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MAR 5 - 2002

STATE OF ILLINOIS
Pollution Control Board

February 28, 2002

Illinois Pollution Control Board
Attn: Dorothy Gunn, Clerk
James R. Thompson Center
100 West Randolph Street
Suite 11-500
Chicago, Illinois 60601

P.C. #9

Re: R002 - 11 (Rule making - Water)

The City of Elmhurst would like to stand on record as supporting the proposed amendment to 35IL Admin. Code 304.120 to be modified by adding paragraph "g", which specifies that compliance with the 5 day biochemical oxygen demand (BOD₅) numerical standards be determined by analysis of a 5 day carbonaceous biochemical oxygen demand (CBOD₅).

In the mid 1980's the wastewater industry in Illinois had a very lively discussion of the efficacy of the BOD₅ versus CBOD₅. The original 5-day BOD test was not intended at the time of its initial use to be a measurement of the nitrogenous component of wastewater. Also at the time few if any POTW's were achieving any significant conversion of ammonia to nitrite-nitrate. It was argued that (and considered safe to assume) that the database of BOD₅ tests contained only carbonaceous oxygen demanding data. The results of the 1980's discussion resolved that the quality of the data and the comparison value of the data (comparing past to present) could be maintained by limiting the oxygen demand test to the carbonaceous component only. With the installation of advanced activated sludge processes the BOD₅ test accuracy became suspect due to the introduction of nitrogenous BOD. Furthermore, the measurement of the nitrogenous BOD in the BOD₅ exam is uncontrolled and interferes with the original BOD test. There is no way to differentiate what component of the sample was responsible for the oxygen consumption, the carbonaceous or nitrogenous components.

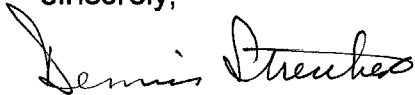
Measurement of BOD is an important parameter for wastewater plant staff to gauge the efficiency of their process operations. The CBOD₅ measures simply the carbonaceous component of the oxygen demanding effluent. There are separate tests available for measuring nitrate-nitrite and the ammonia

components of the effluent. It makes great sense to measure the individual components of the effluent separately to have accurate test results for each of these components. The BOD₅ will measure both constituents of that oxygen-demanding component of the effluent without accurately quantifying either in any detail. For that reason the City of Elmhurst supports the Illinois EPA effort to maintain the CBOD₅ as a measurement of oxygen demanding carbonaceous material as a separate test from measurement of nitrate-nitrite and ammonia.

Acceptance of the CBOD₅ as a measurement of the efficiency of any POTW will not relax any existing discharge standards.

By formally recognizing the use the CBOD₅ for measuring oxygen consuming wastes under section 304.120 the board will be unifying the regulations with the generally accepted theories in municipal wastewater treatment.

Sincerely,

A handwritten signature in black ink that reads "Dennis Streicher". The signature is written in a cursive style with a large initial 'D'.

Dennis Streicher
Director of Water & Wastewater

Cc Thomas P. Borchert, City Manager
Harlan Spiroff, City Attorney