

Field pH Analysis for Industrial Users' Self-Monitoring Sampling Events

Remember to submit the following with each SMR:

- Chain of Custody Form
- QA/QC calibration documentation
- Certification Statement Form

As a permitted Industrial User (IU), you are required to submit pH monitoring analytical results for Self-Monitoring Reports (SMRs). The Regional Water Quality Control Board allows the use of field pH instruments for required IU pH compliance monitoring. You may hire a laboratory certified by an Environmental Laboratory Accreditation Program (ELAP) to perform the pH sampling and analysis, or you may elect, after approval, to perform your own pH sampling and analysis using these guidelines. Certain field analyses, including pH, do not have to be performed by an ELAP-certified laboratory, as long as you follow procedures to ensure the field pH analysis results are legally defensible.



The following Best Management Practices (BMPs) are required by the City and must be followed when IUs perform their own pH monitoring:

- A properly calibrated field pH meter, with three-point slope and temperature verification, shall be used for SMR compliance sampling events. Calibration must occur on the same day that samples are analyzed.
- Standard Operating Procedures (SOPs) must be established and submitted to your Environmental Inspector for approval. These SOPs should ensure the field pH meter used for compliance monitoring is properly calibrated and that sampling methods are implemented in accordance with 40 CFR 136.
- Records of calibration quality control and assurance (QA/QC) documents must be maintained onsite and accessible for a minimum of three years. For each specific pH analysis taken from the Sample Point, QA/QC must be submitted to your Environmental Inspector with each SMR. Proper calibration of the field pH meter must be documented prior to the compliance sampling event. The calibration QA/QC documentation must include the following:
 - Date, time, analyst, pH buffer solutions used, meter precision, meter maintenance performed.
 - Verification that the sample pH falls within the brackets of the pH buffer solutions.



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- Documentation of pH buffer solution expiration dates.
- Accuracy verification of the temperature.
- Each field pH analysis result must be recorded on a standardized Chain of Custody (COC) form. COCs must be submitted to your Environmental Inspector with each SMR. To properly record the measured result, you must include information on your COC, including but not limited to:
 - Sample collection date, time and location.
 - Sample analysis date and time.
 - pH meter analysis result using standard pH units.
 - Record of sample temperature at time of analysis.
 - Name and signature of person who collected the sample and conducted the field pH analysis.
- A Certification Statement that the field pH monitoring SOPs and 40 CFR 136 methods were followed must be included in each SMR.

Note: If the IU's required field pH sampling analysis and procedures do not meet Title 40 Code of Federal Regulation Part 136, approved SOPs, and/or the above City BMPs, the City may require sampling be performed by an ELAP-certified lab. Additionally, the City may issue enforcement actions.



Serving the City of San José, City of Santa Clara, City of Milpitas, Cupertino Sanitary District, West Valley Sanitation District (including the cities of Campbell, Los Gatos, Monte Sereno, and Saratoga), County Sanitation District No. 2-3, and Burbank Sanitary District

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