

## ***ZERO-FLOW POLICY***

The following NPDES permitting policies apply to discharges to zero-flow streams:

- New and Expanding Discharge to Zero Flow Streams ( both 7Q10 and 30Q2 = 0).  
Regulation 2B .0206 disallows new discharges of *oxygen consuming wastewater* to streams which have no flow under *both* 7Q10 and 30Q2 conditions.
  
- New and Expanding Discharge to Zero Flow Streams (7Q10= 0; 30Q2 >0). Regulation 2B .0206 sets effluent limitations at BOD<sub>5</sub> = 5 mg/l, NH<sub>3</sub>-N= 2 mg/l, and DO = 6 mg/l to streams with no 7Q10 flow, but positive 30Q2 flow, unless it is determined that these limits will not protect water quality standards.
  
- Existing Dischargers. Regulation 2B .0206 also states that existing dischargers to zero-flow streams should be handled on a case-by-case basis. For many years, permits for the existing discharges to so-called “zero-flow streams” did not contain any special requirements. However, since 1990, three different requirements have been somewhat randomly placed in NPDES permits. These requirements were:
  1. Require an alternatives analysis be done and give summer limits of 5 mg/L (BOD<sub>5</sub>) and 1 mg/l (NH<sub>3</sub>-N) and winter limits of 10 mg/L (BOD<sub>5</sub>) and 1.8 mg/L (NH<sub>3</sub>-N) after a three-year period, if the discharge continued.
  2. Require an alternatives analysis to meet the above limits, but renew the permit without a change in limits (i.e., no 3-year compliance schedule to meet limits) during that permit cycle.
  3. Require an alternatives analysis to meet summer limits of 5 mg/L (BOD<sub>5</sub>) and 2 mg/L (NH<sub>3</sub>-N) and winter limits of 10 mg/L (BOD<sub>5</sub>) and 4 mg/L (NH<sub>3</sub>-N) without a change in limits during that permit cycle.

If alternative #1 was implemented in a previous permit, then these limits should be maintained with the exception of ammonia limits which should be changed to reflect current BAT for facilities with permitted flows of less than 1.0 MGD (2 mg/L and 4 mg/L in the summer and winter, respectively). An alternative analysis is not necessary for these discharges.

If a facility has never been required to submit an alternatives analysis, then the permit should be renewed with existing limits and a requirement to perform an alternatives analysis during the next permit cycle. The permit holder will be required to send in the alternatives analysis six months prior to the expiration date and should be notified of this requirement in the cover letter to permit issuance.

If a facility has been required to submit an alternatives analysis, but has not done so or has concluded that discharge is the only option, ammonia limits of 2 mg/L (summer) and 4 mg/L (winter) should be given with a compliance schedule (when deemed necessary by regional office staff). This schedule should not exceed three years. In lieu of these ammonia limits, the facility may choose to sample for toxicity using a chronic WET test, pass/fail at 90% using *Ceriodaphnia* as the test organism. Existing BOD<sub>5</sub> limits should be maintained unless instream data indicates a potential violation of the dissolved oxygen water quality standard.

If the facility does not discharge into a zero-flow stream, ammonia limitations should be checked against the Division’s *Ammonia Toxicity Policy*.