

ENGINEERING STATEMENT IN SUPPORT OF  
REQUEST FOR SPECIAL TEMPORARY AUTHORITY  
(Page 1 of 3)  
Western New York Public Broadcasting Association  
Jamestown, NY

This engineering statement is prepared on behalf of the Western New York Public Broadcasting Association, licensee of WNJA(FM) - Jamestown, New York. It supports a request for WNJA to operate at reduced power to continue service following the dismantling of the tower which supports WNJA's licensed antenna.

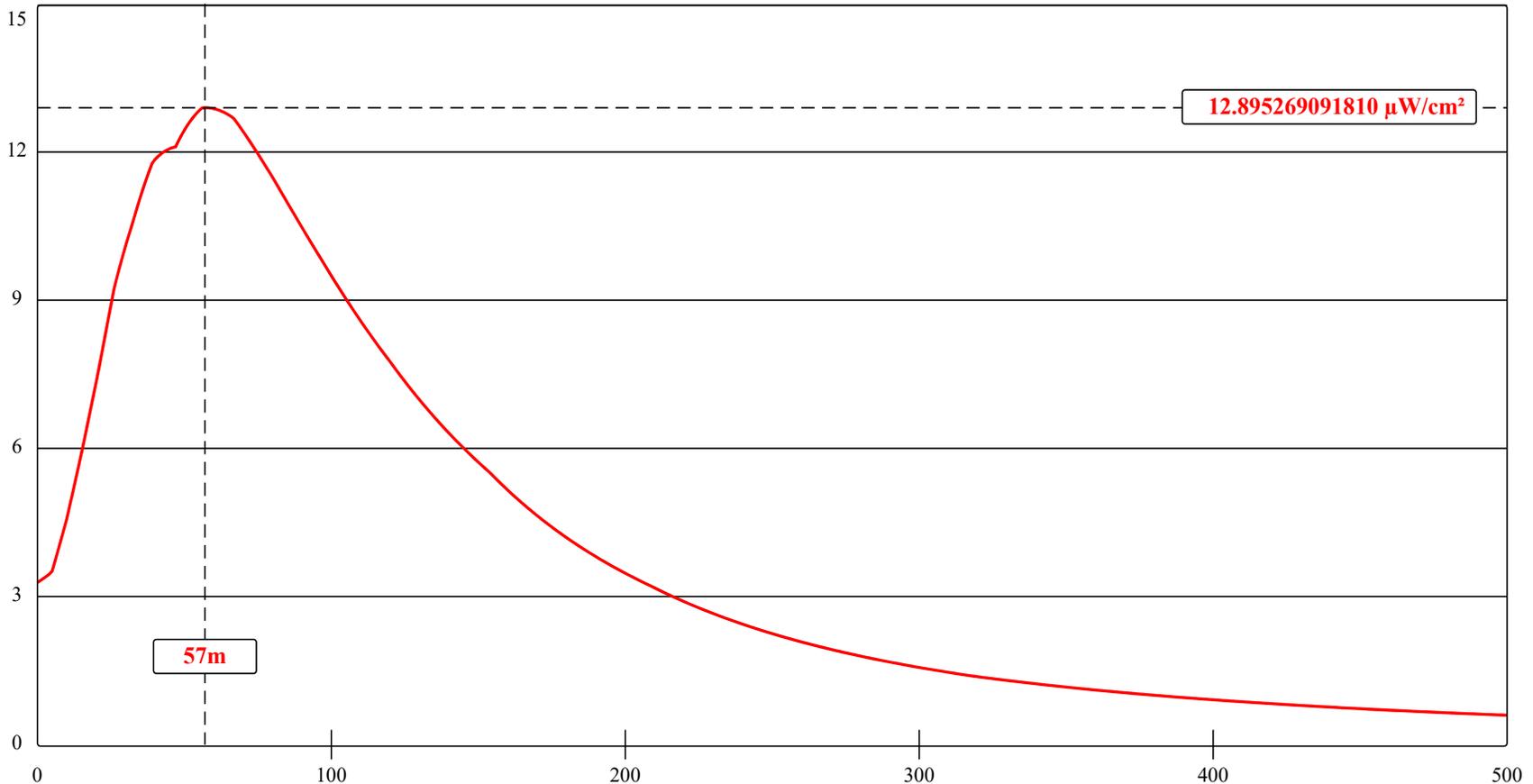
WNJA is presently licensed to operate nondirectionally with an effective radiated power of 6 kilowatts at 230 meters above average terrain. The tower which supports WNJA's licensed antenna (ASRN 1059713), which is owned by Chautauqua County, will be dismantled in the next few weeks. In order to continue service while finalizing plans for longer term modified operating facilities, WNJA proposes to operate using a temporary single bay antenna from an existing tower (ASRN 1291453) owned by the Chautauqua County Sheriff's Department located 19 meters (60 feet) east of the tower which supports the presently licensed WNJA antenna. The proposed facilities will utilize a single bay nondirectional antenna located 58 meters above ground (211 meters above average terrain), which will operate with an effective radiated power of 2.2 kilowatts. Based on the close proximity to the licensed site and the reduced antenna height and effective radiated power, it's obvious that the predicted 60 dBu contour for these proposed facilities will be totally contained within the predicted 60 dBu contour for WNJA's presently licensed facilities.

The proposed STA facilities will fully comply with the current FCC Standard with regard to human exposure to nonionizing radiation. The proposed "EPA Type 2" single bay "Double V" circularly polarized non-directional antenna will be mounted at the 58 meter level on an existing 73.2 meter tower. The power density levels at two meters

ENGINEERING STATEMENT IN SUPPORT OF  
REQUEST FOR SPECIAL TEMPORARY AUTHORITY  
(Page 2 of 3)  
Western New York Public Broadcasting Association  
Jamestown, NY

above ground level for the proposed facilities were calculated using the FCC's "FM Model" computer program. The results of these calculations are shown in the attached figure. This figure shows that the worst case predicted power density at two meters above ground level for these facilities will be  $12.9 \mu\text{W}/\text{cm}^2$ , which will occur at a horizontal distance of 57 meters from the base of this tower. Since the permitted power density in the FM band is  $200 \mu\text{W}/\text{cm}^2$ , this amounts to only 6.5% of the permitted level for uncontrolled exposure. Since all the other RF sources operating from this tower are microwave and two way land mobile facilities which are predicted to generate less than 5% of the uncontrolled exposure limit at ground level, there are no other RF sources which need to be considered in this analysis. As a result, these STA facilities are fully in compliance with the uncontrolled exposure standard.

The applicant will also take appropriate steps to insure that workers that must be on this tower will not be exposed to levels of nonionizing radiation that are in excess of the permitted level for controlled exposure. These steps will include the cessation of operation or a reduction in power, as appropriate, when work becomes necessary in areas on this tower where the power density levels are in excess of the permitted level for controlled exposure.



[View Tabular Results +](#)

Channel Selection	Channel 209 (89.7 MHz) ▾		
<a href="#">Antenna Type +</a>	EPA Type 2: Opposed V Dipole ▾		
Height (m)	<input type="text" value="58"/>	Distance (m)	<input type="text" value="500"/>
ERP-H (W)	<input type="text" value="2200"/>	ERP-V (W)	<input type="text" value="2200"/>
Num of Elements	<input type="text" value="1"/>	$\lambda$	<input type="text" value="1"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	

**FM MODEL RESULTS  
(PROPOSED WNJA STA FACILITIES)**