State Water Resources Control Board (SWRCB) Letter No. 010 Subject: Reporting Multiple Dilution or Confirmation Analyses in EDF Date: April 26, 2002

Overview:

If a dilution is required for a sample and some compounds are quantified at each dilution, both analytical determinations may be provided as separate test records in the EDF deliverable, distinguished by the run number (RUN_NUMBER) and the primary value type (PVCCODE) fields. All detection and reporting limits must be adjusted to reflect the dilution, as appropriate. The laboratory must select which value they wish to report as the "primary result" (PVCCODE = "PR"). The primary result would be the quantitation that the laboratory places the most confidence in for each analyte that is reported more than once. Only one PVCCODE of "PR" is allowed per LABSAMPID, ANMCODE, EXMCODE, and PARLABEL. The PVCCODE "SR" is used to indicate a semi-quantitative result for the value that is not considered the primary value.

If the laboratory is providing confirmatory results within the EDF, the *PVCCODE* for the confirmatory analysis would indicate the type of confirmation (e.g., second column or mass spectrometry). A confirmation result *PVCCODE* is used for the value that is measured in the confirmatory analysis. These codes are "2C" for "Second Column Result" (the value obtained from the second column), and "MS" for "GC/MS Result" (the value confirmed using GC/MS).

The SWRCB requires the designation of the primary result by the laboratory in the EDF deliverable per the guidelines outlined below.

Special Conditions:

None.

Areas of Impact:

Field(s): *PVCCODE*

Entry: "PR" for Primary Result for a Parameter or "SR" for Semi-Quantitative Result and "2C" for Second Column Result or "MS" for GC/MS Result- Value Confirmed Using GC/MS

Policy:

The *PVCCODE*s "PR," "SR," "2C," or "MS" are to be applied as follows:

a) Scenario 1 – A sample is analyzed for benzene and toluene. In the first run (Run 1), toluene is outside of the calibration range, but all other results are within range. The sample is then diluted by ten and analyzed a second time (Run 2). The results for each run are reported as follows:

Run 1

Benzene Results
PARLABEL = BZ
PARVAL = 2
DILUTION = 1
PVCCODE = PR
$RUN_NUMBER = 1$

Run 2

Benzene Results PARLABEL = BZ PARVAL = 0 DILUTION = 100 PVCCODE = SR RUN NUMBER = 2 $\frac{\text{Toluene Results}}{PARLABEL} = \text{BZME}$ PARVAL = 4000 DILUTION = 1 PVCCODE = SR $RUN_NUMBER = 1$

<u>Toluene Results</u> <u>PARLABEL</u> = BZME <u>PARVAL</u> = 4760 <u>DILUTION</u> = 100 <u>PVCCODE</u> = PR <u>RUN_NUMBER</u> = 2

b) Scenario 2 – A sample is analyzed for endrin and heptachlor. In the analysis of the sample both analytes are measured (Run 1). To confirm the identity of the analytes, a second column confirmation is performed (Run 2). The results for each run are reported as follows:

Run 1

Endrin Results PARLABEL = ENDRIN PARVAL = 25 DILUTION = 1 PVCCODE = PR RUN_NUMBER = 1

Run 2

Endrin Results PARLABEL = ENDRIN PARVAL = 27 DILUTION = 1 PVCCODE = 2C RUN_NUMBER = 2 Heptachlor Results PARLABEL = HEPTACHLOR PARVAL = 37 DILUTION = 1 PVCCODE = PR RUN_NUMBER = 1

<u>Heptachlor Results</u> *PARLABEL* = HEPTACHLOR *PARVAL* = 32 *DILUTION* = 1 *PVCCODE* = 2C *RUN_NUMBER* = 2