

CHECKLISTS FOR VRP REVIEW

- Checklists will be used by OER Project Managers during review of Sampling and Analysis Plans (SAP), Quality Assurance Project Plans (QAPP) and Data Validation Reports
- The OER QAPP is currently under review by USEPA Reg. III. Once approved, the QAPP and checklists will be available on the DEP website
- Provisions of the QAPP will also be incorporated into the next revision of the Guidance Document for the Voluntary Program
- Checklists will be e-mailed to LRSs

Checklist for Site-Specific Sampling and Analysis Plan (SAP)

- Identification of project personnel including contractors, subcontractors.
- The appropriate chain of command for the project.
- Site history including a summary of any previous data collected, soil geology, ground water information, any previous actions taken at the site.
- Any special training requirements.
- Identification of the laboratory. WVDEP certified laboratory required.
- Applicable regulations and action limit rationale.
- Data Quality Objectives
- Identification of critical samples.
- Sample locations and frequency (in tabular format as well as in figures).
- Provide justification for type and number of samples.
- Discussion of sampling and analysis methods (listing of specific methods, method detection limit issues, etc.).
- Sampling handling and custody requirements.
- Sample matrices, sample type (composite, grab, field screening, etc.) and number of samples required including providing justification for type and number of samples.
- Identification and location of background samples.
- Identification of QC samples (field duplicates, rinsates, trip blanks, MS/MSD, etc.).
- Discussion of field screening techniques (summary of technique, equipment used, calibration and maintenance requirements, appropriateness of the method, etc.)
- Data management (including sample documentation, field logbook and data collection requirements, Standard Operating Procedures).
- Data acquisition requirement for non-direct measurements.
- Data quality objectives and level of data validation required.
- Decontamination procedures and disposal of investigative derived waste (IDW).
- Site-specific Safety and Health Plan (SSHP) and Quality Assurance Project Plan (QAPP) as an appendix if it is not to be submitted as a separate document.

Checklist for Site-Specific Quality Assurance Project Plan (QAPP)

- Identification of project personnel including contractors, subcontractors.
- The appropriate chain of command for the project.
- Identification of the laboratory. WVDEP certified laboratory required.
- Any special training requirements.
- Site history including a summary of any previous data collected, soil geology, ground water information, any previous actions taken at the site.
- Applicable regulations and action limit rationale.
- Data Quality Indicators.
- Data Quality Objectives.
- Identification of critical samples.
- Sample locations and frequency (in tabular format as well as in figures).
- Sampling and analysis methods including standard operating procedures and potential discussion of method detection limit issues.
- Sampling handling and custody requirements.
- Sample matrices, sample type (composite, grab, field screening, etc.) and number of samples required including providing justification for type and number of samples.
- Identification and location of background samples.
- Identification of QC samples (field duplicates, rinsates, trip blanks, MS/MSD, etc.).
- Instrument/Equipment maintenance and calibration frequency for both field and lab equipment.
- Data management (including sample documentation, field logbook and data collection requirements, Standard Operating Procedures for both field and lab, and analytical data deliverable requirements).
- Data acquisition requirement for non-direct measurements.
- Assessment and oversight including performance and system audits for both field and lab and the frequency for oversight of field activities.
- Discussion of the methodology and level of data validation.

NOTE: Some of these items will be addressed in the Sampling and Analysis Plan (SAP) and do not have to be reiterated in the QAPP. The SAP and QAPP may be submitted as one document or they may be submitted as separate documents.

Checklist for Data Validation Reports

Overall Narrative

- General Summary or Overview
- A statement defining the level of data validation being performed (i.e. M2 level for organics, IM1 for inorganics). Reference to the methodology being applied in the data validation (i.e. data is being reviewed in accordance with National Functional Guidelines for Organic Data Review and/or EPA Region III's Innovative Approaches to Data Validation).
- Conclusion (i.e. statement concerning the overall data usability)

Analytical Method Specific Section(s)

- Overview/Summary
- Major and minor issues/problems associated with the analysis
- QC measures related to the specific analysis should be discussed (**refer to QC Checklist** for Volatiles, Semi-Volatiles, Pesticides/PCBs and Inorganics as appropriate)

Supplemental Documentation

- List of data validation qualifiers with explanation of what the qualifier means (i.e. U = Not detected)
- Chain of custody
- Analytical data with changes made (i.e. data validator should had mark changes on analytical sheets, but should not obliterate the original document)

Data validation reviewer cannot be associated with collection and management of analytical data (i.e. field staff, laboratory personnel or LRS). The reviewer should have a background in chemistry or experience and training in data validation.