State Water Resources Control Board (SWRCB)
Letter No. 001
Subject: Method Detection and Reporting Limits for EDF
Date: April 26, 2002

Overview:

The analytical methods being used within the AB 2886 implementation are performance-based methods. Each laboratory must demonstrate proficiency in the use of the method to obtain reliable analytical results. Each laboratory determines the method detection limit they can achieve based on a combination of analyst, procedure, matrix, and instrument. In order to achieve comparability of results, clear guidance is needed within the AB 2886 implementation concerning method and reporting detection limit requirements.

The EDF format contains two fields in which to report detection limit values: *LABDL* and *REPDL*. The *LABDL* field is the statistically determined detection limit (See USEPA SW-846 standards for detail) corrected for sample preparation. The *REPDL* is the detection limit that the laboratory uses to confidently determine quantitation limits (e.g., method reporting limit [MRL]), and is defined by the *REPDLVQ* field. The *REPDL* is also adjusted for sample preparation. The SWRCB recommends reporting of both the *LABDL* and the *REPDL* (both adjusted for sample preparation), and the use of the *REPDLVQ* field to define the reporting limit that is provided in the *REPDL* field within the EDF format.

Special Conditions:

None.

Areas of Impact:

Field(s): *LABDL*, *REPDL*, and *REPDLVQ*
Entry: Numeric values for *LABDL* and *REPDL*. For *REPDLVQ*, please refer to the valid
value list (VVL) for available codes.

Policy:

a) Scenario 1 – Quantified analytical results

Code use: *LABDL* = laboratory statistically derived method detection limit, adjusted for sample preparation (weight, final volume, and dilution)
REPDL = method reporting limit (lowest standard, adjusted for preparation)
REPDLVQ = "MRL"

b) Scenario 2 – Results without method detection limits (e.g., pH meter results)

        Code use: *LABDL* = precision of the instrument
                                REPDL = precision of the instrument
                                REPDLVQ = "IDL"

c) Scenario 3 – Tentatively Identified Compounds (TICs)

        Code use: *LABDL* = [null]
                                REPDL = [null]
                                REPDLVQ = "NA"
                                PARVQ = "TI"

d) Scenario 4 – Surrogate compounds

        Code use: *LABDL* = [null]
                                REPDL = [null]
                                REPDLVQ = NA
                                PARVQ = "SU"
                                UNITS = "PERCENT"