



May 11, 2011

California Energy Commission
Dockets Office, MS-4
Re: Docket no. 09-AAER-2
1516 Ninth Street
Sacramento, CA 95814-5512

DOCKET	
09-AAER-2	
DATE	MAY 11 2011
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To: California Energy Commission:

RE: Comments to the Draft Proposed Amendments to the Appliance Efficiency Regulations Issue May 2011 for Battery Chargers covered in Title 20 Sections 1601 through 1608.

Makita U.S.A., Inc., which is based in California, would like the California Energy Commission to consider the following revision and comments to the currently proposed amendments.

Charger Testing

Proposal Rational:

In the test methods for battery chargers, a provision needs to be added that will discount the energy usage of a non charging function which can not be turned off by the user during a charge cycle. An example of such a non charging function would be a fan which is provided to cool the battery cells to extend the overall life of the battery pack.

The proposed revision is provided below with the revision underlined for quick reference:

w) Battery Charger Systems.

...
(2) **California Test Method for Battery Chargers.** The test procedure for battery charger systems is *Energy Efficiency Battery Charger System Test Procedure* version 2.2 dated November 12, 2008 and published by ECOS and EPRI Solutions with the following modifications:

(A) Multi-port battery chargers shall be tested for 24-hour efficiency and maintenance mode with a battery in each port.

(B) Part 2 of the test procedure shall be conducted for 100, 80, and 40 percent discharge rates for only one charge profile, battery capacity, and battery voltage. The manufacturer shall test one battery and one charge profile using the following criteria:

- i) the charge profile with the largest charge return factor;
- ii) the smallest rated battery capacity; and
- iii) the lowest voltage battery available at that rated capacity.

(C) Access to the Battery Protective Circuitry for Discharge Test: For products that include protective circuitry between the battery cells and the remainder of the device, and the manufacturer provides a description for accessing the connections at the output of the protective circuitry, these connections shall be used to discharge the battery and measure the discharge energy. The energy consumed by the protective circuitry during discharge shall not be measured or credited as battery energy.

(D) The battery's end of discharge voltage may be used in place of values in the test method Part 1, Section III.F, Table D.

F) Battery chargers provided with non battery charging functions such as cooling fans, indicator lamps, audio indicators, etc., that can not be turned off by the user during the charging process, shall not have the energy consumption of these functions included in the charger efficiency calculations.

Chargers as Replacement Parts:

The following was a comment that was provided in the last round of input but there has not been any direct response to this issue. It is hoped that the commission sees the benefit of making the change requested below to help save the hardship that the end user will incur if the change is not made with our type of products

The current proposal is allowing for the non compliant chargers to be sold as replacement parts up to 5 years after the effective date. We agree with the intention of this proposal however, we would like to recommend that this date be pushed out to 10 years for power tool chargers.

Our users tend to purchase a number of power tools that run on the same platform battery/charger systems. These tools, if cared for, can last a long period of time. Many times this collection of tools can run into the thousands of dollars and it would most definitely be a hardship for many end-users/contractors who have made the investment but it becomes worthless without a replacement charger.

We feel that after a 10 year period the impact of not having a replacement charger would be minimized to the end-user.

Your time and effort in considering our comments to these proposals are appreciated.

Sincerely,



Stan Rodrigues
Manager, Regulatory & Compliance Dept.
Makita USA, Inc.