Medical Imaging Equipment Draft 2 Specification Webinar

April 17, 2024

United States Environmental Protection Agency

Webinar Participation

- Please mute yourself when you are not speaking (use local mute or dial *6)
- Feel free to ask questions at any time

Submit written comments to medicalimaging@energystar.gov by May 1, 2024

Agenda

- Introductions
- Definitions
- Scope
- Certification Criteria
- Data Reporting Requirements
- Testing Criteria
- Timeline and Next Steps

Introductions

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Definitions

- Removed definitions for Cyberknife and Linear Accelerator as they do not fall under the current ENERGY STAR definition of Medical Imaging Equipment
- Proposed new definitions for MRI subtypes low helium and ultra-high field based on stakeholder feedback on the Draft 1 specification.
- Proposed new definitions for operating and non-operating hours to supporting more detailed power management requirements and an additional test point.

Scope

- Moved all non-MRI modalities to the scope exclusion list for Version 1.0 due to a lack of data to properly address their energy criteria at this time.
- The EPA plans to continue to work with industry over the coming months to include scope and criteria for additional through amendments to Version 1 as more data is gathered and analyzed to set specific energy criteria appropriate for each modality. Additional modalities may also be added in the next full revision of the specification (Version 2).

Scope – Ultra-High Field MRIs

- Ultra-high field MRI machines were defined in the Draft 2 specification with the intention of removing them from scope in Version 1, but the EPA incidentally omitted this proposed scope change.
- The EPA intends to propose excluding ultra-high field MRI machines in the upcoming Final Draft specification.

Certification Criteria

- After considerable discussion with industry and review of new data on MRI product behavior, the EPA has revised the energy criteria in Draft 2 around power management requirements for both operating and non-operating hours.
- Power management requirements specific to ancillary computer and display components of the product have been removed due to their low contribution to overall product energy use.
- The EPA has clarified that automatic power management (applicable during operating hours) is required to be enabled as-shipped for ENERGY STAR certification.

Certification Criteria

Table 1: Required Power Down Percentage in Low Power Mode for Automatic Power Management

Product Type	Operating Hours
MRI	10%
Low Helium MRI	7%

Table 2: Required Power Down Percentage in Low Power Mode for Manual Power Management

Product Type	Non-Operating Hours
MRI	25%
Low Helium MRI	16%

The EPA has proposed separate requirements above for low helium MRI units as they typically use more energy but also greatly reduce the amount of helium release from the product, which is a scare and non-renewable resource critical to the operation of MRI devices.

ENERGY STAR

Data Reporting Requirements

- Due to the complexity and variability of MRI configurations, the EPA intends to publish the percent reduction in energy use for operating and non-operating power modes on the certified product list and product finder tools.
- The EPA is also investigating if certain tools provided by COCIR may be helpful in assessing more accurate energy consumption estimates for particular products/configurations being considered for purchase by end-users.
  - The EPA will provide more information as able in the Final Draft specification regarding whether these additional tools will be referenced, and how.

Testing Criteria

- The EPA has revised the Representative Model definition to align with what manufacturers typically define as their base configuration for a model line.
  - The agency has also clarified that all configurations certified as ENERGY STAR must continue to meet all certification criteria through subsequent firmware, software and other changes to the product.
- The DOE has proposed an additional power save mode test that closely resembles the existing ready-to-scan test but allows sufficient time for required automatic power management to engage as required by products in their as-shipped condition during operating hours.
  - This new test is in addition to the existing low power mode test which is still relevant for non-operating hours.

Timeline and Next Steps

- The EPA continues to work towards a goal of completing the Version 1.0 specification by Q4 of 2024.
- The agency is aware of interest in completing the test method in advance of releasing the final specification to allow stakeholders time to begin testing their products to increase certified product availability when the specification is released.

Questions?

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Stakeholders are encouraged to provide written comments for consideration to medicalimaging@energystar.gov by May 1, 2024.