



Federal Communications Commission  
Washington, D.C. 20554

OCT 9 1998

Deborah Carney  
President  
Canyon Area Residents for the Environment  
25958 Genesee Trail Road  
Unit K 203  
Golden, CO 80401-5742

99-267

Dear Ms. Carney:

This letter is in response to the petition filed by the Canyon Area Residents for the Environment (CARE) with the Federal Communications Commission (FCC) on March 26, 1998. This letter also responds to your letters to Robert Cleveland, of this office, dated April 30, 1998, and May 18, 1998, respectively, and your recent letters to the Commission, dated August 25, 1998, and September 10, 1998, respectively.

In its original petition, CARE asks that the FCC do the following: (1) deny renewals to licensees with antennas located at the Lookout Mountain, Colorado, antenna site; (2) not approve any new antennas for the Lookout Mountain site; and (3) adopt a new limit for human exposure to radiofrequency (RF) fields of 0.01 microwatts per centimeter squared ( $0.01 \mu\text{W}/\text{cm}^2$ ) for transmitters located in residential areas. In addition, in your letter of May 18, you ask that the FCC require all broadcasters to perform "an environmental impact study pursuant to the National Environmental Policy Act (NEPA)."

CARE's original requests are apparently based on concerns that the FCC's guidelines for human exposure to RF emissions, adopted in 1996, are not sufficiently protective of human health, and CARE is concerned that the antennas on Lookout Mountain may cause adverse health effects to nearby residents. Finally, CARE alleges that the FCC's rules are being violated because measurement studies indicate that locations are present on Lookout Mountain that exceed the health and safety guidelines adopted by the FCC.

With regard to point (1), CARE's original petition does not contain factual evidence that any of the transmitting stations are violating FCC rules or, otherwise, have undertaken actions which would jeopardize compliance with FCC rules. Under Section 309(d) of the Communications Act, 47 U.S.C. Sec 309(d), a petition to deny a license, or renewal thereof, must raise specific allegations of fact sufficient to show that grant of the application would be prima facie inconsistent with the public interest, convenience, and necessity. As explained below, CARE's original petition presented no valid allegations of non-compliance with our guidelines for RF emissions, and it has not met the threshold required to show that a grant of an application would be inconsistent with Sec. 309(d).

CARE's original claims that certain areas on Lookout Mountain are not in compliance with FCC guidelines is not correctly based on the exhibits submitted with your petition. However, in the letters filed by CARE more recently, and discussed below, CARE presents new evidence that has led the Commission to initiate actions to ensure that the Lookout Mountain site, in fact, is and will be in compliance with our environmental guidelines.

Regarding point (2), CARE has not shown that a blanket policy of not approving additional transmitting antennas at the site is warranted. Any new major antenna or antennas to be constructed at Lookout Mountain will be required to demonstrate compliance with FCC guidelines for human exposure. The same policy applies to renewals of broadcast licenses to transmit from Lookout Mountain. This means that exposure evaluation, and compliance with exposure limits, at any publicly accessible area must be based on the total emissions from all relevant transmitting antennas on Lookout Mountain. As long as exposure is at or below these limits, the FCC has no basis for action, based on health concerns, to prohibit such antennas from operating. However, as discussed below, we will carefully consider the results of a forthcoming comprehensive site study, in addition to the applicants' initial showings, to ensure compliance.

As you know, in 1996, the Commission adopted new guidelines for evaluating human exposure to RF electromagnetic fields and reaffirmed this decision in 1997.<sup>1</sup> In adopting its new guidelines, the Commission based its decision on recommendations made by agencies of the Federal Government with jurisdiction over matters of safety and health, specifically the U.S. Environmental Protection Agency (EPA), the U.S. Food and Drug Administration (FDA), the National Institute for Occupational Safety and Health (NIOSH) and the Occupational Safety and Health Administration (OSHA). All of these agencies have expressed support for the FCC's decision.

CARE claims that the FCC guidelines are not protective enough and that they are "20,000 times too lenient to protect humans from adverse health effects in our community." However, in the Commission's *Report and Order* and *Second Memorandum Opinion and Order* in ET Docket 93-62, the FCC addressed this issue after analysis and review of numerous comments filed in this proceeding. For example, in paragraph 31 of the *Second Memorandum Opinion and Order*, FCC 97-303, issued on August 25, 1997, the Commission states:

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<sup>1</sup> See *Report and Order*, ET Docket 93-62, FCC 96-326, adopted August 1, 1996, 61 Federal Register 41,006 (1996), 11 FCC Record 15,123 (1997). The FCC initiated this rule-making proceeding in 1993 in response to the 1992 revision by the American National Standards Institute (ANSI) of its earlier guidelines for human exposure. The Commission responded to seventeen petitions for reconsideration filed in this docket in two separate Orders: *First Memorandum Opinion and Order*, FCC 96-487, adopted December 23, 1996, 62 Federal Register 3232 (1997), 11 FCC Record 17,512 (1997); and *Second Memorandum Opinion and Order and Notice of Proposed Rulemaking*, FCC 97-303, adopted August 25, 1997. Petitions for review of these actions are pending (*Cellular Phone Task Force v. FCC*, 2d Cir. No. 97-4328, filed November 10, 1997).

**"As for claims that our guidelines are not protective enough, we reiterate that these guidelines are based on recommendations of expert organizations and federal agencies with responsibilities for health and safety. It would be impracticable for us to independently evaluate the significance of studies purporting to show biological effects, determine if such effects constitute a safety hazard, and then adopt stricter standards than those advocated by federal health and safety agencies."**

Furthermore, during the comment period for ET Docket 93-62 ample opportunity was provided for comments to be filed addressing the issue of which limits are most appropriate for protecting human health and responding to comments previously filed in the docket. CARE's argument that the Commission should establish new limits that are thousands of times stricter than those adopted is untimely and, based on the discussion above, is without merit. Therefore, the Commission has no justification to act on such a proposal.

With regard to CARE's request that broadcasters perform environmental impact studies under NEPA, such studies are already required under provisions of the FCC's Rules (47 C.F.R. 1.1301 *et seq.*). Broadcasters must evaluate their RF environment and certify compliance with FCC exposure guidelines at the time of application for a construction permit or renewal of a license. If such an application shows possible non-compliance with FCC exposure limits, specific NEPA requirements are addressed by the Commission's rules. In such instances, the preparation of an Environmental Assessment (EA) and possibly an Environmental Impact Statement (EIS) would be required. CARE's original petition did not demonstrate that the guidelines have been exceeded, which would warrant further environmental evaluation of Lookout Mountain licensees. However, the more recent evidence submitted by CARE will be evaluated for evidence of possible non-compliance, and, to ensure that the site is in compliance now and in the future, a comprehensive RF study will be performed by applicants for new broadcast facilities, as explained below.

CARE originally claimed that a measurement study done on Lookout Mountain by Richard Tell indicated the presence of publicly accessible areas that were not in compliance with FCC exposure guidelines. However, in fact, as explained to you by Dr. Cleveland in a telephone conversation several weeks ago, this is not an accurate interpretation of "spatial peak" or "hot spot" readings made by Tell as part of his study. Tell points out in his report that his compliance measurements are based on spatial-averaging techniques which, in turn are based on FCC guidance on determining compliance. The FCC has explained (e.g., in OET Bulletin 65) that spatial averaging is the appropriate method to use in determining compliance in publicly accessible areas (not spatial peak fields or "hot spots"). Furthermore, there is no indication in the 1996 Tell report prepared for the Jefferson County Department of Health and Environment, that any areas of Lookout Mountain do not comply with the FCC's guidelines. For example, on page 13 of the 1996 report Tell states:

**"Based on this survey, it is apparent that publicly accessible areas on Lookout Mountain comply with the recommendations of the National Council on Radiation Protection and Measurements, and, hence, the latest ruling of the FCC for RF fields for general population/uncontrolled exposure."**

In your April 30 letter you reference an earlier 1995 study done by Mr. Tell at the Lookout Mountain Conference and Nature Center, in which you claim that he reports finding measurements at a nearby location that exceeded limits for continuous exposure of the public. However, in fact, as noted on page 6 of Tell's 1995 study report, he indicates that the high RF level found at the location in question was actually a "hot spot." This means that spatial averaging of RF fields at this location would be called for, and, as shown in Tell's 1996 study, would have indicated compliance with FCC guidelines.

The statement in your May 18 letter that FCC guidelines "are not designed for 24 hour a day, 7-day a week exposure" is incorrect. Your letter appears to misinterpret the concept of time averaging. The 30-minute period for averaging public exposure allows continuous exposure at the indicated levels of field strength or power density. In general, time-averaging only really becomes relevant when brief excursions over the limits might occur during a given time interval. In such cases, cumulative exposure over *any* 30-minute period that includes the excursion is appropriate, and the resulting average must not exceed the indicated exposure limit. For continuous exposure, as shown by the Tell study, the limits are not exceeded.

Since the filing of your original petition and subsequent letters, CARE submitted letters dated August 25, 1998, and September 10, 1998, claiming that more recent *spatially-averaged* measurements made by Mr. Al Hislop and Dr. Larson have shown that there are locations on Lookout Mountain where FCC limits for public exposure are exceeded. Dr. Cleveland spoke with Mr. Hislop on September 17 to obtain details of these measurements. According to Mr. Hislop, spatially-averaged measurements in at least three accessible locations were 103-250% of FCC limits for public exposure.

Because of our desire that human exposure at the Lookout Mountain site continue to be in compliance with FCC limits, we have notified applicants for new broadcast facilities on Lookout Mountain that they must provide us with a comprehensive study of the existing and predicted RF environment before applications for new broadcast facilities can be approved. Present and future RF exposure on Lookout Mountain must meet our limits, and we have initiated this action to ensure that this will be the case. This study must include the effects of any new proposed transmitting antennas, such as digital television (DTV) antennas, as well as any auxiliary, or "stand-by," antennas that may be activated now or in the future. We will, of course, share the results of this study with all concerned, including your organization.

The FCC's rules do not prohibit the building of new antennas as long as they comply with FCC guidelines for RF exposure and other FCC rules. Furthermore, applicants are not required to perform a formal Environmental Assessment unless there is definitive evidence that facilities are not in compliance with these or other environmental guidelines. If such

evidence is produced as a result of the requested comprehensive study, corrective actions would have to be taken. The readings originally referenced in the CARE petition allegedly indicating non-compliance were, in fact, based on spatial peak readings or "hot spots." and should not be relevant in determining compliance. Evaluation by the Tell studies for compliance with the FCC's limits based on spatial averaging indicated compliance on Lookout Mountain. Nevertheless, the submission of new information on spatially-averaged readings taken by members of CARE indicates that a closer look at this matter is warranted. The comprehensive study being required should address this and other exposure issues.

In conclusion, for the reasons discussed above, we believe that CARE has provided no evidence to justify the FCC initiating action to revise its exposure guidelines. Therefore, this request made in the petition filed by CARE on March 26, 1998, is denied under 47 C.F.R. 0.241 (e) of the FCC's rules, and this request will not be considered under the procedures set forth in those sections of the FCC's Rules and Regulations. As for a blanket prohibition of new antennas and renewals, as was also requested by CARE, such actions would only be undertaken if evidence shows non-compliance with FCC exposure guidelines and no corrective actions were to be taken. Such a scenario is highly unlikely, since there are several engineering options available to facilitate compliance, and applicants have a direct interest in ensuring compliance of transmitting facilities. Therefore, no outright prohibition of new antennas is being instituted, as was requested by CARE. The Commission's response to CARE's petition is a staff action taken pursuant to authority delegated by 47 C.F.R. 0.241 (a) and (e), and any application for Commission review of this action must be filed within 30 days pursuant to 47 U.S.C. 155(c) and 47 C.F.R. 1.115.

Sincerely,



Dale N. Hatfield  
Chief  
Office of Engineering and Technology