

US EPA ARCHIVE DOCUMENT

**February 2012**  
**Supplemental FACT SHEET**  
**Authorization to Discharge under the**  
**National Pollutant Discharge Elimination System**  
**for the**  
**Navajo Tribal Utility Authority (NTUA) Navajo Townsite Wastewater Treatment**  
**Facility**  
**NPDES Permit No. NN0030335**

Based on comments received during the 30-day comment period for the NPDES permit public notice, EPA has made the following changes to the proposed permit for Navajo Townsite. The proposed permit set forth discharge limitations for biochemical oxygen demand (BOD<sub>5</sub>) and total suspended solids (TSS) based on federal secondary treatment regulations under 40 CFR Section 133.102(a) and (b), and consistent with those in the previous permit. However, a review of the plant's historical discharge monitoring data reveals that the Navajo Townsite facility has not been able to achieve consistent compliance with these permit limits. Given the treatment capabilities and actual performance of the waste treatment stabilization ponds at the Navajo Townsite facility, EPA believes that the proposed effluent limitations in the public-noticed permit are more stringent than required by national equivalent to secondary treatment standards for waste stabilization ponds. EPA is therefore establishing effluent limitations for BOD<sub>5</sub> and TSS that are less stringent than the proposed limits in order to be consistent with equivalent to secondary treatment regulations at 40 CFR Sections 133.105(a) and 133.105(d).

**Five-Day Biochemical Oxygen Demand (BOD<sub>5</sub>)**

As required in the permit, the discharge shall not exceed a weekly average of 65 mg/l and a monthly average of 45 mg/l BOD<sub>5</sub>, and shall achieve no less than a monthly average rate of 65% removal. These limits are consistent with those in the previous permit and are required under 40 CFR Section 133.102(a). The limits are designated as 30-day and 7 day averages since the facility operates similar to a POTW, and it would be impracticable to do otherwise [40 CFR 122.45 (d)].

Under 40 CFR Section 122.45(f), mass limits are required for BOD<sub>5</sub>. Based upon the 0.32 MGD flow, the mass limits for BOD<sub>5</sub> are based on the following calculations:

Monthly average

$$\frac{0.32 \text{ MG}}{\text{day}} \times \frac{45 \text{ mg}}{\text{l}} \times \frac{8.345 \text{ lb/MG}}{1 \text{ mg/l}} \times \frac{0.45 \text{ kg}}{\text{lb}} = 54 \text{ kg per day}$$

Weekly average

$$\frac{0.32 \text{ MG}}{\text{day}} \times \frac{65 \text{ mg}}{\text{l}} \times \frac{8.345 \text{ lb/MG}}{1 \text{ mg/l}} \times \frac{0.45 \text{ kg}}{\text{lb}} = 78 \text{ kg per day}$$

The monitoring frequency remains monthly, consistent with the previous permit.

**Total Suspended Solids (TSS)**

As required in the permit, the discharge shall not exceed a weekly average of 135 mg/l and monthly average of 90 mg/l TSS, and shall achieve no less than a monthly average rate of 65% removal. These limitations (Alternate State Requirements) are consistent with 40 CFR Parts 133.101(f) and 133.105(b). Mass limit requirements in accordance with 40 CFR 122.45(f) have also been set in the proposed permit.

Monthly average

$$\frac{0.32 \text{ MG}}{\text{day}} \times \frac{90 \text{ mg}}{1} \times \frac{8.345 \text{ lb/MG}}{1 \text{ mg/l}} \times \frac{0.45 \text{ kg}}{\text{lb}} = 108 \text{ kg per day}$$

Weekly average

$$\frac{0.32 \text{ MG}}{\text{day}} \times \frac{135 \text{ mg}}{1} \times \frac{8.345 \text{ lb/MG}}{1 \text{ mg/l}} \times \frac{0.45 \text{ kg}}{\text{lb}} = 162 \text{ kg per day}$$

The monitoring frequency is monthly, consistent with the previous permit.