



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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OFFICE OF  
WATER

We are pleased to inform you that the Engineering and Analytical Support Branch (EASB) and the Office of Ground Water and Drinking Water's Technical Support Center (OGWDW/TSC) have determined that Thermo Electron Corp.'s Orion Method AC4070 [Revision 1.1, January 2006] for the determination of total and free chlorine in water (ATP Case Nos. D04-0016 and N04-0016), is an acceptable version of EPA approved methods listed at 40 CFR Part 141 for measurement of total chlorine residuals and free chlorine residuals in drinking water and at 40 CFR Part 136 for measurement of total chlorine residuals in wastewater by reaction with N, N-diethyl-p-phenyldiamine sulfate (DPD) followed by spectrophotometric detection (e.g. Standard Method 4500 Cl G). Accordingly, Orion Method AC4070 [Revision 1.1, January 2006] may be used for NPDWR and NPDES compliance monitoring. Both the approved methods and the Orion method rely on the same chemistry (reaction of oxidants with DPD) to produce a red color; the intensity of which is: (1) dependent upon chlorine concentration and (2) determined photometrically at or near 515nm. The method's range of 0.15 to 5.0 mg/L Cl<sub>2</sub> encompasses drinking water and wastewater regulatory limitations.

We appreciate your interest in the development of environmental monitoring methods. If you have any questions regarding the review of this alternate test procedure (ATP Case No's D04-0016 and N04-0016), please contact Robin Oshiro at [oshiro.rob@epa.gov](mailto:oshiro.rob@epa.gov) or at 202-566-1075 for wastewater or Steve Wendelken at [wendelken.steve@epa.gov](mailto:wendelken.steve@epa.gov) or at 513-569-7941 for drinking water.

Sincerely,

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