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	pH Meter Calibration for Digesters	Page : 1 of 3	Revision : 01 Date : 6/5/2009
	Author: Patrick Owen	Job Specific Instruction	

Personnel responsible:

1. Technical

Safety equipment:

Safety glasses and safety shoes. Sulfuric acid is in use in the Digesters, take necessary precautions to prevent contact.

Summary:

Four Mettler Toledo pH 2100e pH meters are used to monitor and/or control the pH and temperature in the Digesters. This procedure covers calibrating these meters.


Materials Needed:

pH 4.0 buffer, pH 7.0 buffer, deionized water, toothbrush, and paper towels.

Procedure:

1. Stop the Digester, following the procedure for stopping it for pH calibration.
2. Remove the pH probe and holder from the pipe it is monitoring.
3. Use deionized water, a toothbrush, and paper towels to clean the end of the probe as good as possible, removing all buildup.
4. Wash the end of the probe in deionized water.
5. On the meter box, press the "Cal" button.
6. Press "^", ">", and "^" to put "1100" on the screen.
7. Press "Enter".
8. "Cal 1" will appear on the screen.
9. Place the probe in fresh pH 4.0 buffer and press "Enter"
10. After several minutes, "Cal 2" will appear on the screen.
11. Wash the probe with deionized water and place it in the 7.0 pH buffer.
12. Press "Enter" and after several minutes a calibration percentage will appear on the screen.
13. If the calibration percent is more than 90%, press "Enter" twice and place the probe back in the pipe that it monitors.
14. If the calibration is less than 90%, clean the probe, press "Enter" twice, and repeat steps 5 through 12.
15. If the calibration is less than 80%, clean the probe, press "Enter" once, and repeat steps 8 through 12.
16. Restart the digester per the procedure.

Additional note: The meter displays the mV when it is reading the buffer. The 4.0 buffer should read near 170mV and the 7.0 buffer should read near 0mV. The closer to these numbers it reads, the better chance of a good calibration.

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TRAINING DOCUMENTATION

	EMPLOYEE	TITLE	SIGNATURE	DATE
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Revision Number	Revision Date	Revision Author	Revision Description
00	3/6/2006	PLO	New Procedure
01	6/5/2009	PLO	Updated for new format and clearer language