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## **ENGINEERING STATEMENT**

**IN SUPPORT OF A REQUEST FOR TEMPORARY AUTHORITY**

**BY**

**KSE RADIO VENTURES, LLC**

**FOR FM BROADCAST FACILITY KXKL-FM, DENVER, CO**

**FACILITY ID 59959**

**PREPARED BY:**

**ROBERT M. SMITH JR.**

**FEBRUARY 6, 2018**

## PURPOSE AND SCOPE

This Statement has been prepared at the request of KSE Radio Ventures, LLC (“KSE”) to support their request for a Special Temporary Authority to operate KXKL-FM, 286C0, Denver, CO (Facility ID 59959 – F.C.C. File No. BLH-20161201ADR) at reduced power and on a different antenna from the licensed facility.

## BACKGROUND

KXKL-FM operates from a master antenna located on Mount Morrison North in Golden, CO. The antenna is also utilized by co-owned KIMN(FM), 262C0, Denver, CO (Facility ID 59597 – F.C.C. File No. BLH-20151223ADT).

The F.C.C. has issued Construction Permits to KYGO-FM, 253C0, Denver CO (Facility ID 30829 – F.C.C. File No. BPH-20171115AAK) and KOSI(FM), 266C0, Denver, CO (Facility ID 67844 – F.C.C. File No. BPH-20171017AAH) to utilize the same master antenna. KSE has been advised that the construction of the KYGO-FM and KOSI(FM) facilities will begin on or about February 23, 2018. KSE has further been advised that this installation will require disassembly and modification of the combining equipment and re-tuning of the antenna. This work will require cessation of operation by KIMN(FM) and KXKL-FM for a period of several days.

## EXISTING AUXILIARY ANTENNA

KXKL-FM has a licensed auxiliary antenna (F.C.C. File No. BXLH-20071107AAN) it shares with co-owned stations KIMN(FM) (F.C.C. File No. BXLH-20071107AAQ) and KWO(FM) (F.C.C. File No. BXLH-20071107AAO). However, this auxiliary site consists of a single wideband antenna and single frequency agile transmitter, making it incapable of providing simultaneous backup service to KXKL-FM and KIMN(FM). Further, due to its location atop a downtown Denver office building, extended operation poses problems to the building owner in that access to the roof and all of the mechanical equipment is prohibited while the auxiliary antenna is energized.

## JUSTIFICATION FOR STA

The requested STA (and the similar request being made simultaneously by KIMN(FM)) will serve two purposes.

The first is to allow KIMN(FM) to provide service to the Denver community while the multi-user antenna and combining system undergo modification and re-tuning.

The second purpose is to allow measurements of RF levels in the vicinity of the temporary antennas so that a safe ERP operating level can be determined. KSE intends to file an application to license the antenna covered by the STA as an auxiliary antenna for KXKL-FM as soon as the safe operating power can be

determined by measurement. All attempts to accurately predict RF field intensity values in the vicinity of the proposed antenna have proven impossible due to the topography of the site and the presence of the main antenna and transmission line bridge (see attached Figure 1). The undersigned will be present during the operation of the temporary antennas to conduct RF level measurements in the vicinity of the proposed antenna and the main antenna to assure worker exposure to RF levels does not exceed ANSI Guidelines. Additional measurement will be conducted along the fence line to assure General Population Exposure Guidelines are not exceeded outside the fence. The results of these measurements will be used to determine the ERP to be requested in the subsequent application for a CP for the auxiliary antenna.

### SITE DESCRIPTION

The proposed site is atop the northern peak of Mount Morrison, in Golden Colorado. The antenna will be located on a 40 acre tract of privately owned land atop the mountain. The antenna site is fenced with a chain link fence topped with barbed wire. The site is accessible only via a private dirt and rock road two miles in length. The entrance to the road (two miles from the site) is gated to prevent unauthorized access. No public trails or other uses are on the 40 acre site. The entire facility operates under Jefferson County telecommunications permit number 15-103164-TP. The temporary antenna will be located at 39-40-25.6N, 105-13-3.1W.

### FACILITIES REQUESTED

#### Antenna

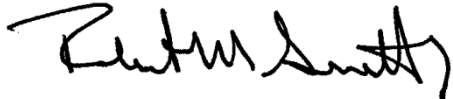
The antenna to be utilized will be an ERI G5CPS-1AE-DA. The antenna will be located on a pole, three meters above ground level with the peak field aimed at an azimuth of 65 degrees true. The terrain to the front of the antenna slopes sharply downward, away from the antenna. The terrain to the rear of the antenna rises just above the top of the antenna. A higher center of radiation is not possible because the County will not allow any antennas to be mounted above the peak of the mountain.

#### ERP

KSE is requesting a maximum ERP of 15 kW. It is expected that the ERP will need to be lowered somewhat when workers are present on the nearby main antenna tower. As detailed above, one of the purposes of this STA is to allow measurements of the RF fields to determine safe operating levels when workers are present on the tower and in the equipment building. The results of these measurements will determine the final ERP requested in the subsequent application for CP. At the maximum power requested the 60 dBu from the temporary antenna does not extend beyond the 60 dBu of the KXKL-FM licensed main antenna.

### DURATION

KSE requests that the authority requested be valid for a period of sixty days. It is expected that the required modification work can be completed within a week. The requested sixty days will allow for any unforeseen delay due to weather or other cause. Immediately following completion of the work, an application for CP will be filed, and grant of that application will make the STA moot.

A handwritten signature in black ink, appearing to read "Robert M. Smith Jr.", written in a cursive style.

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Robert M. Smith Jr,

STA REQUEST - FIGURE 1

