

## GLOW WIRE TEST

CRITICAL TEST CONDITIONS IDENTIFIED	WHEN TO ACT	SUGGESTED PREVENTIVE ACTION ACTIVITIES
Composition of loop	On commission	Re-validate when changed
Dimensions of loop	On commission and for Each test	Checking the dimensions of the loop at each test is required by the standard. It is not necessarily expected that the dimensions will greatly change unless mechanical cleaning / damage occurs.
Position of thermocouple in the GW loop. This can easily “slip” and may affect the temperature of loop during use	Each series of test	It is recommended that verification that the correct temperature has been reached is performed. This can be done by performing silver foil check, and / or developing a “reference chart” immediately after calibration indicating the voltage / current drawn for each temperature and checking on each use that this is consistent. (Variation to the chart would suggest that something has changed.)
Force with which the GW loop is applied to the sample can affect whether burning occurs. The approach and departure speed can affect the burning result	On commission and normal calibration cycle of weights/pulleys Each series of test	The weights used to generate the force are calibrated and are subject to regular calibration cycle.  The pulleys should be checked to ensure there is no friction. A small calibrated gauge could be used to check the force applied to the sample
Penetration depth of loop into the sample	Each test series	Double check the stopper position before starting testing work
Condition of the glow wire tip	Each individual test	Visually check the tip for remaining residue (clean if necessary), damage, distortions, cracks/fissures (replace if necessary)
Controlling access of air	Each test	The individual testing procedures and consequently the training of staff should include the manner of air control, ensuring that the chamber does not exhaust fumes until after the test is finished, and also that staff are protected from such fumes.

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This document was developed by the participants of IECEE CTL PTP Workshop during 2009. The purpose of the document is to provide examples of activities that could be employed by laboratories to minimize the risks of obtaining inaccurate test results. The document does not claim to be exhaustive, and does not make any guarantees. Users of the document are advised to consider the content individually, then adjust and/or supplement their activities as applicable to the particular circumstances in their laboratory.