

**Engineering Statement
In Support of an
Application for a Construction Permit
WWIZ(FM), Mercer, Pennsylvania**

WWIZ Engineering Narrative

July, 2004

General

As broadcast technical consultants doing business as Reynolds Technical Associates, we have been authorized by Cumulus Licensing LLC (herein referred to as “Cumulus” as well as “The Applicant”), licensee of WWIZ, Mercer, Pennsylvania, to conduct engineering studies and prepare the engineering portion of an application for a construction permit. The instant application seeks to increase the ERP of WWIZ from 3 kW to 6 kW and to correct the coordinates currently on file with the FCC.

The Proposed Site

Exhibit E, Figure 1 is a channel spacing study for the corrected tower site, listing the facilities considered and the pre-existing short spacing to WRTS in Erie, Pennsylvania. Exhibit E, Figure 2 is a channel spacing study for the current (incorrect) licensed coordinates for WWIZ.

Exhibit E, Figure 3 shows the average terrain and the service contour data for the corrected site. Exhibit E, Figure 4 is the service contour map displaying the FCC F(50,50) 70 and 60 dBu contours of WWIZ. Exhibit E, Figure 5 is a vertical sketch of the proposed WWIZ supporting structure with the applicable elevations. This application is for an existing unregistered tower with an overall AGL of 51 meters.

The distance to the blanketing contour is calculated to be 0.965 kilometer.

Human Exposure
(No Exhibits)

The proposed FM facility was evaluated in terms of potential radio frequency radiation exposure at ground level in accordance with FCC guidelines for maximum permissible exposure.

Using FCC RF Worksheet #1A, the uncontrolled exposure on the ground is 189.5 $\mu\text{W}/\text{cm}^2$, which is less than the minimum of 200 $\mu\text{W}/\text{cm}^2$ accepted by the Commission. Hence, no human exposure issues are created as a result of the instant application.

An agreement is in effect, that if anyone is required to climb the tower, all facilities on the tower will reduce power or cease operation, so as to prevent hazardous exposure to radio frequency radiation.

Environmental Impact
(No Exhibits)

A grant of the proposed construction would not constitute a major action as defined in the Commission's Rules and Regulations.

During operation, the facility will produce no chemical or significant thermal pollution, and no ionizing radiation will be generated. Areas of high intensity radiofrequency fields will be confined to the immediate area of the transmitting antenna, above the ground and away from any human and wildlife population.

The area is not officially designated as a wilderness area or wildlife preserve and is not pending consideration. The area has no significant value in American history, architecture, archaeology, or culture, which is listed in the Register of Historic Places, and it is not eligible for listing. It is not recognized either nationally or locally for special scenic or recreational value.

Conclusion

This statement/application has been prepared for The Applicant by utilizing the latest available information, cross-checked with the Federal Communications Commission and other sources. Therefore, it is submitted that the proposed is in compliance with the Commission's Rules and Regulations and other sources. Therefore, it is submitted that the engineering data compiled and demonstrated herein for the proposed is in compliance with Commission's Rules and Regulations at the time of this application's filing date. We welcome the opportunity to discuss with the staff of the Federal Communications Commission the engineering data contained in this application. Should any questions arise concerning the information, please contact us.

The following pages are exhibits prepared and assembled in support of the proposed.

Reynolds Technical Associates
12585 Old Highway 280 East, Suite 102
Chelsea, Alabama 35043
(205) 618-2020

Statement of the Consultants

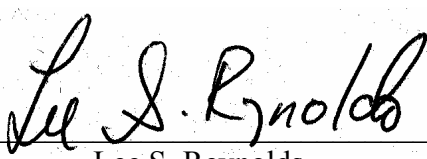
The instant engineering statement was prepared for Cumulus Licensing LLC (“The Applicant”) and supports an application for a construction permit for WWIZ(FM), Mercer, Pennsylvania. It was developed by Reynolds Technical Associates (“RTA”) and may not be used for purposes other than submission to the Commission by The Applicant.

It may not be reproduced in its entirety, or in part, by anyone (other than from the Commission) without the written consent of RTA.

It is prepared for The Applicant under contractual agreement, and its certification by RTA is used accordingly. If The Applicant fails in its contractual obligation, RTA reserves the right to withdraw its certification.

The information in this application is compiled from the most recent Commission and outside data. RTA is not responsible for errors resulting from incorrect data or unpublished rule and procedure changes.

For Strickland and Reynolds:



Lee S. Reynolds

July 16th, 2004

12585 Old Highway 280 East, Suite 102
Chelsea, Alabama 35043
(205) 618-2020

**Engineering Statement
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WWIZ(FM), Mercer, PA**

WWIZ(FM) Corrected Site Channel Spacing Study

REFERENCE	CLASS = A	DISPLAY DATES
41 12 16 N	Current	DATA 07-13-04
80 21 49 W	Spacings	SEARCH 07-16-04
----- Channel 280 - 103.9 MHz -----		

Call	Channel	Location	Dist	Azi	FCC	Margin
<hr/>						
	Community of Mercer		PA 9.4	280.3		
	Reference Coordinates:					
	North Latitude: 41-13-35					
	West Longitude: 80-14-15					
<hr/>						
WWIZ	LIC 280A	Mercer	PA 0.5	112.8	115.0	-114.5
	Of no concern:					
	Coordinates previously used by WWIZ					
R---	ADD 280C1	Woodstock	ON 213.4	351.1	243.0	-29.6
ALLO	280C1	Woodstock	ON 213.6	351.3	243.0	-29.4
R---	DEL 280C1	Woodstock	ON 213.6	351.3	243.0	-29.4
	Of concern:					
	Protection afforded in accordance with 1992 US/Canada Treaty					
<hr/>						
WRTS	LIC 279B	Erie	PA 104.4	19.4	113.0	-8.6
	Of concern:					
	Upgrade to 6 kW agreed to by licensee of WRTS					
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WOGF	LIC-N 282B	East Liverpool	OH 68.7	184.0	69.0	-0.3
WOGF.C	CP -Z 282B	East Liverpool	OH 68.7	184.0	69.0	-0.3
RDEL	DEL 282B	East Liverpool	OH 68.7	184.0	69.0	-0.3
WQAL	LIC 281B	Cleveland	OH 115.3	280.2	113.0	2.3
WQAL.C	CP 281B	Cleveland	OH 116.3	278.0	113.0	3.3
RADD	ADD 282B	Moon Township	PA 76.6	182.9	69.0	7.6
WNCD	LIC 227B	Youngstown	OH 27.6	240.1	15.0	12.6
WLMI	LIC 280A	Kane	PA 139.2	68.1	115.0	24.2
WXXO	LIC-N 283A	Cambridge Springs	PA 57.8	16.6	31.0	26.8
WOGH.C	CP 278B	Burgettstown	PA 98.1	192.8	69.0	29.1
WOGH	LIC 278B	Burgettstown	PA 98.2	192.8	69.0	29.2
WLSW	LIC 280A	Scottdale	PA 150.3	151.4	115.0	35.3
WCRFFM	LIC 277B	Cleveland	OH 108.9	275.8	69.0	39.9
WPXZFM	LIC 281A	Punxsutawney	PA 117.6	103.0	72.0	45.6
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**Engineering Statement
In Support of an
Application for a Construction Permit
WWIZ(FM), Mercer, PA**

WWIZ(FM) Licensed Site Channel Spacing Study

REFERENCE		DISPLAY DATES
41 12 10 N	CLASS = A	DATA 07-13-04
80 21 30 W	Current Spacings	SEARCH 07-16-04
----- Channel 280 - 103.9 MHz -----		

Call	Channel	Location	Dist	Azi	FCC	Margin
WWIZ	LIC 280A	Mercer	PA 0.0	0.0	115.0	-115.0

Of no concern:

Coordinates previously used by WWIZ

R---	ADD	280C1	Woodstock	ON	213.7	351.0	243.0	-29.3
ALLO		280C1	Woodstock	ON	213.9	351.2	243.0	-29.1
R---	DEL	280C1	Woodstock	ON	213.9	351.2	243.0	-29.1

Of concern:

Protection afforded in accordance with 1992 US/Canada Treaty

WRTS	LIC	279B	Erie	PA	104.4	19.1	113.0	-8.6
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Of concern:

Upgrade to 6 kW agreed to by licensee of WRTS

WOGF	LIC-N	282B	East Liverpool	OH	68.6	184.4	69.0	-0.4
WOGF.C	CP -Z	282B	East Liverpool	OH	68.6	184.4	69.0	-0.4
RDEL	DEL	282B	East Liverpool	OH	68.6	184.4	69.0	-0.4
WQAL	LIC	281B	Cleveland	OH	115.7	280.2	113.0	2.7
WQAL.C	CP	281B	Cleveland	OH	116.8	278.0	113.0	3.8
RADD	ADD	282B	Moon Township	PA	76.4	183.2	69.0	7.4
WNCD	LIC	227B	Youngstown	OH	27.9	240.9	15.0	12.9
WLMI	LIC	280A	Kane	PA	138.9	68.0	115.0	23.9
WXXO	LIC-N	283A	Cambridge Springs	PA	57.8	16.1	31.0	26.8
WOGH.C	CP	278B	Burgettstown	PA	98.1	193.1	69.0	29.0
WOGH	LIC	278B	Burgettstown	PA	98.1	193.1	69.0	29.1
WLSW	LIC	280A	Scottdale	PA	150.0	151.5	115.0	35.0
WCRFFM	LIC	277B	Cleveland	OH	109.4	275.9	69.0	40.4
WPXZFM	LIC	281A	Punxsutawney	PA	117.1	102.9	72.0	45.1

**Engineering Statement
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WWIZ Corrected Site Terrain/Contour Study

Reference Coordinates:

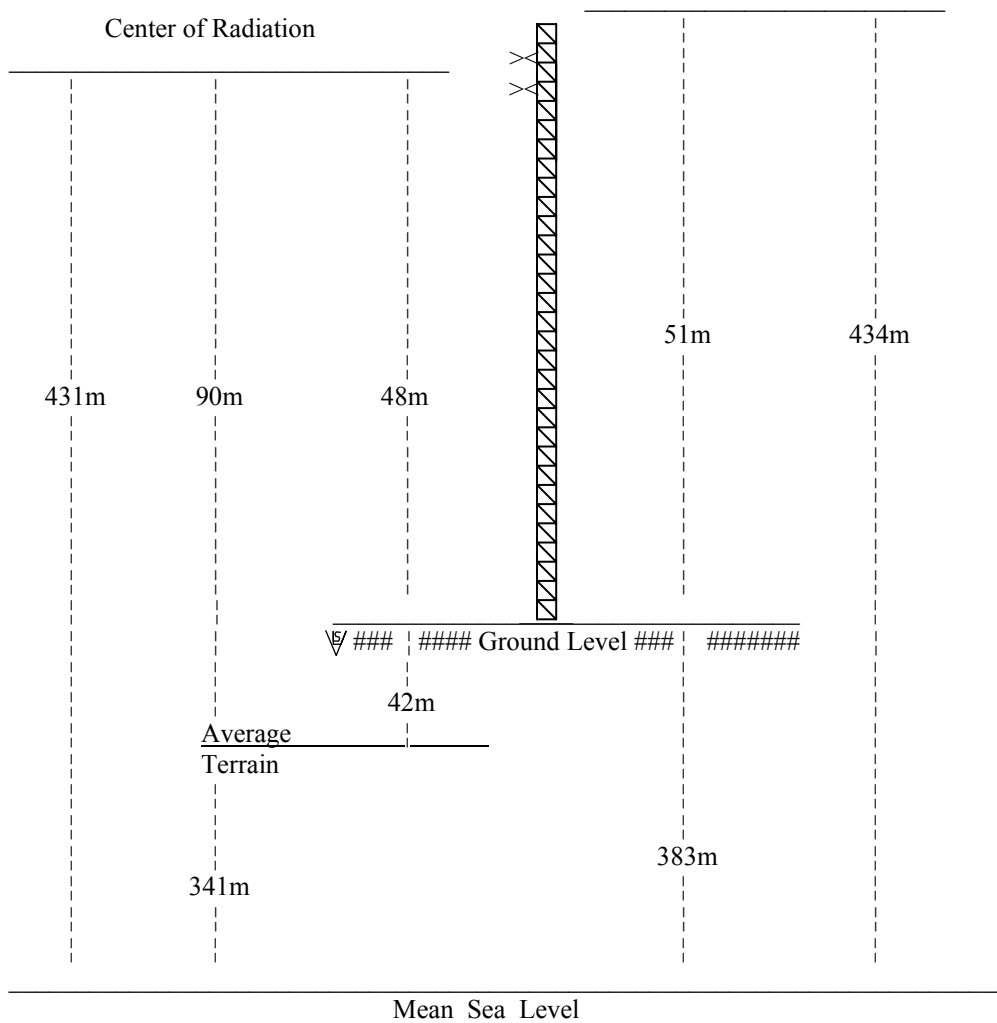
North Latitude: 41-12-16

West Longitude: 80-21-49

Azimuth °T.	ERP = 6.0	FM - 2-6 Tables	ERP (dBk)	F(50-50)	F(50-50)
	Ave. Elev. 3 to 16 km Meters AMSL	Effective Antenna Height Meters AAT		Distance to 70 dBu Contour km	Distance to 60 dBu Contour km
0.0	329.9	101.1	7.782	16.2	28.5
5.0	333.0	98.0	7.782	16.0	28.0
10.0	334.3	96.7	7.782	15.8	27.8
15.0	341.6	89.4	7.782	15.1	26.8
20.0	347.4	83.6	7.782	14.6	26.0
25.0	354.5	76.5	7.782	14.0	24.9
30.0	365.5	65.5	7.782	13.0	23.3
35.0	371.1	59.9	7.782	12.6	22.5
40.0	369.7	61.3	7.782	12.6	22.7
45.0	364.9	66.1	7.782	13.0	23.4
50.0	365.7	65.3	7.782	13.0	23.2
55.0	367.6	63.4	7.782	12.8	23.0
60.0	368.4	62.6	7.782	12.8	22.8
65.0	365.7	65.3	7.782	13.0	23.2
70.0	366.1	64.9	7.782	13.0	23.2
75.0	359.9	71.1	7.782	13.5	24.2
80.0	361.8	69.2	7.782	13.3	23.9
85.0	367.4	63.6	7.782	12.9	23.0
90.0	368.3	62.7	7.782	12.8	22.8
95.0	363.0	68.0	7.782	13.2	23.7
100.0	366.9	64.1	7.782	12.9	23.1
105.0	366.8	64.2	7.782	12.9	23.1
110.0	367.8	63.2	7.782	12.8	22.9
115.0	365.9	65.1	7.782	13.0	23.2
120.0	361.6	69.4	7.782	13.3	23.9
125.0	363.4	67.6	7.782	13.2	23.6
130.0	372.8	58.2	7.782	12.4	22.1
135.0	369.5	61.5	7.782	12.6	22.7
140.0	363.5	67.5	7.782	13.2	23.6
145.0	358.2	72.8	7.782	13.7	24.4
150.0	348.3	82.7	7.782	14.5	25.9
155.0	331.7	99.3	7.782	16.1	28.2

Continued on the next page

ERP = 6.0		FM - 2-6 Tables		F(50-50)	
Azimuth °T.	Ave. Elev.	Effective	ERP (dBk)	Distance to	Distance to
	3 to 16 km Meters AMSL	Antenna Height Meters AAT		70 dBu Contour km	60 dBu Contour km
160.0	327.8	103.2	7.782	16.5	28.7
165.0	322.9	108.1	7.782	16.9	29.3
170.0	342.2	88.8	7.782	15.1	26.7
175.0	356.5	74.5	7.782	13.8	24.6
180.0	353.2	77.8	7.782	14.0	25.2
185.0	341.6	89.4	7.782	15.1	26.8
190.0	327.5	103.5	7.782	16.5	28.8
195.0	327.7	103.3	7.782	16.5	28.8
200.0	324.2	106.8	7.782	16.8	29.2
205.0	318.2	112.8	7.782	17.3	29.9
210.0	314.0	117.0	7.782	17.7	30.4
215.0	314.9	116.1	7.782	17.6	30.3
220.0	316.1	114.9	7.782	17.5	30.2
225.0	310.5	120.5	7.782	17.9	30.8
230.0	309.2	121.8	7.782	18.0	30.9
235.0	319.0	112.0	7.782	17.2	29.8
240.0	319.7	111.3	7.782	17.2	29.7
245.0	315.6	115.4	7.782	17.5	30.2
250.0	308.9	122.1	7.782	18.0	30.9
255.0	305.1	125.9	7.782	18.3	31.3
260.0	297.7	133.3	7.782	18.9	32.2
265.0	299.6	131.4	7.782	18.7	32.0
270.0	309.4	121.6	7.782	18.0	30.9
275.0	315.6	115.4	7.782	17.5	30.2
280.0	313.9	117.1	7.782	17.7	30.4
285.0	318.7	112.3	7.782	17.3	29.9
290.0	327.9	103.1	7.782	16.5	28.7
295.0	329.5	101.5	7.782	16.3	28.5
300.0	330.2	100.8	7.782	16.2	28.4
305.0	326.7	104.3	7.782	16.5	28.8
310.0	325.2	105.8	7.782	16.7	29.1
315.0	324.5	106.5	7.782	16.8	29.2
320.0	314.5	116.5	7.782	17.6	30.3
325.0	312.5	118.5	7.782	17.8	30.6
330.0	318.3	112.7	7.782	17.3	29.9
335.0	319.9	111.1	7.782	17.2	29.7
340.0	319.4	111.6	7.782	17.2	29.8
345.0	318.6	112.4	7.782	17.3	29.9
350.0	320.5	110.5	7.782	17.2	29.6
355.0	325.8	105.2	7.782	16.6	29.0



Proposed Location - 41° 12' 16" N. Lat. 80° 21' 49" W. Long. [NAD 27]

NOT DRAWN TO SCALE

Proposed antenna - 2 element.