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

In the Matter of	)	
	)	
Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation	)	ET Docket No. 93-62

To: The Commission

COMMENTS OF THE AMERICAN RADIO RELAY LEAGUE, INCORPORATED

The American Radio Relay
League, Incorporated

Christopher D. Imlay
BOOTH, FRERET & IMLAY
1233 20th Street, N. W.
Suite 204
Washington, D. C. 20036
(202) 296-9100

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SUMMARY

The American Radio Relay League, Incorporated (the League), the national non-profit association of amateur radio operators in the United States, submits its comments in response to the Notice of Proposed Rule Making (the Notice), FCC 93-142, 58 Fed Reg. 19393, 8 FCC Rcd. 2849, released April 8, 1993. The proposal contained in the Notice is to adopt, as a guideline for Commission use in evaluating the environmental effects of radio frequency (RF) energy in processing applications for new facilities utilizing RF energy, a new standard for RF exposure recently adopted by the American national Standards Institute (ANSI) in association with the Institute of Electrical and Electronic Engineers, Inc. (IEEE), known as ANSI/IEEE C95.1-1992.

The Commission's handling of this proceeding is not conducive to a fair determination of which RF exposure standard, if any, should replace the 1982 ANSI standard, on which most of the current communications systems in operation in the United States are based. Furthermore, there is ample basis for concluding that the proposed 1992 ANSI/IEEE standard is arbitrarily delineated, and is not the proper basis for evaluating communications facilities. The Commission should terminate this proceeding without action.

Regardless of which standard is chosen to replace the 1982 ANSI standard, however, the Commission should not attempt to routinely evaluate amateur facilities for environmental impact, for several reasons. First, the conclusions reached in 1987 in the Second Report and Order in Docket 79-144 were correct and still apply: Amateur stations, because of the intermittent operation, low duty cycles, and relatively low power levels used, do not, except in rare instances, exceed even the proposed 1992 ANSI/IEEE standard. The risk of exceeding those levels would be only that of the licensee and his or her family in any case, and it is apparent that it is better to rely in this experimental service on education and testing of licensees, rather than submission of a complex environmental assessment which would not be valid for long in most cases anyway.

Therefore, the League requests that the Commission terminate this proceeding without action, and revisit the matter in a separate proceeding incorporating a more comprehensive analysis of available alternatives.

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The American Radio Relay League, Incorporated (the League), the national non-profit association of amateur radio operators in the United States, by counsel and pursuant to Section 1.415 of the Commission's Rules (47 C.F.R. §1.415), hereby respectfully submits its comments in response to the Notice of Proposed Rule Making (the Notice), FCC 93-142, 58 Fed Reg. 19393, 8 FCC Rcd. 2849, released April 8, 1993. The due date for comments was extended three times by Orders,[1] and these comments are thus timely filed. The proposal contained in the Notice is to adopt, as a guideline for Commission use in evaluating the environmental effects of radio frequency (RF) energy in processing applications for new facilities utilizing RF energy, the new standard for RF exposure recently adopted by the American National Standards Institute (ANSI) in association with the Institute of Electrical and Electronic Engineers, Inc. (IEEE),

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[1] See the Order Extending Time for Comments and Reply Comments, 8 FCC Rcd. 5528 (1993); the Order, DA 93-1350, 58 Fed. Reg. 60827 (November 18, 1993); and the Order Extending Time For Comments and Reply Comments, DA 94-34, released January 10, 1994. The last Order extended the comment date to January 25, 1994.

known as ANSI/IEEE C95.1-1992. In response to the Notice proposal, relative to the effects thereof on the Amateur Radio Service, the League states as follows:

I. Introduction

1. In this proceeding, the Notice proposal is extremely difficult for the communications industry and licensees (and for amateur radio operators specifically) to address, for several reasons. The Notice (A) proposes no rule changes at all, nor anything on which to base a substantive comment; (B) asks for comment, not on the RF exposure guidelines themselves, but on the implementation of them, without substantive analysis anywhere in the Notice; (C) suggests that the Commission has not decided to adopt the 1992 ANSI standard, but offers no other standard as an alternative; (D) proposes a standard for RF exposure that is not readily available to the general public for review; and (E) addresses a subject that is, according to the Commission, beyond the Commission's expertise to adjudicate substantively anyway.

2. It is respectfully suggested under these circumstances, that the Commission should rethink this proceeding, and either withdraw the Notice and recast the proceeding as a Notice of Inquiry, or refer the entire matter to an agency of competent jurisdiction. The Notice is titled a Notice of Proposed Rule Making, but it <u>should</u> be, and in fact is in the nature of, a Notice of Inquiry. Alternatively, the Commission should seriously consider terminating this proceeding without action, and referring

the matter to either the Environmental Protection Agency or the Council on Environmental Quality. EPA's past inaction in adoption of substantive RF exposure standards should not deter the Commission from deferring on this issue to the agency with expertise, and primary jurisdiction in the area.[2] It is apparent that the adoption of the 1992 ANSI/IEEE standard will result in significantly greater restrictions on communications facilities than does the existing ANSI C95.1-1982 standard.[3] If this is to be the result of adoption of the 1992 standard, the Commission cannot arbitrarily adopt such a standard.[4]

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[2] It would appear from Associated Press reports recently that EPA is working on a cancer risk assessment of exposure to electromagnetic fields generally, which is to be completed in 1994. That agency's Office of Research and Development has been quoted, as late as February of 1993, as stating that "too little is known to gauge risks from exposure to EMF sources." Thus, it may be that the instant proceeding is premature.

[3] "American National Standard Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 300 Khz to 100 GHz." copyright 1982, by the Institute of Electrical and Electronic Engineers, Inc., New York, NY 10017.

[4] Ample evidence of the arbitrary nature of the instant proposal is the combination of: (1) the premise at paragraph 8 of the Notice in this proceeding, that the Commission is not the expert agency for evaluating the effects of RF radiation on human health and safety; and (2) the comments of the Environmental Protection Agency (which presumably <u>is</u> the appropriate agency for evaluating the effects of RF radiation on human health and safety) that EPA "recommends against adopting the 1992 ANSI/IEEE standard because it has serious flaws that call into question whether its proposed use is sufficiently protective of public health and safety". (EPA Comments, filed November 16, 1993). The Commission, not in a position to question the determination of the EPA on the substance of the ANSI/IEEE 1992 standard, should therefore consider the comments of EPA determinative and withdraw the Notice proposal.

3. The public, and especially licensees in the Amateur Radio Service, should not be expected to comment on the implementation of an RF exposure standard which is not, and has not been, readily available to them. A meaningful response to the Notice, which asks the communications licensees to relate their operations to the new standard, requires those licensees to purchase a copy of the proposed standard, at a cost of $113.00 (the League's cost in obtaining the basic documents from IEEE). For individuals, including amateur radio licensees, this cost is clearly prohibitive and effectively excludes members of the public from participating in a proceeding that could have a significant impact on them, and on the public service communications provided by them. The summary of "major sections" of the 1992 ANSI standard contained as Appendix A in the Notice, which is not included in the Federal Register publication of a summary of the Notice,[5] is not a reasonable substitute. It would appear that the Notice is not, under the circumstances, sufficient under the Administrative Procedure Act, and should not be adopted without a more complete exposition of the substance of the standard and its effect on individual licensees. Substantive rules which potentially adversely affect private interests must be published in order to be effective. 5 U.S.C. §552(a)(1)(D); Northern California Power Agency v. Morton, 396 F. Supp. 1187 (D.D.C. 1975); aff'd, 539 F. 2d 243, 176 U.S. App. D.C. 241 (1975).

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[5] 58 Fed Reg. 19393, published April 14, 1993.

4. The closest the Notice comes to a technical analysis of the 1992 ANSI standard, or the provision of any reason for abandoning the 1982 standard on which it has based its environmental processing for many years (and which formed the basis for the configuration and construction of a vast number of broadcast and other radio stations in the United States) is at paragraph 9 of the Notice. There, the Commission states, without citation, that "(t)hese new guidelines are more up to date with respect to scientifically-based criteria for use in evaluating human exposure to RF radiation. They will ensure that FCC-regulated facilities comply with the latest safety standards for RF exposure." That assumption, however, begs the question. They are the latest ANSI standards, but it is not clear whether they are merely **necessarily** restrictive, **overly** so, or indeed whether they propose appropriate protection levels for certain station configurations.[6] It is

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[6] Referring again to the comments of the Environmental Protection Agency filed in this proceeding, it is very much of concern to radio amateurs that the ANSI/IEEE 1992 standard appears to be arbitrary in its premises. At page 1 of the EPA comments, it is noted as follows:

> The rationale provided in ANSI/IEEE to explain fundamental characteristics of the 1992 ANSI/IEEE guidelines, in many cases, lacks explanation, consistency, and well-founded justifications. In addition, there is concern that the complexity of the 1992 ANSI/IEEE standard may make it difficult to comply with or effectively enforce.
>
> No explanation is given for the decision to employ safety factors of 10 and 50; there is no discussion that supports the introduction of the standard for the "uncontrolled" environment. In fact, the stated conclusion that 'the recommended exposure levels should be safe for all' (at the controlled environment working basis of 0.4 W/kg) and the support given for this

suggested, given the significant impact of the adoption of the standard on FCC-regulated entities, that the new standard be deferred until an agency with appropriate technical expertise has determined that it is an appropriate one on a substantive basis.[7] Indeed, EPA suggests that the Commission consider a different standard, that of the National Council on Radiation Protection and Measurements (NCRP) in its report on "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields" (NCRP 1986) as may be updated by a comprehensive report. Whether or not that standard is suitable is not presently known by the League, but the EPA recommendation is indicative that the ANSI/IEEE standard is properly proposed for implementation by the Commission.

> conclusion in the standard's rationale constitute an argument for a single-tier, not a two-tier standard. The addition of the second level of protection for exposure in an uncontrolled environment with the application of an additional safety factor is done without any justification.

It is obvious from the foregoing that the 1992 ANSI/IEEE standard fails in numerous respects to accurately define appropriate levels of RF exposure and it is not therefore useful for routine environmental processing of applications before the Commission.

[7] This is especially desirable in the case of the 1992 ANSI/IEEE standard, in view of the absence of unanimity at the time the standard was adopted. Challenges to the standard were filed, at least by the Consulting Engineering Firm of Hammett and Edison, but those challenges were essentially summarily dismissed by ANSI.

II. RF Standards And The Amateur Service

5. As discussed in the Notice,[8] the Council on Environmental Quality, which has oversight responsibilities with regard to NEPA, permits Federal agencies to categorically exclude certain actions from routine environmental processing, when the potential for individual or cumulative environmental impact is judged to be negligible. 40 C.F.R. §1507, 1508.4; Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, 43 Fed. Reg. 55978 (1978). Based on this, the Commission has categorically excluded a number of types of radio facilities from routine environmental processing. Second Report and Order, Docket 79-144, 2 FCC Rcd. 2064 (1987); modified by erratum, 2 FCC Rcd. 2526 (1987). Though categorically excluded, individual facilities are subject to environmental processing, based on the current standard for evaluating significant environmental impact, where circumstances of a particular installation so warrant. 47 C.F.R. §1.1307(c) and (d). The finding with respect to station types that were categorically excluded was that the facilities were generally found to have no significant potential for adverse environmental impact from routine activities.

6. Among these categorically excluded facilities in the present Commission environmental processing rules are amateur radio stations. In the Second Report and Order, supra, the Commission held, with respect to amateur stations, as follows:

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[8] See the Notice, at Footnote 11.

> Regarding amateur radio facilities, no specific evidence has been submitted that these facilities present a significant risk to the public that would warrant routine environmental evaluation. While hypothetically, RF radiation limits could be exceeded in a few instances, such situations apparently seldom occur in actual operation. Furthermore, because amateur stations are not individually licensed by frequency, modulation, power output, or location, it would not be administratively feasible to evaluate amateur applications for this environmental factor. Consequently, we find that amateur radio operators, at the time of licensing, should not be required to routinely submit environmental information concerning exposure to RF radiation. Nevertheless, as an added precaution, we agree with [the League] that operator education would help to assure compliance with ANSI guidelines. In that connection, RF radiation safety questions are being incorporated into amateur examination study guides.

2 FCC Rcd at 2066.

7. Long before that categorical exemption was determined, the League was interested in RF exposure levels, and has taken an aggressive approach toward education of licensees in the Amateur Radio Service, suggesting and providing specific guidelines for the minimization of exposure of licensees and family members to sources of RF energy. Amateur stations use relatively low power levels, and their operation is intermittent. As the result of these characteristics, exposure to RF energy, in excess of the 1982 ANSI standard levels, in residential areas or otherwise, is unlikely. This is true despite the fact that amateur radio stations have vastly different configurations. The League regularly publishes in its "ARRL Handbook" and "The ARRL Antenna Handbook," both widely read by radio amateurs, sections on "RF Safety." Both publications have extensive discussions of the EMR issue, including the possible

hazards of low-frequency fields as well as RF fields.[9] Each includes an extensive reading list of articles in reputable medical and scientific publications. The League also publishes the Satellite Experimenter's Handbook, which carries a detailed section concerning RF power safety, recommended procedures for RF protection, and formulas for calculating RF power densities given various station configurations. A list of procedures for RF protection is also provided. Most recently, the League published, in the Proceedings of the 38th Annual West Coast VHF-UHF Conference, May, 1993, an article by Dr. Wayne Overbeck, Ph.D., J.D., an article entitled "VHFing and Your Health: The Question of EMR Hazards." This paper summarized recent research and its effect on routine amateur operations.[10] An article was published on the

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[9] The newly issued 1994 ARRL Handbook has a revised section on RF exposure that analyzes the new ANSI/IEEE standard as it existed in draft form in 1991. This review, which includes an exhaustive bibliography on RF exposure, contains tables and listings of typical RF field strengths, as measured by the Commission and EPA in 1990. It also includes RF awareness guidelines, with specific instructions for avoiding exposure to RF, including safety precautions for hand-held transceivers.

[10] The premise of this article was that the scientific community has more questions than answers about the relationship between EMR and health, and that studies do not bear out the relationships between high RF fields and elevated mortality rates from certain cancers, for example. However, enough is known about the issue to justify the practice of "prudent avoidance", a term coined by researchers at Carnegie-Mellon University several years ago. Avoidance of EMR exposure by amateurs, especially in the VHF-UHF frequency ranges, is the target of the League's educational efforts.

subject in 1989 in QST, the League's Journal.[11] The RF exposure safety information published by the League is offered in reprint form free to amateurs and non-amateurs alike, upon inquiry, without regard to membership. The same information is available on the Internet, where it is accessible to much of the general public, radio amateurs, academics, and those in Federal Agencies with Internet access.

8. The League also sponsors, and acts on the recommendations of a committee of nationally respected authorities on RF exposure. This committee keeps track of scientific determinations on RF exposure, and its findings are disseminated to radio amateurs through League publications periodically. As the League counts among its members the majority of active licensees in the Amateur Radio Service, it is believed that the educational efforts conducted by the League have been, and will continue to be sufficient to apprise radio amateurs of the need to minimize RF exposure and to consider the issue when configuring new amateur stations.

III. The Proposed 1992 ANSI Standard Is Arbitrary On Its Face

9. If, notwithstanding the above, the Commission determines that it should adopt a particular standard for RF exposure in lieu of the 1982 ANSI standard, it should not be the ANSI/IEEE 1992 standard. That standard is arbitrary on its face, as it creates

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[11] See, I.A. Schulman, "Is Amateur Radio Hazardous To Our Health?" QST, Oct. 1989, pp 31-33, 37.

distinctions without any rational basis whatsoever. For example, there are included in the 1992 standard first-time provisions for limits on induced and contact currents. These limits extend to 100 Mhz exactly. It is difficult to determine the basis for any extension of induced and contact current limits above 30 Mhz, but to extend the limit arbitrarily to 100 Mhz (the middle of the FM broadcast band), creates distinctions without differences among like licensees in the FM Broadcast Service. The same distinction is made between amateur operations in the 50 and the 144 Mhz amateur allocations, though station configurations could be exactly identical.

10. As discussed above, the ANSI/IEEE 1992 standard suffers from a number of similar defects. Amateur radio stations would, under the proposed standard, be categorized as operating in "uncontrolled" environments. These are environments which include residential areas.[12] Amateur stations are, almost always, operated from the residence of the licensee, or his or her automobile. In the ANSI/IEEE 1992 standard, the biological basis for maximum permissible exposure level varies with frequency. In the 100 Khz to 6 Ghz range, where most amateur operation occurs, the maximum

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[12] See the Notice, at paragraph 12: "Uncontrolled Environments" are defined as those locations in which there is the exposure of individuals who have no knowledge or control of their exposure. The exposures may occur in living quarters or workplaces where there are no expectations that the exposure levels may exceed the exposure and induced current levels permitted for the general public.

permissible exposure levels are based on whole-body SAR.[13] Specifically, the working threshold for unfavorable biological effects in human beings in that frequency range is defined as 4 W/kg. With that as a basis, safety factors of 10 were used in the 1992 standard, in order to derive the maximum permissible exposures for controlled environments, and 50 for uncontrolled environments. **There is, however, in the ANSI/IEEE 1992 standard, no stated justification for the standard for the "uncontrolled" environment, or for the decision to utilize a safety factor of 50.** In fact, there is a claim that the safety factor of 10 for the "controlled environment" "should be safe for all." If that is the case with respect to the controlled environment safety factor, then the recommendation of a safety factor of 50 for uncontrolled environments is completely and utterly specious. Nor is there an adequate delineation of controlled versus uncontrolled environments to permit any reasonable categorization for application processing purposes, assuming again that the Commission is not expert in determining environmental safety issues. Overall, it would be impossible for the Commission to implement this standard in its present form with any degree of confidence that the proper standard had been adopted. It would be completely unfair to applicants for new communications facilities as well.

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[13] Specific Absorption Rate (expressed in watts per kilogram of body mass, W/kg).

IV. The Categorical Exemption From Routine Environmental Processing Should Be Preserved For Amateur Radio Stations Under Any Circumstances

11. Regardless of whether the Commission adopts a revised standard for environmental processing of applications relative to RF exposure, and regardless of which standard is ultimately adopted, there is no justification for subjecting each of the more than 630,000 licensees of the Commission in the Amateur Service to submission of an environmental assessment with each application for a new or modified station license. The Commission's determination in the Second Report and Order in Docket 79-144, which was adopted as recently as 1987, remains good policy: There is ample justification for categorical exemption of amateur facilities from routine environmental processing. Amateur radio operators are now routinely educated in prudent avoidance of excessive exposure to RF, and the extremely limited duty cycles of amateur stations, coupled with the relatively low power levels used, justify a finding that most amateur stations operate at below the exposure limits of even the conservative ANSI/IEEE permitted maxima. Traditionally, amateur radio operators have been categorically exempt from the environmental review required of many other Commission licensees. Amateurs have not been required to determine the electromagnetic field intensities associated with their operations, either by calculations or measurements. Nor have amateurs been required to certify to the Commission that their activities pose no health hazard to the operators themselves, or to their families and neighbors.

12. Clearly, this policy has been appropriate in most respects. The Commission's own field measurements of electromagnetic fields near amateur radio stations, conducted in 1990, revealed that few amateur activities produced fields in excess of the ANSI C95.1-1992 guideline. The very nature of most amateur radio activities precludes exposure to fields exceeding the ANSI guideline. Most amateurs use low or moderate power levels and operate their equipment only intermittently, on an avocational basis[14]. And most amateurs who do utilize transmitter power approaching the maximum set by the Commission's rules also utilize directional antennas mounted 40 to 100 feet above ground level on a tower. The Commission's measurements have indicated that such installations produce only minimal energy levels in inhabited areas.

13. At the same time, thousands of amateurs engage in public service communications, setting up temporary stations near scenes of natural disasters such as hurricanes, floods, fires, storms and earthquakes, and group events such as marathons, parades, and the like. These emergency and public service amateur activities would be severely inhibited if a formal environmental review were required before a mobile, portable or other temporary station could be activated. Most amateurs simply do not possess the requisite equipment, technical skills and/or financial resources to conduct

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[14] Section 97.313 of the Amateur Service Rules (47 C.F.R. §97.313) requires that stations must use the minimum transmitter power necessary to carry out the desired communications. In most cases, especially at VHF and UHF, this power is on the order of only a few watts.

the environmental analysis which would be necessary absent continuation of the categorical exemption[15].

14. There are infrequently encountered amateur radio activities which can, for short periods, produce significant field intensities. Hand-held transceivers, for example, which are widely used by radio amateurs, especially in emergencies, may produce significant, highly localized fields. Unless he or she uses a remote microphone, it is conceivable that the licensee may occasionally be exposed to RF levels at or even slightly above the ANSI/IEEE maxima. Also, some amateurs have no choice but to employ indoor antennas in the face of typically restrictive land use covenants that preclude the use of appropriately high, outdoor antennas.[16] No one other than the licensee, however, is likely to

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[15] The formulas for calculating amateur power densities are approximations, at best. In the near field of an antenna, the calculations are more complex than the simple formulas would indicate. The relationship between the antenna type and the electric and magnetic fields further complicates the calculation. In addition, the interaction of the field with earth ground and nearby conducting objects that can absorb and re-radiate the signal, causing peaks and nulls that would not be easy to calculate at all. These factors make it quite difficult to calculate and even measure actual RF fields.

[16] The Commission, if it adopts the Notice proposal, will be obligated to facilitate the installation of amateur antennas in configurations which will permit compliance with the RF exposure guidelines by issuing a more comprehensive preemption statement with respect to amateur antennas than now exists, and must completely preempt the judicial enforcement of restrictive covenants which cause amateur antennas to be installed indoors or at locations on a horizontal plane with human occupants of residences. Indeed, such an order is overdue anyway; but the combination of adoption of a strict RF exposure standard and continuation of a hands-off attitude with respect to antenna covenants is tantamount to a license revocation, as it would preclude the operation of any amateur station subject to both restrictions.

be subjected to levels in excess of even the 1992 ANSI/IEEE maxima under any circumstances.

15. The Amateur Service is, in essence, an experimental radio service, where transmitting equipment, antennas, and even transmission lines are subject to infinite variability, as are the locations of the facilities. Much amateur transmitting equipment, especially antennas, is constructed and designed by the licensee. To subject amateur licensees to routine environmental processing simply makes no sense where the station configuration may change in a moment. The variation in modes of emission, equipment types, power output of transmitters, Effective Radiated Power, and antenna gain and transmission line necessitate a broader view of the environmental regulatory obligation of the Commission with respect to these facilities than is the case with more standardized types of fixed and mobile communications facilities. The amateur examinations offer an appropriate opportunity for education and the testing of licensees. That procedure, and the inclusion of educational and cautionary information in amateur publications such as those published by the League, are a far more practical means of insuring that the station does not exceed RF exposure guidelines than is the preparation of an Environmental Assessment for each amateur station configuration.

16. The League most strongly recommends that, no matter what standard is chosen to replace the 1982 ANSI standard, if any, the Commission should not require routine environmental processing for

amateur stations. Given sufficient information about the potential hazards of operating a hand-held transceiver with the antenna next to one's head, or operation with high power and an indoor antenna, for example, most amateurs adopt the philosophy of prudent avoidance as developed by Professor M. Granger Morgan at Carnegie Mellon University. As conceived by Dr. Morgan, prudent avoidance obligates the user of electromagnetic devices to avoid unnecessary exposure in the home and the workplace as a common-sense response to potential--but not yet proven--health hazards. Already, as discussed above, the RF safety sections of major ARRL publications urge radio amateurs to practice prudent avoidance wherever possible.[17]

V. Conclusions

17. In sum, the Commission's handling of this proceeding is not conducive to a fair determination of which RF exposure standard, if any, should replace the 1982 ANSI standard, on which most of the current communications systems in operation in the United States are based. Furthermore, there is ample basis for concluding that the proposed 1992 ANSI/IEEE standard is arbitrarily

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[17] Another alternative to routine environmental processing for amateurs is for the Commission to prepare, for amateurs, a document similar to OET Bulletin 56, "Questions and Answers About Biological Effects and Potential Hazards of Radiofrequency Radiation" (January, 1989) and require certification by the licensee on FCC Form 610 that the bulletin has been read and understood by the licensee prior to grant of new or modified amateur facilities. The bulletin would inevitably be reprinted and disseminated by the League and others, and could be used as the basis for a number of examination questions for amateur examinations.

delineated, and is not the proper basis for evaluating communications facilities. The Commission should terminate this proceeding without action. Regardless of which standard is chosen to replace the 1982 ANSI standard, however, the Commission should not attempt to routinely evaluate amateur facilities for environmental impact, for several reasons. First, the conclusions reached in 1987 in the Second Report and Order in Docket 79-144 were correct and still apply: Amateur stations, because of the intermittent operation, low duty cycles, and relatively low power levels used, do not, except in rare instances, exceed even the proposed 1992 ANSI/IEEE standard. The risk of exceeding those levels would be only that of the licensee and his or her family in any case, and it is apparent that it is better to rely in this experimental service on education and testing of licensees, rather than submission of a complex environmental assessment which would not be valid for long in most cases anyway.

Therefore, the foregoing considered, the American Radio Relay League, Incorporated respectfully requests that the Commission terminate this proceeding without action, and revisit

the matter in a separate proceeding incorporating a more comprehensive analysis of available alternatives.

Respectfully submitted,

The American Radio Relay League, Incorporated

By _____
Christopher D. Imlay
Its Counsel

225 Main Street
Newington, CT 06111

BOOTH, FRERET & IMLAY
1233 20th Street, N. W.
Suite 204
Washington, D. C. 20036
(202) 296-9100

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