

**New Non-Commercial Educational FM Station
Channel 207A (89.3 MHz) Mena, Arkansas**

November 2, 2021

TECHNICAL NARRATIVE

This Technical Narrative and attached exhibits were prepared on behalf of Community Radio, Inc., (“Community”), Community herein is an FCC Form 2100, Schedule 340, Noncommercial Educational Station for Reserved Channel Construction Permit Application (Schedule 340) for a new non commercial FM station during the FCC NCE Filing Window. Community requests Channel 207A (89.3 MHz) at Mena, Arkansas. Community currently is the licensee of KAWX-LP, Channel 226L1, Mena, Arkansas and pledges agrees that if granted a full power FM NCE construction permit, that prior to “program test” (completion of construction) of the new full-power facility, Community will divest LPFM station KAWX-LP.

A channel study using Section 73.207 separation distances for Class A FM stations. This channel study is provided as a courtesy to FCC staff to help identify potential contour overlap issues. Exhibits demonstrates Section 73.509 contour protection to co-channel full power FM stations KKLK Channel 207C2, Texarkana, AR and KHCP Channel 207C3, Paris, TX and second adjacent channel full power FM station KBHN, Channel 209C1, Booneville, AR.

A study has been undertaken to show the proposed new facility is in compliance with the Commission’s environmental and radio frequency emission limits and is attached an exhibit.

New Mena, AR NCE CH207A Amendment

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REFERENCE                                     DISPLAY DATES
34 34 24.6 N.                                CLASS = A   Int = AA      DATA   12-07-21
94 14 03.3 W.                                Current Spacings to 3rd Adj.  SEARCH 12-07-21
----- Channel 207 - 89.3 MHz -----
Call      Channel  Location      Azi      Dist      FCC      Margin
   Lat.    Lng.      Ant        Power      HAAT
-----
766587    APP     207A    Mena          AR     0.3      2.0      114.5    -112.5
  34 35 29.5  94 14 02.9  CN        1.800 kW      26 M
    Community Radio, Inc.      0000167655

KWFT-LD   LI      06Z--   Fort Smith      AR     2.5      135.9     195.5    -59.6
  35 47 49.0  94 10 05.0  HN        3.000 kW      0 M
                                0000080417

KKLT      LIC     207C2   Texarkana      AR    165.1     135.4     165.5    -30.1
  33 23 36.4  93 51 34.7  EN        23.000 kW      145 M
    Educational Media Foundati  BLED20060901ACO
Note: See FCC Section 73.509 Prohibited Overlap - KKLT

K207DS    LIC     207D    Wister          OK    323.3     68.9      84.5     -15.6
  35 04 11.4  94 41 14.8  VN         0.010 kW      0 M
    CSN International          BLFT20171030ABN

KBHN      LIC     209C1   Booneville      AR     13.9     64.8      74.5     -9.7
  35 08 25.3  94 03 43.7  CN        59.000 kW      92 M
    Vision Ministries, Inc.    BLED20050411ABM
Note: See FCC Section 73.509 Prohibited Overlap - KBHN

K207CW    LIC     207D    Paris          AR     37.5     83.1      84.5     -1.4
  35 09 54.3  93 40 38.7  VN         0.010 kW      659 M
    CSN International          BLFT20040720AAH

KHCP      LIC     207C3   Paris          TX    234.1    140.4     141.5     -1.1
  33 49 36.4  95 27 49.8  CN        21.000 kW      108 M
    Houston Christian Broadcas  BLED20010117AAR
Note: See FCC Section 73.509 Prohibited Overlap - KHCP

KAYH      LIC     207C2   Fayetteville    AR     4.3     178.7     165.5     13.3
  36 10 48.3  94 05 09.7  CN        25.000 kW      112 M
    Community Broadcasting, In  BLED20120925AAD

767350    APP     204A    Norman          AR    104.0     52.9      30.5     22.4
  34 27 27.0  93 40 31.9  CN         4.000 kW      32 M
    His Will, Inc.            0000166786

KUAR      LIC     206C1   Little Rock      AR     80.7    161.8     132.5     29.3
  34 47 49.3  92 29 20.6  CN        63.000 kW      342 M
    Board Of Trustees Of The U  BLED20120504ABW

KBPU      LIC     204A    De Queen        AR    191.8     60.2      30.5     29.7
  34 02 32.8  94 22 06.8  CN         5.000 kW      15 M
    Board Of Trustees Of The U  BLED20150910ABP

K210DV    LIC     210D    De Queen        AR    185.4     59.0      25.5     33.5
  34 02 38.4  94 17 41.7  VN         0.250 kW      67 M
    Radio By Grace, Inc.      0000118008

KTCS-FM   LIC     260C    Fort Smith      AR    323.8     68.8      28.5     40.3
  35 04 20.3  94 40 50.8  CN       100.000 kW      585 M
    Big Chief Broadcasting Com  BLH19871231KC

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| Call | Channel | Location | | Azi | Dist | FCC | Margin |
|------------|----------------------------|--------------|------------|-------|-------|------|--------|
| Lat. | Lng. | Ant | Power | | HAAT | | |
| KAOW | CP 205C2 | Fort Smith | AR | 353.1 | 97.7 | 54.5 | 43.2 |
| 35 26 50.9 | 94 21 53.7 | CN | 26.500 kW | | 140 M | | |
| | Community Broadcasting, In | | 0000120191 | | | | |
| 767187 | APP-D 204C1 | Russellville | AR | 53.1 | 121.1 | 74.5 | 46.6 |
| 35 13 20.0 | 93 10 09.0 | DCN | 100.000 kW | | 67 M | | |
| | Calvary Chapel Pearl Harbo | | 0000167416 | | | | |

New

Mena, AR
Latitude: 34-34-24.60 N
Longitude: 094-14-03.30 W
ERP: 1.80 kW
HAAT: 26.03 m
Channel: 207
Frequency: 89.3 MHz
AMSL Height: 390.0 m
Elevation: 356.0 m
Horiz. Pattern: Omni

KKLT

Texarkana, AR
BLED20060901ACO
Latitude: 33-23-35.95 N
Longitude: 093-51-34.04 W
ERP: 23.00 kW
HAAT: 145 m
Channel: 207
Frequency: 89.3 MHz
AMSL Height: 237.0 m
Elevation: 138.0 m
Horiz. Pattern: Omni

KBHN

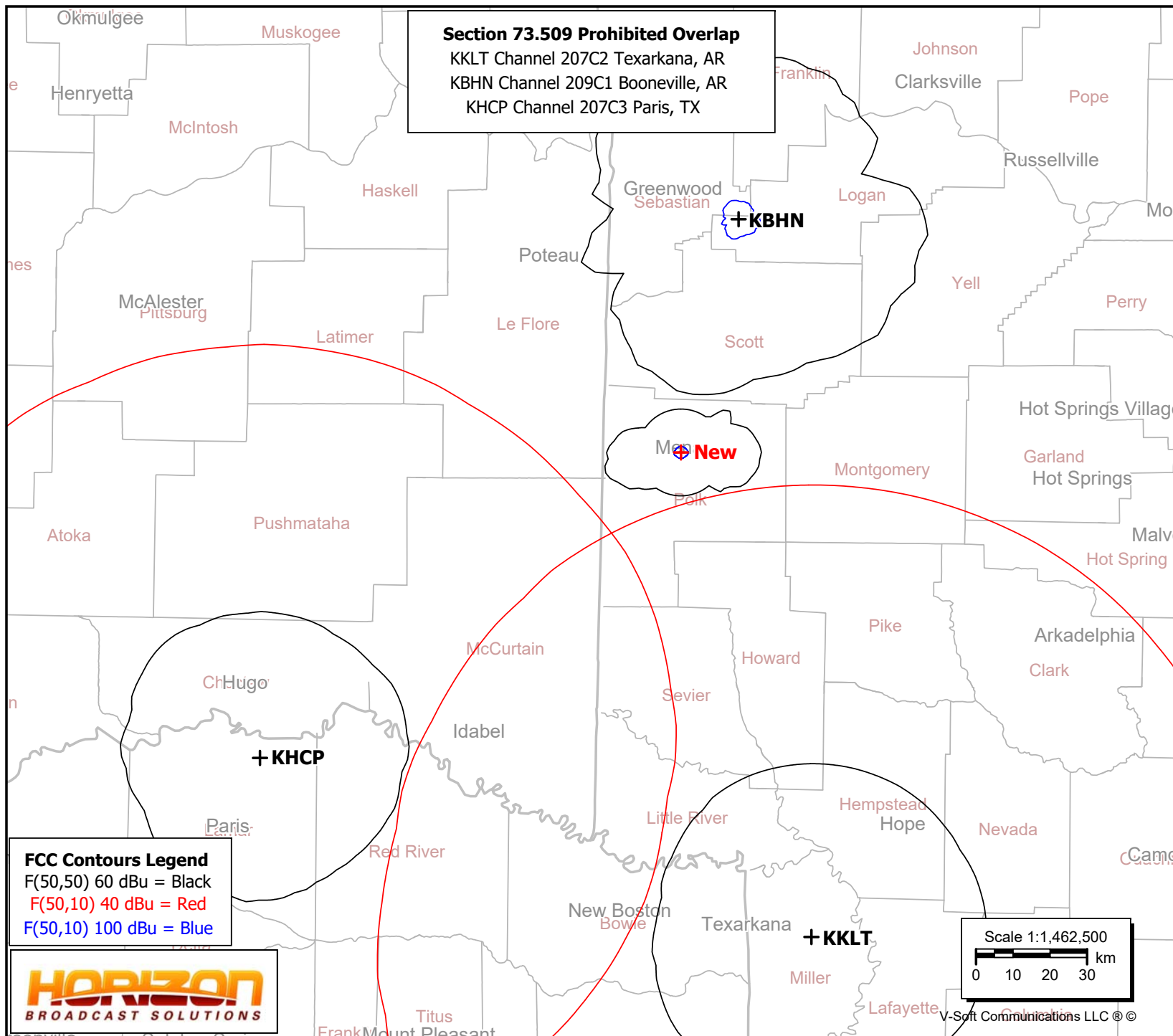
Booneville, AR
BLED20050411ABM
Latitude: 35-08-24.96 N
Longitude: 094-03-42.96 W
ERP: 59.00 kW
HAAT: 92 m
Channel: 209
Frequency: 89.7 MHz
AMSL Height: 285.0 m
Elevation: 201.0 m
Horiz. Pattern: Omni

KHCP

Paris, TX
BLED20010117AAR
Latitude: 33-49-36.02 N
Longitude: 095-27-48.96 W
ERP: 21.00 kW
HAAT: 108 m
Channel: 207
Frequency: 89.3 MHz
AMSL Height: 245.0 m
Elevation: 147.0 m
Horiz. Pattern: Omni

Section 73.509 Prohibited Overlap

KKLT Channel 207C2 Texarkana, AR
KBHN Channel 209C1 Booneville, AR
KHCP Channel 207C3 Paris, TX



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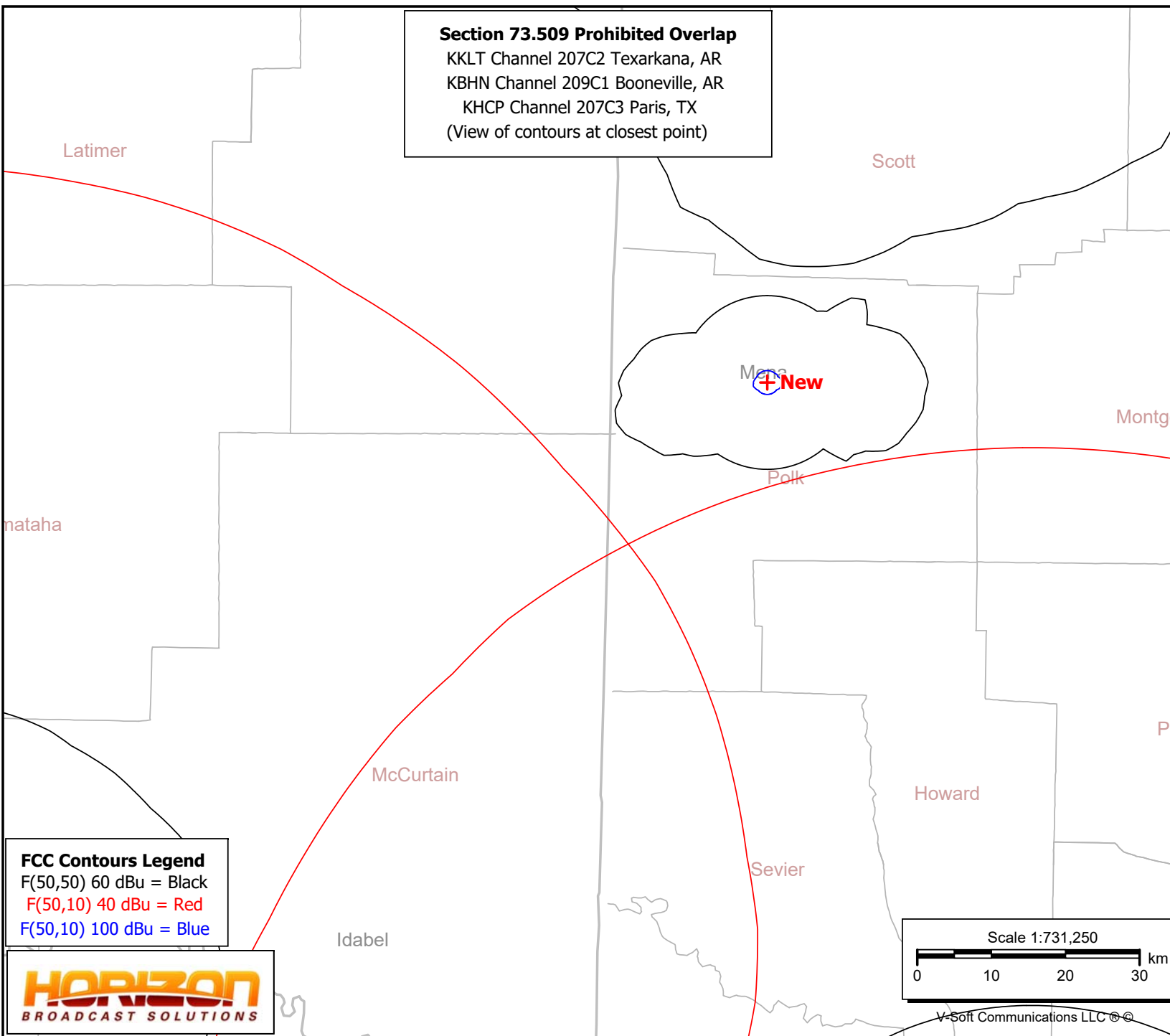
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Section 73.509 Prohibited Overlap

KKLT Channel 207C2 Texarkana, AR
KBHN Channel 209C1 Booneville, AR
KHCP Channel 207C3 Paris, TX
(View of contours at closest point)



New

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HAAT: 26.03 m

Channel: 207

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AMSL Height: 390.0 m

Elevation: 356.0 m

Horiz. Pattern: Omni

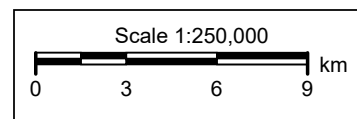
FCC Section 73.515

NCE FM transmitter location

FCC F(50,50) 60 dBu Contour

FCC F(50,50) 60 dBu Contour

Polk

HORIZON
BROADCAST SOLUTIONS

V-Soft Communications LLC ©

**Human Exposure to Radiofrequency Electromagnetic Field
&
Section 106 Compliance
(Environmental)**

A study has been made to determine whether this proposal is in compliance with 47 C.F.R. 1.1307 of the Commission's rules and with OET Bulletin #65, dated August 1997, regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. Community Radio, Inc. ("Community") is applying for NCE channel 207A, at Mena, Arkansas during the FCC NCE Filing Window. The transmitting site is an existing water tank with pole extending 36.1 meters in overall height and is not registered with an FCC Antenna Structure Registration (ASR) number. The site is located at 34° 34' 24.6" N ~ 94° 14' 03.3" W (NAD 83). The proposed antenna will be a side mounted Nicom BKG88 three bay 0.625 wave spaced non-directional circularly polarized antenna. The proposed new facility would operate with 1.8 kilowatts ERP non-directional at 34 meters above ground level and 26.03 meters HAAT. The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of § 1.1306 of the FCC Rules. Because Community proposes to operate the new facility from an existing site and no changes to the site are proposed therefore, it is believed to be exempt from a Section 106 review by the SHPO/THPO.

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. The revised FM Model Program does include the Nicom antenna under Type One ring and stub, or any type not otherwise described was selected. Using the Type One antenna selection, the maximum calculated signal density near the tower at two meters above ground level attributable to the proposed facility is $6.857 \mu\text{W}/\text{cm}^2$ at 22 meters, which is 3.43 percent of the general population/uncontrolled maximum permitted exposure limit. This is below the five percent threshold limit described in 1.1307(b) regarding sites with multiple emitters, which excludes applicant from responsibility for taking any corrective action in areas where the proposal's contribution is less than five percent.

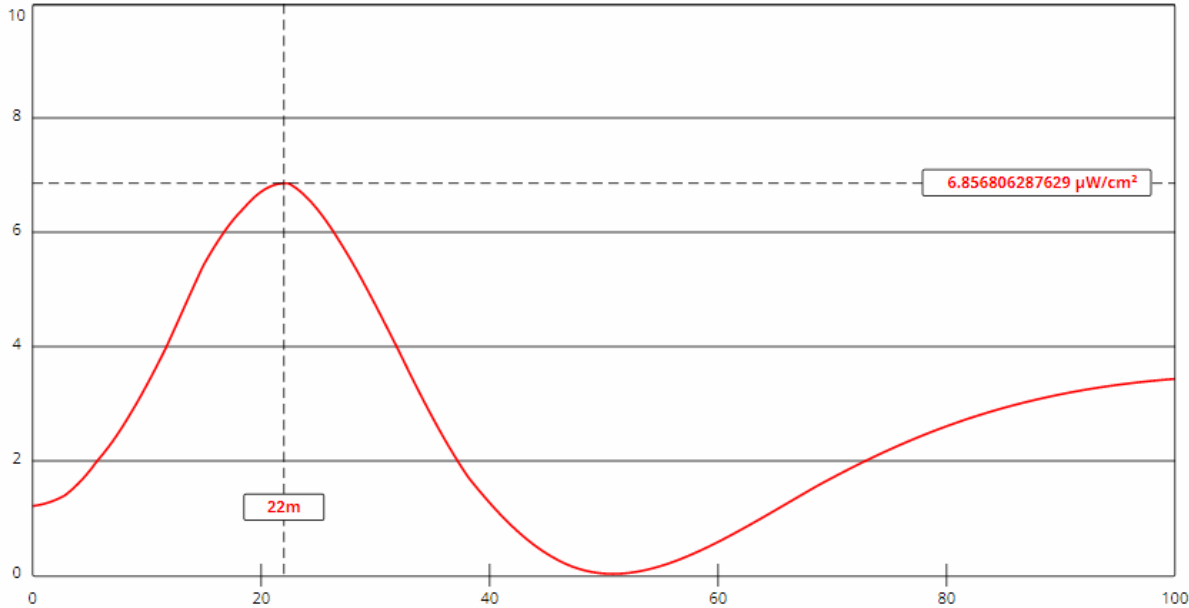
The applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.

FM Model

- Radio Frequency Safety
- FCC Policy on Human Exposure
- RF Safety FAQ
- Body Tissue Dielectric Parameters
- RF Safety Highlighted Releases
- FM Model

The FM Model calculator determines the potential exposure from radiofrequency (RF) electromagnetic fields produced by FM broadcast station antennas at ground level. The FM Model software was originally developed by the FCC in 1997 as a standalone executable program and this improved version provides more precise predictions and runs via a JavaScript enabled web browser. The FM Model is originally based on measured data published in 1985 by the EPA.

▼ Show More....



View Tabular Results +

| | | | |
|-------------------|--|---------------------|-------|
| Channel Selection | Channel 207 (89.3 MHz) ▼ | | |
| Antenna Type + | EPA Type 1: Ring-and-Stub or "Other" ▼ | | |
| Height (m) | 34 | Distance (m) | 100 |
| ERP-H (W) | 1800 | ERP-V (W) | 1800 |
| Num of Elements | 3 | Element Spacing (λ) | 0.625 |
| Num of Points | 500 | Apply | |