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TECHNICAL INFORMATION

Wastewater Treatment Questionnaire

1. List all known materials that enter the waste stream prior to entering the waste water treatment system:

2. Supply a flow diagram or sketch of the treatment facility and include the answers to the following questions:

   What are the tank/lagoon sizes or volumes at each step of the treatment process? Please include the maximum volume and present volume.

   What is the retention time in each tank or lagoon?

   What is the biochemical oxygen demand (BOD) in each tank or lagoon?

   What is the chemical oxygen demand (COD) in each tank or lagoon?

   What is the total suspended solids (TSS) level in each tank or lagoon?

   What is the pH level in each tank or lagoon?

   What is the nitrogen and ammonia level in each tank or lagoon?

   What is the total phosphorous concentration in each tank or lagoon?

   Are any macronutrients (carbon, nitrogen, phosphate) added at any step in the process?

   Are any micronutrients (vitamins, minerals, kelp, yeast) added at any step in the process?

   Does the facility regularly test pH, BOD, COD, TKN, or other parameters? Is historical data on these parameters available for review?

3. Describe any biological or chemical product that is presently or was added to this system to reduce COD, BOD, or odors.

4. If additions are made, at what locations are they added, how often are they added and what is the dosage.

5. Are any biocides, disinfectants, algae control chemicals, or sanitizers added to this system?

6. Describe any odors that are coming from any step in the process. Terms like rotten eggs, manure like, and ammonia are often used.

7. Does the facility use any method to numerically measure odors? If yes, please describe the method. Are historical records available for review?

8. Are the tanks and lagoons aerated? If yes, at which steps in the process.

9. How are the tanks or lagoons aerated?

10. What is the dissolved oxygen level in each aerated tank or lagoon?

11. What is the normal temperature of each tank or lagoon?

12. Obtain the following information for the wastewater influent:

    BOD _____
    COD _____
    TSS _____
    pH _____

13. Obtain the following information for the wastewater effluent:

    BOD _____
    COD _____
    TSS _____
    pH _____

14. Describe any fines or penalties the facility is receiving. Examples include fines for ammonia and other nuisance odors, BOD, and fat oil and grease (FOG) discharge levels. Describe how the fining system works (prorated based on concentration above a limit or flat fine if above the limit).

15. How much is this facility spending on fines, methods to reduce fines, or methods to solve other waste associated problems? Does this amount include odor control products, odor control equipment, or biocides?

16. Are there any problems with settling? Are flocculants currently used?

17. Describe the problem(s) you have been asked to solve.