Guidance for Completing the Field Instrument Calibration Log for FT 1000 of DEP-SOP-001/01

TERMS:

- Calibration (CAL)
  - Performed as needed depending on parameter and results of ICV or CCV.
  - Performed in "CAL" mode.
- Initial Calibration Verification (ICV)
  - Performed after equipment calibration.
  - Performed at start of sampling event.
  - Performed only in "RUN" or "READ" mode.
- Continuing Calibration Verification (CCV)
  - Performed during or at the end of a sampling event.
  - Performed only in "RUN" or "READ" mode.

SEQUENCE:

1. Calibrate equipment if required (CAL-mode) and document on calibration log.
2. Perform ICVs (Read-mode), check acceptance criteria, and document on calibration log.
3. Conduct sampling event.
4. Perform CCVs (Read-mode), check acceptance criteria, and document on calibration log.

All field measurements shall be ***chronologically*** bracketed by an Initial Calibration Verification (ICV) and a Continuing Calibration Verification (CCV).

- The instrument should *not* be calibrated between an ICV and CCV.
- A calibration should *not* be performed in place of a CCV.

Per the SOPs, field measurements for turbidity, pH, and OVA shall also be ***quantitatively*** bracketed by ICVs and also subsequently by CCVs. For quantitative bracket requirements for specific conductance, see DEP-SOP-001/01, FT 1200 Field Measurement of Specific Conductance, section 3.

IF AN *ICV* RESPONSE FAILS ACCEPTANCE CRITERIA:

If an ICV response fails acceptance criteria, rinse the probe, reattempt calibration, and perform ICV. If second or third attempts at verification also fail, it is recommended to place the probe out-of-service. Extra calibration sheet(s) may be necessary to accommodate documentation.

IF A *CCV* RESPONSE FAILS ACCEPTANCE CRITERIA:

If a CCV response fails acceptance criteria, rinse the probe and reattempt the **verification** (i.e. *not* calibration). If the second attempt at verification also fails:

- Document both attempts on the applicable rows of the calibration form for the CCVs; and,
- Mark an "X" in the box at the top of the form indicating qualified data.

If additional sampling is to be conducted following the failed CCV, recalibrate the instrument followed by ICV. Extra calibration sheet(s) may be necessary to accommodate documentation.

REFERENCES:

The form uses the calibration acceptance criteria documented in DEP SOP FT 1100 (pH), FT 1200 (Specific Conductance), FT 1500 (Dissolved Oxygen), and FT 1600 (Turbidity). The calibration acceptance criteria for OVA and ORP instruments are based on the EPA guidance document, *Portable Instruments User's Manual For Monitoring VOC Sources*, EPA-340/1-86-015, June 1986, and the EPA Region 4, Operating Procedure, *Field Measurement of Oxidation-Reduction Potential (ORP)* (https://www.epa.gov/quality/field-measurement-oxidation-reduction-potential), respectively.

Guidance and trainings are not a substitute for reading and following the SOPs. The SOPs are available at the following website: https://floridadep.gov/dear/quality-assurance/content/dep-sops; and, useful trainings provided by AEQAS are available at the following website: https://floridadep.gov/dear/quality-assurance/content/training-presentations