Calvary Baptist Church of Waterloo

Waterloo, IA

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

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                          LPFM Channel Study
                   Calvary Baptist Church of Waterloo

  REFERENCE                                            DISPLAY DATES
 42 30 51.26 N.                  CLASS = L1            DATA    11-07-23
 92 21 23.30 W.         Current Spacings to 2nd Adj.   SEARCH 11-07-23
 ------------------------ Channel 239 - 95.7 MHz ------------------------

 Call        Channel    Location            Azi     Dist    FCC    Margin
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 KOSY-FM    LIC-Z 239C3  Anamosa        IA  126.7   83.87   77.5    6.4
 KZAT-FM    LIC   238A   Belle Plaine   IA  183.1   63.53   55.5    8.0
 KCHA-FM    LIC-N 240A   Charles City   IA  336.9   65.16   55.5    9.7
 KQMG-FM    LIC   237A   Independence   IA   96.0   39.89   28.5   11.4
 KQWC-FM    LIC   239C3  Webster City   IA  268.0  118.53   77.5   41.0
 KIFG-FM    LIC   237A   Iowa Falls     IA  270.2   70.64   28.5   42.1
 KCOB-FM    LIC   240A   Newton         IA  212.6  102.35   55.5   46.9
 KJCY       LIC   238A   St. Ansgar     IA  337.1  102.72   55.5   47.2

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           All separation margins include rounding
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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).
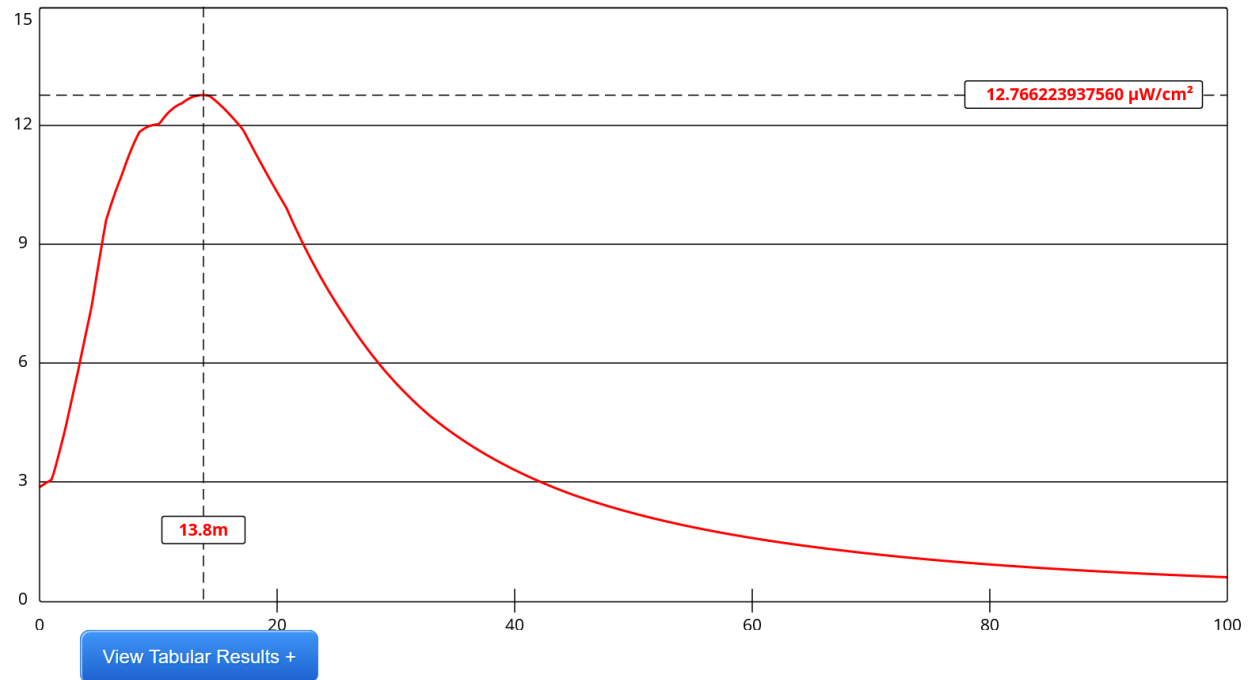
The proposed site is not in an officially designated wilderness area, wildlife preserve, flood plain, or near a site that is either listed or eligible for listing in the National Register of Historic Places. The proposed construction will not adversely affect any listed or proposed threatened or endangered 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 located on the grounds of Calvary Baptist Church, which is owned by the applicant. The applicant proposes a 15m (AGL) pole on the side of the building, utilizing a single bay Shively SLV antenna (EPA Type 4). There is not an elevated area within the building, so 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 12.77 $\mu W/cm^2$, well below the maximum permissible exposure for the general public, or 6.38% of the limit of 200 $\mu W/cm^2$.

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.

12.766223937560 µW/cm²

13.8m

View Tabular Results +

Channel Selection	Channel 239 (95.7 MHz)		
Antenna Type **+**	EPA Type 4: Two-Piece Spiral		
Height (m)	14	Distance (m)	100
ERP-H (W)	95	ERP-V (W)	95
Num of Elements	1	λ	1
Num of Points	500		Apply

Calvary Baptist Church of Waterloo, LPFM Station Application, Technical Certifications