
RF Appendix 1

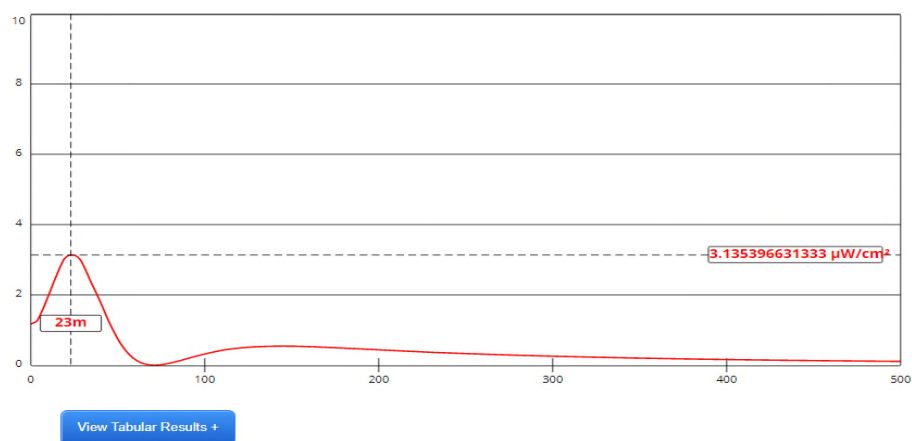
Compliance with Radiofrequency Radiation Guidelines

The proposed facility complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments as set forth under §1.1307(b)(3) of the Commission's rules and the RF radiation protection guidelines as set forth in OET Bulletin No. 65 (Edition 97-01), and the accompanying Supplement A, (Edition 97-01). The site could house multiple transmitters, therefore the potential for human exposure to non-ionizing radiofrequency radiation has been evaluated with regard to the §1.1307(b)(3) "five percent (5%) contribution rule" utilizing the Commission's own FM Model web-based software application. The use and implementation of this FCC sanctioned software is a matter of record before the Commission.

With regard to the "five percent (5%) contribution rule", §1.1307(b)(3), five percent (5%) of the maximum permissible $200 \mu\text{W}/\text{cm}^2$ uncontrolled limit yields a threshold value of $10 \mu\text{W}/\text{cm}^2$. Five percent (5%) of the maximum permissible $1000 \mu\text{W}/\text{cm}^2$ controlled limit yields a threshold value of $50 \mu\text{W}/\text{cm}^2$. Therefore, single contributions of $\leq 10 \mu\text{W}/\text{cm}^2$ remain within the tolerances as allowed by §1.1307(b)(3) and its governing OET Bulletin No. 65 (Edition 97-01) for the more restrictive of either two protections.

The proposed CH211A.P - Washington, IN analog NCE-FM Station (Facility ID: 762135) will operate on CH211A (90.1 MHz) with 0.42 kW ERP circular polarization (H&V). The proposed operation will broadcast from an antenna COR mounted 43.0 meters above ground level (AGL). The facility will employ a two (2) bay, "Opposed V Dipole" antenna, with elements spaced 1.0 wavelength (λ) apart. The antenna will employ EPA Type 2 elements as defined by the Commission's own FM Model - Appendix B (issued March 31, 2016). This facility will not operate with HD/IBOC facilities at this time.

The results of the evaluation for the FM station have been shown at the end of this RF compliance discussion. To ensure complete protection, the maximum FM contribution has been assumed without regard to any restricted access fencing distance. In addition, the facility is, or will be, properly marked with signs. Entry is, or will be, restricted by means of fencing with locked doors or gates. Furthermore, coordination with other users of the site will be secured to reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic fields in excess of FCC guidelines.



Channel Selection	Channel 211 (90.1 MHz) ▾		
Antenna Type +	EPA Type 2: Opposed V Dipole ▾		
Height (m)	<input type="text" value="43"/>	Distance (m)	<input type="text" value="500"/>
ERP-H (W)	<input type="text" value="420"/>	ERP-V (W)	<input type="text" value="420"/>
Num of Elements	<input type="text" value="2"/>	Element Spacing (λ)	<input type="text" value="1"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	