



## **E3 Proposal for Clothes Washer Round Robin**

Draft for comment, 16 May 2007

### **Background**

A full revision of AS/NZS2040.1 was published in December 2005. The most important aspects of this new standard were the full integration of the newly developed rinse performance test and the inclusion of standby power data. The rinsing performance requirement was developed to underpin the introduction of the mandatory WELS water efficiency label in 2006.

At the E3 Whitegoods Forum held in Sydney in February 2007<sup>1</sup>, industry called for a round robin to be conducted using the new clothes washer standard. The need for such a round robin was confirmed at the Government-Industry round table held in April 2007.

The rationale for the round robin is that a full inter-laboratory comparison of rinse performance results has not yet been conducted since the publication of the standard and therefore there needs to be an assessment of inter-laboratory reproducibility for this parameter. For other performance parameters, including energy, only limited round robin testing has been previously undertaken, so this round robin provides an opportunity to assess all aspects of the clothes washer test method.

### **The E3 Proposal**

The proposal is to test a range of new clothes washers in the 4 independent laboratories in Australia that are NATA accredited for AS/NZS2040.1. The machines would then be offered to local suppliers in Australia and NZ that may have a testing capacity where they wish to participate. Laboratories would be provided with machines to test and there would be standardised preparation and reporting requirements. Some tests may be witnessed by a NATA assessor.

### **Initial Workshop for Laboratory Personnel**

When a round robin is being used to assess the reproducibility, it is critical that all laboratory technicians perform the tests strictly in accordance with the requirements of the standard. It is also important that preparations are done in a consistent manner and that data is recorded in a standardised format. In order to ensure that all

---

<sup>1</sup> Presentations and the summary report from the E3 Whitegoods forum can be found at <http://www.energyrating.gov.au/forums-2007-whitegoods.html> See presentation by Terry Fogarty who was representing AEEMA.

participating labs are in full agreement with the requirements for the round robin, it is proposed to hold a 1 day workshop with a NATA assessor to go over the requirements of the standard on a clause by clause basis and to finalise the data collection instrument for the round robin. A particular focus will be the measurement of rinse performance, especially use of the instrument and calibration procedures.

The location of the workshop is yet to be finalised.

### **Special Points for Consideration**

The machines selected should be consistent and reliable performers. There is little point in using a machine that varies its performance from run to run (in response to real or imperceptible changes in conditions) or where the performance level is unacceptable under the standard. The intent of the round robin is to assess the variability of the test method, not the variability of the test machines.

### **Proposed Round Robin Details (subject to funding availability)**

- 3 top loading machines, 2 drum machines (machines yet to be selected)
- full range of performance tests to be conducted
- 2 tests using rinse dosing Method 1 and 2 tests using Method 2
- AS/NZS load to be used in all labs (common loads supplied to Amendment 1-2007), 1 lab to be selected to conduct parallel tests using the IEC load (as per DR07223)
- All tests to use IEC Detergent B – common batch to be supplied
- A standard dose of anti foaming agent is to be used it shall be used on all runs.
- A standardised loading pattern may be developed for the tests.
- Any variation or additional specifications for the tests will be agreed at the initial workshop and will be clearly communicated to all participants.
- Two labs to be commissioned to undertake additional part load tests
- Separate measurement of relevant standby modes (end of cycle and off modes)
- Initial laboratory to retest all machines at the completion of the NATA test laboratory round robin to close the ring and ensure that the machines have not significantly changed in their performance during transport and testing.

### **Funding**

E3 will offer independent NATA labs a uniform flat fee per test to participate in the round robin (yet to be negotiated). Manufacturer laboratories would participate at their own cost. E3 will offer some travel disbursements to cover attendance at the initial workshop. E3 will request industry support regarding the supply of the test machines for the round robin (some suitable units are already available) and any units supplied would be returned on completion. E3 will cover transport costs for the test machines.

Any comments on this proposal should be sent to Simone Tiele, Australian Greenhouse Office, by 28 May 2007.

[simone.tiele@environment.gov.au](mailto:simone.tiele@environment.gov.au) or (02) 6274 1340.