

Statement A
Comprehensive Engineering Statement
prepared for
6 Johnson Road Licenses, Inc.
WZRT(FM) Rutland, Vermont
Facility ID 25741
Ch. 246C2 6.3 kW 407 m

6 Johnson Road Licenses, Inc. ("6JRL") is the licensee of WZRT(FM), Channel 246C2, Rutland, Vermont, (FCC Facility ID 25741, FCC File Number BLH-19850823LN). The instant application proposes to move WZRT(FM) to a new transmitter site using a non-directional antenna. Specifically, *6JRL* proposes to use antenna support structure ASRN 1210439 with coordinates of 43° 39' 31.5"N, 73° 06' 23.6"W (NAD 83). An ERP of 6.3 kW and a Height Above Average Terrain ("HAAT") of 407 meters is being specified herein. The station will be combined into a common antenna with WRVT(FM) and co-owned WJJR(FM), both licensed to Rutland, Vermont.

HAAT and ERP Calculation

The HAAT was calculated for the proposed site according to the procedure in §73.313(d) of the Rules. With the proposed antenna at 663 meters AMSL, the resulting HAAT calculation is 407 meters.

WZRT(FM) is an equivalent 50 kW Class C2 facility. Using the FCC's FM Power tool, it was determined that an ERP of 6.3 kW is the maximum operating power for a Class C2 facility at 407 meters HAAT.

Allocation Considerations

Figure 1 shows the coverage contours of the proposed facility. As shown is the 70 dBμ contour, entirely encompasses the Community of License, Rutland, Vermont. This site is fully spaced to all Domestic and Canadian Full Power FM stations. The proposed facility fully complies with all FCC Allocations Rules as well as the US-Canadian Working Arrangement¹.

The nearest FCC monitoring station is 334.1 km distant at Belfast, Maine. This distance exceeds the threshold minimum distance specified in Section 73.1030(c)(3) that would suggest consideration of the monitoring station. With respect to AM stations, according to information extracted from the Commission's Media Bureau database, there are no facilities within 5.0 km of the proposed site.

¹ *Working Arrangement for the Allotment and Assignment of FM Broadcasting Channels under the Agreement between the Government of Canada and the Government of the United States of America relating to the FM Broadcasting Service, as amended, July 1997.*

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Environmental Considerations

The proposed facility will utilize a common, circularly polarized FM antenna system at 61 meters AGL on registered tower with ASR number 1210439, to be combined with WRVT(FM) and co-owned WJJR(FM). Specifically a Kathrein 2x3 754154 FM panel array antenna is proposed for use by these three stations. The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of §1.1306 of the FCC Rules. Because no change in structure height is proposed, no change in current structure marking and lighting requirements is anticipated. Therefore, it is believed that this application may be categorically excluded from environmental processing pursuant to §1.1306 of the Commission's rules.

Human Exposure to Radiofrequency Radiation

The proposed operation was evaluated for human exposure to radiofrequency energy using the procedures outlined in the Commission's OET Bulletin No. 65 ("OET 65"). OET 65 describes a means of determining whether a proposed facility meets the radiofrequency exposure guidelines adopted in §1.1310. Under present Commission policy, a facility may be presumed to comply with the limits specified in §1.1310 if it satisfies the exposure criteria set forth in OET 65. Based upon that methodology, and as demonstrated in the following, the proposed transmitting system will comply with the cited adopted guidelines.

The general population/uncontrolled maximum permitted exposure ("MPE") limit specified in §1.1310 for the entire FM and VHF television broadcast band is $200 \mu\text{W}/\text{cm}^2$. For the purpose of this study, "public access" will be considered at the base of the tower at a location two meters above ground.

In addition to the proposed combined operation, there are two other FM stations, one FM Construction Permit, and one Licensed VHF television station located on this tower. The actual manufacturer supplied vertical antenna patterns were used in these calculations. The maximum field from the downward angle and below is used as the worst case. As shown in the table below, the total exposure is calculated to be 62.8% of the FCC Maximum Permissible Exposure.

Status	Callsign	Freq (MHz)	Channel	H ERP (kW)	V ERP (kW)	R/C AGL (m)	Antenna	Maximum Field	Downward Angle	Maximum $\mu\text{W}/\text{cm}^2$	Maximum % MPE
Lic	W256CW	99.1	256	0.18	0.18	19.5	Shively 6812 1-bay	0.774	40	23.5	11.8
Lic	WEXP(FM)	101.5	268	0.35	0.35	53	Shively 6810 SS-2, 2 bay half wave	0.414	40	1.5	0.8
CP	WVER-FM	107.5	298	0.45	0.45	19	Shively 6812 1-bay	0.774	40	62.3	31.2
Prop	WRVT(FM)	88.7	204	4.8	4.8	61	New KAT 2x3, 2-bay full wave	0.360	28	11.9	6.0
Prop	WZRT	97.1	246	6.3	6.3	61	New KAT 2x3, 2-bay full wave	0.360	28	15.2	7.6
Prop	WJJR	98.1	251	3.3	3.3	61	New KAT 2x3, 2-bay full wave	0.360	28	8.2	4.1
Lic	WVER(TV) Site 1	195	10	15	3.75	80.9	Dielectric THV-6A10/VP-R C160 SM	16.1	20	2.61	1.3
Total										125.21	62.8

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Safety of Tower Workers and the General Public

With respect to worker safety, a site exposure policy will continue to be employed protecting maintenance workers from excessive exposure when work must be performed on or near the antenna structure in areas where high RF levels may be present. Such protective measures may include, but will not be limited to, placement of RF exposure warning signs on the antenna support structure, restriction of access to areas where levels in excess of the guidelines may be expected, power reduction, or the complete shutdown of facilities when work or inspections must be performed in areas where the exposure guidelines would otherwise be exceeded. On-site RF exposure measurements may also be undertaken to establish the bounds of safe working areas. The applicant will coordinate exposure procedures with other users of this site.

Conclusion

It is therefore believed that the proposed facility satisfies all of the pertinent Commission Rules and Policies now in effect.

