

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 guidelines for RF radiation protection 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.

Pursuant to §1.1310 and its governing OET Bulletin No. 65 (Edition 97-01), the maximum permissible limit for uncontrolled environments is 200 $\mu\text{W}/\text{cm}^2$. Pursuant to §1.1310 and its governing OET Bulletin No. 65 (Edition 97-01), the maximum permissible limit for controlled environments is 1000 $\mu\text{W}/\text{cm}^2$.

The proposed W280GB.P - Escanaba, MI analog FM Translator (Facility ID: 144567) will operate on CH280D (103.9 MHz) with 0.250 kW ERP circular polarization (H&V). The proposed operation will broadcast from an antenna COR mounted 11.9 meters above ground level (AGL); 8.2 meters above the nearest publicly accessible top floor; or 4.6 meters above the restricted access roof grade. The facility will employ a one (1) bay, Nicom Model BKG77-1L "Opposed V Dipole" antenna. The element will be spaced 1.0 wavelength (λ) apart. The antenna employs an EPA Type 2 element 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.

