

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO RESOURCE RECOVERY PROGRAM

Enhanced Biological Phosphorous Removal

DEFINITIONS

Biochemical Oxygen Demand (BOD) – The quantity of dissolved oxygen required for biochemical oxidation of decomposable matter under aerobic conditions in a period of 5 days at 20 ° C.

Bio P – short for Enhanced Biological Phosphorus Removal (also EBPR) process. Specialized bacteria in wastewater known as phosphate accumulating organisms utilize readily biodegradable carbon to remove phosphorus by cycling between oxygen deficient and oxygen rich conditions to concentrate phosphorus in the organisms.

Chain-of-Custody (COC) - Form that insures sample integrity via documentation of sample collection, control, transfer and analysis. The COC shall accompany the samples from the time of collection to analysis.

Chemical Oxygen Demand (COD) – Measurement of the oxygen required to oxidize soluble and particulate organic matter in wastewater. Testing time is shorter than for BOD.

High Strength Liquid Organic Material (HSOM) - Any industrial or manufacturing waste or byproduct that is characterized by high concentrations of organic (carbon-containing) constituents such as biochemical oxygen demand or chemical oxygen demand that may be a viable feedstock for EBPR at the District.

Material Acceptance Agreement (MAA) – Form accompanying the OMDA application that approves one or more specific, defined HSOM streams to be delivered to the District by a single generator. It must be completed and submitted as part of the OMDA application package. Once approved, separate and unique Material Acceptance Numbers will be assigned to each HSOM stream.

Organic Material Delivery Authorization (OMDA) - This authorization is issued to those persons approved for admission into the Bio P Resource Recovery Program at the District.

Phosphorus (P) – A valuable element that is an essential resource for the growth of all living organisms, especially photosynthetic plants and algae. It is generally mined in the form of phosphate rock or ore and is often formulated into agricultural fertilizers.

Total Solids (TS) – The residue left in the vessel after evaporation of liquid from a wastewater sample and subsequent drying in an oven at 103 to 105 ° C.

Volatile Solids (TVS) – The weight loss of a wastewater sample after it is ignited and heated to dryness at 550° C.