**QAPP Worksheet #36**

**Data Validation Procedures**

**(UFP-QAPP Manual Section 5.2.2)**

**(EPA 2106-G-05 Section 2.5.1)**

This worksheet documents procedures that will be used to validate project data. Data validation is an analyte and sample-specific process for evaluating compliance with contract requirements, methods/SOPs, and MPC. The scope of data validation needs to be defined during project planning because it affects the type and level of documentation required for both field and laboratory activities. If data validation procedures are contained in an SOP or other document, the procedures should be referenced in this table and included as an attachment to the QAPP. The example provided below makes use of terminology contained in *Guidance for Labeling Externally Validated Laboratory Data for Superfund Use*, EPA 540-R-08-005, which was developed to promote the use of consistent terminology by external data reviewer to describe the scope and content of data review activities. The validation code and label identifier table, as well as any checklists to be used should be attached to the QAPP. Any data qualifiers to be applied by the data validator must be defined. Of particular importance, third party data validation should NOT include the rejection of data (noted by the designation of the “R” data qualifier). Data validation should note when performance criteria are not met but the final rejection of any data and their use is a decision reserved specifically for the project team.

Data Validator: ABC DV, Inc.

|  |  |  |
| --- | --- | --- |
| Analytical Group/Method: | Volatile Organics – SW-846 8260 (modified) | Metals – SW-846 6010 |
| Data deliverable requirements: | SEDD Stage 3 plus chromatograms (pdf) | SEDD Stage 3 |
| Analytical specifications: | WS 28-1, SOP VOA-02 (modified) | WS 28-2, SOP Met-03 |
| Measurement performance criteria: | WS 12 | WS 12 |
| Percent of data packages to be validated: | 100% | 100% |
| Percent of raw data reviewed: | 100% | 0 |
| Percent of results to be recalculated: | 10% | 0 |
| Validation procedure: | EPA Region 11 VOA – Level 4 | EPA Region 11 Met – Level 3 |
| Validation code (\*see attached table): | SV3EM | SV3E |
| Electronic validation program/version: | ABC DV Tool V2.2 | ABC DV Tool V2.2 |

Validation Code and Label Identifier Table (To be attached to the QAPP)

|  |  |  |
| --- | --- | --- |
| **Validation Code\*** | **Validation Label** | **Description/Reference** |
| S1VE | Stage 1 Validation Electronic | EPA 540-R-08-005 |
| S1VM | Stage 1 Validation Manual |  |
| S1VEM | Stage 1 Validation Electronic and Manual |  |
| S2aVE | Stage 2a Validation Electronic |  |
| S2aVM | Stage 2a Validation Manual |  |
| S2aVEM | Stage 2a Validation Electronic and Manual |  |
| S2bVE | Stage 2b Validation Electronic |  |
| S2bVM | Stage 2b Validation Manual |  |
| S2bVEM | Stage 2b Validation Electronic and Manual |  |
| S3VE | Stage 3 Validation Electronic |  |
| S3VM | Stage 3 Validation Manual |  |
| S3VEM | Stage 3 Validation Electronic and Manual |  |
| S4VE | Stage 4 Validation Electronic |  |
| S4VM | Stage 4 Validation Manual |  |
| S4VEM | Stage 4 Validation Electronic and Manual |  |
| NV | Not Validated |  |

The following data qualifiers will be applied during data validation by a third party. Potential impacts on project-specific data quality objectives will be discussed in the data validation report.

NM – Measurement Performance Criteria contained in WS 12 were not met.

J – The result is an estimated value. The nature of the bias will be discussed in the data validation report.

E – Erroneous result (e.g., improper calculation, peak integration, etc.)