FOCUS ON WASTEWATER

TOP 25 LOW COST - NO COST ENERGY SAVING OPPORTUNITIES

1. Meet with your electric supplier to evaluate your current rate schedule and identify the most efficient rate for your facility.

2. **Demand Management**
   - ✓ Contact your electric supplier to review your energy rate schedule and identify on-peak hours.
   - ✓ Review your operations during on-peak hours to identify idle operation of non-essential equipment.
   - ✓ Determine if your treatment process(es) can operate during off-peak hours.

   Examples Include:
   - ✓ Operate mixers or aerators in aerobic digesters during off-peak hours.
   - ✓ Accept or treat hauled-in wastes during off-peak hours.
   - ✓ Utilize storage, if applicable.
   - ✓ Shift filter backwash cycles to off-peak hours.
   - ✓ Bump diffusers to off-peak hours or not at all, if practical.
   - ✓ Test repaired equipment during off-peak hours.
   - ✓ Change lead-lag equipment operation during off-peak hours.
   - ✓ Do not mix solids holding tanks during on-peak hours.

3. Maintain pumps and blowers; inspect, lubricate, and replace seals and bearings; check belt tension and alignment and adjust for optimal operation per manufacturers' recommendations.

4. Turn off the aerobic digester blower periodically or operate it intermittently (i.e., 2 hours on / 4 hours off; repeat).

5. Modify the dissolved oxygen (DO) level in the aeration tank(s).

6. Operate select aeration tanks as needed.

7. Change intake filters for aeration blowers regularly to provide minimum resistance for intake air.

8. Identify, assess, and repair aeration system air main leaks.

9. Identify and repair compressed air leaks.

10. Identify equipment speeds and re-sheave blowers to gain efficiencies.

11. Turn off unnecessary lighting and install occupancy sensors.

12. Idle aeration basins or zones seasonally.

13. Adjust system operations when there is a change in wastewater load.

14. Raise wet well levels to reduce static head in the pump system.

15. Lower the aeration tank levels to reduce air header static pressure.

16. Shift nightly or seasonal low-flow periods to smaller HP pumps/blowers.

17. Operate as few UV lamps as possible while meeting disinfection needs.

18. Regularly clean UV lamp sleeves to improve transfer efficiency.

19. Test and calibrate/replace DO sensors.

20. Identify the best location to install DO probes in the aeration tanks.

21. Install programmable thermostats and utilize night set-back/set-up settings.

22. Assess the potential for organics removal before entering the secondary treatment system. Assess the capability for high organic dischargers to feed loadings directly to a digester.

23. Review your operations to determine if any pumps or blowers are being throttled. If throttled pumps and blowers are identified, review them to decide if they can be unthrottled to operate more efficiently.

24. Idle any unnecessary equipment.

25. Review Focus on Energy's Water and Wastewater Industry Energy Best Practices Guide. This updated guide outlines the basic steps in building an energy management program and provides detailed information on water, wastewater, building efficiency, and general best practices.

REDUCING ENERGY WASTE ACROSS WISCONSIN

Focus on Energy, Wisconsin utilities' statewide program for energy efficiency and renewable energy, helps eligible residents and businesses save energy and money while protecting the environment. Focus on Energy information, resources, and financial incentives help to implement energy efficiency and renewable energy projects that otherwise would not be completed.

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