Process Control Flow Chart for Ortho-P Release in Anaerobic Tank

Clarifier Effluent Ortho-P Test

- Effluent Ortho-P Low TSS Low
  - System in Compliance

- Effluent Ortho-P High TSS Low
  - Check Anaerobic and Anoxic Tank Ortho-P, Nitrates, DO
    - Anaerobic: Nitrates Low DO Low Ortho-P High
      - Anoxic: Nitrates Low DO Low Ortho-P High
    - Anoxic: Nitrates High DO Low Ortho-P High
    - Anoxic: Nitrates High DO Low Ortho-P High

- Effluent Ortho-P Low TSS High
  - Optimize Clarifier/Filter Operation

Not Enough DO in the Oxic Zone
  1. Increase Aeration in Oxic Tank

Too Much DO:
  1. Turn Down An/AX Mixers
  2. Cycle AN/AX Mixers ON/OFF
  3. Reduce DO in Oxic Zone
  4. Check Influent Carbon

Too Much Nitrate:
  1. Reduce RAS /Recycle Rate
  2. Investigate Nitrates in Influent
  3. Add Soluble Carbon

Check and Correct Clarifier Effluent TSS:
  1. High Sludge Blanket
  2. High RAS Rate
  3. High Flow
  4. Short Circuiting
  5. Weir Placement
  6. Uneven Weirs
  7. Filamentous Sludge