

Summary of Major Changes to the USEPA Statement of Work for Dioxins and Furans Analysis DLM01.3 to DLM01.4

This document is an overview of the major changes (additions and deletions) made to the Analytical Operations/Data Quality Center (AOC) Statement of Work (SOW) for Dioxins and Furans Analysis, DLM01.3. The new document number is DLM01.4 - January 2002.

This summary of changes highlights the major changes with respect to several specific areas of interest in the SOW: Summary of Requirements; Reporting and Deliverables Requirements; Analytical Methods for Chlorinated Dibenzo-p-Dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs); and Quality Assurance/Quality Control (QA/QC) Procedures and Requirements.

Global Changes

All references to DLM01.3 have been changed to DLM01.4 and the version date has been changed to reflect January 2002.

Exhibit A - Purpose

All references to the Sample Management Office (SMO) within this exhibit have been removed and replaced with the Task Order Project Officer (TOPO).

Language has been revised to indicate that the Sample Delivery Group (SDG) will be defined in individual task orders.

Exhibit B - Reporting and Deliverables Requirements

All references to Client Number within this exhibit have been replaced by Task Order Number.

Section 1.1 - Table 1

Deliverables will be distributed to the following - the TOPO, Project Officer (PO) at USEPA AOC, and SMO.

Section 1.1 - Footnote 2

Adjusted the language to indicate that an SDG will be defined in individual task orders.

Section 2.5.3.1.3 - Second Column Confirmation (FORM I-HR CDD-3)

Modified language to remove tabulated results for 2,3,7,8-TCDD.

FORM I-HR CDD-1

Modified form to change the selected ions for labeled compound 13C-1234678-HpCDD from 424/426 to 436/438.

FORM VII-HR CDD-1

Modified form to change the selected ions for labeled compound 13C-1234678-HpCDD from 424/426 to 436/438.

FORM VII-HR CDD-2

Modified form to include labeled compound 13C-1234789-HpCDF.

Exhibit D - Analytical Methods for Chlorinated Dibenzo-P-Dioxins/Chlorinated Dibenzofurans (CDDs/CDFs)

All references to SMO within this exhibit were removed and replaced with the TOPO.

Section 1.1 - Method

Added language to show that the analytical method is also based on SW-846 8290 and may be modified by individual task orders.

Section 8.3 - Contract Required Holding Times

Clarified the Contract Required Holding Times for all sample extracts and analyses.

Section 9.2.1 - Summary of HRGC/HRMS System Performance Check

Removed language at the end of Section 9.2.1.3 and added a new Section 9.2.1.4 regarding closeout requirements of the System Performance Check.

Sections 9.2.2.4, 9.2.3.4 and 9.2.4.4 - Corrective Action for HRMS System Tune, Corrective Action for WDM, and Technical Acceptance Criteria for Isomer Specificity Check

Rearranged sections and added new sections (9.2.2.4.2, 9.2.3.4.2, and 9.2.4.5.2) to clearly state corrective actions for the closeout sequence (consistent with new Section 9.2.1.4).

Section 9.3.4.5 - Calculations for Initial Calibration

Equation 6

Added a multiplier of 100 to be consistent with percent calculation.

Section 9.4.1.1 - Summary of Calibration Verification

Deleted the last three words "used for quantitation".

Section 9.4.2. - Frequency of Calibration Verification

Added new Section 9.4.2.2 to make it consistent with requirements of Section 9.2.1.4.

Section 9.4.4.2 - Calculations for Calibration Verification

Equation 7

Added a multiplier of 100 to be consistent with percent calculation.

Section 9.4.5.4 - Technical Acceptance Criteria for Calibration Verification

Changed the Percent Difference (%D) between the calibration verification RR and the mean RR for the initial calibration from 20% to 25%.

Section 9.4.6 - Corrective Actions for Calibration Verification

Rearranged sections and added new Section 9.4.6.2 to clearly state corrective actions for the closeout sequence (consistent with new Section 9.2.1.4).

Section 10.2.4 - Soxhlet Extraction

Section 10.2.4.1 - Added the words “to form a dry free flowing powder” at the end of the first sentence. Removed the second sentence “Cover the beakers with aluminum foil and allow to stand 12 to 24 hours”.

Section 10.5 - Cleanup

Use of GPC to cleanup sample extracts is no longer mandatory. Laboratories may use other techniques if they prove adequate.

Section 10.5.1.4.1 - Frequency of GPC Sample Cleanup

Language was added to specify that if GPC is used for a sample, it must also be used for all associated blanks and Laboratory Control Samples (LCSs).

Section 10.6.6 - Sample Dilution

The language was modified so that the laboratory can dilute the sample extracts up to 20 times to bring high concentration compounds within the calibration range. The laboratory must contact the TOPO if a greater than 20-fold dilution is deemed necessary (i.e., to bring the high concentration compounds within calibration range).

Sections 11.2.1.5 - Isotope Dilution Method

Equation 10

Clarified terms in Equation 10.

Section 11.2.2.1 - Internal Standard Method

Added 1,2,3,7,8,9-HxCDD and OCDF to the list of compounds for which the Contractor shall use Equation 11 to calculate concentration.

Equation 11

Clarified terms in Equation 11.

Section 11.2.5.1 - Sample-Specific Estimated Detection Limit

Note added below Equation 15 regarding the use of alternate descriptor ions.

Section 11.3 - Technical Acceptance Criteria for Sample Analysis

Referred Section 11.3.6 back to Section 10.6.6 regarding sample dilution.

Section 11.4 - Corrective Action for Sample Analysis

Reworded Section 11.4.3 for clarity.

Section 15.0 - Tables/Diagrams/Flowcharts

Table 4

Added ¹³C₁₂-2,3,4,6,7,8-HxCDF and respective concentrations in calibration and calibration verification solutions.

Exhibit E - Quality Assurance/Quality Control (QA/QC) Procedures and Requirements

Major changes have been made to this section. These include, but are not limited to, the following:

All references to SMO within this exhibit have been removed and replaced with TOPO.

Language has been added to indicate that the SDG will be defined in individual task orders.

Contract Compliance Screening (CCS) has been replaced with the Deliverable Completeness Check (DCC).