

**ENGINEERING STATEMENT**

The engineering data contained herein have been prepared on behalf of 4ABN, permittee of low power FM station KYOM-LP, Channel 259L1 in Houston, Texas, in support of its application for modification of Construction Permit BNPL-20131115AJF. The purpose of this modification is to specify a decrease in antenna height and a corresponding increase in effective radiated power. No change in site location is proposed herein.

It is proposed to mount a one-bay omnidirectional antenna at the 9-meter level of an 11-meter structure at the authorized site. The proposed effective radiated power for the facility is 100 watts (H,V). Attached is a map upon which the predicted service contour is plotted.

Due to the diminutive height of the proposed structure and its proximity to the nearest airport runway, the Federal Aviation Administration has not been notified of this application. In addition, and for the same reasons, antenna structure registration of the tower with the Federal Communications Commission is not required.

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Houston facility. Employing the methods set forth in OET Bulletin No. 65 and considering a main-lobe effective radiated power 100 watts (H,V), an antenna radiation center 9 meters above ground, and assuming a vertical relative field value of 40 percent at the steeper elevation angles for the proposed antenna, maximum power density two meters above ground of  $0.022 \text{ mW/cm}^2$  is calculated to occur near the base of the structure. Since this value is only 10.9 percent of the  $0.20 \text{ mW/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a

facility operating in the FM band, a grant of this proposal may be considered a minor environmental action with respect to public exposure to non-ionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive non-ionizing radiation.

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.

A handwritten signature in blue ink, appearing to read 'K. T. Fisher', with a stylized, elongated final stroke.

KEVIN T. FISHER

October 30, 2017

**SERVICE CONTOUR POPULATION**  
**2015 U.S. CENSUS DATABASE**  
**180,773 (68,054 HH)**



Jersey Village

290

60 DBU FCC  
CONTOUR

KOYM-LP



Spring Valley

10

Hedwig Village

Bunker Hill Village

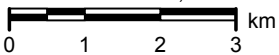
Hunters Creek Village

Piney Point Village

610

West University

Scale 1:100,000



**PREDICTED SERVICE CONTOUR**  
**PROPOSED KOYM-LP**  
**CH. 259L1 - HOUSTON, TEXAS**