

Title: Lake Carcinogen

Engineering Challenge

July 20, 2022

Problem Statement: Write the problem statement in your own words and interpretation. What are you trying to achieve? What is being learned through this challenge?

We were asked to solve a problem where a drinkable water reservoir is getting intoxicated by carcinogen because of sunlight. The objective was to deal with it as soon as possible.

Materials: List the materials given (if any).
No materials given.

Approach: Write a description of your plan to achieve the goal of the problem statement. Add drawings/sketches/CADs if possible.

We started thinking of ways we can stop the sunlight from reaching the water and reacting with chemicals.

Solution: What is your solution to the given problem?

We suggested to use a couple of million shade balls to cover the reservoir and thus prevent the water from reacting with sunlight. Each shade ball costs approximately 36 cents.

Analysis: After testing, did it achieve your goal? Either way, what could you have done better? If given more time/materials, what would you do differently?

It is not very time consuming to bring a couple of trucks full of shade balls to fill the reservoir. Under certain conditions, it will be more efficient than filtration and building a roof.

Images:

Shade
ball



364
palm
ball