BIO-ORGANIC CATALYST
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CASE STUDY
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Tackling Community-Wide Odor Challenges in UAE

Introduction

Odor issues associated with the storage of Treated Sewage Effluent (TSE) water in irrigation tanks can pose significant challenges for sustainable water management. This case study explores the implementation of a Bio Catalyst dosing regime to effectively control odor in TSE storage tanks, ensuring a sustainable and odor-free irrigation system.

Background

A common issue faced by many facilities utilizing TSE for irrigation is the development of unpleasant odors during extended storage periods. These odors can lead to complaints and disrupt the functionality of the irrigation system. To address this challenge, a Bio Catalyst dosing regime was implemented to eliminate odor formation while maintaining the quality and usability of the TSE water.

Dosing Plan

To achieve effective odor control, the following dosing plan was implemented:

- **Bio Catalyst Daily Dosage:** 1.5 liters per 1000 m^3 of TSE water
- **TSE Water Daily Volume:** Approximately 225 m^3
- **Dosing Method:** Solenoid dosing pump
- **Point of Dosing:** Irrigation tank

Observations & Results

- Within two weeks of commencing Bio Catalyst dosing, a noticeable reduction in odor levels.
- Continuous dosing over the 3-month monitoring period successfully maintained odor-free conditions in the irrigation tank.

No secondary issues, such as increased turbidity, foaming, or dosage-related concerns, were detected during the dosage period.

Irrigation operations proceeded without complaints, confirming the effectiveness of the odor control solution.

Conclusion

The dosing of Bio Catalyst at a rate of 1.5 liters per 1000 m^3 of TSE water proved to be an effective odor control solution for stored TSE water. The system design, including proper dilution and recirculation, allowed for consistent performance over the 3-month period. Based on these results, it is recommended to continue Bio Catalyst dosing as part of standard TSE management practices.

Case Study by: Bio Catalyst Middle East