

TRACKING TEST

| CRITICAL TEST CONDITIONS IDENTIFIED | WHEN TO ACT | SUGGESTED PREVENTIVE ACTION ACTIVITIES |
|--|---|--|
| Test solution preparation | Each batch | Reagent is hygroscopic and therefore the mass weighed out is not necessarily correct. The resistivity (or by calculation, conductivity) should be checked on preparation. |
| Test solution in use | Each test | The solution is prone to contamination and degradation and should not be left in the instrument. A fresh solution should be used for each test session. The accuracy of the test depends on the chemical characteristics of the solution. The solutes are also prone to crystallizing out on storage. <ol style="list-style-type: none"> 1. Shake the bottle to re-dissolve the solutes prior to use. 2. Re-check resistivity before use 3. Use fresh solution on each testing session 4. Do not leave unused solution in the instrument |
| Electrode dimensions | On commission and periodic checking | Electrode dimensions can be changed due to arc erosion during testing and due to mechanical cleaning afterwards. <ol style="list-style-type: none"> 1. Perform dimension check on commission 2. Perform periodic dimension checks (Naturally, if electrodes are dropped or damaged, the dimensions would be re-checked.) |
| Electrode adjustment | Periodic or each test | <ul style="list-style-type: none"> • The orientation, easy movement and balance of the electrodes should be checked periodically to ensure correct contact surfaces. • The distance between electrodes should be checked before each test (use a gauge) • The level of the electrodes should be checked before application of the test • The contact force should be checked each test – use a small gauge |
| Voltage supplied | Each test | The voltage applied is critical to success of the test. |
| Short circuit current | Each test | Adjust the short circuit current for the required test voltage |
| Over current/time release | Periodic calibration | Check tripping action when short circuited |
| Drop generator check for cleanliness | Before each testing session | The dropping tube could accumulate crystallized solutes and affect the drop size, shape and frequency of delivery. Check the tube for accumulated solutes. |
| Drop generator - frequency of delivery | Before (and after) each testing session | Perform a check to ensure that the drop volume and time between drops is appropriate. |
| Level of Specimen support / specimen | Each test | Check support and specimen are level. Specimen should also have a smooth surface, and be of correct thickness |

Revised 11-Jun-09 on receipt of suggestions from a workshop participant.

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.