

ENGINEERING STATEMENT
APPLICATION FOR CONSTRUCTION PERMIT
RADIO STATION WXZZ(FM)
GEORGETOWN, KENTUCKY
CH 277A 2.65 KW 152 M

This Engineering Statement was prepared on behalf of radio station WXZZ(FM), Georgetown, Kentucky in support of an amendment to its pending application for construction permit to increase its transmitting antenna height.^{*} The purpose of this amendment is to revise the proposed nominal effective radiated power (ERP) proposed. The application originally proposed a nominal ERP of 2.6 kW. However, it has been determined that the correct ERP for a maximum equivalent Class A FM broadcast facility with an antenna height above average terrain of 152 m is 2.65 kW pursuant to Section 73.211 of the FCC Rules.^{† ‡} The WXZZ application is so amended. There are no other changes in the proposed facility.

Tower Registration

The existing tower structure has FCC Antenna Structure Registration Number 1043247. There will be no change in the overall height of the existing tower structure as a result of the proposal. Therefore, no new or modified antenna structure registration is required.

^{*} See FCC File No. BPH-20000124ABJ.

[†] This level of precision is in compliance with Section 73.212(a) of the FCC Rules.

[‡] See, for example, FCC File No. BLH-19990224KD, KIXO(FM), Sulphur, OK, Channel 291A, 2.65 kW, 152 m.

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Environmental Considerations

The proposal is categorically excluded from environmental processing, as an existing tower is to be employed, and the proposal complies with the FCC Rules concerning human exposure to radio frequency (RF) energy.

The proposal would not exceed the 5% exclusion threshold[§] for RF exposure in general population/uncontrolled environments for the frequency proposed. The calculation of RF energy at 2-m above ground was made under the procedures of OET Bulletin No. 65.^{**} A worst-case assumption was made of maximum ERP in the downward direction toward the tower base. The worst-case RF exposure level at 2-m above ground level from the proposed facility will not exceed 3.93% of the applicable MPE for general population/uncontrolled environments.

The transmitter site shall be restricted from access. In the event that personnel are required to climb the structure, the WXZZ(FM) transmissions shall be reduced or terminated as necessary to prevent RF exposure above the FCC recommended limits.

Predicted Coverage Contours

The predicted coverage contours were calculated in accordance with Section 73.313 of the FCC Rules. The average terrain elevations from 3 to 16 km from the proposed site were computed using the U.S.G.S. 3-second terrain database. The standard eight radials evenly-spaced at 45-degree intervals were used in determining the overall antenna HAAT. The distances to the predicted coverage contours were determined using the average elevations of radials spaced every 45-degrees of azimuth. The antenna radiation center HAAT in each radial direction and the ERP were used in conjunction with the propagation prediction curves of Section 73.333 to determine the

[§] See Section 1.1307(b) of the FCC Rules.

^{**} Federal Communications Commission OET Bulletin No. 65, Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields (Edition 97-01, August 1997).

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distances to contours. Figure 1A is a tabulation of average elevations and distances to coverage contours. Figure 2A is a map showing the predicted coverage contours.

As indicated in Figure 2A, the proposed predicted 70 dBu contour will not encompass the entire community of Georgetown. The present city limits of Georgetown were obtained from the Georgetown – Scott County Planning Commission. The Georgetown city limits have expanded substantially to the north compared to the 1990 Census city limits. Whereas the Georgetown city limits based on the 1990 Census contained an area of 11.7 sq. km, the present Georgetown city limits now enclose an area of 33.9 sq. km.

The proposed and licensed WXZZ 70 dBu contours are very similar and both encompass a very similar portion of Georgetown. Figure 2A depicts the both the proposed and licensed predicted 70 dBu contours of WXZZ for reference. The WXZZ licensed 70 dBu contour encompasses 10.0 sq. km of Georgetown, while the proposed WXZZ facility encompasses 10.1 sq. km of Georgetown. This is 29.5% and 29.8% coverage of the Georgetown city limits, respectively. Thus, the proposed facility 70 dBu contour will encompass 0.3% greater area of the Georgetown city limits than now licensed. Therefore, there is an improvement in WXZZ's level of compliance with Section 73.315 the FCC Rules concerning principal community coverage. A waiver of Section 73.315 of the FCC Rules concerning predicted 70 dBu coverage of Georgetown is not deemed necessary. However, if necessary, a waiver of the FCC Rules is respectfully requested.

Louis Robert du Treil, Jr.

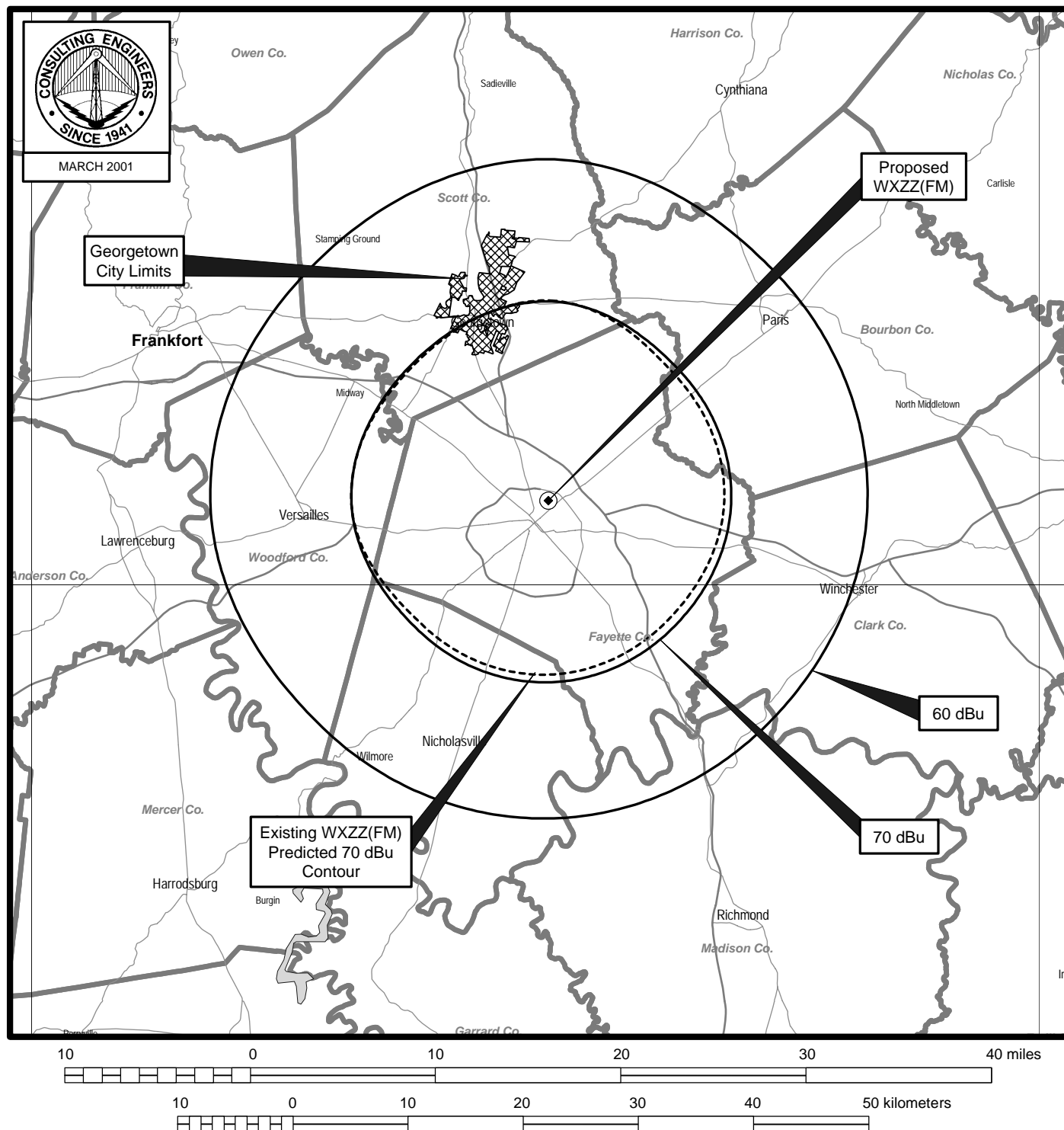
March 8, 2001

ENGINEERING EXHIBIT
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Tabulation of Average Elevations
and Distances to Coverage Contours

<u>Azimuth</u> (deg.T)	3-16 km <u>Average</u> <u>Terrain</u> (m)	Antenna <u>HAAT</u> (m)	<u>ERP</u> (kW)	Distance to 70 dBu <u>Contour</u> (km)	Distance to 60 dBu <u>Contour</u> (km)
0	274	168	2.65	17.3	29.6
45	294	148	2.65	16.0	27.9
90	296	146	2.65	15.9	27.8
135	303	139	2.65	15.4	27.2
180	298	144	2.65	15.8	27.6
225	295	147	2.65	16.0	27.8
270	276	166	2.65	17.2	29.4
315	282	160	2.65	16.8	28.9

Note: All terrain elevations are based on the U.S.G.S. 3-second linearly-interpolated database. The 3-16-km average is 290 m. The overall average antenna height above average terrain is 152 m.



PREDICTED COVERAGE CONTOURS

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