GET THE MOST OUT OF YOUR MOTORS

AVOID REPLACING MOTORS – MOTORS ARE EXPENSIVE

SWITCH OFF WHEN NOT IN USE

✔ Sludge pumps – Return Activated Sludge (RAS) and Waste Activated Sludge (WAS).
✔ Aerators in sequential batch reactors.
✔ Mixers and aerators where the process is not full time.
✔ Mechanical screens and inlet screws during reduced influent.
✔ Conveyors and belts in dewatering.

PERFORM ENERGY-INTENSIVE TASKS TO WHEN ENERGY IS CHEAPEST.

✔ Minimise electricity usage during morning and evening peak hours

OPTIMISE YOUR SYSTEM

Operating setpoints should meet system requirements:
✔ Change motor load to use more efficient pumps and blowers.
✔ Replace motor control technology e.g. variable speed drives in oversized pumps.
✔ Manage upstream compliance by curbing suspended solids.

IN ACTIVATED SLUDGE-TYPE WWTPS

✔ Install primary settling tanks to reduce unnecessary aeration.
✔ Improve system controls via feedback loops to monitor dissolved oxygen.
✔ Install variable speed drives to match aeration requirements.
✔ Change diffuser/bubble-making process within aeration basin.
POORLY MAINTAINED MOTORS WASTE ENERGY
YOU HAVE THE POWER TO CHANGE THAT

DO DAILY CHECKS

✔ Keep motors free from debris and dirt.
✔ Check that fans are open to prevent overheating.
✔ Check that timers, thermostat and sensors are in working order.
✔ Inspect for oil leaks to prevent friction in bearings and gearboxes.
✔ Monitor pumps for discharge and suction pressures.
✔ Monitor blowers and compressors for pressure flow and temperature.

LISTEN FOR ...

✔ Noises from pulley belts: correct the tension.
✔ Noises from bearings: ensure proper lubrication.
✔ Noises from shaft alignment: get motor serviced.

MONITOR MOTOR LOAD CURRENT

✔ When was your service motor control room last inspected?
✔ This should be done as part of your routine monitoring or at least once a month.
   Date of last inspection:
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