

Nantucket Public Radio, Inc.
Nantucket, MA
Channel 201

Environmental Effect

The grant of the construction permit requested in the Application will not have a significant environmental effect.

The antenna proposed in the Applicant will be mounted on an existing tower and does not involve a site location specified in 47 CFR Section 1.1307(a)(1)-(7).

No high intensity lighting as specified in 47 CFR Section 1.1307(a)(9) is proposed.

Finally, the proposed facility will not result in human exposure to radiofrequency (RF) radiation in excess of safety standards specified in Section 1.1307(b). Effective October 15, 1997, the FCC adopted revised guidelines and procedures for evaluating the environmental effects of RF emissions. These revised guidelines incorporate two tiers of exposure limits based on whether exposure occurs in a "controlled" (occupational) situation of an "uncontrolled" (general population) situation. Based on the methods published in OET Bulletin No. 65 (entitled "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields"), the predicted power density value produced by the proposed facility will be well below the established ANSI guideline limits.

Verification of compliance with FCC-specified guidelines for human exposure to RF radiation was determined utilizing the equations and graphs set forth in OET Bulletin No. 65. The bulletin prescribes that the fraction of the recommended limit incurred within each frequency interval should be determined and that the sum of all fractional contributions should not exceed 100%.

The proposed facility will operate with a radiation centerline at 40.0 meters above ground level (AGL) and an ERP of 350 watts with circular polarization. The Applicant intends to use a two-bay EPA Type 4 antenna. The antenna will employ full wave spacing.

Utilizing FMMODEL it was determined that the highest value of power density occurs at 9.4 meters from the base of the tower and is 9.68.4 $\mu\text{W}/\text{cm}^2$ or less than five percent of the 200 $\mu\text{W}/\text{cm}^2$ MPE limit for uncontrolled/general exposures. Consequentially, consideration of other FM antennas in the area is not required.

The highest value of power density occurs is also less than the MPE for occupational/controlled areas.

Since the proposed power density is less than 100 percent of the ANSI guideline, the proposed facility complies with FCC requirements regarding radiofrequency radiation. In addition, the base of the tower will be fenced and warning signs will be posted at appropriate intervals to preclude casual access.

Furthermore, the Applicant will ensure protection to station personnel working in the vicinity of their antenna. Access to the antenna supporting tower base will be restricted to authorized personnel only. The applicant for the proposed station will reduce power or cease operation, when appropriate and deemed necessary, during times of service or maintenance of the transmitting system or when work is being performed on the tower to avoid potentially harmful exposure to station personnel or workers. The applicant will initiate joint procedures with common users to be followed during times of service or maintenance of the transmission systems when necessary to avoid potentially harmful exposure to personnel.