

QA/QC FOR PCDD/PCDF PROGRAMS: PERSPECTIVES FROM THE
ANALYTICAL LABORATORY

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ABSTRACT

The analytical laboratory is confronted with many quality assurance/quality control (QA/QC) criteria and issues in the conduct of programs for the determination of PCDDs and PCDFs. These requirements range from the tracking and handling procedures necessary to ensure the identity and integrity of samples to the generation and reporting of accurate and precise data at the appropriate concentration and detection levels. Implementation of an appropriate QA/QC program is affected by both the purpose of the analytical effort (regulatory vs. environmental monitoring) and the analytical requirements (based on detection limits and analytical sophistication, e.g., LRMS vs. HRMS). This presentation will examine the relevant QA/QC criteria, compare QC procedures required by several accepted methodologies, and identify specific QC efforts that have been implemented (via intra- and interlaboratory efforts) to promote data quality. The role of the analytical laboratory in developing effective QA/QC programs for specific analysis efforts will also be presented.