

# **R. M. SMITH ASSOCIATES**

BROADCAST TECHNICAL CONSULTANTS  
P.O. BOX 345 – JENSEN BEACH, FL 34958  
Tel: (772)-335-0688 Fax: (772)-672-3448  
E-MAIL bob@rmsmith.com

## **W295BL – MINOR MODIFICATION OF LICENSE EXHIBIT 17**

The application of which this Exhibit is a part requests a minor modification of the license (F.C.C. File No. BLFT-20120718ABX) for FM translator W259BL in Concord, NH. This application requests a change in the directional antenna system by rotating the currently authorized Kathrein-Scala CA5-FM/CP/RM antenna from an azimuth of 0 degrees True to an azimuth of 270 degrees True. No other changes are proposed. The antenna will remain at 7 meters above the roof of the building on which it is mounted.

The attached Table 1 shows the RF field density that will be generated, by the proposed operation, at two meters above the roof in the azimuth of the main beam of the antenna. As seen in the table, the maximum field density to be generated is  $87.3 \text{ uW/cm}^2$  at a distance of 8 meters from the base of the mounting pole. This level is less than 44% of the maximum allowable field for general public exposure.

The licensed antenna for W250AB is located at a distance of 9 meters from the proposed antenna at a height of 6.8 meters above the roof. The operating parameters for W250AB were entered into the F.C.C. FMMODEL computer modeling program and the highest field density from the W250AB antenna was found to be  $61 \text{ uW/cm}^2$  at a distance of 8.8 meters from the base of the antenna. This level is less than 31% of the maximum allowable field for general public exposure.

Even if the W295BL and W250AB maxima were coincident in location, which they are not, the combined field would be less than 75% of the maximum permissible for general public exposure.

The roof is not normally occupied and the access door is locked to prevent unauthorized access.

W295BL  
MINOR MODIFICATION OF LICENSE  
EXHIBIT 17 - TABLE 1

Antenna Make	Scala	
Antenna Model	CA5-FM/CP/RM	
ERP (W)	500	250 Horiz + 250 Vert
Antenna C/R AGL (m)	7	
Height over Head (m)	5	

<u>Horizontal Distance from Antenna (m)</u>	<u>Downward Angle (o)</u>	<u>Distance from C/R (m)</u>	<u>Field</u>	<u>Power Density uW/cm2</u>
0	90.0	5.0	0.157	16.5
1	78.7	5.1	0.140	12.6
2	68.2	5.4	0.137	10.8
3	59.0	5.8	0.201	19.8
4	51.3	6.4	0.313	39.9
5	45.0	7.1	0.423	59.8
6	39.8	7.8	0.528	76.3
7	35.5	8.6	0.618	86.2
8	32.0	9.4	0.682	87.3
9	29.1	10.3	0.732	84.4
10	26.6	11.2	0.772	79.6
11	24.4	12.1	0.799	73.0
12	22.6	13.0	0.832	68.4
13	21.0	13.9	0.852	62.5
14	19.7	14.9	0.863	56.3
15	18.4	15.8	0.881	51.8
16	17.4	16.8	0.891	47.2
17	16.4	17.7	0.901	43.2
18	15.5	18.7	0.910	39.6
19	14.7	19.6	0.918	36.5
20	14.0	20.6	0.922	33.4
25	11.3	25.5	0.942	22.8