WAC 173-50-061 Required quality control practices. Laboratories must comply with the following quality control practices:

(1) Have a dedicated SOP for each method listed on their current Washington scope of accreditation.

(2) For parameters where a multilevel calibration is necessary:

(a) A laboratory must not remove any midpoints from a calibration curve with the exception of consecutive points at either end of the curve. Exceptions can be made if a significant error's cause can be clearly identified, the error is documented, and the calibration point is excluded for all analytes contained in the calibration point.

(b) Each calibration point must have its value recalculated against the calibration curve. Unless otherwise specified in the method, each calibration point must have its percent error or relative standard error meet the calibration verification acceptance limits from the method; with the exception of calibration points at or below the LOQ, in which case the limit is 50 - 150 percent error, or percent relative standard error.

(3) For parameters that require a limit of quantitation and the method does not specify any requirements, laboratories must analyze a standard at their limit of quantitation at least annually. This standard must be between 50 and 150 percent of the true value. This applies to the following instrumentation technologies:

(a) Atomic absorption;

(b) Flow-injection analysis;

(c) Gas and liquid chromatography;

(d) Inductively coupled plasma;

(e) Ion chromatography;

(f) Spectrometry;

(g) Mass spectrometry;

(h) Total organic carbon analysis; and

(i) Any other technology where method detection limits are applicable.

(4) Matrix spikes are required as specified by the method. Matrix spikes that do not meet their acceptance criteria must be documented for regulated parameters under the federal Safe Drinking Water Act and Clean Water Act. The lab must take corrective action if specified by the method.

(5) Unless the method specifies otherwise, laboratory control samples must include all analytes of interest in the respective analysis. Matrix spikes should include all analytes of interest in the respective analysis.

(6) For compliance monitoring samples, if a laboratory control sample is outside of its acceptance criteria for a parameter(s), the data for that parameter(s) should only be reported if the laboratory can demonstrate:

(a) No source of low bias of that parameter(s) is also present in the sample(s) and/or other related quality control samples;

(b) Instrument calibration have met method acceptance criteria; and

(c) The reported samples do not have a detection for any high biased parameter(s).

(7) Documented resolution of spectral interferences is required for ICP-OES.

[Statutory Authority: RCW 43.21A.230. WSR 23-18-059 (Order 22-07), § 173-50-061, filed 9/1/23, effective 10/2/23.]