

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



**OFFICE OF
AIR AND RADIATION**

November 8, 2011

Dear Audio/Video Equipment Manufacturer or Other Interested Party:

The U.S. Environmental Protection Agency (EPA) and stakeholders have been working to complete the revision the Version 3.0 Audio/Video Specification. Following the Draft 2 webinar, held September 19, 2011, stakeholders expressed interest in holding additional discussions focused on testing and classifying audio amplifiers. In response, EPA held two calls and reviewed additional stakeholder comment on these issues in an attempt to further understand stakeholder concerns. Today, EPA is distributing for stakeholder feedback a supplemental proposal for classification of audio amplifiers.

In summary, it has become clear that consumer amplifiers are used differently from commercial amplifiers and thus may benefit from being defined and separated in the specification. As such, EPA is proposing a classification method for audio amplifiers to separate commercial products from consumer products. Furthermore, EPA is proposing to permit these newly-defined Commercial Amplifiers to ship with APD disabled if they can meet Idle State power requirements. EPA is not proposing any changes to the requirements for Consumer Amplifiers.

The full proposal is presented below. EPA will consider comments received by **November 15, 2011**, and include any updates to the audio amplifier requirements in the Final Draft Audio Video Specification.

Audio Amplifiers will be classified into Consumer and Commercial categories using the following definition criteria:

1. A Consumer Amplifier must possess 4 of the following 5 characteristics:
 - a. Digital inputs use a S/PDIF or HDMI connector;
 - b. Analog inputs utilize RCA connections, TRS connections (1/4" or 1/8") and/or spring clip style connectors;
 - c. Analog inputs have -10dBV input sensitivity;
 - d. AC plug has two conductors and no grounding connection and is limited to 15 amperes ac current (e.g., NEMA 1);
 - e. An IR remote control is included with or can control the product.

2. All products not meeting the definition criteria of a Consumer Amplifier will be considered a Commercial Amplifier.

EPA is proposing these criteria based on discussions with manufacturers and review of features commonly found in products that are intended for the consumer market. EPA is proposing that products meet 4 of the 5 definition criteria as one criterion alone will not necessarily distinguish a product intended for consumer use.

This system of classification will allow further data collection on the use and power consumption of these different types of products. With this classification, the following stakeholder comments and suggestions were considered:

- Auto Power Down for Commercial Amplifiers: As currently written, the Auto Power Down requirement states that all products must be shipped with APD enabled. This requirement may be a barrier for some commercial amplifiers as they are required by their customers to be on and ready at any time. In the interest of ensuring ENERGY STAR products deliver on consumer expectations, EPA **proposes to amend the Auto Power Down requirement** for Commercial Amplifiers as follows:
 - **For Commercial Amplifiers (as defined by the proposed classification above), a product may be shipped with APD disabled. If APD is disabled, the product shall meet the Idle State power requirements.**
- Amplifier Efficiency for Consumer Amplifiers: A proposal was considered to eliminate the Amplifier Efficiency requirement for Consumer Amplifiers and maintain only the Idle State requirement, citing research showing Idle State to be a good approximation of power use in a real world setting. At this time, EPA has decided to retain both the Amplifier Efficiency and Idle State requirements at the level and structure of the Draft 2 Version 3.0 specification for the following reasons:
 - Charting the Amplifier Efficiency of Consumer Amplifiers and Commercial Amplifiers shows that the efficiencies of both are comparable. (Please refer to the attached chart showing Amplifier Efficiency against Input Power).
 - EPA continues to encourage the development of amplifiers that are highly efficient in all modes including when playing sound.
 - Many current consumer products meet the existing ENERGY STAR Amplifier Efficiency requirements and because EPA has not proposed a change to these levels for Version 3.0, EPA believes that removing the requirement is not warranted.
 - All qualified Consumer Amplifiers would be forced to meet the Idle State requirement instead of having the option to bypass Idle State requirements through appropriate implementation of Auto Power Down.

Although some stakeholders requested additional changes to the proposed amplifier requirements, EPA is not proposing further changes as they would require drastic changes to the current test procedure, an effort that is out of the scope of the current specification revision. EPA believes that with an established demarcation of amplifier types and the resultant clarification of data, the

test procedure could be altered at a later date to address different types of amplifiers in a way that addresses different uses. EPA will consider these issues again in a future version of the specification.

As always, the exchange of ideas and information between EPA, industry, and other interested parties is critical to the success of ENERGY STAR. **Stakeholders are requested to provide comments pertaining to this supplemental proposal by November 15, 2011. Please send comments via e-mail to Owen Sanford, ICF International, osanford@icfi.com or to audiovideo@energystar.gov.** All comments received will be posted to the ENERGY STAR Product Development Web site, unless the submitter specifically requests that his or her comments remain confidential.

To track EPA's progress in revising the ENERGY STAR Audio Video products specification and to review comments, please visit the Product Development Web site at www.energystar.gov/RevisedSpecs and click on "Audio/Video."

Thank you for taking the time to review this proposal. Please contact Verena Radulovic, EPA, at Radulovic.verena@epa.gov or (202) 343-9845 or Owen Sanford, ICF International, at osanford@icfi.com or (202) 862-1141, with any questions or concerns.

Best Regards,



Verena Radulovic, U.S. EPA
ENERGY STAR for Consumer Electronics

Enclosures:
Amplifier Efficiency Chart