

Attachment #30
New Auxiliary Antenna
WZID (FM)
Channel 239B – 95.7 MHz
4.1 kW ERP – 280 m HAAT
Manchester, New Hampshire
June 2006

RADIOFREQUENCY RADIATION STUDY AND STATEMENT

This radiofrequency radiation study is being conducted to determine whether this proposal for an auxiliary antenna for WZID is in compliance with OET Bulletin Number 65, dated August 1997, regarding human exposure to radiofrequency radiation in the vicinity of broadcast towers. This study considers all nearby contributing stations and utilizes the appropriate formulas contained in the OET Bulletin. This radiofrequency radiation calculation ignores the co-located WZID licensed main facility. This application is for an auxiliary antenna, therefore the auxiliary and main facilities will not operate simultaneously.

The 1-bay Harris FML-1E antenna system (manufactured by ERI) will be mounted with its center of radiation 26 meters above the ground at the proposed tower location and operate with an effective radiated power of 4.1 kilowatts in both the horizontal and vertical plane (circularly polarized). At two meters, the height of an average person, above the ground at the base of the tower, this proposal will contribute, best case, 12.16 microwatts/sq. centimeter or 6.08% of the allowable ANSI limit.

The following FM radio stations are either co-located or nearby:

<u>Call Sign</u>	<u>Power (kW)</u>	<u>Distance (km)</u>	<u>Height (m AGL)</u>	<u>Contribution (%)</u>
WMLL	0.73	0.0	30	27.1
WLMW	0.015	0.11	18	0.04
WGIR	11.5	0.25	67	5.74

The following TV stations are nearby:

<u>Call Sign</u>	<u>Channel</u>	<u>Power (kW)</u>	<u>Distance (km)</u>	<u>Height (m AGL)</u>	<u>Contribution (%)</u>
WMUR-TV	9	282	0.11	57	1.53
WMUR-DTV	59	537	0.05	51	3.55
WNEU-TV	60	5000	0.05	42	39.23
WNEU-DTV	34	80	0.05	27	1.05

There are no co-located or nearby AM radio stations.

Adding the radiofrequency radiation contribution of this proposal of 6.08% to the contribution of 78.24% all co-located or nearby FM and TV stations produces a total of 84.32% or below the maximum contribution of 100%. Therefore, it is thought that this instant application is in compliance with OET Bulletin Number 65. All calculations were made in the uncontrolled mode.

Further, the applicant will post warning signs in the vicinity of the tower warning of potential radiofrequency radiation hazards at the site and erect a fence to restrict casual trespassers and to make the tower base a controlled area. Because there are co-located stations, maintenance periods will be coordinated so the public will suffer a minimum loss of service due to maintenance.

In addition, the applicant will reduce the power of the proposed facility or cease operation, as necessary, to protect persons having access to the site, tower or antenna from radiofrequency radiation in excess of FCC guidelines.