

KLAB (FM) Auxiliary Antenna

Channel 266C3 – 101.1 MHz

5.1 kW ERP – 455 m AMSL

Siloam Springs, Arkansas

November 2019

Radiofrequency Radiation Calculation and Environmental Statement

Radiofrequency Radiation Calculation

This Radiofrequency Radiation study is being conducted to determine whether this proposal is in compliance with OET Bulletin Number 65, dated August 1997, regarding human exposure to radiofrequency radiation in the vicinity of broadcast towers. This study considers all nearby contributing stations and utilizes the appropriate formulas contained in the OET Bulletin.

The antenna system will be mounted with its center of radiation 114.3 meters above the ground at the proposed site and will operate with an effective radiated power of 5.1 kilowatts (circularly polarized). At two meters, the height of an average person, above ground at the base of the tower, this proposal will contribute, worst case, 26.08444 microwatts/sq. centimeter or 13.0422 % of the allowable ANSI limit. Since this level is below the maximum contribution of 100% defined in the aforementioned Bulletin, this proposal is believed to be in compliance with OET Bulletin Number 65 as required by the Federal Communications Commission. All calculations were made in the uncontrolled mode.

Since this proposal is for an auxiliary antenna for co-located KLAB (FM), the main antenna for KLAB (FM) will not be used simultaneously with the auxiliary antenna. KLRC (FM) is also proposing to use this antenna as an auxiliary antenna, but these auxiliary facilities will not be combined or operate simultaneously.

Co-located KUOA (AM) operates on 1290 kHz with a power of 5.0 kW. The AM radiator has an electrical height of 212.4 degrees, which most closely approximates a 0.625 wavelength radiator. A protective fence is located at a distance greater than 2 meters from the AM radiator in compliance with OET Bulletin Number 65.

Further, the applicant will post warning signs in the vicinity of the tower warning of potential radiofrequency radiation hazards at the site. In addition, the applicant will reduce the power of the proposed facility or cease operation, as necessary, to protect persons having access to the site, tower or antenna from radiofrequency radiation in excess of FCC guidelines.

Environmental Statement

It is proposed to install the 4-bay auxiliary antenna on an existing tower (Antenna Structure Registration 1203455). Only the antenna and transmission line will be added to the tower. Therefore, it is believed this proposal is in compliance with the Nationwide Programmatic Agreement.