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

In the Matter of	)	
	)	
Amendment of Parts 2 and 15 of the Commission's Rules to Deregulate Equipment Authorization Requirements for Digital Devices	)	**ET Docket No. 95-19**

To: The Commission

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COMMENTS OF THE AMERICAN RADIO RELAY LEAGUE, INCORPORATED
IN RESPONSE TO NOTICE OF PROPOSED RULE MAKING

The American Radio Relay League, Incorporated (the League), the national association of amateur radio operators in the United States, by counsel and pursuant to Section 1.415(a) of the Commission's rules [47 C.F.R. §1.415(a)] hereby respectfully submits its comments in response to the Notice of Proposed Rule Making (the Notice), FCC 95-46, 60 Fed. Reg. 15116 et seq., released February 7, 1995. The Notice proposes to deregulate the equipment authorization and testing requirements for personal computers, personal computer peripherals, and individual components of personal computers. In the interests of the Amateur Radio Service in interference avoidance relative to such devices, the League states as follows:

1. The League understands that nothing in this proceeding would change the substantive regulations governing unintentional emissions from Class B digital devices. There is no proposal in this proceeding to increase the amount of permitted RF energy from personal computers, peripherals or their components. Computer

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manufacturers will not, if the Notice proposals are adopted, be permitted to manufacture or market devices that exceed current standards for radiated or conducted RF emissions. In theory, then, radio amateurs who use Class B personal computers, peripherals and certificated components in their residences, or who operate their amateur stations in close proximity to Class B digital devices of neighbors, need not be concerned that this proceeding will signal an increase in interference problems or interaction between those digital devices and co-located or nearby amateur receivers. Theoretically, radio amateurs will not be affected by this proceeding, notwithstanding the fact that the Commission's certification procedure is specifically intended to ensure that unintentional radiator devices not cause interference to radio services such as broadcasting, aeronautical and maritime communications, and the Amateur Service.

2. The amateur community, however, has expressed some concern to the League about this proceeding, because it signifies the end of a supervisory function of the Commission that, over the years, appears to have kept the interference from Class B computing devices to radio receivers within practicable limits. These days, many radio amateurs have fully integrated personal computers into their amateur station configurations, without insurmountable compatibility problems. The amateur community includes some of the most prolific consumers of Class B digital devices. Yet, many personal computers, peripherals, and other Class B digital devices, even today, cause significant interference to radio receivers,

including amateur receivers in residences. For this reason, the League is concerned that the Commission not abdicate its obligation to insure that such devices are properly designed, properly tested by the manufacturers, and that the components are properly configured to avoid interference to licensed radio services. Specifically, any deregulation of the equipment authorization program **must** be accompanied by a contemporaneous reaffirmation, in stated policy and in fact, of the Commission's firm intention to increase its enforcement efforts with respect to non-compliant devices, and to make such enforcement efforts empirically manifest.

3. The League is aware that the Commission no longer routinely tests Class B computing devices at its laboratory in Columbia, Maryland, as part of the equipment authorization program, and it has not done so for some time. Rather, in the event that complaints about a particular certificated device arise, or where it appears to the Commission that a device as tested is not representative of production versions of that same device, the staff may require submission of a particular device for testing. Notwithstanding, the certification process for all unintentional radiators presently requires the submission to the Commission of test data from a laboratory which shows actual measurements of radiated and conducted emissions on the fundamental frequency, and spurious emission measurements of each unintentional radiator. It also requires a narrative description of the test procedure, to insure that the testing is in accordance with standards in the Commission's rules. See, 47 C.F.R. §§2.947, 2.948. No such device

can be marketed, sold, or offered for sale unless and until certification is granted following review of the submitted test data, and other materials. Evidence of compliance is found on the FCC identification label attached to the certificated Class B device, and the consumer can purchase the device with a great deal of confidence that it will in fact meet the Commission's limits on radiated and conducted RF emissions.

4. This process is not always sufficient to prevent interference from Class B digital devices to amateur receivers, but it at least creates a means of allowing the consumer, at the time of purchase of a Class B digital device, to be assured that the device has been tested in accordance with certain standards contained in the Commission's rules; that the test results have been reviewed by the Commission; and that a finding has been made that the device complies with the regulations applicable for unintentional radiators.

5. The Notice offers, as a substitute for the Commission's own review of the test measurements made on the devices, a new requirement that test laboratories used by the device manufacturers be accredited by the National Institute of Standards and Technology (NIST) under its National Voluntary Laboratory Accreditation Program (NVLAP). This would appear a positive step toward assuring standardization and quality control of the testing procedures, and a reasonable means of assurance that the device tested will in fact meet the specifications contained in the laboratory report. Then, the manufacturer will provide to the consumer the proposed

Declaration of Conformity, on which the consumer can rely for assurance that the device meets the Commission's Part 15 RF emission standards. This would appear a sufficient substitute for the Commission's review of submitted test data in certification applications, **provided** that there is sufficient Commission enforcement, and evidence of the same, to prevent abuses of the process. What the new process does, in effect, is to reward the compliant manufacturer by eliminating a burdensome task of equipment authorization, and elimination of delay in getting the new, compliant product to the marketplace. The non-compliant manufacturer, who under the current rules would not submit its device for certification in the first place, is not likely to perform the self-certification tests necessary under the proposed rules any more than it complies with the present rules. The League's fear, however, is that the new rules may make it easier for the non-compliant manufacturer to escape enforcement, or make it more difficult for Commission enforcement staff to establish that the device does not meet technical specifications in Parts 2 and 15.

6. There are at the present time large numbers of uncertified class B computing devices regularly marketed. These devices, because they do not show a Commission-approved label with an FCC ID number, are readily subject to Commission enforcement procedures. The Commission has not, however, been particularly aggressive about such enforcement, or at least not visibly so. The concern of the amateur community is that the new procedures will result in an

increase in the number of devices that either are not tested as a matter of fact, or which do not meet the RF emission requirements for interference prevention, or both. At the same time, there is concern that the new procedures may decrease the Commission's ability to readily establish for enforcement purposes that a particular device does not meet interference prevention regulations. The League's greatest fear is that there will not be any significant enforcement effort made after the effective date of the new rules, nor any effort to evaluate the level of compliance on the part of the manufacturers, and that there will be no disincentive to simply market noncompliant products. There is not a scintilla of evidence that the marketplace is a sufficient arbiter of interference reduction or prevention in this context, and it is apparent that the Commission will have to be vigilant in its efforts to insure that the new procedures, if adopted, do not lead to an increase in noisy Class B digital devices. One suggestion is that the technical staff that the Commission presently employs at the Columbia laboratory to evaluate certification applications[1] for Class B digital devices could be redeployed in compliance monitoring and enforcement work relative to these same devices.

7. The League's concern about enforcement is heightened by the Commission's proposal to permit modular personal computers to be

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[1] At this time, the League would commend the expertise and professionalism of the technical staff at the Columbia laboratory. These individuals exhibit, in the League's experience, high levels of responsiveness and capability.

authorized based on tests and certifications of the individual components, i.e. enclosures, power supplies and mother boards, rather than testing of the embedded devices in the completed assembly, as is currently required. Experience indicates that the level of emitted RF from a computing device can change appreciably with each change in component, enclosure, and placement. The consumer has no assurance, for example, that a particular mother board and power supply will meet radiated RF emission limitations in one enclosure simply because it meets those specifications in another type of enclosure.[2] The Commission may in this context be creating loopholes in its Part 15 regulations large enough to permit devices to be regularly marketed to consumers even though they would create significant interference to radio receivers in the configurations in which they are ultimately sold to those consumers.

8. The interference concerns of the League are substantial, not only for the reasons above stated, but because it is apparent that, after market, there is no practical expectation of interference resolution. Noise from computers at residences adjacent to an amateur licensee, for example, is not subject to abatement by the consumer of the Class B device. Nor do the

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[2] It is understood from Paragraph 18 of the Notice that any interchange of authorized components requires the issuance of an additional Declaration of Compliance, but it does not require the assembler to retest the reconfigured assembly. The new Declaration of Conformity, therefore, can be based only on the use of authorized components, rather than any determination by test of compliance with Part 15 emission limits.

Commission's field offices even respond any longer to interference complaints in home electronic equipment cases. As such, the only time that such issues can be adequately addressed is at the time an unlicensed device is marketed for sale to the public.

9. In summary, if the Commission adopts the proposed rules contained in the Notice, it must at the same time commit, firmly and visibly, to enforcement of the rules governing conducted and radiated emissions from Part 15, Class B digital devices and peripherals. It must deal harshly with any unscrupulous manufacturer which abuses the procedures, fails to properly test its device, misrepresents in the Declaration of Conformity, or markets devices which in fact do not meet the specifications in the test data. With the above caveats, the League does not oppose the proposals contained in the Notice, and in fact supports the proposal to require that test laboratories that perform compliance tests on these devices be accredited.

10. The League has one other important suggestion relative to the contents of the Declaration of Conformity. Class B computing devices may be subject to malfunction as the result of RF fields from nearby transmitters, properly operated, in licensed radio services. The Declaration of Conformity must, according to the Notice, include identification by name, address and telephone number of the manufacturer, importer or other party located within the United States that is responsible for ensuring compliance with the rules. The Declaration of Conformity should also include the name, address and telephone number within the United States of a

representative(s) of the manufacturer, importer or other party who can assist the consumer in the resolution of any RF interference complaint if the device malfunctions as the result of the presence of signals from nearby radio transmitters. The expanding universe of consumers of Class B digital devices, and in fact consumers of all home electronic equipment, deserve no less protection from interference, and will, by the proposed inclusion, be directed to the proper source of interference resolution.

Therefore, the foregoing considered, the American Radio Relay League, Incorporated, respectfully requests that any final Order adopted in this proceeding include the suggestions contained herein.

Respectfully submitted,

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