

Table 4-5. Recommended field testing constituents for effluent quality indication.

Constituent	Acceptable Range
pH	6 to 9
Dissolved oxygen	≥ 2 mg/L
Turbidity	≤ 40 NTU

Notes: milligram per liter (mg/L); nephelometric turbidity unit (NTU)

- c. Monitoring samples provided to a laboratory will analytically quantify that the units are operating in compliance if samples do not exceed 40 mg/L (40 ppm) for CBOD₅ and 45 mg/L (45 ppm) for TSS.

Results for CBOD₅ and TSS that exceed these levels indicate the ETPS unit is not achieving the required reduction levels.

- d. For those systems installed in areas of concern, including nitrogen sensitive areas, or are used to fulfill NP evaluation results and requirements, the following additional constituents may be monitored as stipulated on the permit:

- 1) Total Kjeldahl nitrogen (TKN)
- 2) Nitrate-nitrite nitrogen (NO₃+NO₂-N)
- 3) Results for total nitrogen (TN = TKN + [NO₃+NO₂-N]) that exceed the levels stipulated on the installation permit, in the subdivision approval for sanitary restrictions release, or the approved NP evaluation, indicate that the device is failing to achieve the required reductions

- e. Samples will be collected, stored, transported, and analyzed according to the latest version of *Standard Methods for the Examination of Water and Wastewater* (Rice et al. 2012) and other acceptable procedures.

- 1) Each sample will have a chain-of-custody form, identifying, at a minimum, the sample's source (street address or installation permit number), date and time of collection, and the person who extracted the sample.
- 2) Chain-of-custody form should also specify the laboratory analyses to be performed on the sample.
- 3) Sample storage and transport will take place in appropriate containers under appropriate temperature control.

- f. Sample analysis will be performed by a laboratory capable of analyzing wastewater according to the acceptable standards identified in Table 4-6, and the monitoring results will be submitted as part of the annual report to the local health district.

- 1) ETPS effluent analysis shall be performed using the standards in Table 4-6 from the *Standard Methods for the Examination of Water and Wastewater* (Rice et al. 2012). NSF uses the same standards in their Standard 40 and 245 evaluations.
- 2) Annual reports submitted with laboratory analysis results differing from these standard methods will be rejected.

Table 4-6. Standard methods required for the analysis of ETPS effluent in annual testing.

Analysis	Standard Method Number
Total suspended solids (TSS)	SM 2540 D
Carbonaceous biological oxygen demand (CBOD ₅) ^a	SM 5210 B
Total Kjeldahl nitrogen (TKN)	SM 4500-NH ₃ C
Nitrate-nitrite nitrogen (NO ₃ + NO ₂ -N)	SM 4500-NO ₃ ⁻ F

a. Person requesting the analysis from the laboratory must specify the CBOD₅ on the chain-of-custody form.

- g. Samples failing to achieve the required effluent constituent levels shall require the following:
- 1) Additional operation and maintenance.
 - 2) Additional sampling to demonstrate the operation and maintenance performed successfully restored the treatment system to proper operation.
 - 3) Sample extraction and analysis should occur within 30 days after servicing the system.
 - 4) A maximum of three sampling events, within 90 days, will be allowed to return the system to proper operation. Failure to correct the system within this time frame will result in the system being classified as a *failing system* (Figure 4-9).