

Examples of Approved Subject Matter for Continuing Education Requirements

Physical/Chemical Wastewater Treatment

I. General Knowledge

- A. Sources of Wastewater
- B. Wastewater Characteristics
- C. Basic and Applied Math
- D. Industrial Safety including, but not limited to:
 - 1. Confined Space
 - 2. Trenching & Shoring
 - 3. Personal Protection Equipment
 - 4. Laboratory
 - 5. Electrical
 - 6. Lockout/Tag out
 - 7. Blood Borne Pathogen
 - 8. Personal Hygiene
 - 9. Traffic
 - 10. Chemical
 - 11. Fire
 - 12. Workplace Violence
 - 13. Plant Housekeeping
- E. Laboratory Skills
- F. Common Parameters
- G. Basic Electrical Concepts
- H. Basic Hydraulic Concepts
- I. Goals of Wastewater Treatment
- J. Regulatory Issues
- K. Industrial Pretreatment
- L. Backflow Prevention

II. Support Systems

- A. Electrical/Mechanical Equipment
- B. Engines
- C. Plumbing
- D. Measuring Systems
- E. Control Systems
- F. Chemical Feeders
- G. HVAC
- H. Pumps

III. Unit Process/Process Control

- A. Flow Equalization
- B. Screening
- C. Grinding
- D. Grit Removal
- E. Preaeration
- F. Chemical Pretreatment
- G. Clarification
- H. Effluent Disposal
- I. Sludge Conditioning
- J. Sludge Thickening
- K. Sludge Dewatering
- L. Solids Disposal

- M. Flow Measurement
- N. Oil Removal
- O. Cyanide Oxidation
- P. Chromium Reduction
- Q. pH Control
- R. Metals Precipitation
- S. Ammonia Stripping
- T. Activated Carbon Absorption
- U. Filtration
- V. Electro dialysis
- W. Reverse Osmosis
- X. Coagulation/Flocculation
- Y. Industrial Residuals Reuse

IV. Laboratory Sampling and Analysis (all parameters)

V. Technical Supervision/Management

- A. Planning
- B. Personnel Systems
- C. Financial Systems
- D. Maintenance Management Systems
- E. Management Information Systems
- F. Emergency Response Systems
- G. Public Relation Systems
- H. Plant Security Systems
- I. Safety Systems
- J. Process Management Systems