideration for space and ease of use. The unit was also connected to the office's water supply, ensuring uninterrupted access to clean drinking water.

4.4 Testing and Calibration: After installation, the purifiers were thoroughly tested to ensure that they were working as expected. The purification process was monitored to verify the quality of the water, and the flow rates were calibrated for optimal performance.

5. Benefits of the Water Purification System

The installation of the Aquaguard water purifiers at Raidighi College has provided several significant benefits to the college community:

5.1 Provision of Clean Drinking Water

The most immediate benefit of the water purification system is the provision of **clean, safe drinking water** to students, faculty, and administrative staff. By using **RO** and **UV filtration** technologies, the purifiers effectively remove harmful chemicals, bacteria, viruses, and other pollutants, ensuring that the water consumed by the college community is free from contaminants.

5.2 Health and Well-being

Access to clean drinking water helps promote good health and well-being. Purified water reduces the risk of waterborne diseases such as **cholera, dysentery, and typhoid**, which are common in areas with inadequate water treatment. By using the Aquaguard systems, the college ensures that the campus is a healthy environment for all its members.

5.3 Convenience and Accessibility

The installation of water purifiers in key locations across the campus, including high-traffic areas like classrooms and the Principal's office, makes it convenient for students and staff to access clean drinking water throughout the day. The **30-litre purifiers** provide sufficient capacity to meet the needs of large groups, reducing the need for bottled water and ensuring that clean water is available at all times.

5.4 Cost Savings and Sustainability

By using Aquaguard purifiers instead of bottled water, the college can significantly reduce the ongoing costs of purchasing bottled water. The use of water purifiers also supports **environmental sustainability** by reducing plastic waste, as the reliance on disposable plastic bottles is minimized.

5.5 Low Maintenance and Long-Term Use

The Aquaguard purifiers are designed for low maintenance, with **easy-to-replace filters** and a **self-cleaning system**. This ensures that the purifiers remain in good working condition for an extended period, minimizing service interruptions and ensuring reliable access to purified water.

6. Conclusion

The installation of the **Aquaguard water purifiers** at **Raidighi College** has greatly enhanced the college's ability to provide clean and safe drinking water to its students, faculty, and staff. With a combination of **four 30-litre purifiers** and a smaller unit in the Principal's office, the college has ensured that water purification is available across the campus. The system's advanced filtration technology, including **RO** and **UV**, ensures that the water meets high standards of safety, promoting health and well-being while also contributing to cost savings and sustainability.

As the college continues to grow, the water purification system will play an essential role in supporting the health of its community, contributing to a clean, safe, and environmentally responsible campus.