

## **WTRW Comprehensive Engineering Exhibit**

By this minor change application a construction permit for the change of community of license and channel, from channel 246A, Two Rivers, Wisconsin, to channel 248A, Glenmore, Wisconsin, is requested for WTRW. This application is contingent with an application being filed concurrently for the minor modification of WHDG(FM) Rhinelander, Wisconsin, to change from channel 248C1 to channel 247C1.

The proposed antenna location is 53 meters above ground, upon a tower identified by antenna structure registration number 1035536. Attached is a spacing study from this proposed location showing that, with the WHDG contingent channel change, the proposed WTRW facility will be fully spaced to all authorizations and allocations, and to all full power applications. It is noted that a long pending application for a new LP100 station on channel 249 is indicated as being short spaced. As this is not an authorized or operating low power facility, there is no displacement involved.

The proposed facilities were evaluated in terms of potential radio frequency radiation exposure at ground level in accordance with OET Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radio frequency Radiation."

The proposed antenna system is an EPA type 3, 4- bay, half wave spaced, "Roto- tiller " antenna, mounted with its center of radiation 53 meters above ground level, and will operate with an effective radiated power of 6.0 kilowatts in both the horizontal and vertical planes. At 2 meters above ground, at 198 meters from the base of the tower, this proposal will contribute worst case, 3.86 microwatts per square centimeter, or 0.39 percent of the allowable ANSI limit for controlled exposure, and 1.95 percent of the allowable limit for uncontrolled exposure. This figure is less than 5% of the applicable FCC exposure limit at all locations extending out from the base of the tower. Section 1.1307(b)(3) excludes applications when the calculated level is predicted to be less than 5% of the applicable exposure limit. It is therefore believed that this proposal is in compliance with OET Bulletin Number 65 as required by the Federal Communications Commission.

Further, the applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The site itself is restricted from public access. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.

## Spacing Study

### Antenna Location:

ComStudy 2.2 search of channel 248 (97.5 MHz Class A) at 44-24-35.0 N, 88-00-06.0 W.

Callsign	State	City	Freq	Chanl	ERP_w	Class	Status	Dist_km	Sep	Clr
WHDG	WI	RHINELANDER	97.5	248	100000	C1	LIC	142.98	200	-57 <sup>1</sup>
WHDG	WI	RHINELANDER	97.3	247	100000	C1	PRP	142.96	133	10.0 <sup>2</sup>
NEW	WI	GREEN BAY	97.7	249	100	LP100	APP	10.35	56	-45.7
NEW	WI	GREEN BAY	97.7	249	100	LP100	APP	10.35	56	-45.7
WFDL-FM	WI	LOMIRA	97.7	249	17500	C3	LIC	91.04	89	2
WSRG	WI	STURGEON BAY	97.7	249	1850	A	LIC	74.34	72	2.3
WTRW	WI	TWO RIVERS	97.1	246	6000	A	LIC	43.94	31	12.9
WLKN	WI	CLEVELAND	98.1	251	5800	A	LIC	50.93	31	19.9
WWWX	WI	OSHKOSH	96.9	245	6000	A	LIC	54.65	31	23.7
NEW	WI	KAUKAUNA	97.3	247	120	D	APP	27.39	0	27.4
NEW	WI	OCONTO	97.7	249	250	D	APP	29.78	0	29.8
NEW	WI	KAUKAUNA	97.7	249	250	D	APP	29.78	0	29.8

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<sup>1</sup> Currently licensed facility; does not reflect channel change in contingent filed application.

<sup>2</sup> Reflects channel change in contingent filed application.