WNGA RF ANALYSIS

The RF contribution of the proposed WNGA 7 kW circularly polarized FM facility has been evaluated along with all of the other collocated facilities. A summary of their individual contributions is provided below. The Commission's FMMODEL program was utilized to evaluate all of the FM facilities and the formula below for the two television facilities.

$$\textbf{S (RF in microwatts/cm2)} = \frac{\textbf{33.4 (F2 – Vert Factor) X (H ERP + V ERP in watts)}}{\textbf{R2 (distance to radiation center in meters - 2)}}$$

Facility	ERP (kW)	AGL(m)	Antenna	RF *u*Watts/cm^2	Genera public %
WNGA	**7 .00**	**28**	**ERI LPX-2E**	**99.4**	**49.7**
W234BF	**0.25**	**19**	**SHI 6810-1**	**12.3**	**6.2**
WTFH	**0.015**	**13**	**SHI-6812B**	**13.0**	**0.9**
WHTD-LD	**15.00**	**36**	**Scala PR(1)**	**36**	**1.03**
W49DM-D	**15.00**	**25**	**ERI(2)**	**38**	**8.5**

Total % of general exposure limit **66.33%**

(1) Using maximum 0.1 F factor from single bay Scala PR4 antenna brochure and relevant depression angles and a maximum general RF exposure limit of f/1500 = (632 mHz/1500).

(2) RF exposure limit and percentage from W49DM-D FCC application.

Therefore, the proposed WNGA facility combined with all of the other collocated facilities does not exceed the Commission limits for RF exposure to the general public.