

DOCUMENT MANAGEMENT SYSTEM
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Doc# NSCS-M-P-7094-06
 Title: Testing pH
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 Auth:
 Desc: Testing pH
 Loc: Midwest - Utilities-Midwest - Plant Maintenance-Midwest-Gary Works

Purpose: To obtain an accurate pH measurement.

STEPS

Testing Schedule

Test Procedure

PROCEDURES

Conduct pH tests as required. Take sampling from thickener receiving Final Treatment Plant flow and sludge going into press.

The only probe used in this test is a combination pH electrode.

1. Check to ensure the combination pH electrode is connected to the pH input on the meter.
2. Turn on the instrument and clear the display.
3. Rinse off pH electrode with water and blot with tissue paper.
4. Insert pH electrode into a 10.0 buffer standard.
5. Press STD key to lock in the 10.0 standard value.
6. Remove pH electrode from the 10.0 buffer standard, rinse off with water and blot with tissue paper.
7. Insert pH electrode into 4.0 buffer standard.
8. Press the STD key to lock in the 4.0 standard value.
9. Remove pH electrode from the 4.0 buffer standard, rinse off with water and blot with tissue paper.
10. Insert pH electrode into SDW sample to be measured.
11. Press the pH key to measure the pH of the sample.
12. If necessary, test any additional SDW samples being sure to rinse off pH electrode and blot dry between each reading.
13. When all pH readings have been taken, rinse off pH electrode with water and store in clean water.

pH Buffer Check

The expiration date on the pH buffers should be checked. If the buffer is expired, see the Correction Actions section below.

Reporting

Report all pH readings on the SDW turn Report Form #7094-02. To check the observed pH values against the control parameters, see NSCS-M-P-7094-01 (gravity thickening) and NSCS-M-P-7094-02 (filter presses).

Corrective Actions

If the pH meter will not work, notify Instrument Repair who can bring a replacement meter or probe to SDW. If no replacement meter or probe is available, secure the samples and take them to either the Chrome Treatment Plant, Final Treatment Plant or the QA/QC Lab and have the pH tested.
 If the pH buffer solution is out of date, notify Instrument Repair. Fresh buffer is available in the IR Shop or the QA/QC Lab.