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**Before the  
DISPATCHED FEDERAL COMMUNICATIONS COMMISSION  
Washington, D. C. 20554**

In the Matter of )

Amendment of Parts 2 and 15 of the )  
Commission's Rules to Deregulate the )  
Equipment Authorization Requirements )  
for Digital Devices )

) ET Docket No. 95-19

**MEMORANDUM OPINION AND ORDER**

Adopted: July 3, 1997

; Released: July 18, 1997

By the Commission:

**INTRODUCTION**

1. By this action the Commission responds to three Petitions for Reconsideration filed by the Information Technology Industry Council (ITI), Hewlett-Packard Company (HP), and Intel Corporation (Intel) in the above captioned matter. The petitioners request that the Commission reconsider certain provisions of the *Report and Order* in this proceeding, in which the Commission adopted the new Declaration of Conformity (DoC) procedure for authorization of personal computers and personal computer peripherals.<sup>1</sup> ITI requests reconsideration of the laboratory accreditation requirement for manufacturers' and foreign test laboratories to use the new DoC procedure. ITI feels that manufacturers' laboratories should not be required to be accredited before using the DoC process. Additionally, ITI argues that the accreditation requirement should not apply to foreign trading partners in countries that currently do not have similar accreditation requirements. The Commission believes that laboratory accreditation is a vital component of the DoC procedure and denies the ITI Petition for Reconsideration. HP requests reconsideration or clarification of the rules regarding use of the DoC procedure by laboratories outside the United States. HP feels that the mutual recognition agreement (MRA) requirement unreasonably discriminates against test labs located in foreign countries. The Commission finds that the rules do not adequately address the

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<sup>1</sup> See *Report and Order* in ET Docket No. 95-19, 11 FCC Rcd. 17915 (1996).

requirements for foreign laboratories and grants the HP Petition by clarifying the requirements and incorporating into the rules the July 16, 1996, Public Notice entitled, "OET Takes Steps to Encourage Self-Declaration for Computer Compliance" (Public Notice).<sup>2</sup> Intel requests reconsideration of the testing procedure for the authorization of CPU boards to either take into account the shielding effectiveness of enclosures or to disregard emissions from peripheral devices.<sup>3</sup> The Commission agrees that emissions from peripheral devices should not adversely impact the testing of CPU boards and grants, in part, the Intel Petition for Reconsideration. Finally, the Commission amends the rules in several respects on its own motion.

### BACKGROUND

2. In the *Report and Order*, the Commission adopted rules to streamline the equipment authorization requirements for personal computers and personal computer peripherals. Specifically, the Commission established the DoC procedure which allows digital devices to be authorized based on a manufacturer's or supplier's declaration that the device complies with the FCC requirements for controlling radio frequency interference.<sup>4</sup> The DoC procedure requires laboratories performing compliance testing to be accredited under the National Voluntary Laboratory Accreditation Program (NVLAP) developed by the National Institute of Standards and Technology (NIST) or by the American Association for Laboratory Accreditation (A2LA). In the *Report and Order*, the Commission delegated to the Chief of the Office of Engineering and Technology authority to recognize additional accrediting organizations and to make determinations regarding the continued acceptability of individual accrediting organizations and accredited laboratories. Further, in the interest of fair trade the rules specify that laboratories located outside of the United States or its possessions will be accredited only if there is a mutual recognition agreement (MRA) between that country and the United States that permits similar accreditation of U.S. facilities to perform testing for products marketed in that country.<sup>5</sup>

3. The *Report and Order* also adopted rules to permit the marketing, without further

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<sup>2</sup> See Appendix A.

<sup>3</sup> A CPU board is a circuit board that contains a microprocessor, or frequency determining circuitry for the microprocessor, the primary function of which is to execute user-provided programming. See 47 CFR Section 15.3(bb). A peripheral device is an input/output unit of a system that feeds data into and/or receives data from the central processing unit of a digital device. Examples include keyboards, printers, video monitors and controller cards, sound cards, etc. See 47 CFR Section 15.3(r).

<sup>4</sup> *Report and Order* at 17916.

<sup>5</sup> See 47 C.F.R. § 2.948(d) note.

testing, of personal computers assembled from separate components that have themselves been authorized under a DoC. The Commission found that this approach would provide both flexibility for manufacturers and system integrators and adequate assurance that such modular computers will comply with the FCC technical standards. Testing procedures were adopted for CPU boards and power supplies. However, due to the difficulties associated with determining the shielding effectiveness of enclosures, the Commission did not adopt rules to authorize enclosures. To ensure that systems assembled from modular components would comply with the technical standards, the Commission adopted a two step test procedure for authorizing CPU boards. The CPU board must first be tested installed in a typical enclosure but with the enclosure's cover removed so that the internal circuitry is exposed at the top and at least two sides. Additional components, including a power supply, peripheral devices, and subassemblies, shall be added, as needed, to result in a complete personal computer system. Under this test, radiated emissions from the system under test may be no more than 3 dB above the limits specified in Section 15.109.<sup>6</sup> If the initial test demonstrates that the system is within 3 dB of the limits, a second test is performed using the same configuration but with the cover installed on the enclosure. Under the latter test conditions, the system under test shall not exceed the radiated emission limits specified in Section 15.109 of the FCC rules. If, however, the initial test demonstrates compliance with the radiated emission standards in Section 15.109, the second test is not required to be performed. The system must also be tested to comply with the AC power line conducted limits specified in Section 15.107 in accordance with the procedures specified in Section 15.31 of the rules.

4. On July 16, 1996 the Commission's Office of Engineering and Technology (OET) issued a Public Notice taking steps to encourage the use of the new DoC procedure. The Public Notice addressed concerns that use of the DoC procedure would be hindered by the ability of NVLAP and A2LA to timely process the initial demand for accreditation by adopting a provisional transition period of one year for obtaining such accreditation. The Public Notice also addressed issues concerning the recognition of accreditors located outside of the United States. A laboratory would be permitted to submit documentation to OET's Equipment Authorization Division stating that it has filed an application for accreditation with an approved laboratory accreditation body and provide evidence that it meets all aspects of ISO/IEC Guide 25.<sup>7</sup> Such labs will be provisionally accepted by the FCC for a period of one year, until August 19, 1997, or until the application for accreditation has been acted upon, whichever is sooner. A laboratory that is denied accreditation by an approved accreditation

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<sup>6</sup> *Report and Order*, para. 52.

<sup>7</sup> See International Organization for Standardization/International Electrotechnical Commission Guide 25, "General Requirements for the Competence of Calibration and Testing Laboratories."

body will lose its provisional acceptance. However, any DoCs that were issued will remain valid.

5. Petitions for Reconsideration were filed on July 19, 1996, by the ITI, HP, and Intel. ITI requests that the Commission eliminate the accreditation requirement for U.S. trade partners and manufacturers' laboratories that desire to use the new DoC procedure. HP requests that the Commission allow accreditation of foreign testing laboratories unless the countries in which they are located already have discriminatory accreditation requirements for testing of personal computers. Additionally, HP suggests that the Commission specifically recognize in the rules that it will accept agreements between accrediting bodies to mutually recognize accreditations. Finally, Intel requests that the Commission modify its new testing procedure for the authorization of CPU boards. Comments on these petitions were filed by the Consumer Electronics Manufacturers Association (CEMA) and the National Association of Broadcasters (NAB).

## DISCUSSION

### A. Laboratory Accreditation

6. In its petition, ITI asserts that it should not be necessary for manufacturers' laboratories to be accredited to use the DoC procedure. ITI states that this new requirement will impose significant financial and other burdens on companies, and result in higher costs to consumers of information technology goods and services.<sup>8</sup> ITI feels that manufacturers are fully capable of performing the tests required for the DoC process and should not be subject to the accreditation requirement. ITI asserts that there is no reason to believe that manufacturers will disregard Commission testing rules, even without accreditation.

7. ITI suggests that manufacturers proposing to test products for DoCs simply supply the Commission with "basic 'qualifying' information" similar to that required in connection with the current certification process.<sup>9</sup> If, however, the Commission deems it necessary to accredit manufacturers' laboratories, ITI requests that the provisional acceptance period be extended

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<sup>8</sup> ITI Petition for Reconsideration at 3-4.

<sup>9</sup> The certification procedure requires submission of an application, the results of emissions tests, and a processing fee to the FCC's laboratory. A description of the measurement facilities of the laboratory where tests are performed must be on file with the Commission's laboratory or must accompany the certification application. If requested, the applicant must also submit a sample device for testing. See Sections 2.936, 2.948, and 2.1033 of the Commission's rules.

from one year to two years to provide accrediting bodies sufficient time to act upon applications.<sup>10</sup> CEMA supports ITI's requests.<sup>11</sup>

8. *Decision.* As stated in the *Report and Order*, the requirement for accreditation of test laboratories is intended to provide greater confidence that the testing laboratory has the capability to do proper testing and to provide a means for excluding laboratories that are not properly qualified.<sup>12</sup> While ITI contends that lab accreditation is costly, it has provided no evidence that the costs are unreasonable. Further, it has not presented any persuasive evidence to indicate that manufacturers' laboratories are more likely to perform compliance testing in a manner that is more reliable than independent laboratories. We believe that requiring independent laboratories to be accredited, but not manufacturer's laboratories, would therefore be inequitable and unjustified. We continue to believe that accreditation of all testing laboratories is necessary under the DoC procedure because it serves as an important safeguard to ensure that testing is performed properly. Accordingly, we are denying this aspect of ITI's petition.

9. We believe that the one year transition period specified in the Public Notice is sufficient. We note that many laboratories have already been accredited and it does not appear that there is a backlog of accreditation requests.<sup>13</sup> Further, NIST and A2LA have not requested additional time. Nevertheless, under the delegated authority of Section 0.241, the Chief of OET may extend the transition period if necessary. Therefore, we find that the existing rules are adequate and appropriate to address ITI's concern. Accordingly, we are denying ITI's request to extend the transition period for accreditation.

#### **B. Mutual Recognition Agreements**

10. Hewlett Packard and ITI request reconsideration and clarification of the rules with regard to the provisions for accreditation of foreign test laboratories. In the *Report and Order*, the Commission stated that it would accept the accreditation of foreign laboratories in countries with whom the U.S. has a mutual recognition agreement to accept the accreditation of U.S. laboratories. In the Public Notice, OET clarified the provisions for the acceptance of foreign laboratory accreditations. The Public Notice stated that organizations outside of the

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<sup>10</sup> ITI Petition for Reconsideration at 5.

<sup>11</sup> Comments of the CEMA at 4.

<sup>12</sup> *Report and Order* at 17932.

<sup>13</sup> NIST has accredited eighty-nine laboratories under its NVLAP program while A2LA has accredited five laboratories.

United States that seek to become accreditors may seek agreements with approved United States accrediting bodies to mutually recognize the accreditation of laboratories. The Commission will review such agreements and will consult with the Office of the United States Trade Representative and other Executive Branch agencies before accepting them for purposes of the DoC procedure in order to ensure that the respective foreign countries accept United States accreditations and do not impose additional trade barriers upon U.S. companies. If no trade barriers exist, a specific government-to-government agreement would not be required. Instead, the accreditor will be allowed to establish a reciprocal recognition agreement with NIST or A2LA to accredit laboratories within its country for use of the DoC process.

11. HP expresses concern that the MRA requirement is discriminatory with regard to test laboratories located in foreign countries. HP states that barring the use of foreign laboratories for the DoC process until the U.S. Government concludes formal mutual recognition agreements with every other government would be counterproductive. HP is concerned that this approach could cause foreign trading partners to erect trade barriers to U.S. computer equipment where none currently exist. HP states that the Public Notice ameliorates much of its concerns and should be codified in the rules. However, HP remains concerned that the Commission's rule on accreditation of laboratories permits the denial of accreditation of foreign laboratories for reasons that are unrelated to its technical qualifications. HP believes that the FCC should allow accreditation of foreign testing laboratories unless the countries in which they are located already have discriminatory accreditation requirements for testing of personal computers. HP also believes that the MRA requirement creates an unnecessary burden for foreign laboratories that are affiliated with U.S.-based manufacturers.

12. ITI expresses similar concerns regarding to the MRA requirement. ITI argues that the trend in international markets is toward declaration of conformity without laboratory accreditation. ITI feels that the accreditation requirement should not apply to United States trade partners that currently do not require accreditation in relation to similar regulations. Furthermore, ITI notes that the U.S. has yet to come to an agreement for MRAs with any of its international trading partners.<sup>14</sup> ITI also requests clarification as to whether laboratories that are owned by United States manufacturers but located abroad will be accredited only if there is a mutual recognition agreement between that country and the United States.<sup>15</sup>

13. In its reply comments, CEMA proposes that the Commission eliminate the MRA requirement. CEMA reiterates HP's and ITI's concerns that the MRA requirement will hinder

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<sup>14</sup> ITI Petition for Reconsideration at 2.

<sup>15</sup> *Id.* at 1.

trade with countries where no current barriers exist. CEMA states that the Commission should address trade issues as they arise rather than presume that an MRA must be in place.<sup>16</sup> If the MRA requirement is not removed, CEMA urges the Commission to adopt HP's alternatives.

14. *Decision.* Our intent in adopting the requirement for an MRA as a condition for recognizing the accreditation of foreign laboratories was to ensure an equitable treatment of U.S. manufacturers and test laboratories. We believe that a pragmatic approach is appropriate. For example, the European Union allows "competent bodies," which are usually accredited test laboratories, to make technical judgments that can reduce the testing burdens for certain equipment, including personal computer equipment. However, the EU has taken the position that it will not recognize "competent bodies" outside of Europe without an MRA between governments. In this case, we believe equity demands that we not recognize the accreditations of laboratories in the EU until an MRA is completed between the respective governments. We note that an MRA has recently been approved between the United States and European Union and is in the implementation stage. We recognize, however, that some countries do not have limits for radio noise emitted by personal computer equipment. Other countries, such as Australia, require laboratory accreditation as part of the product approval process, but already accept the accreditations of U.S. laboratories. In such situations, where U.S. manufacturers and test laboratories have access to the foreign market, our objective of equity would be satisfied without an MRA between governments. Accordingly, we will accept, without an MRA agreement, the accreditation of laboratories from countries that already accept the accreditation of U.S. laboratories, provided that they meet the accreditation standards specified in our rules.

15. We agree with HP that we should recognize agreements between accrediting organizations in the United States and abroad where appropriate. Accordingly, as suggested by HP, we are incorporating the provisions of the Public Notice into the rules. In determining whether U.S. industry has access to foreign markets, we will consult with other U.S. agencies with responsibility for trade. However, we intend only to consider whether U.S. industry has access to the market for similar products, i.e., personal computer equipment. We believe this will adequately address HP's concern. We do not believe that any special measures should be taken with regard to foreign laboratories that may be owned by U.S. companies. We believe that this would create unnecessary complications, such as determining which companies are "U.S." and their relationships to the foreign laboratories.

16. We believe that the measures we have taken adequately provide for recognition of the accreditations of foreign laboratories and do not create trade barriers. We note that we have

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<sup>16</sup> Comments of the CEMA at 6.

already recognized the accreditation of laboratories in many countries, including Australia, Canada, Japan, New Zealand, Singapore and Taiwan. We are still withholding recognition of laboratories in South Korea pending resolution of trade concerns for personal computer equipment.

### C. CPU Board Testing

17. In its petition, Intel requests that the Commission reconsider the procedure for authorization of CPU boards. Intel argues that the testing procedure does not acknowledge the importance of the computer system enclosure in providing shielding. Further, Intel states that typical emissions from CPU boards exceed the limits of Section 15.109 by more than 3 dB and requests that the Commission adopt Intel's proposal to further account for the shielding effectiveness of computer cases.<sup>17</sup> Intel proposes that the FCC add an authorization procedure for computer cases based on a disclosure statement describing the case shielding effectiveness. Intel then proposes to permit CPU boards to be authorized by testing a computer system with the cover on to comply with the Section 15.109 limits. The CPU board in a complying system would then be DoC approved but would be required to provide a disclosure statement indicating its radiated emission characteristics that exceed 3 dB above the Section 15.109 limits with the cover off. System integrators and assemblers would then be able to match approved CPU boards with approved cases that provide sufficient shielding.

18. Intel also questions why CPU boards are being singled out for special treatment. Intel argues that certain other system components, such as plug-in video cards must only demonstrate compliance with the Section 15.109 limits when installed inside the case of a complete computer system. Therefore, Intel argues that it is very likely that a system containing such components will fail the cover off test required by Section 15.32(a) due to emissions from sources other than the CPU board.<sup>18</sup> Accordingly, Intel requests that the Commission adopt its proposed change to the CPU board testing procedure which acknowledges the importance of the CPU enclosure in limiting emissions. Alternatively, Intel requests that if its enclosure proposal is not adopted, then the Commission should either eliminate the special treatment of CPU boards and treat them the same as peripherals or provide a means of allowing for emissions other than those of the CPU board in the approval process.<sup>19</sup>

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<sup>17</sup> See Intel petition at pages 2-7.

<sup>18</sup> On March 17, 1997, Intel submitted data to the Commission demonstrating the added radiated emissions to an overall computer system due to video cards.

<sup>19</sup> See Intel petition at 9.

19. NAB opposes Intel's petition and argues against relaxing the testing procedures established by Section 15.32.<sup>20</sup> NAB states that computers and other digital devices are a great source of interference to broadcast services. It expresses concern that system integrators will combine previously authorized components to produce a system that does not meet the emissions limits and states that peripheral devices should be subject to the same cover off test that applies to CPU boards. Finally, NAB does not believe that developing a reliable method of measuring enclosure shielding effectiveness is a viable option.

20. *Decision.* We believe Intel's proposal to authorize case enclosures is too complex and unworkable. We note that we initially proposed to separately authorize CPU enclosures for modular computers on the basis of the enclosures' shielding effectiveness.<sup>21</sup> It was proposed that enclosures should be shown to provide 6 dB of shielding effectiveness across the spectrum from 30 MHz to 1000 MHz. Commenting parties, including Apple, AT&T and Gateway, argued that there is no practical way to determine or assure the shielding effectiveness of a case when used with various CPU boards.<sup>22</sup> Therefore, we decided not to adopt requirements for the shielding effectiveness of enclosures. Alternatively, we adopted the two step test with a tight emission limit for CPU boards. CPU boards are required to be within 3 dB of the limits when tested with the enclosure cover off. They must then meet the emission limits when tested with the cover installed. We believed that readily available enclosures on the market could be expected to provide at least 3 dB of shielding effectiveness. Therefore, we feel confident that assemblers will be able to build and market computers from modular components that comply with the emission limits. Further, Intel has not provided any new information that demonstrates that it is practical to determine the shielding effectiveness of enclosures. Accordingly, we deny Intel's request to adopt a testing procedure for case enclosures.

21. We disagree with Intel's argument that CPU boards and peripheral devices should be treated equally. The CPU board is the basic essential component upon which a computer system is assembled and is therefore not equal since it controls all other attached peripheral devices. We also note that the power supply is the primary component responsible for compliance with conducted emission limits. Therefore, in developing the modular component testing procedure, we believed that it was important to ensure that emissions from different combinations of CPU boards, power supplies and enclosures will still comply with the limits, without testing the final computer. We continue to believe that limiting emissions from CPU boards is vital to ensuring overall compliance of an assembled computer system.

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<sup>20</sup> NAB Comments at 4 and 5.

<sup>21</sup> See *Notice of Proposed Rulemaking*, 10 FCC Rcd. 8345, para. 22.

<sup>22</sup> See *Report and Order*, para. 50.

Accordingly, we deny Intel's request that CPU boards and peripheral devices be treated equally.

22. We acknowledge that the cover off test for CPU boards does not provide a means to allow for emissions from components other than the CPU board being tested. Intel argues that it is not reasonable to expect peripheral devices installed in a typical configuration for testing to meet the 3 dB limit with the cover removed. We agree with Intel that CPU boards should not be penalized for emissions from peripheral devices. We note that peripheral devices must still meet the emission limits with the cover on test. We originally expected that cases would provide at least 6 dB of shielding based on the experience of the OET lab samplings and certification applications test data.<sup>23</sup> When we adopted the rules we erred on the side of caution and therefore required CPU boards to meet the 3 dB limit. We now believe that this limit is unnecessarily stringent and, as indicated by Intel, limits CPU board manufacturers' ability to find peripheral devices that also meet this limit for testing. Therefore, we believe that the limit should be relaxed to the original 6 dB proposal, which will assure a greater availability of peripheral devices that can meet this limit. Further, in situations where a peripheral that meets the 6 dB margin is not available for testing, we will allow manufacturers to disregard emissions that can be specifically attributed to components other than the CPU board. Accordingly, we are granting Intel's request in this respect and amending our rules as follows. We are amending the cover off CPU board test procedure in Section 15.32(a)(1) to change the emission limit from 3 dB to 6 dB and to permit manufacturers to identify and exclude non-compliant emissions resulting from peripheral devices. Manufacturers must be able to provide supporting data demonstrating that any non-compliant emissions are from components other than the CPU board. CPU boards that are within 6 dB of the Section 15.109 limits and the configured system with its attached peripheral devices must still demonstrate full compliance, when tested with the cover installed. Finally, as an alternative to Intel's enclosure proposal, we will also permit CPU boards to be tested to demonstrate compliance with the limits in Section 15.109 using a specified enclosure with the cover installed. Under this alternative, the CPU board must be marketed together with the specific enclosure used for the tests.

#### **D. Other Amendments to the Rules**

23. *Responsible Party.* The *Report and Order* amended Title 47 of the Code of Federal Regulations, Part 2 by adding paragraph 2.909(c) to specify the party responsible for verifying

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<sup>23</sup> See *Notice of Proposed Rulemaking*, paras. 20 and 22.

compliance for equipment authorized under the Declaration of Conformity procedure.<sup>24</sup> Section 2.909(c) identifies the responsible party as either (1) the manufacturer; (2) if the equipment is assembled from separately authorized parts, the assembler; or (3) if the equipment is imported, the importer.

24. Original equipment manufacturers (OEM) sell products to distributors or assemblers who in turn market a final product under their own name. The Commission has received informal inquiries from equipment manufacturers as well as OEM customers regarding the application of Section 2.909(c) to their situation. Some manufacturers would like to remain anonymous while some OEM customers would like to be identified as the party responsible for assuring compliance.

25. The Commission sees no harm in recognizing an OEM customer as the party responsible for ensuring compliance. The requirement to list the responsible party on the DoC ensures that consumers and FCC personnel may easily contact a representative to make inquiries. The responsible party must also be capable of providing documentation verifying compliance to the Commission within fourteen days of request. If the original responsible party agrees to permit OEM customers to accept and fulfill these obligations, the goal of listing the responsible party will be achieved. Accordingly, upon agreement with the original responsible party, OEM customers will be allowed to list themselves as the party responsible for ensuring compliance for the purpose of a DoC. Section 2.909 of the rules is modified to recognize such agreements.

26. *Power Supplies.* Manufacturers have also informally questioned the testing procedures for power supplies. The design of the computer power supply generally determines the ability of the computer to comply with the standards for limiting emissions conducted onto the AC power lines. The Commission requires internal power supplies to be tested installed in a typical configuration. We define a typical configuration as in an enclosure, peripheral devices, a CPU board, and sub-assemblies connected to result in a complete personal computer system.<sup>25</sup>

27. Manufacturers are concerned about the effects that loading a power supply will have on test results. Particularly, manufacturers suggest that individual test labs may utilize very different "typical configurations" to test power supplies resulting in a wide range of emissions measurements. It has been suggested that testing the power supply with a full resistive load will eliminate this inconsistency. The Commission realizes that levels of power line

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<sup>24</sup> *Report and Order* at App. C, para. 5.

<sup>25</sup> *See* 47 CFR §15.31(a)(6).

conducted emissions will vary due to changes in loading. However, the Commission is aware that no measurement procedure can provide total assurance of compliance for all combinations of personal computer components. Although testing power supplies with a full resistive load may provide consistent results, these results may not accurately reflect the operation of the power supply when incorporated into an actual computer system. The requirement to test power supplies in a full system configuration should ensure that the power supply is presented with a load that is similar to what would occur during normal operation. Therefore, the Commission will retain the requirement to test internal power supplies connected to a complete system.

28. There has also been confusion over the treatment of external power supplies such as those used for laptop computers. The test procedure in Section 15.32(b) applies only to internal power supplies tested in a typical configuration. This test does not apply to external power supplies. External power supplies are still subject to approval under the Verification procedure. We understand that the table in Section 15.101 may not be clear on this issue. Accordingly, we are modifying the table in Section 15.101 to clarify that only internal power supplies for Class B personal computers are subject to the DoC procedure.

29. *Labeling.* The Commission introduced two new labels for digital devices authorized by the DoC. One label will be used for devices tested and marketed as a complete system while another will be used for systems assembled from separately authorized components. Intel requests an interpretation of the labeling requirements for a previously authorized system that has separately approved peripheral devices installed at a later time.<sup>26</sup>

30. There has been confusion over when to use the "Assembled From Tested Components" label. In Section 15.101(c)(1), the Commission specifies that the combination of CPU board, power supply, and enclosure are the essential components to be tested and authorized as a personal computer. In this case, the label in Section 15.19(b)(1)(i) would be required. If either the CPU board or power supply in the tested PC are replaced with a CPU board or power supply approved according to the procedure in Section 15.32 then the original label must be replaced with the "Assembled From Tested Components" label in Section 15.19(b)(1)(ii).<sup>27</sup> A change in peripheral devices does not require a change in labels. Additionally, we note that the compliance information in Section 2.1077(b) inadvertently omitted the identification information of the final assembled computer. Accordingly, Sections 15.19(b)(1)(ii) and 2.1077(b) are modified to clarify the requirements.

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<sup>26</sup> Intel at 7 and 8.

<sup>27</sup> Similarly, if the computer is assembled from a separately authorized CPU board and power supply, the label in Section 15.19(b)(1)(ii) would be required.

31. The Commission has also received questions regarding the font, text size, and other information contained on the labels. We clarify that the text and information should be in a size of type large enough to be readily legible, consistent with the dimensions of the equipment and its nameplate.<sup>28</sup> However, the type size for the text is not required to be larger than eight point. Further, all FCC information must appear together on the same compliance label. If desired, the label may also include other symbols such as the CE mark.

32. Finally as a procedural matter, Sections 15.31(a)(6) and (b) of the Commission's rules are modified to reference the new DoC procedure.

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<sup>28</sup> This is consistent with the identification requirements of Section 2.925(f) of the Commission's rules for equipment subject to FCC authorization.

**PROCEDURAL MATTERS**

33. *Final Regulatory Flexibility Certification.* As required by Section 603 of the Regulatory Flexibility Act (RFA), 5 U.S.C. § 603, an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Notice of Proposed Rulemaking (NPRM)* in ET 95-19. The Commission sought written comments on the proposals in the *NPRM* including the IRFA. No commenting parties raised issues specifically in response to the IRFA and a Final Regulatory Flexibility Analysis (FRFA) was included in the *Report and Order* in this proceeding. The rules adopted in this *Memorandum Opinion and Order (MO&O)* provide clarification and further relaxation of the computer authorization process requirements adopted in the *Report and Order*.<sup>29</sup> We therefore certify pursuant to section 605(b) of the RFA that the rules adopted in this *MO&O* do not have a significant economic impact on a substantial number of small entities.

34. The Commission will send a copy of this final certification, along with this *Memorandum Opinion and Order*, in a report to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996, 5 U.S.C. § 801(a)(1)(A), and to the Chief Counsel for Advocacy of the Small Business Administration, 5 U.S.C. § 605(b). This certification will also be published in the Federal Register.

**ORDERING CLAUSES**

35. Accordingly, IT IS ORDERED that the petition for reconsideration filed by Information Technology Industry Council IS DENIED. The petition for reconsideration filed by Hewlett-Packard Company IS GRANTED. The petition for reconsideration filed by Intel Corporation IS GRANTED as described above and DENIED in all other respects. Finally, IT IS ORDERED that Part 15 of the Commission's Rules and Regulations IS AMENDED as

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<sup>29</sup> Because the rule amendments generally ease the equipment authorization requirements for all manufacturers and suppliers, including small manufacturers and suppliers, they are consistent with Section 257 of the 1996 Telecommunications Act, 47 U.S.C. § 257. That section requires, among other things, that the Commission eliminate market entry barriers for small businesses that may provide parts or services to providers of telecommunications services and information services. *Id.* at § 257(a). The Commission recently issued a report in GN Docket No. 96-113 regarding its implementation of Section 257. *See Section 257 Proceeding to Identify and Eliminate Market Entry Barriers for Small Businesses*, Report No. 97-8, 1997 WL 232120 (1997).

specified in Appendix B, effective September 17, 1997.<sup>30</sup> This action is taken pursuant to the authority contained in Sections 4(i), 301, 302, 303(e), 303(f), 303(r), 304, 307 and 405 of the Communications Act of 1934 as amended, 47 U.S.C. Sections 154(i), 301, 302, 303(e), 303(f), 303(r), 304, 307 and 405.

36. For further information regarding this Memorandum Opinion and Order, contact the Office of Engineering and Technology, Anthony Serafini at (202) 418-2456 or Neal McNeil at (202) 418-2408.

FEDERAL COMMUNICATIONS COMMISSION



William F. Caton  
Acting Secretary

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<sup>30</sup> The effective date was extended by 90 days, from June 19, 1997 to September 17, 1997, in order to permit the Commission to act on the petitions for reconsideration and to allow manufacturers sufficient time to implement any changes to the rules. *See Order*, DA 97-1212, 62 Fed. Reg. 33368 (rel. June 10, 1997).

**APPENDIX A****PUBLIC NOTICE  
FEDERAL COMMUNICATIONS COMMISSION  
1919 M STREET NW  
WASHINGTON, D.C. 20554**

July 16, 1996

**OET TAKES STEPS TO ENCOURAGE  
SELF-DECLARATION FOR COMPUTER COMPLIANCE**

The Commission's Office of Engineering and Technology (OET) hereby clarifies certain points to encourage and speed use of the new "Declaration of Conformity" (DoC) procedure that permits the manufacturer or supplier of personal computer equipment to self-declare compliance with FCC standards for controlling radio interference. The new procedure was adopted on May 9, 1996, by Report and Order in ET Docket 95-19, and becomes effective on August 19, 1996. The DoC procedure is an optional alternative to authorization of the equipment by the FCC.

The DoC procedure requires use of a laboratory accredited by the American Association for Laboratory Accreditation (A2LA), the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) or any other accrediting body approved by OET. We note that numerous laboratories have filed applications for laboratory accreditation with these organizations. It will take several months for these organizations to complete the accreditation process.

To facilitate use of the DoC procedure, the FCC will accept a laboratory that submits documentation to OET's Equipment Authorization Division stating that it has filed an application for accreditation with an approved laboratory accreditation body and provides evidence that it meets all aspects of ISO/IEC Guide 25. Such labs will be provisionally accepted by the FCC for a period of one year (until August 19, 1997) or until the application for accreditation has been acted upon, whichever is sooner. A laboratory that is denied accreditation by an approved accreditation body will lose its provisional acceptance. However, any DoCs that were issued will remain valid.

Several organizations, other than A2LA or NVLAP, have inquired as to how they may become accreditors. U.S. based organizations that wish to become accreditors must file a

written request with OET. The request must demonstrate that the organization meets all of the criteria set forth in ISO/IEC Guide 58. OET will only recognize U.S. based organizations. Organizations outside of the United States that seek to become accreditors may seek agreements with NVLAP or A2LA to mutually recognize the accreditation of laboratories. The FCC will review such agreements and will consult with the Office of the United States Trade Representative and other Executive Branch agencies before accepting them for purposes of the DoC procedure in order to ensure that the respective foreign countries accept U.S. accreditations and do not impose additional barriers upon U.S. companies.

These actions are based on 47 CFR Section 0.241(f) which authorizes the Chief of the Office of Engineering and Technology to recognize additional accrediting organizations and to make determinations regarding the continued acceptability of individual accrediting organizations and accredited laboratories. Additional questions concerning this notice may be addressed to Art Wall at (301) 725-1585 (ext. 205), fax: (301) 344-2050, email: [awall@fcc.gov](mailto:awall@fcc.gov).

- FCC -

APPENDIX B

Title 47 of the Code of Federal Regulations, Part 2, is amended as follows:

1. Section 2.909 is amended by renumbering paragraph (c)(3) to (c)(4) and adding a new paragraph (c)(3), to read as follows:

Section 2.909 Responsible party.

\* \* \* \* \*

(c) \* \* \*

(3) Retailers or original equipment manufacturers may enter into an agreement with the responsible party designated in paragraph (c)(1) or (c)(2) of this section to assume the responsibilities to ensure compliance of equipment and become the new responsible party.

\* \* \* \* \*

2. Section 2.948 is amended by deleting the note at the end of paragraph (d) and by adding paragraphs (d)(1), (d)(2) and (d)(3) to read as follows:

Section 2.948 Description of measurement facilities.

\* \* \* \* \*

(d) \* \* \*

(1) In addition to meeting the above requirements, the accreditations of laboratories located outside of the United States or its possessions will be acceptable only under one of the following conditions:

- (i) If there is a mutual recognition agreement between that country and the United States and that laboratory is covered by the agreement;
- (ii) If there is an agreement between accrediting bodies that permits similar accreditation of U.S. facilities to perform testing for products marketed in that country; or
- (iii) If the country already accepts the accreditation of U.S. laboratories.

(2) Organizations outside of the United States that seek to become accreditors may seek agreements with approved United States accrediting bodies to mutually recognize the

accreditation of laboratories. The Commission will review such agreements and will consult with the Office of the United States Trade Representative and other Executive Branch agencies before accepting them for purposes of the DoC procedure in order to ensure that the respective foreign countries accept United States accreditations and do not impose additional barriers upon United States companies. Accrediting bodies located outside of the United States will only be permitted to accredit laboratories within their own country for DoC testing.

(3) To facilitate use of the DoC procedure, the FCC will accept a laboratory that submits documentation to OET's Equipment Authorization Division stating that it has filed an application for accreditation with an approved laboratory accreditation body and provides evidence that it meets all aspects of ISO/IEC Guide 25. Such labs will be provisionally accepted by the FCC for a period of one year (until August 19, 1997) or until the application for accreditation has been acted upon, whichever is sooner. A laboratory that is denied accreditation by an approved accreditation body will lose its provisional acceptance. However, any DoCs that were issued will remain valid.

3. Section 2.1077 is amended by renumbering paragraphs (b)(1), (b)(2), (b)(3), and (b)(4) to (b)(2), (b)(3), (b)(4), and (b)(5) respectively and adding a new paragraph (b)(1) to read as follows:

Section 2.1077 Compliance information.

\* \* \* \* \*

(b) \* \* \*

- (1) Identification of the assembled product, e.g., name and model number.

Title 47 of the Code of Federal Regulations, Part 15, is amended as follows:

1. Section 15.19 is amended by revising paragraph (b)(1)(ii) to read as follows, renumbering paragraphs (b)(2) and (b)(3) to (b)(3) and (b)(4) respectively and adding a new paragraph (b)(2) to read as follows:

Section 15.19 Labelling requirements.

\* \* \* \* \*

(b) \* \* \*

(1) \* \* \*

(ii) If a personal computer is authorized based on assembly using separately authorized components, in accordance with Section 15.101(c)(2) or (c)(3), and the resulting product is not separately tested:

\* \* \* \* \*

(2) Label text and information should be in a size of type large enough to be readily legible, consistent with the dimensions of the equipment and the label. However, the type size for the text is not required to be larger than eight point.

\* \* \* \* \*

2. Section 15.31 is amended by revising paragraphs (a)(6) and (b), to read as follows:

Section 15.31 Measurement standards.

(a) \* \* \*

\* \* \* \* \*

(6) Digital devices authorized by verification, Declaration of Conformity, or for which an application for equipment authorization is filed on or after May 1, 1994, and intentional and other unintentional radiators for which verification is obtained, or for which an application for equipment authorization is filed on or after June 1, 1995 are to be measured for compliance using the following procedure excluding § 5.7, Section 9 and Section 14: American National Standards Institute (ANSI) C63.4-1992, entitled "Methods of Measurement of radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz," published by the Institute of Electrical and Electronic Engineers, Inc. on July 17, 1992 as document number SH15180. \* \* \*

\* \* \* \* \*

(b) All parties making compliance measurements on equipment subject to the requirements of this part are urged to use these measurement procedures. Any party using other procedures should ensure that such other procedures can be relied on to produce measurement results compatible with the FCC measurement procedures. The description of the measurement procedure used in testing the equipment for compliance and a list of the test equipment actually employed shall be made part of an application for certification or included with the data required to be retained by the party responsible for devices authorized pursuant

to a Declaration of Conformity or devices subject to notification or verification.

\* \* \* \* \*

3. Section 15.32 is amended by revising paragraph (a)(1) to read as follows:

Section 15.32 Test procedures for CPU boards and computer power supplies.

Power supplies and CPU boards used with personal computers and for which separate authorizations are required to be obtained shall be tested as follows:

(a) CPU boards shall be tested as follows:

(1) Testing for radiated emissions shall be performed with the CPU board installed in a typical enclosure but with the enclosure's cover removed so that the internal circuitry is exposed at the top and on at least two sides. Additional components, including a power supply, peripheral devices, and subassemblies, shall be added, as needed, to result in a complete personal computer system. If the oscillator and the microprocessor circuits are contained on separate circuit boards, both boards, typical of the combination that would normally be employed, must be used in the test. Testing shall be in accordance with the procedures specified in Section 15.31 of this part.

(i) Under these test conditions, the system under test shall not exceed the radiated emission limits specified in Section 15.109 of this part by more than 6 dB. Emissions greater than 6 dB that can be identified and documented to originate from a component(s) other than the CPU board being tested, may be dismissed.

(ii) Unless the test in paragraph (a)(1)(i) of this section demonstrates compliance with the limits in Section 15.109 of this part, a second test shall be performed using the same configuration described above but with the cover installed on the enclosure. Testing shall be in accordance with the procedures specified in Section 15.31 of this part. Under these test conditions, the system under test shall not exceed the radiated emission limits specified in Section 15.109 of this part.

(2) In lieu of the procedure in (a)(1) of this section, CPU boards may be tested to demonstrate compliance with the limits in Section 15.109 using a specified enclosure with the cover installed. Testing for radiated emissions shall be performed with the CPU board installed in a typical system configuration. Additional components, including a power supply, peripheral devices, and subassemblies, shall be added, as needed, to result in a complete personal computer system. If the oscillator and the microprocessor circuits are contained on separate circuit boards, both boards, typical of the combination that would normally be

employed, must be used in the test. Testing shall be in accordance with the procedures specified in Section 15.31 of this part. Under this procedure, CPU boards that comply with the limits in Section 15.109 must be marketed together with the specific enclosure used for the test.

\* \* \* \* \*

4. Section 15.101 is amended by revising the table in paragraph (a) to read as follows:

Section 15.101 Equipment authorization of unintentional radiators.

(a) \* \* \*

| Type of Device  | Equipment Authorization Required           |
|---|--|
| TV broadcast receiver.....  | Verification                               |
| FM broadcast receiver.....  | Verification                               |
| CB receiver.....  | Certification                              |
| Superregenerative receiver.....   | Certification                              |
| Scanning receiver.....  | Certification                              |
| All other receivers subject to Part 15.....   | Notification                               |
| TV interface device.....  | Certification                              |
| Cable system terminal device.....   | Notification                               |
| Stand-alone cable input selector switch..   | Verification                               |
| Class B personal computers and peripherals.....   | Declaration of Conformity or Certification |
| CPU boards and internal power supplies used with Class B personal computers.....        | Declaration of Conformity or Certification |
| Class B personal computers assembled using authorized CPU boards or power supplies..... | Declaration of Conformity                  |
| Class B external switching power supplies .....   | Verification                               |
| Other Class B digital devices & peripherals.....  | Verification                               |
| Class A digital devices, peripherals & external switching power supplies.....           | Verification                               |
| All other devices.....  | Verification                               |

\* \* \* \* \*