

# Engineering Statement

## In Support of an

## Application for a Construction Permit

## WWIZ(FM), Mercer, Pennsylvania

### WWIZ Protected/WRTS Interfering FM Overlap Study

WWIZ  
Channel = 280A  
Max ERP = 3.2 kW  
RCAMSL = 465 M  
N. Lat = 411310  
W. Lng = 802825

WRTS BMLH19871209KC  
Channel = 279B  
Max ERP = 50 kW  
RCAMSL = 514 M  
N. Lat = 42 05 25  
W. Lng = 79 56 37

Protected  
60 dBu

Interfering  
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
000.0	002.0091	0147.5	026.2	212.1	050.0000	0105.6	083.1	50.5
010.0	001.2706	0153.6	024.1	208.7	050.0000	0113.8	083.2	50.8
020.0	000.8035	0164.3	022.4	205.8	050.0000	0114.5	084.0	50.6
030.0	000.8035	0153.1	021.7	203.2	050.0000	0117.2	084.7	50.5
040.0	000.8035	0152.0	021.6	200.7	050.0000	0118.9	085.7	50.4
050.0	001.2706	0136.4	022.9	198.0	050.0000	0123.4	086.2	50.4
060.0	002.0091	0136.6	025.4	194.8	050.0000	0127.5	086.9	50.4
070.0	003.1769	0113.0	026.0	192.7	050.0000	0124.9	090.0	49.4
080.0	003.2000	0107.4	025.4	191.7	050.0000	0123.6	094.3	48.2
090.0	003.2000	0102.5	024.9	191.3	050.0000	0123.0	098.6	47.0
100.0	003.2000	0101.8	024.8	191.1	050.0000	0122.7	102.9	46.0
110.0	003.2000	0111.4	025.8	190.7	050.0000	0122.1	107.4	44.9
120.0	003.2000	0119.2	026.6	190.9	050.0000	0122.5	112.0	44.0
130.0	002.5404	0139.7	027.0	191.7	050.0000	0123.6	116.5	43.2
140.0	001.6032	0121.7	023.0	194.5	050.0000	0127.2	118.0	43.1
150.0	001.0143	0138.1	021.8	196.1	050.0000	0127.1	120.3	42.7
160.0	000.6423	0187.1	022.6	197.3	050.0000	0124.9	123.4	42.0
170.0	000.6386	0168.9	021.5	199.0	050.0000	0121.4	124.7	41.7
180.0	000.6386	0157.1	020.8	200.7	050.0000	0118.8	125.6	41.5
190.0	000.6386	0143.3	019.9	202.4	050.0000	0117.8	125.7	41.4
200.0	000.6386	0139.9	019.6	204.0	050.0000	0116.2	125.9	41.3
210.0	000.6386	0148.4	020.2	205.6	050.0000	0114.6	126.5	41.2
220.0	000.6423	0157.8	020.9	207.2	050.0000	0114.6	126.6	41.2
230.0	001.0143	0164.9	023.7	209.3	050.0000	0112.8	128.1	40.9
240.0	001.6032	0174.5	026.9	211.7	050.0000	0106.5	129.2	40.5
250.0	001.4243	0151.4	024.6	212.8	050.0000	0104.7	124.8	41.2
260.0	000.8987	0142.2	021.5	213.2	050.0000	0104.4	119.8	42.1
270.0	000.5672	0140.6	019.1	213.3	050.0000	0104.3	115.6	42.8
280.0	000.5672	0142.2	019.2	214.2	050.0000	0104.0	112.7	43.3
290.0	000.5672	0146.1	019.5	214.9	050.0000	0103.7	109.6	43.9
300.0	000.5672	0153.4	020.0	215.4	050.0000	0103.5	106.3	44.5
310.0	000.8987	0144.1	021.6	216.4	050.0000	0103.2	102.7	45.3
320.0	001.4243	0132.7	023.2	216.9	050.0000	0103.2	098.6	46.2
330.0	002.2568	0140.8	026.4	217.9	050.0000	0103.4	093.5	47.5
340.0	003.2000	0164.9	030.7	218.9	050.0000	0104.2	087.1	49.3
350.0	003.1769	0166.5	030.8	216.7	050.0000	0103.2	082.8	50.4