Minimum Technical Information Needs for Submittal of Plans and Specifications for Sludge Compost Facilities

1. Plant Configuration (layout)

2. Process Information
   a. Sludge, Amendment, and mix properties (for range of conditions)
      • Type and Amounts of Sludge, Amendment, & Recycle
      • Volatiles Content-Sludge, Amendment,Mix
      • Initial Solids Content -Sludge, Amendment, Mix
      • Porosity/Bulk Density - Mix, Product
      • Required Mix Ratios & calculations
   b. Reactor Shape, Dimensions, and Volume
   c. Detention Time in:
      • each reactor (active & curing phases)
      • aerated curing
      • product storage
   d. Solids Retention Time in Reactors & Facility
   e. Aeration (both in and outside reactor)
      • Method and Rate
      • Volume of Air (cf/unit of sludge)
      • Static Head Pressure
      • Range of Straight Line Airflow Distances
   f. Moisture Content of Mix When Discharged from the Reactor & Facility
   g. Monitoring & Control
      • Temperature & Moisture
      • Oxygen levels & Stability Testing
   h. Mass Balance Calculations
   i. Energy Balance Calculations

3. Product Quality Information
   a. Ability to Meet Pathogen Reduction Criteria
   b. Ability to Meet Regulatory Criteria (EPA part 503 & DEP 310 CMR 32.00)

4. Odor Control
   a. Inventory of All Potential Odor Sources
   b. Control Plan for Each Source, including:
      • Estimated Pollutant Emission Rates & Concentrations
      • Capture and Containment System
      • Treatment Facilities & Method of Dispersion

5. Materials Handling
   a. System Configuration
   b. Description of Components
      • Physical Descriptions
• Material Construction
• O & M Requirements
• Past Operating History & Reliability
• Energy Requirements
  c. Control Systems & Flexibility

6. Aeration & Exhaust Systems
   a. Configuration
   b. Description of Components
      • Physical Description
      • Materials of Construction
      • O & M Requirements
      • Past Operating History & Reliability
      • Energy Requirements

7. Reactor Systems (inc. discharge device)
   a. Configuration
   b. Description of Components
      • Physical Description
      • Materials of Construction
      • O & M Requirements
      • Past Operating History & Reliability
      • Energy Requirements

8. Operations
   a. Labor Needs & Requirements
   b. Skills Required For:
      • Operating the Equipment
      • Controlling the Process
      • O & M of Equipment
   c. Proposed Operating Schedule(s)

9. Marketing Analysis & Description of Proposed Uses of the Product

10. Analysis of Required Storage and Curing Facilities for Off-season Storage

11. Demonstration of Compliance with DEP Redundancy Policies (if applicable)