

**Technical Statement**  
**Application for Construction Permit**  
**W252DO 98.3 mHz. Facility ID 60893 Herkimer, NY**  
**August, 2023**

The purpose of this application is to make changes in W252DO at Herkimer, NY.

1. Change Transmitter Location
2. Change Community of License.

**Discussion:**

The proposed facility will be continue to be classified as a fill-in translator for AM station WNRS at Herkimer, NY. The proposal is fully spaced to all other facilities with the exception of nearby 2<sup>nd</sup> adjacent WLZW on channel 254 (98.7 mHz), and 2<sup>nd</sup> adjacent WSKS on channel 250 (97.9 mHz).

The proposed facility will operate at 250 watts with a directional antenna. The proposed translator facility is contained within the 25 mile radius centered at the WNRS(AM) transmitter site. A contour map is included that demonstrates compliance.

**Waiver Request #1 – WLZW**

WLZW operates on 2<sup>nd</sup> adjacent channel 254 (98.7 mHz) as a Class B station with 25 kilowatts of power. Both transmitters are located on the same hilltop a few hundred feet apart. For interference to occur to WLZW, the proposed 250 watt translator would have to have a signal 40 db stronger than WLZW. This is not possible.

**Waiver Request #2 - WSKS**

The proposed FM Translator to operate on channel 252 is located within the protected 60dBu contour of second adjacent channel station WSKS, channel 250A, Whitesboro, NY. According to 74.1204(a)(3), in order to protect second and third adjacent facilities, the difference in dBu between the two facilities must not exceed 40dBu.

The proposed ERP for W252DO.P:	250 watts
The proposed COR for W252DO.P:	76 meters
WSKS F(50/50) contour at proposed site:	66.0dBu
The F(50/10) contour of proposed W252DO.P:	106.0dBu

The predicted distance to the 106.0dbu interfering contour is 556 meters. Exhibit A1 below demonstrates the distances to the interfering contour by taking into account the vertical elevation pattern of the Nicom BKG77 3 bay .85 wave spaced antenna. It has been determined that the interfering contour of 106.0dbu does not extend to any regularly occupied structures.

As seen in exhibit A2, the red marker demonstrates the distance of 228 meters in the direction of the nearest occupied structure. As seen in exhibit A1, the interference falls short of the ground at all distances greater than 150 meters from the antenna. An examination of all other nearby buildings within this 150 meter distance has determined that they are unoccupied transmitter buildings which sit at the base of several towers on this hill. Therefore, no population will be affected as a result of this proposed modification.

Digital Radio Broadcasting respectfully requests a waiver of C.F.R. 74.1204 based on no population within the area of predicted interference.

EXHIBIT A1  
74.1204(d) Showing  
W252DO  
Utica, NY

**ERP (kw): 0.25**  
**Height of Antenna above Ground (m): 76**  
**Translator's IX Contour: 106**  
**Antenna Type: Nicom BKG77-3/.85**

<u>Depression Angle from Horizon</u>	<u>Antenna Relative Field</u>	<u>ERP (kw) from the Antenna RF</u>	<u>Dist. To IX Contour (m)</u>	<u>Height IX Contour Above Ground (m)</u>
0	1.000	0.2500	555.8659	76.000
5	0.913	0.2084	507.5055	31.768
10	0.678	0.1149	376.8771	10.556
15	0.357	0.0319	198.4441	24.639
20	0.049	0.0006	27.2374	66.684
25	0.171	0.0073	95.0531	35.829
30	0.270	0.0182	150.0838	0.958
35	0.250	0.0156	138.9665	-3.708
40	0.148	0.0055	82.2681	23.119
45	0.015	0.0001	8.3380	70.104
50	0.107	0.0029	59.4776	30.437
55	0.194	0.0094	107.8380	-12.336
60	0.238	0.0142	132.2961	-38.572
65	0.244	0.0149	135.6313	-46.924
70	0.220	0.0121	122.2905	-38.915
75	0.185	0.0086	102.8352	-23.331
80	0.145	0.0053	80.6006	-3.376
85	0.119	0.0035	66.1480	10.104
90	0.114	0.0032	63.3687	12.631

EXHIBIT A2



Google Earth



Red Line Marker: 228m at 182 degrees true north - the distance and direction to the nearest potentially occupied structure

It is therefore the conclusion of the applicant that these two requests for waiver and minor modification of a licensed facility is within the guidelines of the FCC rules.

### **RFR Protection**

The proposed facility was 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 will be mounted with its center of radiation 76 meters above ground level and will operate with an Effective Radiated Power of 250 watts in the Horizontal and Vertical Plane in its main lobe. At 2 meters, the height of an average person, at the base of the tower this proposal will contribute, worst case, 1.53 percent of the allowable limit for uncontrolled exposure. It is therefore believed that regardless of the contribution of any collocated emitters, this proposal is in compliance with OET Bulletin No. 65 as required by the Federal Communications Commission..

Further, the applicant will ascertain that warning signs are posted in the vicinity of the tower warning of potential radio frequency hazards at the site. 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.