

# ***RF Appendix 1***

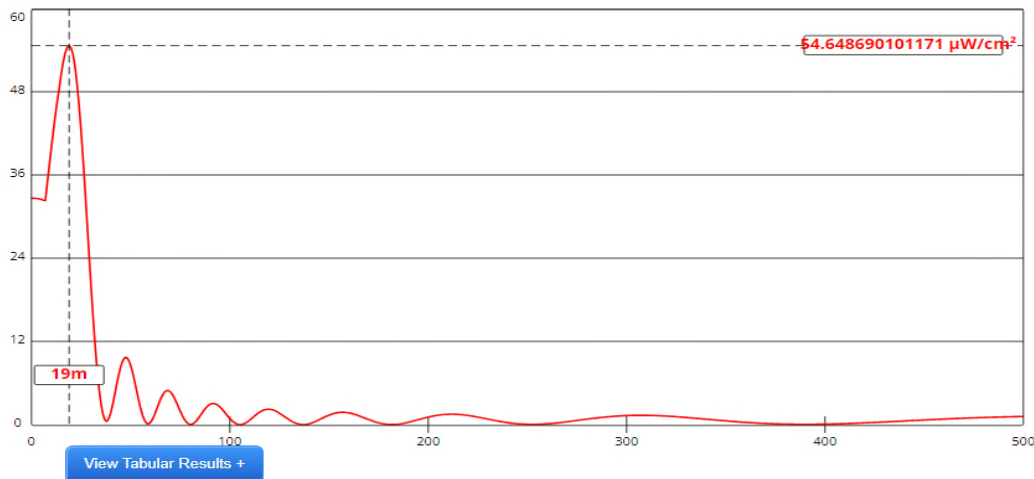
## ***Compliance with Radiofrequency Radiation Guidelines***

The proposed facility complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments as set forth under §1.1310 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 is intended to house this single transmitter, therefore the potential for human exposure to non-ionizing radiofrequency radiation has been evaluated with regard to §1.1310 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.

The maximum permissible uncontrolled limit  $200 \mu\text{W}/\text{cm}^2$ . The maximum permissible controlled limit is  $1000 \mu\text{W}/\text{cm}^2$ . Therefore, single contributions of  $\leq 200 \mu\text{W}/\text{cm}^2$  remain within the tolerances as allowed by §1.1310 and its governing OET Bulletin No. 65 (Edition 97-01) for the more restrictive of these two protections.

The proposed KLOX(FM).P – Creston, IA analog NCE-FM Station (Facility ID: 91587) will operate on CH215C1 (90.9 MHz) with 100.0 kW ERP circular polarization (H&V). The proposed operation will broadcast from an antenna COR mounted 81.5 meters above ground level (AGL). In this instance, compliance may be shown utilizing no less than a ten (10) bay antenna employing EPA Type 3 "Opposed U Dipole" elements as defined by the Commission's own FM Model - Appendix B (issued March 31, 2016). The elements will be spaced 1.0 ( $\lambda$ ) wavelength apart. The 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 215 (90.9 MHz) ▾		
Antenna Type +	EPA Type 3: Opposed U Dipole ▾		
Height (m)	81.5	Distance (m)	500
ERP-H (W)	100000	ERP-V (W)	100000
Num of Elements	10	$\lambda$	1
Num of Points	500	Apply	