

Key Elements of the Revised Draft Typical Electricity Consumption (TEC) Test Procedure January 14, 2005

Following are the key changes stakeholders can expect to see in the Revised Draft TEC Test Procedure, which will be distributed in late January. These changes address stakeholder input received on the last distributed version (September 23, 2004). A full explanation of changes and rationale will be included with distribution of the Revised Draft TEC Test Procedure.

1. Product categorization: Employing the TEC vs. Operational Mode approach

The Revised Draft TEC Test Procedure will specify that heat-based fusing technologies such as electrophotographic, solid ink, and thermal transfer will be evaluated for ENERGY STAR qualification using the TEC method. Ink Jet and impact technologies will continue to be tested to the Operational Mode (OM) approach for the time being. Following distribution of the TEC test procedure, EPA will revise the OM test procedures, harmonizing them with TEC for common elements, as appropriate. EPA reserves the right to reconsider Ink Jet products and the like under TEC at a later time.

2. Inclusion of Digital Duplicators

The Revised Draft TEC Test Procedure has been expanded to include the eligibility of Digital Duplicator products. These products are to be tested as copiers in this test procedure, since producing large amounts of material is the primary function for these units. After careful consideration of available data on these products, EPA determined that there is no reason not to include these machines in the future specification.

3. No distinction in test procedure between printer-based and copier-based Multifunction Devices (MFDs)

The Revised Draft TEC Test Procedure will continue to treat both copier- and printer-based MFDs similarly in terms of testing, where possible. These products will be tested in the same manner unless they lack print or copy functionality completely, in which case slight modifications to the test procedure will need to be made. Please note that EPA has not yet made any determination on product groupings for specification levels.

4. Collect empirical data as part of TEC test procedure to address outstanding concerns

Several stakeholders have raised concerns about the precision and repeatability of the TEC test procedure. Others have suggested that modifications to the modes in which the product is tested will change the TEC numbers appreciably. To gather empirical data to determine which of these concerns may be valid, EPA will initially ask stakeholders to conduct additional testing for a sampling of products including:

- color vs. mono imaging;
- simplex vs. duplex imaging;
- copying vs. printing for MFDs; and
- repeated imaging job in the event that the first job differs appreciably from the following jobs.

5. Revision of the Jobs Table

The Revised Draft TEC Test Procedure will contain an updated Jobs Table, which more closely aligns with ASTM's test methods for copiers. The new Jobs Table will contain fewer different formulas and will reflect a reduced number of jobs per day for lower speed products. The revised Jobs Table will continue to differentiate the number of images per job, based on product speed.

6. Copier Off measurements taken at the end of test procedure

The copier Off mode measurement will be taken at the end of the process rather than at the beginning, as it is possible for the Manual Off and Auto-off power levels to differ.

7. No separate measurement of each low-power mode

The Revised Draft TEC Test Procedure does not require separate measurement of each low-power mode. Rather, the aggregate effect within each measurement time frame is observed. This simpler approach reflects how the values are used in the TEC calculation.

8. TEC calculation based on a weekly pattern

To address concerns that low power modes were underrepresented in the TEC calculation, the Revised Draft TEC Test Procedure employs a calculation based on a weekly pattern, rather than daily. The new weekly pattern assumes no active imaging on weekends.

9. Test image

The Revised Draft TEC Test Procedure does not specify a standard test image, but does specify media basis weight.