

**KGSR Channel 227C**  
**Facility ID No. 23604**  
**Cedar Park, Texas**  
**Auxiliary License at ASR 1243735**  
**Exhibit 35**  
**FCC Form 301, Section III-B**  
**Comprehensive Technical Exhibit**  
**May 14, 2018**

## **TECHNICAL NARRATIVE**

The applicant, Emmis Austin Radio Company, L.P. ("Emmis Austin"), requests authority to operate an FM auxiliary station on KGSR, Channel 227C, Facility ID No. 23604, licensed to Cedar Park, Texas.

Emmis Austin seeks to operate with 25.5 at 150 m HAAT from an existing tower associated with ASR number 1243735. The transmit antenna will be an ERI Model SHPX-6C3-SP six bay 0.794 wave length circularly polarized antenna with a center of radiation of 64 meters height above ground level.

The proposed KGSR auxiliary station will not result in extension of the licensed main facility FCC F(50,50) 60 dBu contour in any direction as required in Section 73.1675(a). A contour map demonstrating compliance of Section 73.1675(a) is attached as an exhibit with this application.

Compliance with environmental processing is demonstrated in Section III – FM Engineering - Environmental Protection Agency - Exhibit 35 as Compliance with RF Exposure Limits and Section 106 and FM Model for Windows.

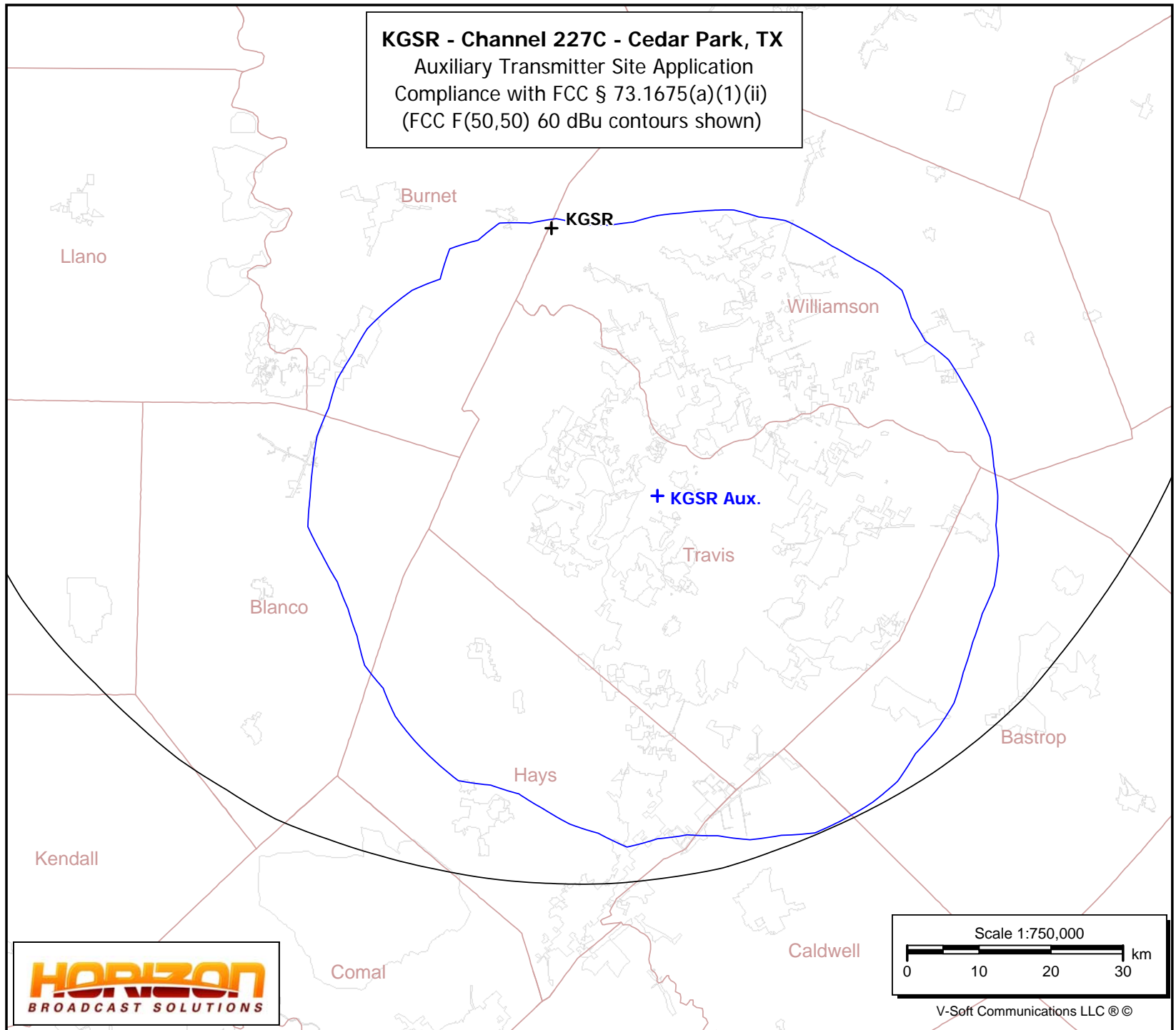
**KGSR**

Cedar Park, TX  
BMLH20140306AHQ  
Latitude: 30-43-34 N  
Longitude: 097-59-24.30 W  
ERP: 100.00 kW  
HAAT: 587.0 m  
Channel: 227  
Frequency: 93.3 MHz  
AMSL Height: 928.0 m  
Elevation: 346.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

**KGSR Aux.**

Cedar Park, TX  
Latitude: 30-23-26.20 N  
Longitude: 097-50-12.70 W  
ERP: 25.50 kW  
HAAT: 150 m  
Channel: 227  
Frequency: 93.3 MHz  
AMSL Height: 392.6 m  
Elevation: 328.6 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

**KGSR - Channel 227C - Cedar Park, TX**  
Auxiliary Transmitter Site Application  
Compliance with FCC § 73.1675(a)(1)(ii)  
(FCC F(50,50) 60 dBu contours shown)



**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. Emmis Austin Radio Broadcasting Company, L.P., licensee of KGSR seeks requests authority to operate an FM auxiliary station for KGSR, Channel 227C, Facility ID No. 23604, licensed to Cedar Park, Texas. The transmitting site is an existing tower 79.2 meters in overall height. This tower is registered with the FCC's Antenna Structure Registration (ASR) #1243735. The tower is located at 30° 23' 26.2" N ~ 97° 50' 12.7" W (NAD 27). The proposed antenna is a side mounted ERI Model SHPX-6C3-SP six bay 0.794 wave length circularly polarized antenna. The KGSR auxiliary facility will operate with 25.5 kilowatts ERP at 64 meters above ground level and 150 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. The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. The ERI antenna is included in the Antenna Types in the OET's updated FM Model Program under Type 3 Opposed "U" dipole. Using the Commission's FM Model Program, the maximum calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 2.95  $\mu\text{W}/\text{cm}$  at 57 meters, which is 1.48 percent of the general population/uncontrolled maximum permitted exposure limit. This is well 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.

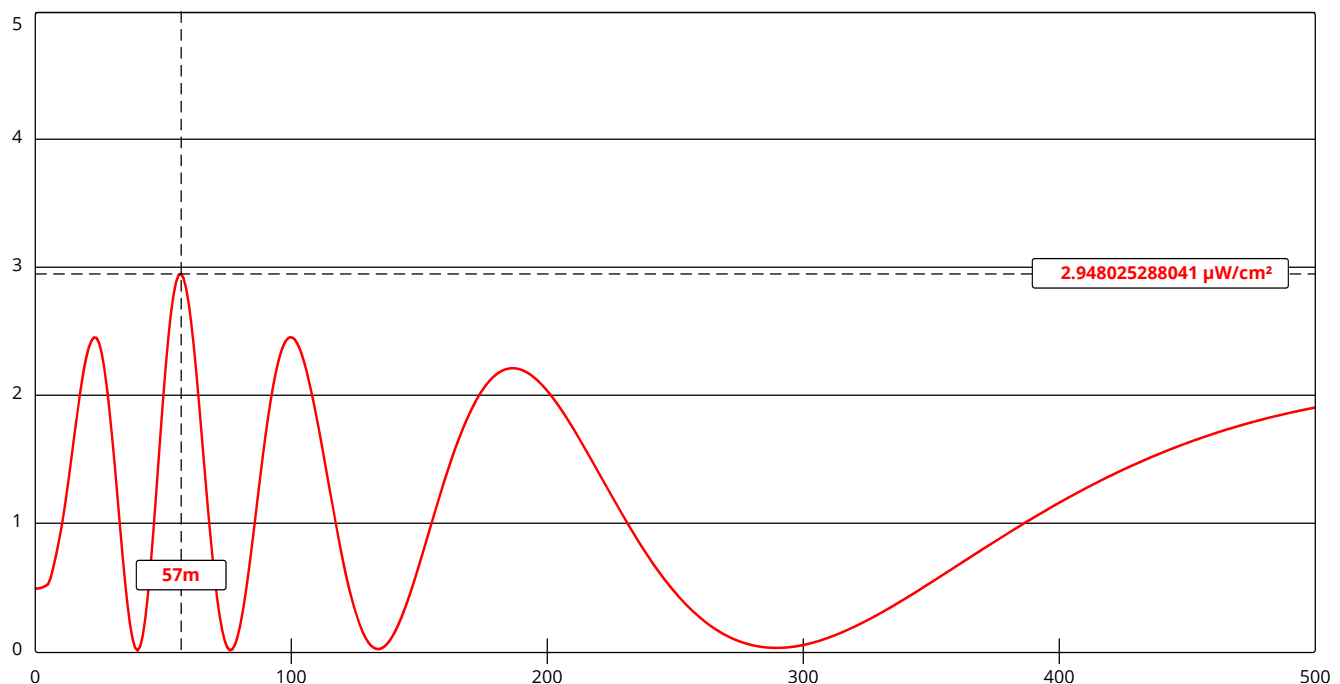
The applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less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



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# 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](#) (<http://nepis.epa.gov/Exe/ZyNET.exe/2000ED2W.TXT?ZyActionD=ZyDocument&Client=EPA&Index=1981+Thru+1985&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A\zyfiles\Index%20Data\81thru85\Txt\00000003\2000ED2W.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h|-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=p|f&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL>). [▼ Show More....](#)



[View Tabular Results +](#)

Channel Selection	Channel 227 (93.3 MHz) ▼		
<a href="#">Antenna Type</a> +	EPA Type 3: Opposed U Dipole ▼		
Height (m)	64	Distance (m)	500
ERP-H (W)	25500	ERP-V (W)	25500
Num of Elements	6	Element Spacing (λ)	0.794
Num of Points	500	Apply	