

## ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of 4ABN in support of its Application for Construction Permit to operate a Low Power FM station on Channel 259 (99.7 MHz) in Houston, Texas.

It is proposed to mount a standard two-bay circularly polarized antenna at the 30-meter level of proposed 32-meter tower. The proposed effective radiated power is 100 watts. Exhibit B is a map upon which the proposed 60 dBu service contour for the proposed facility is plotted. It is important to note that the proposed location meets all of the Commission's spacing requirements to pertinent co-channel and adjacent-channel full-power, FM translator and LPFM stations. We have also determined that the proposed facility should not cause objectionable interference to the input signal of any existing translator station, based on the information contained in the FCC's CDBS database.

Employing the methods of OET Bulletin No. 65, and based on the elevation pattern of a standard 2-bay FM antenna, maximum power density two meters above ground of  $0.0021 \text{ mW/cm}^2$  is calculated to occur 14 meters from the base of the tower. Since this is only 1.1 percent of the  $0.2 \text{ mW/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating in the FM band, a grant of this proposal can be considered a minor environmental action with respect to human exposure to non-ionizing electromagnetic radiation. Further the station owner will take whatever precautionary steps are necessary to ensure that workers operating in the vicinity of the antenna are not exposed to RF energy in excess of the Commission's guideline values.

EXHIBIT A

Due to the diminutive height of the proposed tower and its proximity to the nearest airport runways, the FAA has not been notified of this application. In addition, FCC registration of this structure is not required for the same reasons. This conclusion is supported by the Commission's TOWAIR program.

I declare under penalty of perjury that the foregoing statements and the attached exhibit, which was prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.



KYLE T. FISHER

November 11, 2013

**CONTOUR POPULATION**  
**2010 U.S. CENSUS DATA**  
**171,706**



**Proposed Site**

Latitude: 29-48-29.70 N  
Longitude: 095-31-11 W  
ERP: 0.10 kW  
Channel: 259  
Frequency: 99.7 MHz  
AMSL Height: 55.5 m  
Horiz. Pattern: Omni

**60 DBU FCC  
CONTOUR**

Proposed Site



Spring Valley

Hedwig Village

Hunters Creek Village

Piney Point Village

West University Place

Bellaire

**PREDICTED SERVICE CONTOUR**  
**PROPOSED LPFM STATION**  
**99.7 MHZ - HOUSTON, TEXAS**

Scale 1:125,000

0 1.0 2.0 3 mi