

**FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, DC 20554**

May 24, 1995

IN REPLY REFER TO:
1800B3-BJB

Brandeis University
415 South Street
Waltham, MA

In re: WBRS(FM), Waltham, MA
 Brandeis University ("Brandeis")
 Special Temporary Authority
 BMLED-941020KD

Dear Licensee:

The staff has under consideration: (1) a request for special temporary authority (STA) dated October 10, 1994 and (2) an application for modification of license filed on October 20, 1994.

Background

The request for STA became necessary when WBRS' existing licensed (BLED-861022KA) five section antenna was substantially damaged in a thunderstorm. In order to allow WBRS to continue operating at its licensed effective radiated power (ERP), 0.025 kilowatts, with the two remaining undamaged antenna sections, Brandeis requested STA for WBRS to operate with a transmitter power output (TPO) of 0.027 kilowatts. As a Class D educational (secondary) station operating pursuant to 47 C.F.R. § 73.506(a)(2), WBRS must operate with a TPO of ten watts or less. Accordingly, on October 20, 1994, Brandeis submitted an application for modification of license, File No. BMLED-941020KD, that included a request for waiver of § 73.506(a)(2) to allow WBRS to operate with the 0.027 kilowatt TPO permanently.¹

Request for Waiver

In support of its request for waiver, Brandeis' consulting engineer explains that WBRS has been operating as a Class D FM station since 1967. Although originally licensed to operate on Channel 219D, the station, as required by the Commission, sought and was granted a license to operate in the commercial band on Channel 261D. Subsequently, the station was fined by the Commission's Quincy, MA Field Office for causing spurious emissions on the aviation band.

¹ Due to the loss of three sections of its antenna, the center of radiation of WBRS' antenna is now 1.5 meters higher than that specified in BLED-861022KA. Since this change is less than two meters, Brandeis is permitted to seek authorization via an application for modification of license. See 47 C.F.R. § 73.1690(c)(1).

Although the spurious emission problem was soon corrected, this outdated transmitter continued to be a cause of concern for Brandeis and that transmitter was replaced just prior to the thunderstorm that severely damaged WBRs' transmitting antenna.

In conclusion, the engineer sums up the practical and financial reasons for waiving the so-called "ten watt rule":

WBRs is student funded and operated. As such, their budget is very tight. In order to get the money necessary to repair the damaged antenna back to five bays, WBRs would have to sell their new transmitter, and put the old, unstable unit back into service. If the Commission grants WBRs a waiver of [§ 73.506(a)(2)], WBRs will be able to continue operating with the new, modern, stable transmitter. Since the WBRs effective radiated power has not changed, no new interference will be caused. Indeed WBRs only wishes to do what every other Class of FM station and translator may now do as a matter of routine.

Discussion

In addition to the above 10 watt restriction, pursuant to 47 C.F.R. § 73.511, noncommercial educational FM stations are classified based on the specifications of 47 C.F.R. § 73.211. As set forth in MM Docket 86-144, the Commission's Rules allow "any Class A station to have an ERP less than 100 watts, provided that the reference distance equals or exceeds 6 kilometers."² See Memorandum Opinion & Order, 3 FCC Rcd 2477 (1988). Accordingly, any station with a reference distance of less than the minimum Class A reference distance, 6 kilometers (in practice, 5.6 kilometers due to rounding), is considered to be the next lowest class, i.e., Class D. WBRs' facilities of 25 watts ERP at 46 meters antenna height above average terrain (HAAT), yield a 1 mV/m contour that extends 4.9 kilometers. Thus, based on its 1mV/m contour, WBRs is a Class D station.

The ten watt rule for Class D stations pre-dates the minimum class contour requirements of § 73.211(a). Prior to the minimum Class A standard, the sole basis for classifying a station as "Class D" was having a TPO of 10 watts or less. Subsequent to the adoption of the Second Report & Order in Docket 20735 in September 1978, the Commission began to require that all Class D construction permit applications specify ERP and HAAT parameters. See Public Notice dated March 26, 1979 (45 RR 2d 438). The use of ERP/HAAT data to determine the actual interfering and coverage contours has lessened the importance of the 10 watt TPO restriction. Furthermore, the use of ERP/HAAT data serves the same policy objective of restricting the interference caused to other stations as does the 10 watt restriction. Therefore grant of a waiver of § 73.506(a)(2) would not undermine the policy that the rule was designed to further. See WAIT Radio v FCC, 418 F2d 1153 (D.C. Cir. 1969).

² In this case, "reference distance" refers to the distance from the transmitter site to the 1mV/m contour.

Conclusion

Allowing WBRS to operate with a TPO of 0.027 kilowatts will not result in any increase in interference caused by WBRS to existing "full service" FM stations.³ Accordingly, 47 C.F.R. § 73.506(a)(2) IS HEREBY WAIVED to allow WBRS to operate as a Class D educational (secondary) station with 0.027 kilowatts transmitter power output.⁴ Furthermore, modification of license application BMLED-941020KD IS HEREBY GRANTED. Finally, the October 10, 1994 request for special temporary authority IS HEREBY DISMISSED AS MOOT. These actions are taken pursuant to 47 C.F.R. § 0.283. the authorization will follow under separate cover.

Sincerely,



Dennis Williams
Chief, FM Branch
Audio Services Division
Mass Media Bureau

cc: Mr. Dana J. Puopolo

³ In construction permit BPED-840408IA (now license BLED-861022KA) WBRS was granted waiver of 47 C.F.R. § 73.509 with respect to third-adjacent channel stations WSSH(FM), Lowell, ME and WZLX(FM), Boston, MA. There is no commercial or noncommercial educational channel where WBRS could operate without causing overlap to an existing primary service FM station.

⁴ The following rule sections contain exemptions for stations operating with less than 10 watts transmitter power output: 47 C.F.R. § 73.508 Standards of good engineering practice; § 73.510 Antenna Systems; § 73.558 Indicating Instruments; § 73.1550(2) Extension meters; § 73.1560(b) Operating power and mode tolerances; and § 73.1590(a) Equipment performance measurements. Because the waiver granted herein does not create an increased potential for interference beyond that which would result from the same ERP accomplished by a higher gain antenna (in association with a 10 watt TPO), the exemptions listed above will continue to apply to WBRS.