

# NORTH SHORE SANITARY DISTRICT



POST OFFICE BOX 750 WM KOEPEL DR., GURNEE, ILLINOIS 60031  
847/623-6060 FAX 847/623-3205 TDD 847/623-6091

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MAR 6 - 2002

STATE OF ILLINOIS  
Pollution Control Board

March 5, 2002

Illinois Pollution Control Board  
Attn: Dorothy Gunn, Clerk, re Docket R02-11  
James R. Thompson Center  
100 West Randolph Street  
Chicago, IL 60601

*P.e. #12*

Re: Support for IEPA carbonaceous BOD proposal

To Whom It May Concern:

The North Shore Sanitary District (NSSD) appreciates this opportunity to submit the following comments in support of the proposed amendment to 35 ILL. Adm. Code 304.120. The Illinois Environmental Protection Agency (IEPA) is proposing to amend the regulations to specifically recognize carbonaceous BOD (CBOD) as the effluent limit, which should be applied to NPDES permits issued in Illinois.

The CBOD test method was developed to eliminate the interference caused by ammonia nitrogen within the standard BOD test. Ammonia nitrogen when present, interferes by exerting a nitrogenous oxygen demand when it is biologically converted to nitrate nitrogen by specific bacteria. The CBOD method calls for the addition of a nitrification inhibitor, which prevents this conversion from occurring within the test. The CBOD test is universally applied and is an approved method supported by Standard Methods for the Examination of Water and Wastewater.

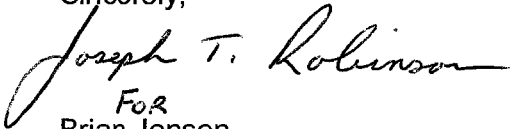
The amendment as proposed would not extend relief to dischargers in the form of relaxed standards because CBOD has been applied to NPDES permits within the State of Illinois for over 10 years. The intent of this action is to remove the confusion resulting from the terms total BOD and carbonaceous BOD (CBOD).

The proposed change would update the regulation to current terminology and practices employed within this area of science. The inclusion of the total BOD test within NPDES dates back to the 1970's as a means for documenting secondary treatment plant efficiency. The CBOD test evolved from the original BOD method in the mid-1980's, when the effects of the interference were recognized. This timeframe was marked by the development of biological nutrient removal technology within the wastewater treatment process field. The same forms of ammonia converting bacteria utilized within the biological nutrient removal processes are responsible for the nitrogenous oxygen demand within the BOD test. The presence of the ammonia converting bacteria within the treated effluents resulted in elevated total BOD test results, which incorrectly indicated a loss of secondary treatment plant removal efficiency. Therefore, CBOD became the industry standard for the measure of efficiency of the secondary treatment process.

Potential concerns over ammonia nitrogen levels present within a wastewater treatment process effluent are addressed elsewhere within the NPDES program under ammonia nitrogen based limits and/or bioassay monitoring that encompasses ammonia toxicity.

Thank you for this opportunity to comment in support of the IEPA's proposed amendments on carbonaceous BOD. The District reserves the right to submit additional comments on any of the amendments being considered herein at the close of testimony in the event the Board authorizes such comments. The District appreciates your consideration of these comments prior to make a decision.

Sincerely,

A handwritten signature in cursive script that reads "Joseph T. Robinson".

FOR

Brian Jensen  
General Manager  
NORTH SHORE SANITARY DISTRICT