


## MEMORANDUM

### DEPARTMENT OF ENVIRONMENTAL QUALITY WATER OPERATIONS

**SUBJECT:** Guidance Memo No. 98-2011  
Inspection Checklists for Analyses of Mercury by Cold Vapor and Metals

**TO:** Regional Directors

**FROM:** Larry Lawson, P.E. 

**DATE:** November 4, 1998

**COPIES:** Regional Permit Managers, Regional Compliance and Enforcement Managers, Regional Technical Services Managers, Martin Ferguson, Richard Ayers, Bill Purcell, Betsy Ziomek

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**SUMMARY:** These documents are checklists that outline appropriate sample collection and preservation; equipment; sample preparation; analyses; and data keeping for performing the analyses of Mercury by a cold vapor method and Metals using Atomic Absorption (AA) or Inductively Coupled Plasma (ICP). These checklists, when applicable, should be included with the final DEQ - Water Division Laboratory Inspection Report. Questions or comments regarding this topic can be directed to Betsy Ziomek at (804) 698-4181.

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#### DISCLAIMER

**This document provides technical and procedural guidance to the inspection staff to evaluate laboratories producing data related to permit compliance. This document is guidance only. It does not establish a binding norm and is not finally determinative of the issues addressed. Agency decision in any particular case will be made by applying the State Water Control Law and the implementation regulations on the basis of site specific facts.**











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a) Is recovery within 70-130%?

b) If recovery is outside of 70-130% range, is a post digestion spike analyzed with recovery of 85-115%, and a 1:4 dilution analyzed having agreement of 90-110% of the original determination?

- 33) Are duplicate samples being analyzed at rate of 10% with RPD  $\leq$  20%? (RPD's are valid only for values >5X the CRDL.)
- 34) Are sample analyte concs > 90% of the LDR diluted and reanalyzed?

**DATA KEEPING**

- 1) Are the permit levels met by the analytical technique chosen?
- 2) Does raw data have analyst's initials, analysis time and date recorded?
- 3) Are all sample concentrations bracketed by standards?
- 3) Are all raw data retained for at least 3 years?
- 4) Is there a QA/QC plan available which includes a 'Corrective Actions' section?

<b>PROBLEMS:</b>	
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<b>RATING:</b>	SATISFACTORY	SATISFACTORY W/QUALIFICATIONS	UNSATISFACTORY
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