

Minor Modification of Application

BNPFT-20030317AHY-Facility ID No. 147802

This exhibit is for the Long Form of translator applications BNPFT-20030317AHY-Facility ID No. 147802.

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The proposed antenna is to be co-located with WNCO-FM and W210BG on an existing tower identified by registration number 1015349 at 105 meters above ground, the tower is the antenna for primary standard band stations WNCO Facility ID 2926 Ashland, OH. Below as **Figure 1** is an overlap and spacing study from which it can be determined that this proposal is within the protected contour of **second** adjacent channel station WQIO, and that the protected contour of this proposal encompasses of proposed **second** adjacent translator proposal with facility number 146827.

Concerning second adjacent WQIO; we will demonstrate that a lack of population and/or other factors allow this proposal to be compliant with 74.1204. The process commonly called “Living Way”, allows for the use of D/U Analysis, also known as “signal strength ratio methodology” to be utilized to demonstrate compliance. In this instant case the facility to be protected is on a second adjacent channel and is to be afforded protection from signals 40 dB stronger than the protected facility presents in the location of the proposed translator antenna location.

In **Figure 2** a map showing the predicted 59 dBu signal contour of the protected facility at the proposed translator antenna location is given. This proposal can only cause predicted interference to the protected facility by having a signal exceeding 99 dBu in a habitable/populated area. Utilizing the line of sight equation shown in **Figure 3** which considers the vertical elevation pattern of the proposed antenna, it has been determined that a 99 dBu signal developed by 30 watts, as proposed, emitted by the proposed antenna mounted 105 meters above ground, will not reach ground level. With examination of the image(s) in **Figure 4** it can be determined that no habitable space extends above this height within the confines of this contour. Thus the provisions of the rules section concerning prohibited overlap will not apply as it has been demonstrated that no actual interference will occur due to a lack of population and other factors as applied in this instant proposal.

Concerning second adjacent translator proposal facility number 146827: we will demonstrate that a lack of population and/or other factors allow this proposal to be compliant with 74.1204. The process commonly called “Living Way”, allows for the use of D/U Analysis, also known as “signal strength ratio methodology” to be utilized to demonstrate compliance. In this instant case the facility to be protected is on a second adjacent channel and is to be afforded protection from signals 40 dB stronger than the protected facility presents in the location of the proposed translator antenna location.

In **Figure 2** a map showing the predicted 65.5 dBu signal contour of the protected facility at the proposed translator antenna location is given. This proposal can only cause predicted interference to the protected facility by having a signal exceeding 105.5 dBu in a habitable/populated area. Utilizing the line of sight equation shown in **Figure 5** which considers the vertical elevation pattern of the proposed antenna, it has been determined that a 105.5 dBu signal developed by 30 watts, as proposed, emitted by the proposed antenna mounted 105 meters above ground, will not reach ground level. With examination of the image(s) in **Figure 6** it can be determined that no habitable space extends above this height within the confines of this contour. Thus the provisions of the rules section concerning prohibited overlap will not apply as it has been demonstrated that no actual interference will occur due to a lack of population and other factors as applied in this instant proposal.

RF Radiation Statement

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 a composite **ERI 100A-2 (2) element; full-wave spaced** antenna mounted 105 meters above ground. As this element type is not modeled in any current computer program, for purposes of this analysis the FM Model program has been set to calculate values for a "worst case" type of antenna element array, "Ring Stub", operated with an effective radiated power of 0.030 Kilowatts in the vertical plane. At 2 meters above the surface, at 27.6 meters from the base of the tower, this proposal will contribute worst case, 0.2 microwatts per square centimeter, or 0.02 percent of the allowable ANSI limit for controlled exposure, and 0.1 percent of the allowable limit for uncontrolled exposure. This figure is less than 5.0% 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.

Figure 1. Overlap and Spacing Study for BNPFT-20030317AHY-Facility ID No. 147802

At ASR 1015349 105m AGL 30 w Capstar TX Limited Partnership Average Protected F(50-50)= 6.21 km Omni-directional											
REFERENCE 40 50 24.8 N. 82 21 26.4 W.		CH#	227D	- 93.3 MHz, Pwr= 0.03 kw, HAAT= 66.8 M, COR= 490 M	DISPLAY DATES DATA 08-28-13 SEARCH 08-28-13						
CH	CALL	TYPE	ANT	AZI	DIST	LAT	PWR(kw)	INT(km)	PRO(km)	*IN*	*OUT*
CITY		STATE		<--	FILE #	LNG	HAAT(M)	COR(M)	LICENSEE	(Overlap	in km)
227D	640521	APP _C_		13.5	0.03	40 50 26.0	0.070	26.1	7.8	-35.6*	-39.8*
Ashland		OH		193.5	BNPFT20030317AHY	82 21 26.0	67	415	Capstar TX Limited	Partner	
227B	WQDC	LIC NCX		206.4	119.41	39 52 34.0	32.000	132.0	64.4	-21.8*<	11.9
Ashville		OH		26.0	BLH20061114ACH	82 58 49.0	184	413	Cc Licenses, Llc		
229B	WQIO	LIC _CN		188.1	48.81	40 24 18.0	37.000	5.3	60.8	33.9	-12.7*<
Mount Vernon		OH		8.1	BLH19870625KB	82 26 20.0	172	507	Bas Broadcasting, Inc.		
225D	1559728	APP _C_		70.6	6.93	40 51 39.0	0.080	0.6	5.3	-3.5*<	1.2
Ashland		OH		250.7	BNPFT20030317LZD	82 16 47.0		369	Kent State University		
227B	AL1345	RSV-A _N		198.5	142.64	39 37 17.0	50.000	135.0	62.2	-1.7*<	36.7
Ashville		OH		18.2	RM9762	82 53 13.0	150	397			
226B	WZAK	LIC _CN		51.3	78.76	41 16 50.0	27.500	68.7	58.3	0.4	0.2
Cleveland		OH		231.8	BLH4273	81 37 22.0	189	490	Blue Chip Broadcasting Lic		
227B	WNCD	LIC _CN		78.9	146.33	41 04 50.0	50.000	129.9	56.3	6.7	45.0
Youngstown		OH		260.0	BLH19831024AC	80 38 54.0	85	413	Citicasters Licenses, Inc.		
225D	1566840	APP _C_		216.9	25.93	40 39 12.8	0.120	0.8	5.9	16.2	19.6
Mansfield		OH		36.8	BNPFT20130814ACN	82 32 30.4		418	Spirit Communications, Inc		
225D	652132	APP _C_		216.9	25.93	40 39 12.8	0.120	0.8	5.9	16.2	19.6
Mansfield		OH		36.8	BNPFT20030317MQE	82 32 30.4	27	418	Spirit Communications, Inc		
224A	WQEL	LIC _CX		260.2	49.34	40 45 49.0	3.000	2.0	20.9	38.7	28.1
Bucyrus		OH		79.8	BLH20060303AAO	82 56 00.0	93	402	Franklin Communications, I		
227D	W227B3	LIC _C_		294.0	75.66	41 06 49.0	0.055	15.5	4.8	50.8	39.5
Tiffin		OH		113.5	BLFT20051021AFI	83 10 51.0	41	275	Tiffin Broadcasting, Llc		
224D	W224CD	APP DV_		42.1	81.61	41 22 58.0	0.099	0.4	12.5	71.5	68.8
Parma		OH		222.5	BPFT20130417AAN	81 42 07.0		543	Educational Media Foundati		
224D	W224CD	APP DV_		42.1	81.61	41 22 58.0	0.099	0.4	12.5	71.5	68.8
Parma		OH		222.5	BPFT20130417AAN	81 42 07.0		543	Educational Media Foundati		
228B1	WRQN	LIC NCX		302.6	129.02	41 27 28.0	7.000	48.7	37.2	71.2	76.4
Bowling Green		OH		121.8	BLH20061002BGR	83 39 33.0	121	315	Cumulus Licensing Llc		
Terrain database is NGDC 30 SEC , R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM Contour distances are on direct line to and from reference station. Reference zone= , Co to 3rd adjacent. Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X) "*"affixed to 'IN' or 'OUT' values = site inside protected contour. < = Contour overlap											

Figure 2. Contour Map

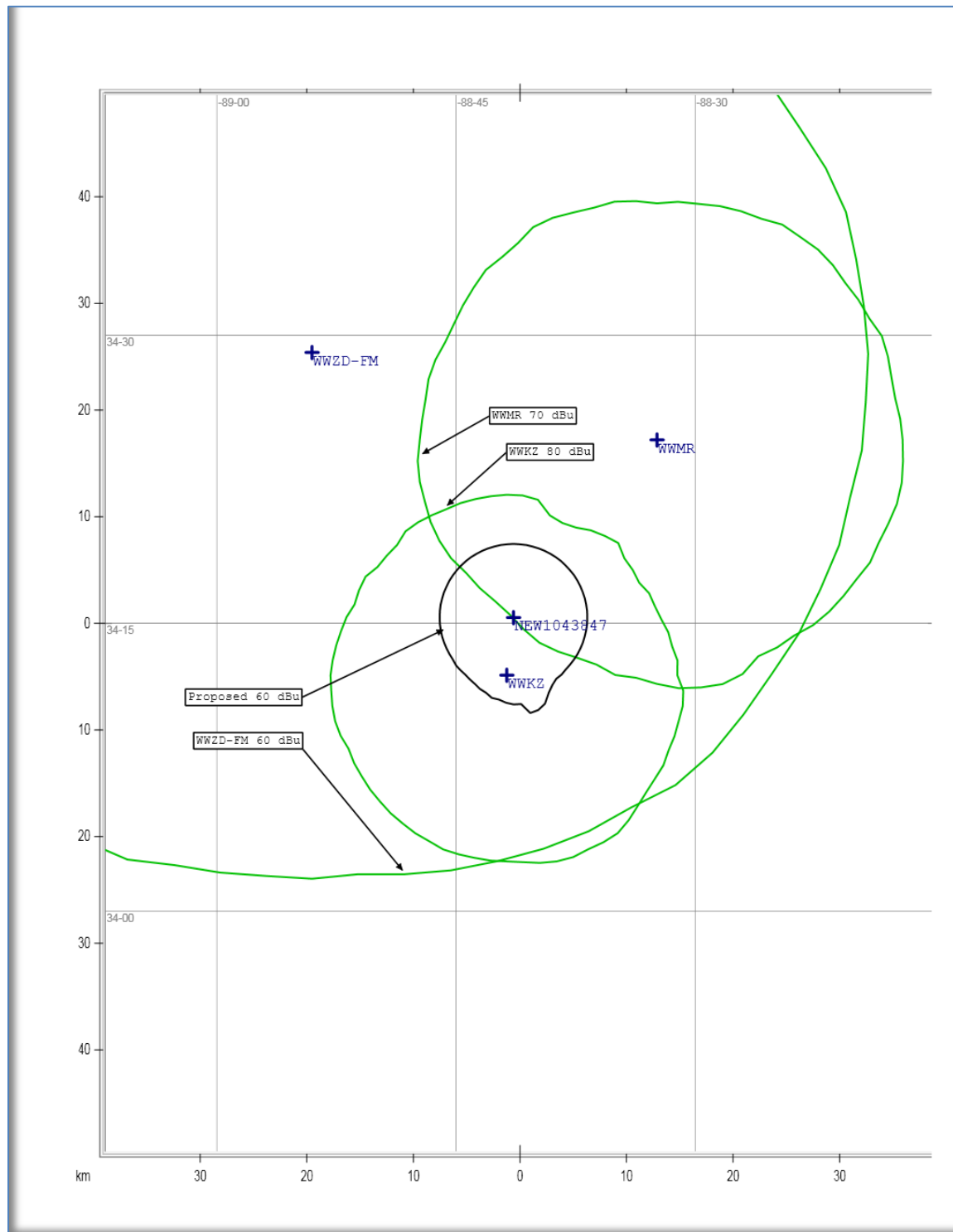


Figure 3. Signal Level at and Near Ground Level

Proposed Antenna: ERI A 100-2H 2-bay half wave Proposed Power: 0.03 kW Antenna Height AGL: 99 meters Interference Contour: 105.5 dBu f(50:10) Artificial Rcv Antenna Height: 2 meters Distance (Free Space) $= (10^{((106.92 - [\text{desired dBu}] + [\text{ERP in dBk}]) / 20)) * 1000}$ Field Strength (dBu) $= 106.92 - (20 * (\text{LOG10}[\text{DistMeters} / 1000])) + [\text{ERP in dBk}]$								
Fill in "yellow" cells								
Depression	Angle	Antenna		Distance				
Below	Relative	ERP	ERP	from Ant.	Distance	Field Strength	Distance	Field Strength
Horizon	Field	in kW	in dBk	to Interf	from Ant. to	in dBu @	from Ant.	in dBu @
				Contour	Artificial Plane	Artificial Plane	to Ground Level	Ground Level
0°	1.000	0.030	-15.23	203.97 m	infinite	---	infinite	---
-5°	0.984	0.029	-15.37	200.70 m	1112.95 m	90.62 dBu	1135.90 m	90.44 dBu
-10°	0.938	0.026	-15.78	191.32 m	558.60 m	96.19 dBu	570.12 m	96.02 dBu
-15°	0.865	0.022	-16.49	176.43 m	374.78 m	98.96 dBu	382.51 m	98.78 dBu
-20°	0.772	0.018	-17.48	157.46 m	283.61 m	100.39 dBu	289.46 m	100.21 dBu
-25°	0.665	0.013	-18.77	135.64 m	229.52 m	100.93 dBu	234.25 m	100.75 dBu
-30°	0.553	0.009	-20.37	112.79 m	194.00 m	100.79 dBu	198.00 m	100.61 dBu
-35°	0.442	0.006	-22.32	90.15 m	169.11 m	100.04 dBu	172.60 m	99.86 dBu
-40°	0.339	0.003	-24.62	69.14 m	150.91 m	98.72 dBu	154.02 m	98.54 dBu
-45°	0.248	0.002	-27.34	50.58 m	137.18 m	96.83 dBu	140.01 m	96.66 dBu
-50°	0.172	0.001	-30.52	35.08 m	126.62 m	94.35 dBu	129.24 m	94.17 dBu
-55°	0.112	0.000	-34.24	22.84 m	118.42 m	91.21 dBu	120.86 m	91.03 dBu
-60°	0.068	0.000	-38.58	13.87 m	112.01 m	87.36 dBu	114.32 m	87.18 dBu
-65°	0.037	0.000	-43.86	7.55 m	107.03 m	82.47 dBu	109.23 m	82.29 dBu
-70°	0.018	0.000	-50.12	3.67 m	103.23 m	76.52 dBu	105.35 m	76.34 dBu
-75°	0.007	0.000	-58.33	1.43 m	100.42 m	68.56 dBu	102.49 m	68.38 dBu
-80°	0.002	0.000	-69.21	0.41 m	98.50 m	57.84 dBu	100.53 m	57.67 dBu
-85°	0.001	0.000	-75.23	0.20 m	97.37 m	51.92 dBu	99.38 m	51.75 dBu
-90°	0.001	0.000	-75.23	0.20 m	97.00 m	51.96 dBu	99.00 m	51.78 dBu

Figure 4. Aerial Image of Area Near Proposed Support Tower



Figure 5. Signal Level at and Near Ground Level

<p>Proposed Antenna: JAM JLPC-4(0.75)</p> <p>Proposed Power: 0.08 kW</p> <p>Antenna Height AGL: 61 meters</p> <p>Interference Contour: 105.5 dBu</p> <p>Artificial Rcv Antenna Height: 2 meters</p> <p>Distance (Free Space) Equation: $= (10^{(106.92 - [\text{desired dBu}] + [\text{ERP in dBk}]/20)}) * 1000$</p> <p>Field Strength (dBu) Equation: $= 106.92 - (20 * (\text{LOG10}[\text{DistMeters}/1000])) + [\text{ERP in dBk}]$</p>								
Depression				Distance				
Angle	Antenna			from Ant.	Distance	Field Streng	Distance	Field Strength
Below	Relative	ERP	ERP	to Interf	from Ant. to	in dBu @	from Ant.	in dBu @
Horizon	Field	in kW	in dBk	Contour	Artificial Plane	Artificial Plane	to Ground Level	Ground Level
0°	1.000	0.080	-10.97	333.08 m	infinite	---	infinite	---
-5°	0.892	0.064	-11.96	297.10 m	676.95 m	98.35 dBu	699.90 m	98.06 dBu
-10°	0.611	0.030	-15.25	203.51 m	339.77 m	101.05 dBu	351.28 m	100.76 dBu
-15°	0.265	0.006	-22.50	88.27 m	227.96 m	97.26 dBu	235.69 m	96.97 dBu
-20°	0.026	0.000	-42.67	8.66 m	172.50 m	79.51 dBu	178.35 m	79.22 dBu
-25°	0.195	0.003	-25.17	64.95 m	139.61 m	98.85 dBu	144.34 m	98.56 dBu
-30°	0.227	0.004	-23.85	75.61 m	118.00 m	101.63 dBu	122.00 m	101.34 dBu
-35°	0.152	0.002	-27.33	50.63 m	102.86 m	99.34 dBu	106.35 m	99.05 dBu
-40°	0.040	0.000	-38.93	13.32 m	91.79 m	88.74 dBu	94.90 m	88.45 dBu
-45°	0.061	0.000	-35.26	20.32 m	83.44 m	93.23 dBu	86.27 m	92.94 dBu
-50°	0.124	0.001	-29.10	41.30 m	77.02 m	100.09 dBu	79.63 m	99.80 dBu
-55°	0.138	0.002	-28.17	45.96 m	72.03 m	101.60 dBu	74.47 m	101.31 dBu
-60°	0.120	0.001	-29.39	39.97 m	68.13 m	100.87 dBu	70.44 m	100.58 dBu
-65°	0.087	0.001	-32.18	28.98 m	65.10 m	98.47 dBu	67.31 m	98.18 dBu
-70°	0.054	0.000	-36.32	17.99 m	62.79 m	94.64 dBu	64.91 m	94.35 dBu
-75°	0.026	0.000	-42.67	8.66 m	61.08 m	88.53 dBu	63.15 m	88.24 dBu
-80°	0.009	0.000	-51.88	3.00 m	59.91 m	79.49 dBu	61.94 m	79.20 dBu
-85°	0.002	0.000	-64.95	0.67 m	59.23 m	66.52 dBu	61.23 m	66.23 dBu
-90°	0.000	0.000	-90.97	0.03 m	59.00 m	40.53 dBu	61.00 m	40.24 dBu

Figure 6. Aerial Image of Area Near Proposed Support Tower

