# TECHNICAL NARRATIVE

February 28, 2023

This Technical Statement and attached exhibits were prepared on behalf of Chavez Radio Group, ("Chavez"), licensee of station KRIT, Channel 230C3, Parker, Arizona, (Facility ID# 88674). Chavez herein proposes to modify the license of KRIT to operate on Channel 224B1, licensed to Parker, Arizona.

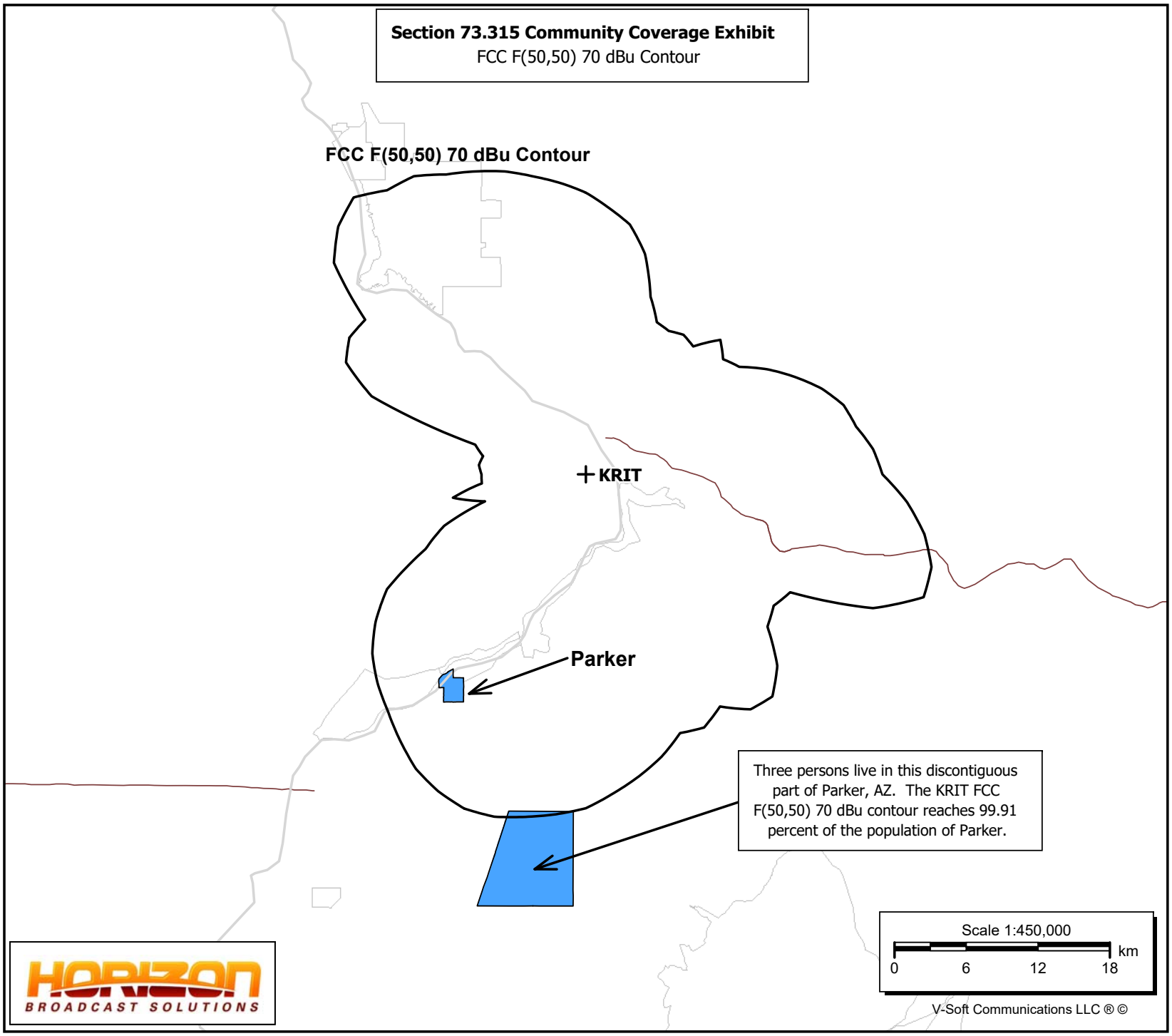
On July 13, 2005, The Commission released MM Docket No. 04-252 (RM-11120). KRIT was assigned Channel 224B1 as part of that rulemaking. Chavez is filing a minor modification one step application proposing operation on Channel 224B1. The proposal is described in its entirety for the convenience of the FCC staff but the actual requests are made by the application itself. This modification is compliant with all the requirements of 47CFR §73.207 and 47CFR §73.315.

Chavez is proposing to implement this change at an existing tower site. The proposed tower is less than 200 feet in overall height and is not registered with the FCC's Antenna Structure Registration ("ASR"). As such, the Federal Aviation Administration will not be apprised of this proposal. The reference site coordinates, 36° 16' 00" North Latitude, 114° 12' 00" West Longitude (NAD 27) for Channel 224B1 at Parker, AZ have been in the FCC database since 2005. The application site channel study located at 34° 18' 38.5" North Latitude, 114° 10' 11" West Longitude (NAD 27) shows one short-spacing to an existing full power station. The proposed KRIT application site is short spaced to KRRN Channel 224C, licensed to Moapa Valley, NV by 1.6 km. The application

specifies Section 73.215 contour protection with respect to KRRN. The Section 73.215 contour protection map exhibit shows the protected and interfering contours of KRRN and the proposed KRIT facility do not overlap. The Application Site F(50,50) 70 dBu principal community contours covers 99.91 percent of the Parker, Arizona population. There is a discontiguous incorporated area of Parker that is described in the Section 73.315 City Grade Exhibit. According to the 2020 US Census, three persons live in this area.

Exhibits provided show the proposed KRIT facility complies with the Commission's radio frequency emission limits and are attached as exhibits.

**KRIT**
Parker, AZ
Latitude: 34-18-38.50 N
Longitude: 114-10-11 W
ERP: 5.50 kW
HAAT: 209.76 m
Channel: 224
Frequency: 92.7 MHz
AMSL Height: 534.0 m
Elevation: 518.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC



**KRIT CH224B1 Appl. Site Channel Study**

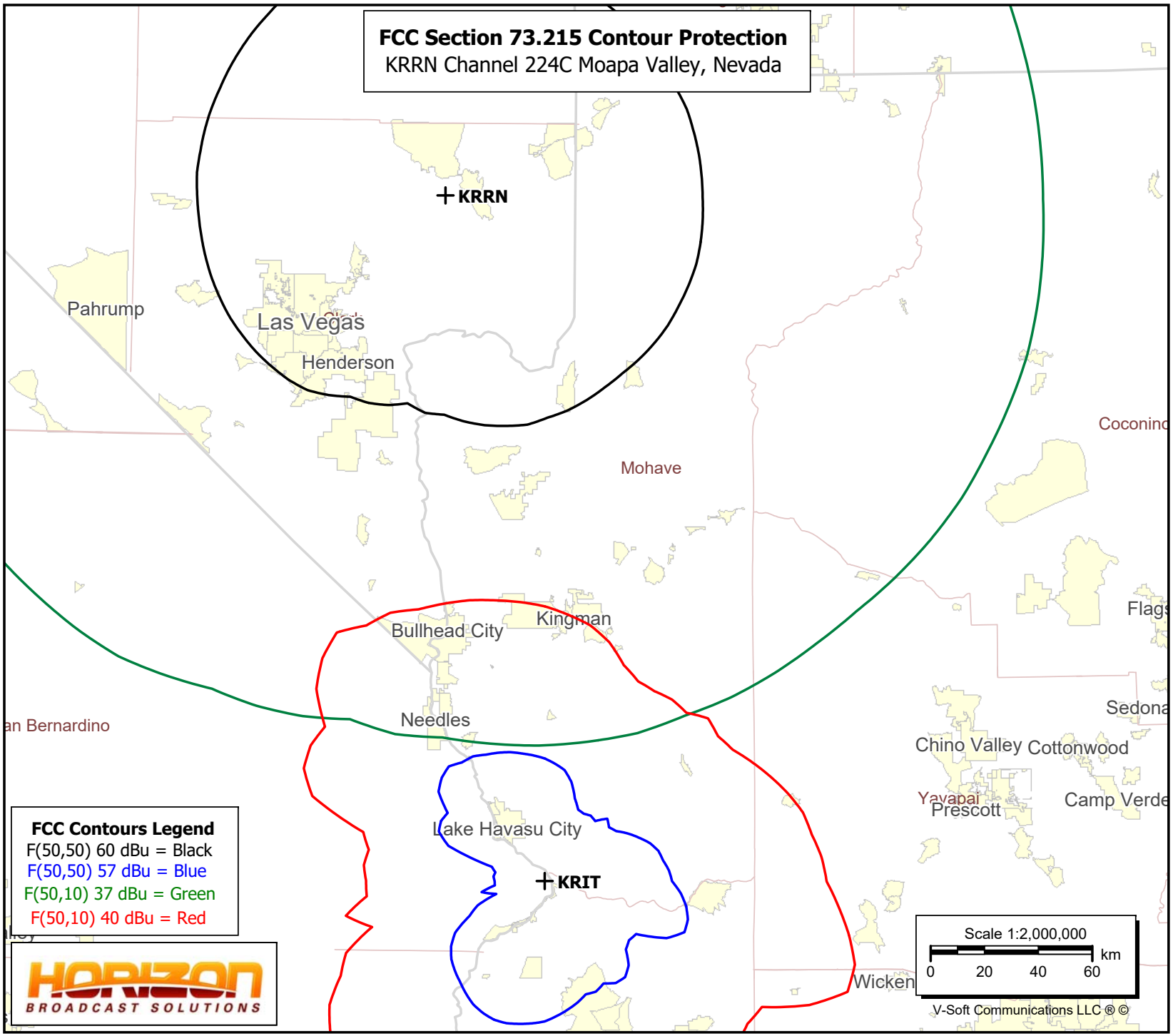
REFERENCE — DISPLAY DATES
34 18 38.5 N. — CLASS = B1 Int = B1 — DATA 02-28-23
114 10 11.0 W. — Current Spacings to 3rd Adj. — SEARCH 02-28-23

Channel 224 - 92.7 MHz

| Call | Channel | Location | Azi | Dist | FCC | Margin |
|---|---|---|---|---|---|---|
| Lat. | Lng. | Ant | Power | HAAT | | |
| K226DB/K2 CP -D | 226D | Lake Havasu City | AZ 355.1 | 26.6 | 40.5 | -13.9 |
| 34 33 00.0 | 114 11 40.8 | DVN | 0.099 kW | 0 M | | |
| | | | 0000208592 | | | |
| K222AV | LIC-D 222D | Parker | AZ 355.2 | 26.8 | 40.5 | -13.7 |
| 34 33 06.0 | 114 11 39.8 | DVN | 0.250 kW | 0 M | | |
| Aircraft Storage Solutions | | | BLFT20140310ABB | | | |
| KCAN-LP | LIC 223L1 | Needles | CA 325.1 | 70.3 | 73.5 | -3.2 |
| 34 49 43.0 | 114 36 40.9 | CN | 0.100 kW | -13 M | | |
| Tri-State Christian Radio | | | BLL20170607AAI | | | |
| K224BV | LIC-D 224D | Kingman | AZ 15.4 | 90.2 | 92.5 | -2.3 |
| 35 05 39.0 | 113 54 20.8 | DVN | 0.250 kW | 0 M | | |
| Advance Ministries, Inc. D | | | BLFT20140728AAM | | | |
| KRRN | LIC 224C | Moapa Valley | NV 351.7 | 256.9 | 258.5 | -1.6 |
| 36 36 03.9 | 114 35 09.0 | HN | 100.000 kW | 587 M | | |
| Entravision Holdings, LLC | | | BMLH20140619ABW | | | |
| **Note: Adopt Section 73.215 Contour Protection with respect to KRRN** | | | | | | |
| K225BX | LIC 225D | Quartzsite | AZ 184.4 | 69.2 | 48.5 | 20.7 |
| 33 41 18.1 | 114 13 39.8 | VN | 0.030 kW | 0 M | | |
| Advance Ministries, Inc. D | | | BLFT20170410AAL | | | |
| K225BX | CP 225D | Quartzsite | AZ 183.0 | 71.4 | 48.5 | 22.9 |
| 33 40 04.1 | 114 12 38.4 | VN | 0.050 kW | 0 M | | |
| Advance Ministries, Inc. D | | | 0000149554 | | | |
| K225DF | LIC-D 225D | Needles | CA 339.7 | 93.3 | 48.5 | 44.8 |
| 35 05 53.1 | 114 31 34.7 | DCN | 0.250 kW | 0 M | | |
| Rubin Broadcasting, Inc. | | | 0000189882 | | | |
| K227CS | LIC-D 227D | Kingman | AZ 15.4 | 90.2 | 40.5 | 49.7 |
| 35 05 39.0 | 113 54 20.8 | DHN | 0.010 kW | 0 M | | |
| Steven M. Greeley | | | BLFT20150527AAB | | | |
| K222CZ | LIC-D 222D | Golden Valley | AZ 16.3 | 92.5 | 40.5 | 52.0 |
| 35 06 37.0 | 113 52 58.8 | DVN | 0.250 kW | 0 M | | |
| Grand Canyon Gateway Broad | | | 0000129653 | | | |
| KKUU | LIC 224A | Indio | CA 256.1 | 196.1 | 142.5 | 53.6 |
| 33 52 15.1 | 116 13 40.0 | CN | 4.200 kW | 120 M | | |
| Alpha Media Licensee LLC D | | | BLH20021210ABQ | | | |
| KKUU | ALO 224A | Indio | CA 253.7 | 198.0 | 142.5 | 55.5 |
| 33 47 45.1 | 116 13 22.0 | | 0.000 kW | 100 M | | |
| Alpha Media Licensee LLC D | | | | | | |

**KRIT**
Parker, AZ
Latitude: 34-18-38.50 N
Longitude: 114-10-11 W
ERP: 5.50 kW
HAAT: 209.76
Channel: 224
Frequency: 92.7 MHz
AMSL Height: 534.0 m
Elevation: 518.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC

**KRRN**
Moapa Valley, NV
BMLH20140619ABW
Latitude: 36-36-03.90 N
Longitude: 114-35-09 W
ERP: 100.00 kW
HAAT: 611.44
Channel: 224
Frequency: 92.7 MHz
AMSL Height: 1186.0 m
Elevation: 769.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC



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

Chavez Radio Group, ("Chavez"), seeks to modify KRIT Channel 230C3 licensed to Parker, AZ, Facility ID# 88674 by changing the transmitter site and operating on Channel 224 B1 with a non-directional antenna and an effective radiated power of 5.5 kilowatts at 209.76 meters height above average terrain. The existing tower is 30 meters (98.4 feet) above ground in overall height. KRIT will operate with a 4 bay half wave side mounted Bext Model TFC2K antenna with a center of radiation of 16.0 meters AGL. Because the proposed modification will locate the KRIT on an existing tower and no modification to the tower is being proposed, it is believed this proposal is exempt from a Section 106 review by the SHPO/THPO.

The following other FM stations currently operates from this tower:

| | | | |
|---|---|---|---|
| KPKR | Channel 239B1 | Parker, CA | Facility ID# 170952 |
| KXBB | Channel 269B1 | Cienega Springs, AZ | Facility ID# 198736 |
| KDMM | Channel 276B1 | Parker Strip, CA | Facility ID# 198737 |

These three commonly owned stations operate from a PSI Model FMLB-4B four bay half wave shared antenna. The proposed KRIT operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. The Bext antenna is listed in the updated FM Model Program under EPA Type 2 Opposed "V" dipole. Using EPA Element Type 2, the maximum calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 51.085 $\mu W/cm^2$, at 52.2 meters, which is 25.54 percent of the general population uncontrolled maximum permitted exposure limit and 5.1 percent of the limit for "controlled" environments.

The other three stations were evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. Using the FM Model for Windows the maximum calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 26.0 $\mu W/cm^2$ at 19 meters, which is 13.0 percent of the general population/uncontrolled maximum permitted exposure limit and 2.60 percent of the limit for "controlled" environments.

| CALL | Channel/Class | Polarity | Antenna AGL | ERP kW | % of Uncontrolled Limit |
|---|---|---|---|---|---|
| KRIT | 224B1 | H&V | 16 meters | 5.5 | 25.54 |
| KPKR | 239B1 | H&V | 25 meters | 6.3 | 10.84 |
| KXBB | 269B1 | H&V | 25 meters | 1.65 | 2.84 |
| KDMM | 276B1 | H&V | 25 meters | 2.8 | 4.82 |

Total of ANSI "Uncontrolled" value 44.04%

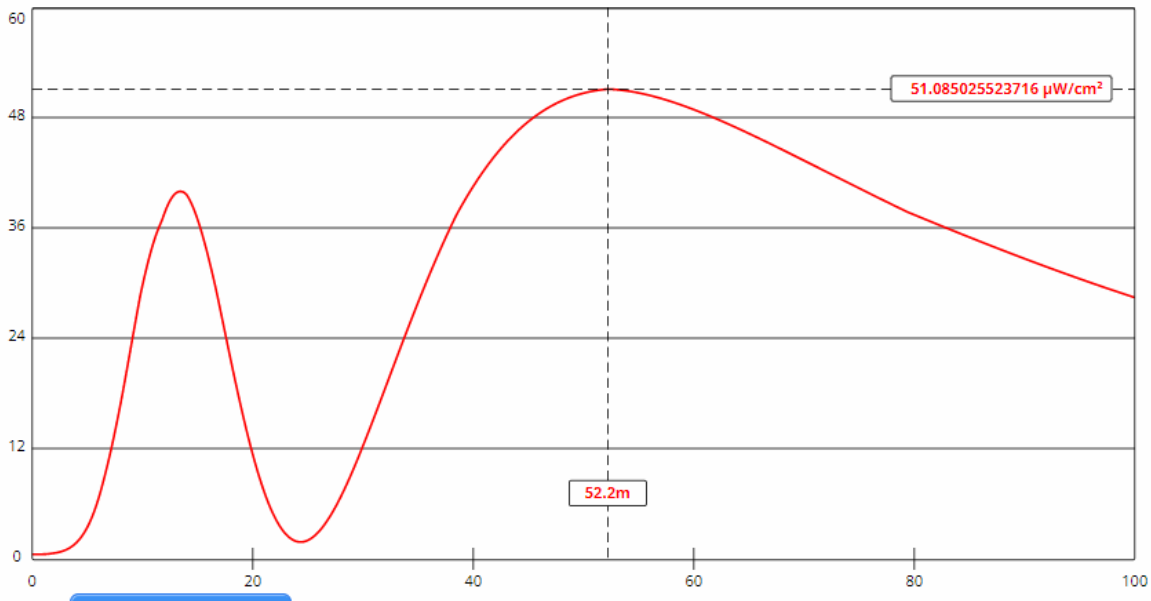
The applicant will see that signs are posted at all entry points onto the property and in the vicinity of the tower, warning of potential radio frequency hazards at the site. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary 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**

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

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 224 (92.7 MHz) | | |
| Antenna Type + | EPA Type 2: Opposed V Dipole | | |
| Height (m) | 16 | Distance (m) | 100 |
| ERP-H (W) | 5500 | ERP-V (W) | 5500 |
| Num of Elements | 4 | λ | 0.5 |
| Num of Points | 500 | Apply | |