

## **DEFINITIONS TO ADD TO THE REGULATIONS ~ Section 3**

### **1. Advanced Secondary Treatment**

Level of treatment that achieves 95% reduction in BOD and TSS, generally to levels below 10 mg/L.

### **2. Advanced Treatment System (ATS)**

A secondary pretreatment device that is used to improve the quality of septic tank effluent before final dispersal into the soil.

### **3. Biochemical Oxygen Demand (BOD)**

Amount of oxygen required by bacteria while stabilizing, digesting, or treating wastewater under aerobic conditions; an indirect measure of the amount of organic matter in wastewater; a measure of the relative strength of wastewater expressed in mg/L.

### **4. Biochemical Oxygen Demand, five-day (BOD<sub>5</sub>)**

Quantitative measure of the amount of oxygen consumed by bacteria while stabilizing, digesting, or treating biodegradable organic matter under aerobic conditions over a five-day incubation period; expressed in milligrams per liter (mg/L).

### **5. Carbonaceous Biochemical Oxygen Demand (cBOD<sub>5</sub>)**

Quantitative measure of the amount of oxygen consumed by bacteria while stabilizing, digesting, or treating the organic matter under aerobic conditions over a five-day incubation period while in the presence of a chemical inhibitor to block nitrification; cBOD<sub>5</sub> is expressed in milligrams per liter (mg/L).

### **6. Commercial Strength Wastewater**

Non-toxic, non-hazardous wastewater from commercial establishments, including but not limited to commercial food preparation operations, that is similar in composition to domestic wastewater, but which may have one or more of its constituents exceed typical domestic ranges.

### **7. Domestic Strength Wastewater**

Water or liquid-carried waste from plumbing fixtures, appliances and devices such as toilets, bath, laundry, and dishwashers; see also, residential-strength wastewater.

### **8. Effluent Filter**

Also known as effluent screens; removable, cleanable (or disposable) devices installed on the outlet piping of tanks for the purpose of retaining solids larger than a specific size and/or modulating effluent flow rate.

### **9. Fats, Oils, and Grease (FOG)**

Constituent of sewage typically originating from foodstuffs (animal fats or vegetable oils) or consisting of compounds of alcohol or glycerol with fatty acids (soaps and lotions); typically measured in mg/L.

## 10. Fecal Coliform Bacteria

Indicator bacteria common to the digestive systems of warm-blooded animals that is cultured in standard tests to indicate either contamination from sewage or the level of disinfection; generally measured as number of colonies/100 mL or most probably number (MPN).

## 11. High Strength Wastewater

1. Influent having BOD<sub>5</sub> greater than 300 mg/L; and/or TSS greater than 200 mg/L; and/or fats, oils, and grease (FOG) greater than 50 mg/L entering a septic tank or other pretreatment component (as defined by NSF Standard 40 testing protocol); 2. Effluent from a septic tank or other pretreatment component that has BOD<sub>5</sub> greater than 170 mg/L; and/or TSS greater than 60 mg/L; and/or fats, oils, and grease (FOG) greater than 25 mg/L and is applied to an infiltrative surface.

## 12. Industrial Strength Wastewater

Water or liquid-carried waste from an industrial process resulting from industry, manufacture, trade, automotive repair, vehicle wash, business or medical activity; this wastewater may contain toxic or hazardous constituents.

## 13. On-site Wastewater Treatment System

see **Subsurface Sewage Disposal System (SSDS)**

## 14. Residential Strength Wastewater

Effluent from a septic tank or other treatment device with a BOD<sub>5</sub> less than or equal to 170 mg/L; TSS less than or equal to 60 mg/L; and fats, oils, and grease (FOG) less than or equal to 25 mg/L.

## 15. Secondary Effluent Treatment Standards

As defined by either *NSF/ANSI Standard 40 – Residential Wastewater Treatment Systems* or in accordance with the Environmental Protection Agency (EPA) established secondary treatment standards for publicly owned treatment works (POTW's).

## 16. Secondary Treatment

Biological and chemical treatment processes designed to remove organic matter; a typical standard for secondary effluent is BOD<sub>5</sub> and TSS less than or equal to 30 mg/L each (or cBOD<sub>5</sub>, instead of BOD<sub>5</sub>, less than or equal to 25 mg/L) on a 30-day average basis; refer to Secondary Effluent Treatment Standards.

## 17. Tertiary Treatment

Advanced treatment of wastewater for enhanced organic matter removal, pathogen reduction, and nutrient removal; typical standards for tertiary effluent vary.

## 18. Total Nitrogen (TN)

Measure of the complete nitrogen content in wastewater including nitrate (NO<sub>3</sub><sup>-</sup>), nitrite (NO<sub>2</sub><sup>-</sup>), ammonia (NH<sub>3</sub>), ammonium (NH<sub>4</sub><sup>+</sup>), and organic nitrogen, expressed as mg/L of N; all these forms of nitrogen, (as well as nitrogen gas [N<sub>2</sub>]), can be biochemically converted from one form to another and are constituents of the nitrogen cycle.

## 19. Total Phosphorus (TP)

Sum of all forms of phosphorus, organic and inorganic, in effluent expressed in terms of milligrams per liter (mg/L).

## **20. Total Suspended Solids (TSS)**

Measure of all suspended solids in a liquid; typically expressed in mg/L.

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