SUMMER INTERNSHIP REPORT

A report submitted in partial fulfilment of the requirement of award of degree

of

BACHELOR OF TECHNOLOGY

in

CIVIL ENGINEERING

at

SOUTH EASTERN COALFIELD LTD., Bhatgaon Area

SHAKTINAGAR Water Treatment Plant

Submitted by

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This is to certify that Shushant Kumar Sinha, studying in VI semester in Branch Civil Engineering of Institute - Guru Ghasidas Vishwavidyalaya, Bilaspur has successfully and satisfactorily completed training in SECL, Civil Department of Bhatgaon Area from 16.05.2024 to 15.06.2024. (30 Days)

We wish all the best for his future.

19/06/2024.
Staff Officer (Civil)
SECL, Bhatgaon Area

Copy to :-

1. The Area Training Officer, Bhatgaon Area.

Abstract

Water treatment and purification are critical global issues for addressing water scarcity. Various technologies have been developed for treating drinking water and wastewater. In this report, I will summarize available water treatment methods, including their advantages and disadvantages. Key topics covered include:

1. **Drinking Water Purification**: This section introduces processes like filtration, sedimentation, flocculation, disinfection, and emerging technologies.
2. **Water Distribution**: This section will provide you with the major distribution systems that are used in our country.

Providing clean and affordable water remains a major challenge worldwide, and sustainable water management relies on these treatment technologies. The quality and quantity of water are decreasing rapidly, and all living things require clean, uncontaminated water as their basic requirement. Water treatment enhances the quality of water and makes it suitable for drinking, cooking, and other various purposes according to the requirement. It removes harmful impurities that caused many kinds of waterborne diseases such as diarrhea, cholera, dysentery, typhoid, polio, etc. So it's important to invest in water treatment solutions that are perfect for providing delicious, crystal-clear water.

Water Treatment Plant is a method of improving the physical, chemical & biological quality of impure or raw water by removing available impurities like color, turbidity, algae, and other microorganisms for making the water suitable for drinking purposes without affecting our environment. Coagulation, flocculation, sedimentation, filtration, and disinfection are some basic water treatment processes and protect human beings from various harmful diseases caused by drinking impure water.

In simple language we can say that a water treatment is a place or structure where we apply all of our water purification techniques, to get pure water for our domestic and industrial good. Water is important part of our day-to-day life as we need clean drinkable water for the existence of life on the earth, due to rapid urbanization and industrialization quantity and quality of water has been depleted. Therefore, using sustainable use of water is also very important for the existence of life on the earth surface.