

Appendix C DEFINITIONS

Accuracy. The closeness of agreement between the measured value and the true value. Calculated as percent recovery.

Activity. An all-inclusive term describing a specific set of operations or related tasks to be performed, either serially or in parallel, that in total result in a product or service.

Audit. A independent, systematic examination to determine whether activities comply with planned arrangements, whether the arrangements are implemented effectively, and whether the results are suitable to achieve objectives.

Bias. The systemic or persistent distortion of a measurement process which causes errors in one direction.

Chain-of-custody. An unbroken trail of accountability that ensures the physical security of samples, data, and records.

Characteristic. Any property or attribute of a datum, item, process, or service that is distinct, describable and/or measurable.

Chemistry and Materials Quality Assurance Laboratory. A USACE facility which has been designated by CEMP-RT and validated by the HTRW-CX to provide analytical services to the HTRW program.

Comparability. A qualitative characteristic which defines the extent to which a chemical parameter measurement is consistent with, and may be compared to, values from other sampling events.

Completeness. A quantitative evaluation of what percent of the chemical measurements met the project DQOs.

Conformance. An affirmative indication or judgment that a product or service has met the requirements of the relevant specifications, contract, or regulation.

Corrective Action. Measures taken to rectify conditions adverse to quality and, where possible, to preclude their recurrence.

Data Assessment. The all-inclusive process used to measure the effectiveness of a particular data gathering activity. This process may be comprised of data verification, data review, data

evaluation, and data validation.

Data Evaluation. The process of data assessment done by the district project chemist to produce a CDQAR.

Data Review. The process of data assessment performed by the CMQAL to produce the CQAR.

Data Validation. The process of data assessment in accordance with EPA regional or national functional guidelines or project-specific guidelines.

Data Verification. The process for evaluating the completeness, correctness, consistency, and compliance of a data package against a standard or contract.

Data of Known Quality. Data that have the qualitative and quantitative components associated with their derivation documented appropriately for their intended use, and such documentation is verifiable and defensible.

Data Quality Assessment. A statistical and scientific evaluation of the data set to determine the validity and performance of the data collection design and statistical test, and the adequacy of the data set for its intended use.

Data Quality Objectives. Qualitative and quantitative statements that clarify technical and quality objectives, define the appropriate type of data, and specify tolerable levels of potential decision errors that will be used as the basis for establishing the quality and quantity of data needed for support decisions.

Data Useability Review. The process of ensuring or determining whether the quality of the data produced meets the intended use of the data.

Deficiency. An unauthorized deviation from approved procedures or practices, or a defect in an item.

Definitive Data. Data that are generated using rigorous, analyte-specific analytical methods where analyte IDs and quantitations are confirmed and QC/QA requirements are satisfied.

Design Review. A documented evaluation by a team, including personnel such as the responsible designers, the client for the work or product being designed, and a QA representative, but other than the original designers, to determine if a proposed design will meet the established design criteria and perform as expected when implemented.

Detection Limit. The minimum concentration of an analyte that can be measured within a given matrix and reported with a 99% confidence that the analyte concentration is greater than zero.

Document. Any written or pictorial information describing, defining, specifying, reporting, or certifying activities, requirements, procedures, or results.

Duplicate Sample. A sample replicate collected as near as possible at an identical time and place as an original sample. Sometimes used in place of a split sample for volatile analytes, or to assess overall sample matrix homogeneity (see also split sample).

Entity. Something which can be individually described and considered, such as a process, product, item, organization, or combination thereof.

Feedback. Communication of data quality performance to sources which can take appropriate action.

Finding. An assessment conclusion that identifies a condition having a significant effect on an item or activity. An assessment finding may be positive or negative, and is normally accompanied by specific examples of the observed condition.

HTRW Activities. Activities undertaken for the U.S. EPA's Superfund Program, the Defense Environmental Restoration Program (DERP), including Formerly Used Defense Sites (FUDS) and IRP sites at active DoD facilities, HTRW actions associated with Civil Works projects, and any other mission or non-mission work performed for others at HTRW sites. Such activities include, but are not limited to, PA/SIs, RIs, Feasibility Studies (FS), Engineering Evaluation/Cost Analyses (EE/CA), RFI/CMS/Corrective Measures Implementation/Closure Plans/Part B Permits, or any other investigations, design activities, or remedial construction at known, suspected, or potential HTRW sites. HTRW activities also include those conducted at petroleum tank sites and construction sites containing HTRW.

HTRW Design District. Military districts that have been nominated by their parent Major Subordinate Command (MSC), approved by CEMP-R, and meet the requirements of the minimum capability model (Management Plan Appendix A). These districts will execute all military-funded environmental work within their geographic boundaries; will execute military-funded environmental investigation, design, and real estate work for geographic military districts; and may conduct environmental work for civil works districts and non-DoD agencies for their parent MSC. These design districts will provide specialized environmental, HTRW, and ordnance and explosives expertise for the management and execution of all aspects of environmental projects in accordance with HQUSACE, Department of the Army, and DoD policies.

Independent Assessment. An assessment performed by a qualified individual, group, or organization that is not a part of the organization directly performing and accountable for the work being assessed.

Inspection. Examination or measurement of an item or activity to verify conformance to specific requirements.

Item. An all-inclusive term used in place of the following: appurtenance, facility, sample, assembly, component, equipment, material, module, part, product, structure, subassembly, subsystem, system, unit, documented concepts, or data.

Management. Those individuals directly responsible and accountable for planning, implementing, and assessing work.

Management System. A structured non-technical system describing the policies, objectives, principles, organizational authority, responsibilities, accountability, and implementation plan of an organization for conducting work and for producing items and services.

Method. A body of procedures and techniques for performing an activity systematically presented in the order in which they are to be executed.

Nonconformance. A deficiency in characteristic, documentation, or procedure that renders the quality of an item or activity unacceptable or indeterminate; nonfulfillment of a specified requirement.

Observation. An assessment conclusion that identifies either a positive or negative condition.

Ordnance and Explosives (OE) Activities. All work undertaken to manage or eliminate the immediate risks associated with OE related material. OE activities are usually response activities undertaken for DERP, FUDS, or BRAC projects. OE responses include site inventories, PAs, site investigations, public involvement, engineering estimates, cost analyses, action memoranda, removal designs, removals (both time critical & non-time critical), and clean-up of residual OE.

Precision. A measure of mutual agreement among individual measurements of the same property, usually under prescribed similar conditions, expressed generally in terms of standard deviation.

Primary Laboratory. Laboratory that analyzes the majority of the project samples.

Procedure. A specified way to perform an activity.

Process. A set of interrelated resources and activities which transforms inputs into outputs.

Project. An organized set of activities within a program.

Project Manager. The leader of the project team, responsible for managing the project parameters (budget, cost, safety, schedule, scope and quality), as well as interfacing with those involved in the project process (customers, functional elements, government, and non-government entities).

Quality. The totality of features and characteristics of a product or service that bear on its ability to meet the stated or implied needs and expectations of the user.

Quality Assurance. An integrated system of management activities involving planning, implementation, assessment, reporting, and quality improvement that measures the degree of excellence of environmental data and communicates the information to a data generator or data user in a convincing manner.

Quality Assurance Laboratory. The CMQAL or other entity responsible for QA of analytical services.

Quality Assurance Sample. A sample collected to monitor the quality of sampling operations. This type of sample is analyzed by the QA laboratory and typically includes split samples, duplicate samples, and various types of blank samples.

Quality Control. The overall system of technical activities that monitors the degree of excellence of environmental data so that the stated requirements of defined standards are achieved.

Quality Control Sample. A sample collected to monitor and control the quality of sampling operations. This type of sample is analyzed by the primary laboratory and typically includes split samples, duplicate samples, and various types of blank samples.

Quality Improvement. A management program for improving the quality of operations.

Quality Indicators. Measurable attributes of the attainment of the necessary quality for a particular environmental decision. Indicators of data quality include precision, bias, completeness, representativeness, reproducibility, comparability, sensitivity, and statistical confidence.

Quality Management. The aspect of the overall management system of the organization that determines and implements the quality policy. Quality management includes strategic planning,

allocation of resources, and other systemic activities pertaining to the quality system.

Quality System. A structured and documented management system describing the policies, objectives, principles, organizational authority, responsibilities, accountability, and implementation plan of an organization for ensuring quality in its work processes, products, items, and services. The quality system provides the framework for planning, implementing, and assessing work performed by the organization and for carrying out required QA and QC.

Quantitation Limit. The minimum concentration of an analyte in a specific matrix that can be identified and quantified within specified limits of precision and accuracy.

Reporting Limit. The project specific threshold limit below which a numerical value for data is reported as less than "<" or non-detect "ND".

Representativeness. A measure of the degree to which data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, a process, or an environmental condition.

Reproducibility. The precision, usually expressed as variance, that measures the variability among the results of measurements of a sample at different laboratories.

Routine HTRW. This type of work includes building demolition/debris removal (BD/DR) and containerized HTRW (Con HTRW) projects, transformer and hydraulic system removals, and underground storage tank removals. This type of work does not include any project requiring extensive investigation and design.

Screening Level Data. Data that are generated by less precise methods of analysis, less rigorous sample preparation, and less stringent QA/QC procedures. The data generated provide analyte ID and quantitation, although the quantitation may be relatively imprecise.

Sensitivity. The capability of a method or instrument to discriminate between measurement responses representing different levels of a variable of interest.

Service Agent. A non-regulated entity within the federal government that provides project-specific environmental clean-up or compliance services support to another federal agency. The USACE is a service agent to a number of regulated federal agencies.

Significant Deficiency. Any state, status, incident, or situation of an environmental process or condition, or environmental technology in which the work being performed will be adversely affected sufficiently to require corrective action to satisfy quality objectives or specifications and

safety requirements.

Split Sample. A sample which has been collected, homogenized, and divided into two or more portions for analysis by multiple laboratories. Applicable for all test parameters except those involving volatile analytes where homogenization might affect the concentration of volatile substances (see also duplicate sample).

Standard Operating Procedure. A written document that details the process for an operation, analysis, or action, with thoroughly prescribed techniques and steps, and that is officially approved as the method for performing certain routine or repetitive tasks.

Surveillance. Continual or frequent monitoring and verification of the status of an entity and the analysis of records to ensure that the specified requirements are being fulfilled.

Technical Liaison Manager: The central point of contact (POC) at the HTRW-CX assigned to each individual MSC. The TLM provides the following support for each assigned MSC: manages all project-specific technical assistance and technical review assignments including resolution of significant issues; communicates regularly with designated central POC at the MSC to apprise of new technical guidance/policy and identify needed general guidance/policy, training needs, and technical assistance needs.

Technical Manager. The leader of the technical process, responsible for the content and quality of technical products.

Technical Review. A documented critical review of work that has been performed within the state of the art. The review is accomplished by one or more qualified reviewers who are independent of those who performed the work, but are collectively equivalent in technical expertise to those who performed the original work. The review is an in-depth analysis and evaluation of documents, activities, material, data, or items that require technical verification or validation for applicability, correctness, adequacy, completeness, and assurance that established requirements are satisfied.

Technical Systems Audit. A thorough, systematic, on-site, qualitative audit of facilities, equipment, personnel, training, procedures, record keeping, data verification/ validation, data management, and reporting aspects of a system.

Traceability. The ability to trace the history, application, or location of an entity by means of recorded IDs. In a data collection sense, it relates calculations and data generated throughout the project back to the requirements for quality for the project.