

Engineering Statement  
**COMPREHENSIVE ENGINEERING STATEMENT**  
prepared for  
**KSE Radio Ventures, LLC**  
KIMN(FM) Denver, Colorado  
Facility ID 59597  
Ch. 262C0 15 kW 337 m

*KSE Radio Ventures, LLC* (“*KSE Radio*”) is the licensee of radio station KIMN(FM), Channel 262C0, Denver, Colorado (see BLH-20151223ADT). KIMN temporarily operated pursuant to a Special Temporary Authorization (“STA”) on an unregistered structure near its main antenna at 15 kW ERP (see LMS file number BSTA-20220207AAA) so that RFR measurements could be taken to determine appropriate ERP levels to use for an Auxiliary application. Additionally, a registered surveyor was employed to confirm coordinates, site elevation and antenna orientation to support an application for an auxiliary license. The corrected coordinates are 39° 40’ 25.4”N Latitude, and 105° 13’ 04.8”W Longitude (NAD 83). *KSE Radio* herein requests a new auxiliary facility based on the information developed during the STA operation.

### **Background**

*KSE Radio* has an existing Auxiliary License (file number BXLH-20071107AAQ) which is not always available due to coordination issues related with powering up the transmitter site. It has become necessary to request an additional Auxiliary License in order to assure a higher availability of backup functionality for KIMN to serve the Denver area.

### **Nature of the Proposal**

The antenna for the proposed STA facility is a Harris model TAC-1M antenna, now sold as a Dielectric model TAC-C1, which is a single-bay circularly polarized, cavity-backed panel antenna. **Figure 1** provides the antenna’s horizontal plane radiation pattern as oriented and confirmed by the surveyor. A tabulation of the antenna’s horizontal plane pattern is provided in the application form. As depicted in **Figure 2**, the 60 dBμ contour of the proposal is compared to the main facility. As demonstrated, the proposed Auxiliary facility’s contour lies entirely within the authorized main facility contour.

The proposed facility is within the coordination distance to the Table Mountain facility in Boulder County, Colorado as described in §73.1030(b) of the Rules. However, since the proposed operation is located adjacent to the main facility’s antenna, and the proposed signal strength to the Boulder, Colorado region is lower than that of the main authorization, it is believed that additional

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coordination is unnecessary. The nearest FCC monitoring station is 593.7 km distant at Grand Island, Nebraska. This distance exceeds the threshold minimum distance specified in Section 73.1030(c)(3) that would suggest consideration of the monitoring station. With respect to AM stations, according to information extracted from the Commission's Media Bureau database, there are no Standard Broadcast facilities within 3.2 km of the proposed site. Thus, it is believed that the proposal complies with all Commission Rules and Policy regarding allocation or protection to other facilities.

### **Environmental Considerations**

The proposed facility utilizes a single-bay antenna system with a circularly-polarized directional antenna at 3 meters AGL on an existing unregistered support structure. 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. Because no change in structure height is proposed, no change in current structure marking and lighting requirements is anticipated. Therefore, it is believed that this application may be categorically excluded from environmental processing pursuant to §1.1306 of the Commission's rules.

### **Human Exposure to Radiofrequency Radiation**

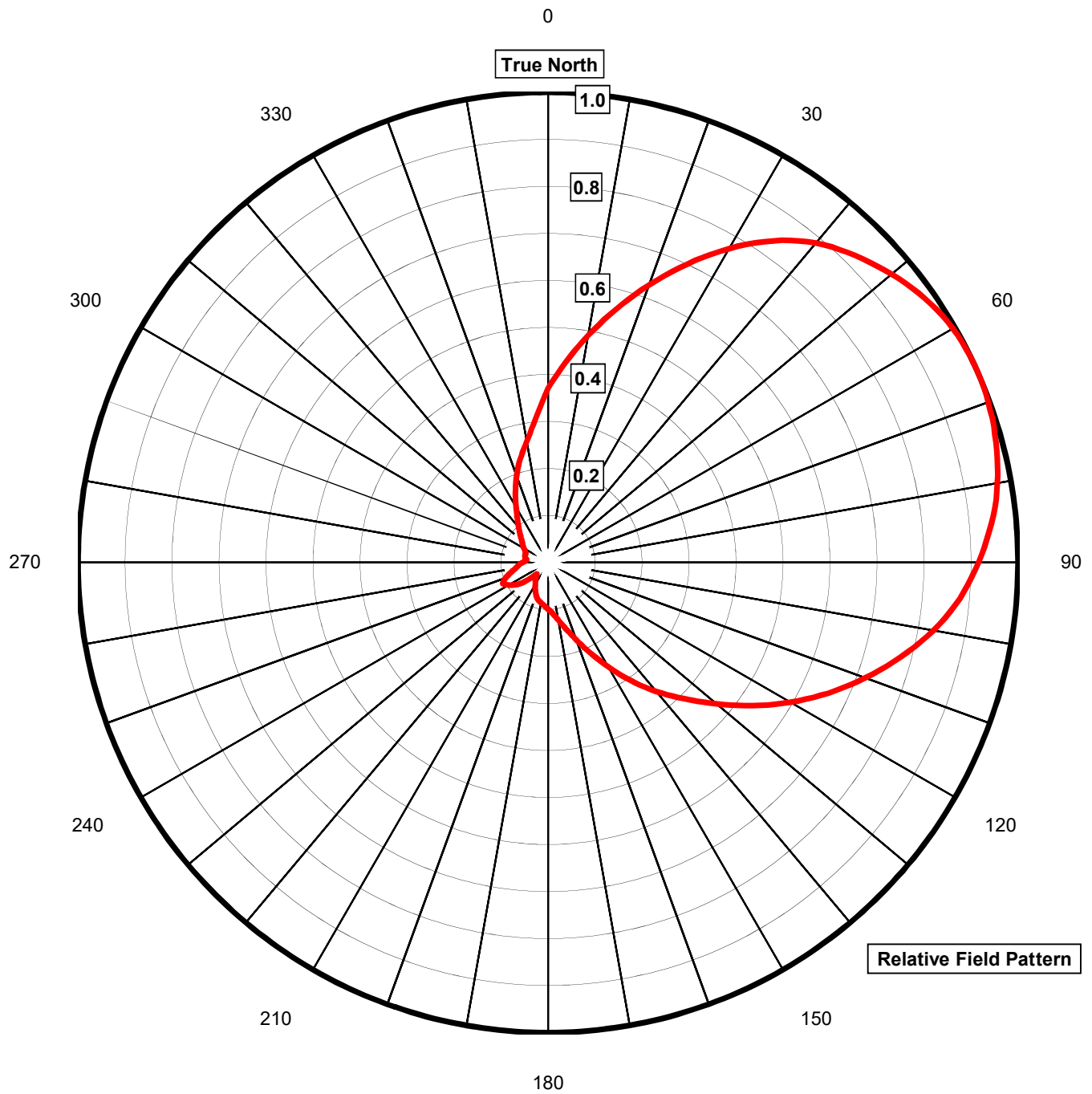
*KSE Radio* will participate in a radiofrequency ("RF") electromagnetic field exposure safety program, along with all other broadcasters and other FCC licensees that will utilize the proposed transmitter site. *KSE Radio* has commissioned RF exposure measurements to evaluate the level of RF exposure resulting from the Auxiliary KIMN(FM) facility. As necessary, based on these results and considering all nearby emitters, appropriate exposure abatement procedures will be established and followed, in order to comply with the Commission's exposure limits. Such abatement procedures may involve the restriction of access to certain areas and/or facility modifications to reduce RF levels. Considering the measurements, access controls and the RF abatement program will be updated. The general public will not be exposed to RF levels in excess of the Commission's guidelines. RF exposure warning signs will continue to be posted.

### **Safety of Tower Workers**

With respect to worker safety, authorized personnel will be trained and/or supervised as necessary for access to any "controlled" areas. A site exposure policy will be employed protecting maintenance workers from excessive exposure when work must be performed on the tower or in

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areas where high RF levels may be present. Such protective measures may include, but will not be limited to, restriction of access to areas where levels in excess of the guidelines may be expected, power reduction, or the complete shutdown of facilities when work or inspections must be performed in areas where the exposure guidelines will be exceeded. The applicant will coordinate exposure procedures with all pertinent stations.



**FIGURE 1**  
**ANTENNA HORIZONTAL PLANE  
RADIATION PATTERN (Rotated)**

prepared August 2022 for  
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Manassas, Virginia

**FIGURE 1  
COVERAGE CONTOUR COMPARISON**

*prepared August 2022 for*

**KSE Radio Ventures, LLC  
KIMN(FM) Denver, CO  
Facility ID 59597  
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