

# Faith Baptist Church

Bourbonnais, IL

## Technical Certifications

As shown below (next page), the proposed facility meets the applicable engineering standards and assignment requirements of 47 CFR §73.807(a) through (g), and §73.825

### LPFM Channel Study Faith Baptist Church

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REFERENCE                                     DISPLAY DATES
41 09 39.34 N.                               CLASS = L1      DATA  11-28-23
87 51 48.13 W.                               Current Spacings to 2nd Adj.  SEARCH 11-28-23
----- Channel 228 - 93.5 MHz -----
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Call	Channel	Location	Azi	Dist	FCC	Margin
WJBC-FM	LIC 229B1	Pontiac	IL 235.3	78.41	73.5	4.9
WLQI	VAC 227A	Rensselaer	IN 109.3	63.35	55.5	7.9
WVIV-FM	LIC 228A	Lemont	IL 354.4	77.83	66.5	11.3
WLIT-FM	LIC 230B	Chicago	IL 13.3	81.97	66.5	15.5
WXRT	LIC-D 226B	Chicago	IL 13.6	84.38	66.5	17.9
WKHY	LIC 228A	Lafayette	IN 138.6	114.33	66.5	47.8
W228DZ	LIC 228D	Ottawa	IL 287.0	86.63	38.5	48.1

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All separation margins include rounding

The proposed facility's 60dBu service contour is 5.56 km, meeting the requirements of 47CFR §73.811, which specifies that the contour will be between 4.7 and 5.6 km.

## **Environmental Effect**

The proposed facility is excluded from environmental processing under 47 CFR §1.1306 (i.e., the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments).

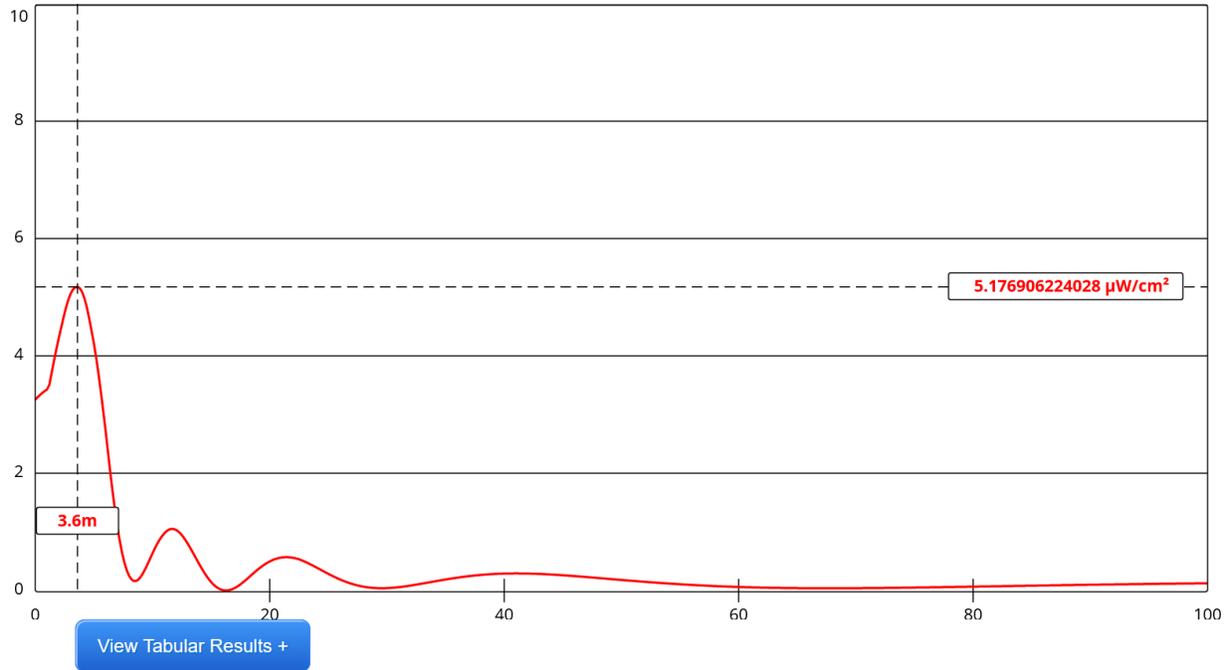
The proposed site is not in an officially designated wilderness area, wildlife preserve, flood plain, or near a site that is either listed or eligible for listing in the National Register of Historic Places. The proposed construction will not adversely affect any listed or proposed threatened or endangered species or their critical habitats, or any sites significant to Native American Religious practice, and will not involve any significant change in surface features. The applicant does not propose to light the antenna support structure with high intensity white lighting.

The proposed facility is a self-supporting tower on the grounds of Faith Baptist Church, which is owned by the applicant. The applicant proposes a 20m (AGL) tower, utilizing a single bay Shively SLV antenna (EPA Type 4). The elevation above population remains the standard 2 meters utilized by FM Model.

Shown below is the output of the Commission's FM Model program, with a maximum calculated exposure of  $5.18 \mu\text{W}/\text{cm}^2$ , well below the maximum permissible exposure for the general public, or 2.59% of the limit of  $200 \mu\text{W}/\text{cm}^2$ .

The applicant is cognizant of its responsibility to protect those workers whose duties require that they be in the vicinity of the antenna from exposure to radio frequency fields in excess of those outlined above. To that end, signage will be attached to the base of the antenna support structure warning all workers of the potential for harmful exposure and directing them to contact the responsible person at the broadcast station. That person will ascertain whether the worker will be in areas where there is an exposure hazard, and if so, arrange to shut down the transmitter(s). The permittee/licensee will also coordinate with other users of the site, if any, to reduce power or cease operation in order to protect persons having access to the site, tower or antenna from radiofrequency radiation in excess of Commission guidelines.

For these reasons, the applicant believes that a Commission grant of this application would not have a significant environmental impact.



Channel Selection	Channel 228 (93.5 MHz) ▾		
Antenna Type +	EPA Type 4: Two-Piece Spiral ▾		
Height (m)	<input type="text" value="15"/>	Distance (m)	<input type="text" value="100"/>
ERP-H (W)	<input type="text" value="95"/>	ERP-V (W)	<input type="text" value="95"/>
Num of Elements	<input type="text" value="5"/>	λ	<input type="text" value="1"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	