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NATIONAL WATER QUALITY LABORATORY TECHNICAL MEMORANDUM 1999.10

December 17, 1999

Subject: Consolidation of aroclor 1016 and aroclor 1242 in lab schedules 1608 (NPDES organochlorine pesticides with individual PCB aroclors in water) and 1364 (individual PCB aroclors in water)

Effective date of changes: January 3, 2000

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Revision: None

Supplemental: None

PURPOSE

This technical memorandum announces that the National Water Quality Laboratory (NWQL) will no longer report polychlorinated biphenyls (PCBs) in lab schedules 1364 and 1608 as either separate Aroclor 1016 or Aroclor 1242 equivalents. Instead, the NWQL will report PCBs identified as containing components of these two Aroclors as the new parameter Aroclor 1016/1242.

BACKGROUND

Historically, the National Water Quality Laboratory has been reporting PCB's as aroclor-equivalent concentrations in lab schedules 1364 and 1608. Aroclor is the trade name for mixtures of many polychlorinated biphenyl congeners followed by a numerical designation. The following are the aroclors listed in order of increasing average chlorine level: 1221, 1232, 1016, 1242, 1248, 1254, 1260, and 1268 (Alford- Stevens, 1986). Aroclors 1016 and 1242 have numerous overlapping components, making it difficult to distinguish them in environmental samples. Aroclor 1016 and 1242 have nearly identical peak patterns that can result in misclassification of the two when analyzing environmental samples and quality- assurance samples. In order to minimize misclassification of these two aroclors, the NWQL will no longer attempt to distinguish PCBs as individual Aroclor 1016 or 1242 equivalents. Instead, classification and concentration will be reported as the combined Aroclor 1016/1242. For more information on PCB's, contact Bill Foreman at the NWQL-Methods Research and Development Department.

REPORTING CHANGES

Beginning January 3, 2000, the NWQL will no longer report PCBs as separate Aroclor 1016 or Aroclor 1242 equivalent concentrations for lab schedules 1364 and 1608. After implementation, PCB detections of these two aroclors will be reported as the total whole-water recoverable mixture of Aroclor 1016/1242. The new parameter code will be 81648 (See table 1).

Table 1. Reporting changes for Aroclor-equivalent PCB's in lab schedules 1364 and 1608

Constituent	Parameter Code*	Lab Code	Reported prior to January 3, 2000	Reported beginning January 3, 2000
Schedule 1364				
Aroclor 1016	34671B	809	Yes	No
Aroclor 1242	39496B	812	Yes	No
Aroclor 1016/1242	81648A	2191	No	Yes
Schedule 1608				
Aroclor 1016	34671D	809	Yes	No
Aroclor 1242	39496D	812	Yes	No
Aroclor 1016/1242	81648B	2191	No	Yes

*The letter following the 5-digit parameter code represents the method code for the schedule

CHANGES TO THE DATABASE

There will be no changes to the historic database, however, there might be some difficulties interpreting prior aroclor 1016 and 1242 data. The most accurate concentration can be obtained by summing the aroclor 1016 and 1242 concentration reported previously and comparing that sum to the new 1016/1242 value.

REFERENCES

William T. Foreman, Research Chemist, National Water Quality Laboratory, Methods Research and Development Department.

Alford-Stevens, A.L., 1986, Analyzing PCBs: Environmental Science and Technology, v. 20, p. 1194-1199.

/signed/
Merle Shockey,
Acting Chief National Water Quality Laboratory
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This memorandum does not supersede any other NWQL Technical Memorandum.

Key Words: Schedule 1364, Schedule 1608, PCBs, Aroclor, Lab code, Parameter Code