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DMMP CLARIFICATION PAPER

POLYCHLORINATED DIOXINS AND FURANS (PCDD/F): REVISIONS TO THE SUPPLEMENTAL QUALITY ASSURANCE PROJECT PLAN (SQAPP)

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INTRODUCTION AND BACKGROUND

In 2007, the DMMP agencies presented a clarification paper (DMMP, 2007a) and supplemental QAPP (DMMP, 2007b) discussing procedures for collection and analysis of PCDD/F data.

In the past 3 years, the program has gained significant experience reviewing PCDD/F data, both from dredging projects and from the 2008 OSV BOLD Survey of Puget Sound. In addition, a public issue paper was presented at the 2009 SMARM (EcoChem, 2009), recommending changes to the 2007 guidance. Based on DMMP experience and input received at the 2009 SMARM, the agencies are implementing minor revisions to the procedures for analyzing PCDD/F to assure that the highest quality of data are being generated for suitability determinations.

CLARIFICATION

The following revisions are being implemented for the PCDD/F Supplemental QAPP:

- All projects will be required to analyze a sediment reference material such as NIST SRM#1944 with each analytical batch. Acceptance criteria for the reference material results (based on the 95% confidence interval) must be included in the sampling and analysis plan. If results fall outside the acceptance range, the laboratory may be required to reanalyze.
- It is strongly recommended that dioxin raw data be subjected to Stage 4 validation (EPA, 2009). Because of the complexity of dioxin analysis, the extremely low reporting limits, and the high potential for interfering compounds such as chloro diphenyl ethers, it is in the best interest of the project proponent to conduct this validation. The Corps of Engineers Seattle District validates all of its PCDD/F testing results for federal navigation dredging at this highest level.

As with other DMMP example plans, the SQAPP will need to be made project-specific by the project proponent (or its consultant). Deviations from procedures in the SQAPP will be considered by the DMMP agencies on a project-specific basis.

References

DMMP, 2007a. Polychlorinated Dioxins and Furans (PCDD/F): Clarification of Procedures for Acquiring Sediment Data.

DMMP, 2007b. Supplemental Information on Polychlorinated Dioxins and Furans (PCDD/F) for use in Preparing a Quality Assurance Project Plan (QAPP).

EcoChem, 2009. Dioxin Data – Clarification of SRM Analysis and Validation Requirements. Presented at the 2009 Sediment Management Annual Review Meeting.

EPA, 2009. Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use.