



## Why do I get False pH Readings?

Case Study involving solution-grounded pH probes

A chemical manufacturer was losing raw materials to what workers thought were erroneous pH readings. The manufacturer has a pH control system that activates a solenoid valve in the bottom of the tank once a specific level is reached.

Shortly after the tank started emptying, the workers saw the pH spike, They immediately shut off the valve manually and scrapped the batch. After this happened a few times, so they began rechecking the pH of their raw material. They found it measured exactly where it was supposed to be; even after double checking the measurement with a separate tester.

So, they requested a warranty replacement on the pH probe. After troubleshooting, they found it was actually the solenoid valve that was starting to go bad. As this valve wore out, stray electrical signals entered the mixing tank and the probe interpreted the stray signal as a change in pH.

What's the best way to avoid erroneous readings from stray voltages in the future? A solution-grounded pH probe will combat electrical interference. The addition of a ground wire will allow any stray electrical signals in the solution to go to the grounding wire rather than the probe—eliminating any unstable or inaccurate readings.

Got questions about pH meters and water quality products and Solution Grounded pH/PRP Electrodes?

Our Technical Experts would love to hear from you

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