

IBM Comments:

Conditions and Criteria for Recognition of Laboratories for the ENERGY STAR® Program

IBM appreciates the opportunity to provide comments to the Draft “Conditions and Criteria for Recognition of Laboratories for the ENERGY STAR® Program”. Because of the nature of its business, IBM’s comments will focus on the implications of the conditions and criteria on qualification and verification testing for enterprise IT products. IBM supports the development of clear operating requirements for the laboratories that will perform qualification and verification testing for ENERGY STAR products. It is important for EPA to draw on the experience of existing accreditation bodies and utilize existing accreditation infrastructure for other testing programs for products, such as product safety and electromagnetic compatibility (EMC) testing for Enterprise IT systems, in developing its conditions and criteria for laboratories. Laboratory programs to demonstrate conformance with the product safety and EMC requirements, and similar programs for other product types, have established a successful track record of testing products and reporting product data to demonstrate conformance with mandated, external requirements.

IBM is concerned about the proposed direction of the Conditions and Criteria, as they substantially deviate from the typical laboratory management criteria for other EPA programs for testing for environmental pollutants under programs such as the Clean Water Act (CWA) and Clean Air Act (CAA) and from requirements for product safety testing programs. Because of the need for consistent personnel policies across an organization, it would be extremely difficult for a large manufacturer to meet the proposed Conditions and Criteria for the demonstration of impartiality and freedom of laboratory management and personnel. Section 4: Management Requirements” of the ISO/IEC 17025 standard provide adequate provisions for the managing impartiality and integrity of the laboratory processes and demonstrating compliance with the requirements of the ISO/IEC 17025 standard. Laboratory performance and integrity ultimately depend on the implementation and execution of documented, consistent, and repeatable procedures and processes with the appropriate checks and balances to validate the laboratory results. EPA should utilize the existing ISO/IEC laboratory standard and its qualified accreditation bodies to improve the ENERGY STAR qualification and verification program.

The following comment, developed by ITI, summarize IBM’s views on laboratory certification and self certification of results. “Adoption of ISO/IEC 17025 will in effect expand ENERGY STAR reporting and documentation requirements, and would be consistent with various new provisions that EPA has instituted relative to qualifying products. Accordingly, industry supports this proposal. In addition, ITI recommends that the EPA require test reports from labs accredited to ISO 17025 for the specific test procedure from an accrediting body acknowledged by the International Laboratory Accreditation Cooperation’s Mutual Laboratory Acceptance Agreement [See <http://www.ilac.org/ilacarrangement.html>]. This step would eliminate the need to inject EPA into the laboratory accreditation process and thereby ensure that the independence of accreditation bodies is not compromised.”

IBM is also concerned that the EPA is not adequately consulting or engaging with other ENERGY STAR Partners such as the EU, Canada, Japan, and Australia on the

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development of the qualification and verification requirements. Those jurisdictions have embraced the ENERGY STAR program as a global program to the benefit of manufacturers and consumers. EPA needs to engage these partners in the process of improving their qualification and verification process to maintain and reinforce the global nature of the ENERGY STAR brand.

IBM offers the following specific comments on the proposed laboratory conditions and criteria:

GENERAL REQUIREMENTS:

IBM supports EPA's proposal to require accreditation to ISO/IEC 17025, "General requirements for the competence of testing and calibration laboratories" for laboratories that will perform qualification and verification testing for ENERGY STAR products. This ISO/IEC standard provides a comprehensive framework for the management and execution of the qualification and verification testing and is familiar to many companies and laboratory facilities due to its application in many other program activities.

The proposed requirement to "immediately notify" EPA/DOE of any attempt to hide or exert undue influence over test results is vague and very difficult to enforce. When evaluating and reviewing test results, there are often multiple opinions about process, procedures, and product settings and dialogue occurs in which issues are discussed and resolved. Different people will view the implied "pressure" or "influence" of the dialogue in different ways. Ultimately, the decision to publish and report the data rests on whether or not the product qualifies and will be validated through the laboratory assessment of control points and process execution by the accreditation bodies. IBM recommends that this requirement be removed.

In order to meet the EPA requirement to update a laboratory's Scope of Accreditation before utilizing a new test methodology to qualify or verify product energy performance, EPA needs to establish appropriate timelines for implementing new standards to enable laboratories to get accredited to the new test method while minimizing the impact on their ability to qualify products under the ENERGY STAR program.

IBM accepts the requirement for observation of product testing activities. However, it is important that any entity observing qualification testing of new products must be legally bound by a non-disclosure agreement, as information on new products is likely highly sensitive, business confidential information.

INTER-LABORATORY COMPARISON TESTING

IBM appreciates the reasoning behind and need for the requirement for Inter-laboratory Comparison Testing. But EPA needs to be sensitive to the complexity of ICT products and the importance of the configuration and set-up process to generating reproducible results. Testing Enterprise IT equipment is substantially different from testing a water quality sample where errors are only introduced by the laboratory equipment and

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procedures. There are several things that EPA and its appointed accreditation body will need to consider in an ILC program for Enterprise IT Equipment.

1. Minimally configured products should be used in the ILC testing. This will minimize the influence of configuration on set-up activities as well as the cost of the product requiring testing.
2. When detailing products for testing, EPA should be clear on specific set-up criteria for the product to ensure that the hardware and software is consistently set-up and configured across the laboratory universe when testing occurs.
3. Because of the cost and effort associated with testing, only one or two products should be sent out for ILC Comparison Testing each year.
4. The ILC process will need to direct specific products or product types only to those labs that are performing testing on those types of equipment. This is relevant for in-house labs which are only testing internal products.

IBM commented on the complexity and cost of Enterprise IT equipment and its implications on qualification and verification testing programs in the “IBM Comments on the ENERGY STAR Testing and Verification Proposal” submitted to EPA on April 30, 2010.

REPORTING

IBM recommends that EPA require that laboratories maintain and have available for inspection at the laboratory facility a list of qualified personnel per the ENERGY STAR-relevant accredited test method(s). At large lab facilities, there will be regular attrition of personnel over time and there is no real value to the laboratory or to EPA to have to submit an updated list of qualified personnel. The list of personnel should be available for an accreditation inspection. EPA should also consider providing the options for a laboratory to post the evidence of accreditation on a web site rather than submitting it to EPA.

As discussed previously, IBM strongly objects to the requirements for demonstrating laboratory impartiality and freedom. As proposed, these requirements effectively preclude in-house testing, as company personnel and business conduct practices need to be consistent across the enterprise. The ISO/EIC 17025 standard effectively establishes requirements for laboratory management and impartiality – it is not necessary to impose additional requirements and assessment procedures under the ENERGY STAR laboratory program requirements.

The proposed requirements to insure the impartiality and freedom of laboratory management and personnel reflect a programmatic approach which radically departs from requirements for in-house laboratory testing requirements for media pollution programs such as the Clean Air Act and the Clean Water Act. Laboratories performing compliance testing for media programs are required to meet specific standards of operation but there are no specific requirements dictating impartiality for the employees. Rather, the accuracy and completeness of the laboratory programs and their conformance to the

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relevant laboratory standards are verified by EPA through on-site audits and assessments and round-robin laboratory assessment programs. Laboratory performance and integrity depends on the implementation and execution of documented, consistent, and repeatable procedures and processes with the appropriate checks and balances to validate the laboratory results.

The requirement for laboratory facilities to report to EPA details of major laboratory changes as listed in the conditions and criteria places an unnecessary burden on laboratory facilities and provides no additional assurance to EPA regarding the ability of the laboratory to perform quality qualification and verification testing. Under the ISO/IEC 17025 standard laboratories are required to maintain updated processes, procedures, and documentation which must be available upon request for an accreditation inspection. EPA can undertake an accreditation inspection or request submission of the relevant management documents required under ISO/IEC 17025 in the event they have concerns about a laboratory's performance.

General Comments

IBM has concerns with the pace and speed at which EPA is releasing the various documents in their effort to improve the ENERGY STAR product qualification and verification testing process. Industry stakeholders have substantial experience in carrying out product certification testing programs and the vast majority of manufacturers recognize the criticality of providing accurate, verifiable product information and supporting a system that has integrity. We have an interest in working with EPA to establish a workable and economically viable testing regime which insures the integrity of the ENERGY STAR brand. While we recognize EPA's desire to expeditiously improve the testing and verification program, we believe that taking the time for consultation with interested stakeholders and existing certification program managers will yield significant benefit to EPA in creating a more robust and workable qualification and verification program for the ENERGY STAR program and one which utilizes available laboratory accreditation schemes.

IBM shares the concern stated by ITI regarding the implementation schedule for the accredited lab program:

“The timeline suggested by EPA is too aggressive, and does not fully take into account the time and effort that manufacturers and even 3rd party testers will have to commit in order to implement even an ISO/IEC 17025 accredited program for ENERGY STAR testing and reporting, even for entities that already have accredited laboratories. Twelve months from the date the finalization of the new requirement would be more realistic schedule, and help avoid interruption of the use of ENERGY STAR label for products that meet the technical specifications.”

The IBM team is available to discuss its technical concerns in more detail and to offer a tour of a testing lab facility to assist EPA in understanding the complexities involved in testing server equipment. Jay Dietrich (jdietric@us.ibm.com) is the IBM interface to the

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ENERGY STAR® program and would be happy to answer any questions you have or schedule a meeting with our technical team.

Thank you for considering our comments.