

Section 74.1204 - Statement of Compliance
W230DB-CP, Oshkosh, WI
Modification of FCC Construction Permit
FCC File No. BNPFT-20180327ABP
FM Translator Facility ID. 200842
April, 2021

The Applicant proposes a minor modification to the above-referenced, non-reserved band, FM translator authorization. Specifically, the applicant proposes herein to change the directional antenna type. No further changes are proposed herein. As discussed below, the instant proposal complies with the protection requirements set forth in Section 74.1204 of the FCC Rules.

Section 74.1204(a) Contour Overlap Protection Criteria

Attached is a map which demonstrates that proposed technical facility complies with the contour overlap provisions of Section 74.1204(a) of the FCC Rules with respect to all pertinent cochannel (See Exhibit 1) and first-adjacent channel (See Exhibit 2) assignments, authorizations and applications. The instant proposal is well clear of all other relevant co-channel and first-adjacent channel protection considerations not represented herein.

Section 74.1204(d) Second/Third-Adjacent Channel Protection

As shown in Exhibit 3, the proposed technical facility complies with the contour overlap provisions of Section 74.1204(a) of the FCC Rules with respect second-adjacent channel station WGEE(FM), New London, WI (Channel 228C2). The required protection to second-adjacent channel station WYDR(FM), Neenah-Menasha, WI (Channel 232C3) is discussed below. The instant proposal is well clear of all other relevant second and third-adjacent channel protection considerations not represented herein.

The proposed transmitting antenna will be located within the WYDR(FM) protected contour resulting in contour overlap as defined in Section 74.1204 of the FCC Rules. At the translator's proposed transmitter site, WYDR(FM) is predicted to produce a F(50,50) signal strength of 71 dBu. Therefore, in the vicinity of the second-adjacent channel translator station, the translator's relevant interfering contour is the 111 dBu contour relative to WYDR(FM).

According to free space calculations, the translator's worst-case predicted 111 dBu interfering contour will extend, at most, 311 meters from the proposed transmitter site in the direction of the major lobe of the directional antenna (220° true to 340° true). Within this span, the predicted interference will only occur within 30 feet of ground level in a small area located between 15.2 meters and 103.8 meters from the proposed antenna site (See the attached Table and Exhibit 4). As shown on Exhibit 4, there are no buildings, residences or major roadways within the area where the predicted worst-case

interference may reach within 30 feet of ground level. Therefore, the instant proposal will cause no interference to any population served by WYDR(FM).

Accordingly, the proposed facility satisfies Section 74.1204(d) of the FCC Rules with respect to WYDR(FM) because it has been “demonstrated that no actual interference will occur due to lack of population or such other factors as may be applicable”.



Section 74.1204 CoChannel Contour Overlap Study

Exhibit 1 April, 2021

W230DB.MOD
Oshkosh, WI
Latitude: 44-02-45 N
Longitude: 088-31-45.20 W
ERP: 0.25 kW
Channel: 230
Frequency: 93.9 MHz
AMSL Height: 320.0 m
Horiz. Pattern: Directional

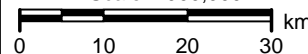
- W230DB.MOD (230)
- W230DA.C (230)
- WMMA-FM (230)

Section 74.1204 Contours

Proposed FX Interfering Contour (DASHED):
40 dBu F(50,10) to Class A & FX & LPFM
40 dBu F(50,10) to Class C, C0, C1, C2, C3
37 dBu F(50,10) to Class B1 FM Station
34 dBu F(50,10) to Class B FM Station

Relevant Protected Contours (SOLID):
Class A, C, Cx, FX & LPFM = 60 dBu F(50,50)
Class B1 FM Station = 57 dBu F(50,50)
Class B FM Station = 54 dBu F(50,50)

Scale 1:900,000



Section 74.1204 First-Adjacent Channel Contour Overlap Study

Exhibit 2 April, 2021

- W230DB.MOD (230)
- W229DE (229)
- WJJO.231B (231)

W230DB.MOD
Oshkosh, WI
Latitude: 44-02-45 N
Longitude: 088-31-45.20 W
ERP: 0.25 kW
Channel: 230
Frequency: 93.9 MHz
AMSL Height: 320.0 m
Horiz. Pattern: Directional

54 dBu
to W229DE

48 dBu
to WJJO

Section 74.1204 Contours

Proposed FX Interfering Contour (DASHED):
54 dBu F(50,10) to Class A & FX & LPFM
54 dBu F(50,10) to Class C, C0, C1, C2 & C3
51 dBu F(50,10) to Class B1 FM Station
48 dBu F(50,10) to Class B FM Station

Relevant Protected Contours (SOLID):
Class A & FX & LPFM = 60 dBu F(50,50)
Class C, C0, C1, C2 & C3 = 60 dBu F(50,50)
Class B1 FM Station = 57 dBu F(50,50)
Class B FM Station = 54 dBu F(50,50)

Consulting Engineers
CTJC
CARL T. JONES CORPORATION

Scale 1:750,000



Section 74.1204 2nd & 3rd Adjacent Channel Contour Overlap Study

Exhibit 3

April, 2021

■ W230DB.MOD (230)

■ WGEE.228C2 (228)

W230DB.MOD

Oshkosh, WI
Latitude: 44-02-45 N
Longitude: 088-31-45.20 W
ERP: 0.25 kW
Channel: 230
Frequency: 93.9 MHz
AMSL Height: 320.0 m
Horiz. Pattern: Directional

Section 74.1204 Contours

Proposed FX Interfering Contour (SMALL):
100 dBu F(50,10) to Class A & FX & LPFM
100 dBu F(50,10) to Class C, C0, C1, C2 & C3
97 dBu F(50,10) to Class B1 FM Station
94 dBu F(50,10) to Class B FM Station

Relevant Protected Contours (SOLID):
Class A & FX & LPFM = 60 dBu F(50,50)
Class C, C0, C1, C2 & C3 = 60 dBu F(50,50)
Class B1 FM Station = 57 dBu F(50,50)
Class B FM Station = 54 dBu F(50,50)

W230DB

Oshkosh, WI (Facility ID 200842)

ERP 250.00 WATTS Pattern Maximum (220 deg to 340 deg)

Maximum ERP 0.25 kW Interfering contour value -----> 111 dBu
RCAGL (m)-----> 91 meters
Antenna Type -----> 2

Antenna Type 2 = ERI, 2-bay, full-wave spaced

Angle Below Horizontal (degrees)	Vertical Pattern (REL. FIELD)	W230DB ERP (kW)	W230DB ERP (dBk)	W230DB Free-Space Distance to interfering contour (meters)	Slant Distance (meters) *	Height of interfering contour above ground (feet)**	Proposed Interference within 30 ' of ground level?	Horizontal Distance (meters) ***	Horizontal Distance (feet) ***
0	1.000	0.2500	-6.021	311.9	N/A	298.6			1023.2
5	0.960	0.2304	-6.375	299.4	939.7	212.9	No	298.3	978.5
10	0.848	0.1798	-7.453	264.5	471.6	147.9	No	260.4	854.5
15	0.672	0.1129	-9.473	209.6	316.4	120.6	No	202.4	664.2
20	0.455	0.0518	-12.860	141.9	239.5	139.3	No	133.3	437.5
25	0.225	0.0127	-18.977	70.2	193.8	201.3	No	63.6	208.6
30	0.000	0.0000	-106.021	0.0	163.8	298.6	No	0.0	0.0
35	0.188	0.0088	-20.537	58.6	142.8	188.2	No	48.0	157.6
40	0.340	0.0289	-15.391	106.0	127.4	74.9	No	81.2	266.5
45	0.445	0.0495	-13.053	138.8	115.8	-23.4	Yes	98.1	322.0
50	0.518	0.0671	-11.734	161.5	106.9	-107.5	Yes	103.8	340.7
55	0.528	0.0697	-11.568	164.7	100.0	-144.0	Yes	94.4	309.9
60	0.512	0.0655	-11.835	159.7	94.6	-155.1	Yes	79.8	261.9
65	0.472	0.0557	-12.542	147.2	90.4	-139.1	Yes	62.2	204.1
70	0.417	0.0435	-13.618	130.0	87.2	-102.4	Yes	44.5	145.9
75	0.350	0.0306	-15.139	109.2	84.8	-47.4	Yes	28.3	92.7
80	0.280	0.0196	-17.077	87.3	83.2	16.4	Yes	15.2	49.7
85	0.200	0.0100	-20.000	62.4	82.2	94.7	No	5.4	17.8
90	0.130	0.0042	-23.742	40.5	81.9	165.5	No	0.0	0.0

* Slant distance from antenna center of radiation to location 30 feet (9.1 meters) above ground level at angle below horizontal.

** A negative number indicates that the interfering contour is predicted to reach ground level. If a negative number is present, the interfering contour reaches ground level at the "Horizontal Distance" described below.

*** Horizontal distance from tower base to interfering contour at the indicated height above ground level. If a negative height above ground level is indicated, this horizontal distance is the distance from the tower base to the interfering contour. This horizontal distance is only relevant if the proposed interference is predicted to occur within 30 feet of ground level.

Exhibit 4

WYDR(FM), Neenah-Menasha, WI
Channel 232C3, 13.0 kW ERP, 140 m HAAT
FCC File No. BLH-19950921AAN



Worst-Case Interfering Contour to WYDR
W230DB.MOD, Oshkosh, WI (Facility ID 200842)
Ch. 230D, 250 watts ERP (DA-MAX) , 91 m RCAGL
April, 2021