



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OCT 10 2003

Howard Ray
Manager, Research & Development
Industrial Test Systems, Inc.
1875 Langston Street
Rock Hill, SC 29730

OFFICE OF
WATER

Dear Mr. Ray:

We are pleased to inform you that EPA plans to propose the use of ITS Free Chlorine Test Strips in drinking water compliance monitoring based on the extensive technical information you provided which included technical literature and the results of two interlaboratory validation studies. The studies effectively characterized false negative and false positive rates of the test strips, the precision and accuracy of the test strips, the sensitivity of the test strips, and the variability of test strips between lots. All studies were properly performed in a double-blind random fashion to eliminate potential analyst bias. The false positive and false negative rates were 0-1%. Method precision and accuracy were characterized in multiple drinking water matrices fortified at varying chlorine concentrations. For example, the validation studies showed that free chlorine recovery was approximately 100%, and relative standard deviation (RSD) was generally below 20% for analysis of drinking water samples fortified with 0.1 ppm of free chlorine. Method sensitivity was demonstrated to be sufficient for monitoring chlorination levels at 0.1 ppm or above; the chlorination level required by National Primary Drinking Water Regulations is 0.2 ppm. Finally, results did not appear to vary across different lots of ITS test strips.

EPA's proposal will be made in an upcoming rulemaking that will be published in the Federal Register. Per the proposal, the ITS test strips will be treated as equivalent to other free chlorine test kits, meaning that States will have discretion to approve their use per authority at 40 CFR 141.74(a)(2). We believe that the ITS test strips will provide the regulated community with a valuable option for monitoring free chlorine levels in drinking water.

If you have any questions, please feel free to contact Dr. Herb Brass at 513-569-7936 at your convenience.

Sincerely,

William A. Telliard
Director of Analytical Methods
Engineering and Analysis Division (4303)

Herb Brass, Ph.D.
Technical Support Center (MS-140)
Office of Ground Water and Drinking Water

cc: Gregory J. Carroll, USEPA, OGWDW
Robin K. Oshiro, USEPA, EAD
Lillian Holmes, USEPA, OGWDW/TSC
James Boiani, DynCorp-CSC