

TECHNICAL STATEMENT AND EXHIBITS  
IN SUPPORT OF AN APPLICATION  
FOR A MINOR MODIFICATION  
TO  
KCKJ (FID# 175649): SARCOXIE, MISSOURI

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## **Introduction**

This is an application by Lake Area Educational Broadcasting Foundation (the Applicant) to modify the parameters of KCKJ (#175649, Sarcoxie, Missouri).

The Applicant submits that the instant application proposes a minor modification to the facility because no change in channel is requested.

### ***Basis of Calculations***

All exhibits accompanying the application were prepared using FCC 30-arc-second terrain data except where noted.

### ***Antenna Location***

It is proposed to locate the facility on an existing tower located by the NAD-27 coordinates of North Latitude 37 degrees 11 minutes 40 seconds, West Longitude 93 degrees 55 minutes 39 seconds. The tower possesses an Antenna Structure Registration Number of #1234994.

### ***Technical Facilities***

The applicant proposes at this time to utilize a four-bay, directional, circularly-polarized antenna. The FM antenna system will be mounted on an existing structure such that the radiation centerline is 80 meters above ground level (470 meters above mean sea level). The overall height of the tower is 115 meters above ground.

A type-approved transmitter of adequate power for the required transmitter power output (TPO) will be installed at the time of construction. The appropriate TPO will be determined at license application filing to achieve an effective radiated power of 50.0 kilowatts taking into consideration the losses in transmission line, transmission system losses and the power gain of the antenna system.

### ***Blanketing and Intermodulation Interference***

There are no known commercial or government receiving stations or cable head-end facilities located within the blanketing contour. In the event that blanketing or intermodulation interference, including RITIOIE, occurs with any facilities or to radio receivers in use prior to grant of their application, the applicant will accept the responsibility to alleviate any interference resulting from the proposal.

## Exhibit 14 – Community Coverage

The proposed facility is subject to 47 C.F.R. 73.515 because the instant application requests a channel in the reserved band. 47 C.F.R. 73.515 requires that a minimum field strength of 1 mV/m (60 dBu) be provided to at least 50 percent of the community of license or reach 50 percent of the population within the community.

The instant application identifies Sarcoxie, MO as the community of license. As demonstrated in the following illustration, that community lies entirely within the 60 dBu contour of the proposed facility. Therefore, the instant application complies with 47 C.F.R. 73.515.

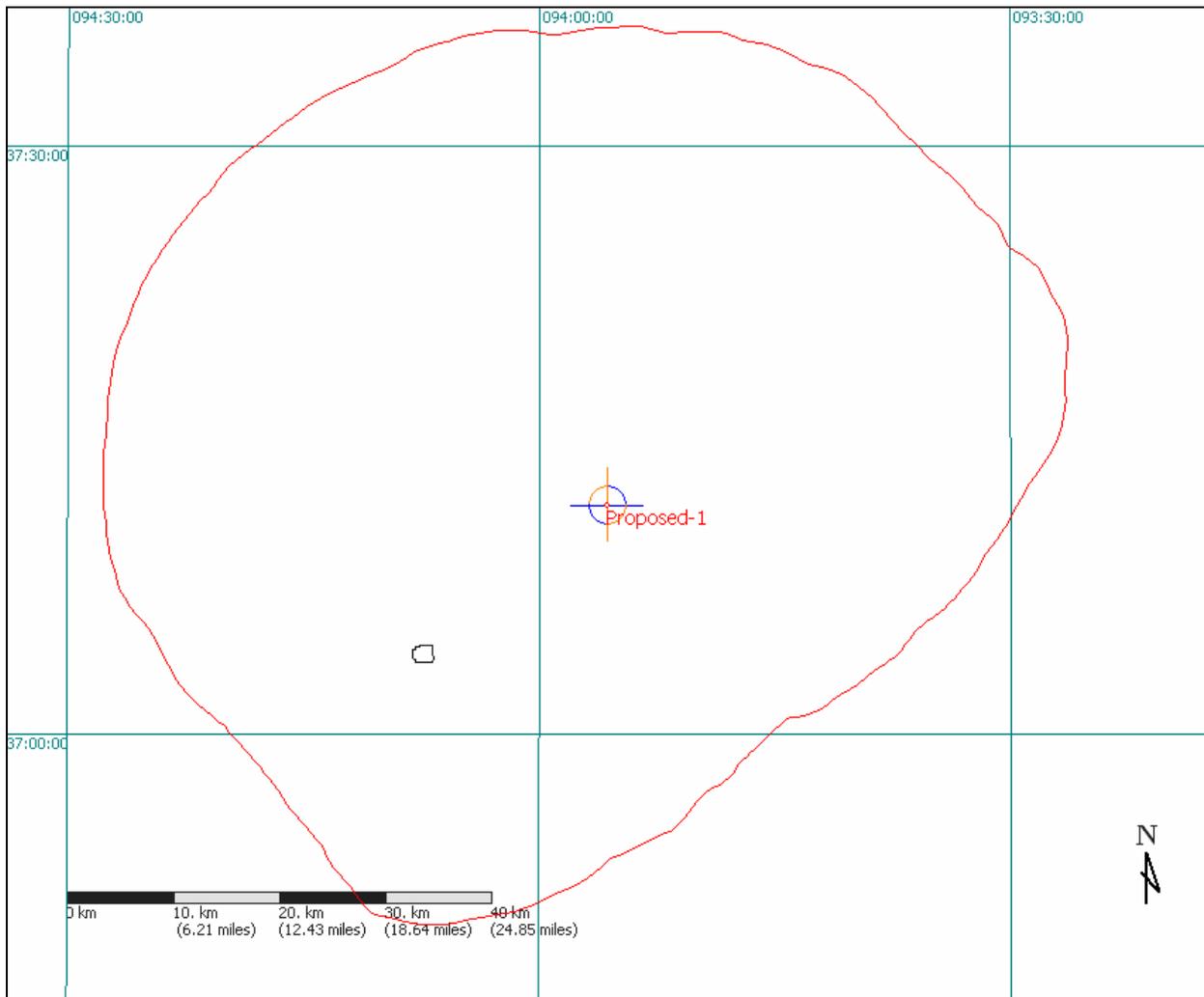
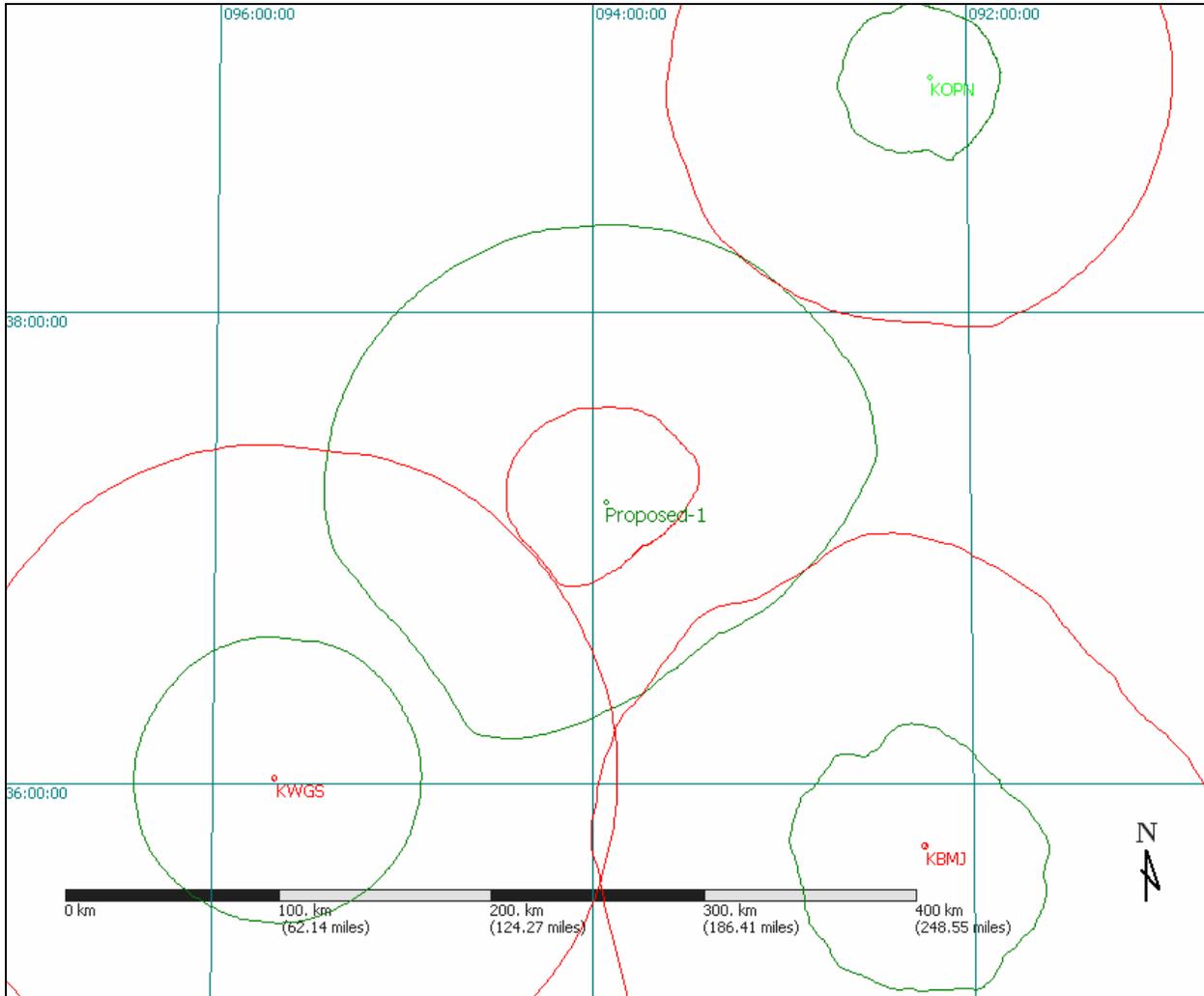


Illustration 14: Community of License (outlined in black) within 60dBu (red) contour of proposed facility.

## Exhibit 15a – Contour Overlap Requirements

### ***Proposal vs. Co-Channel Stations, CPs and Allotments***

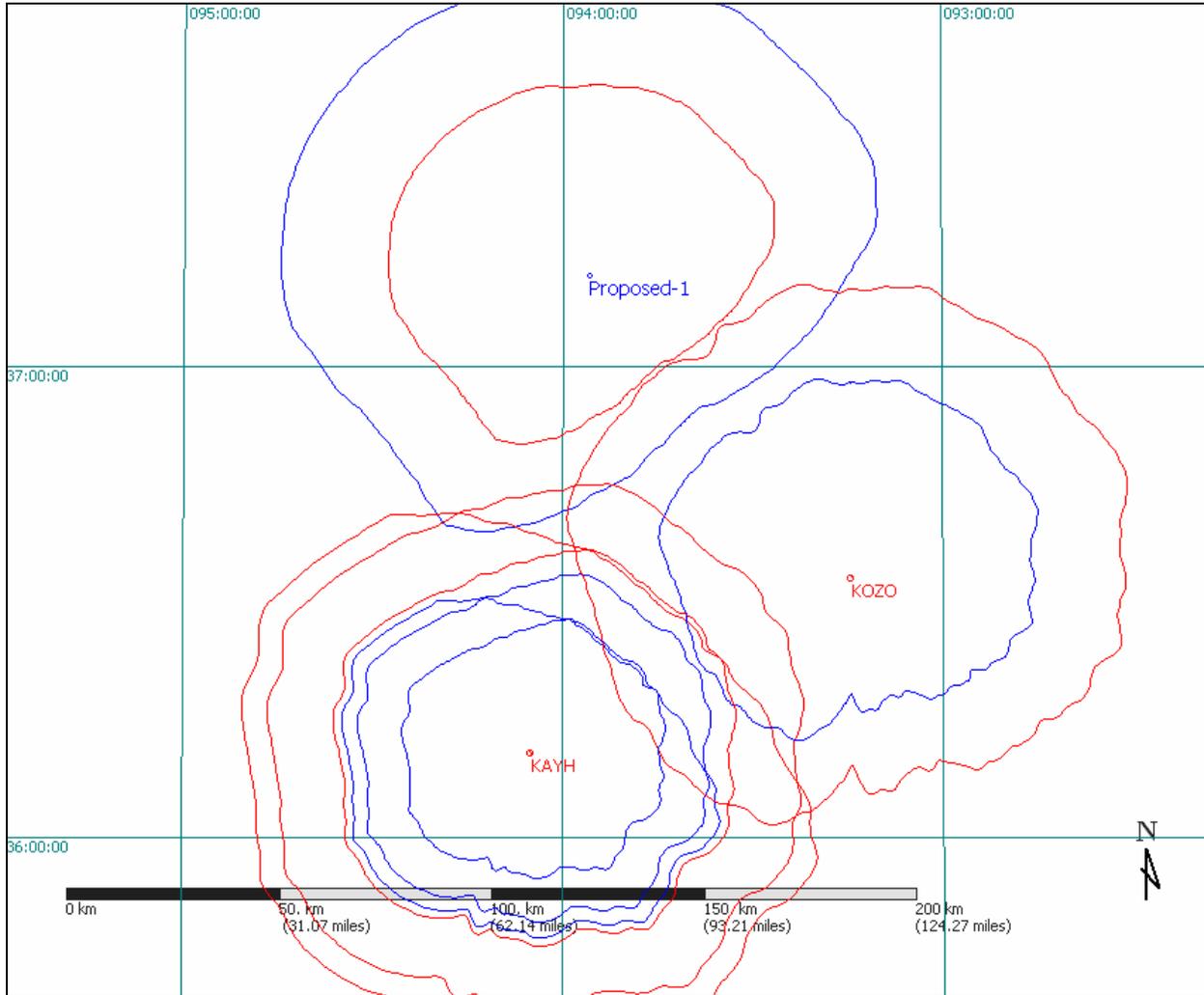
The following contour study demonstrates that the proposed facility complies with the provisions of 47 C.F.R. 73.509 in regards to each potentially affected co-channel NCE station, construction permit and allotment.



*Illustration 15a(1): This map is color coded so that prohibited overlap is indicated by LIKE color contours overlapping.*

### ***Proposal vs. First Adjacent Stations, CPs and Allotments***

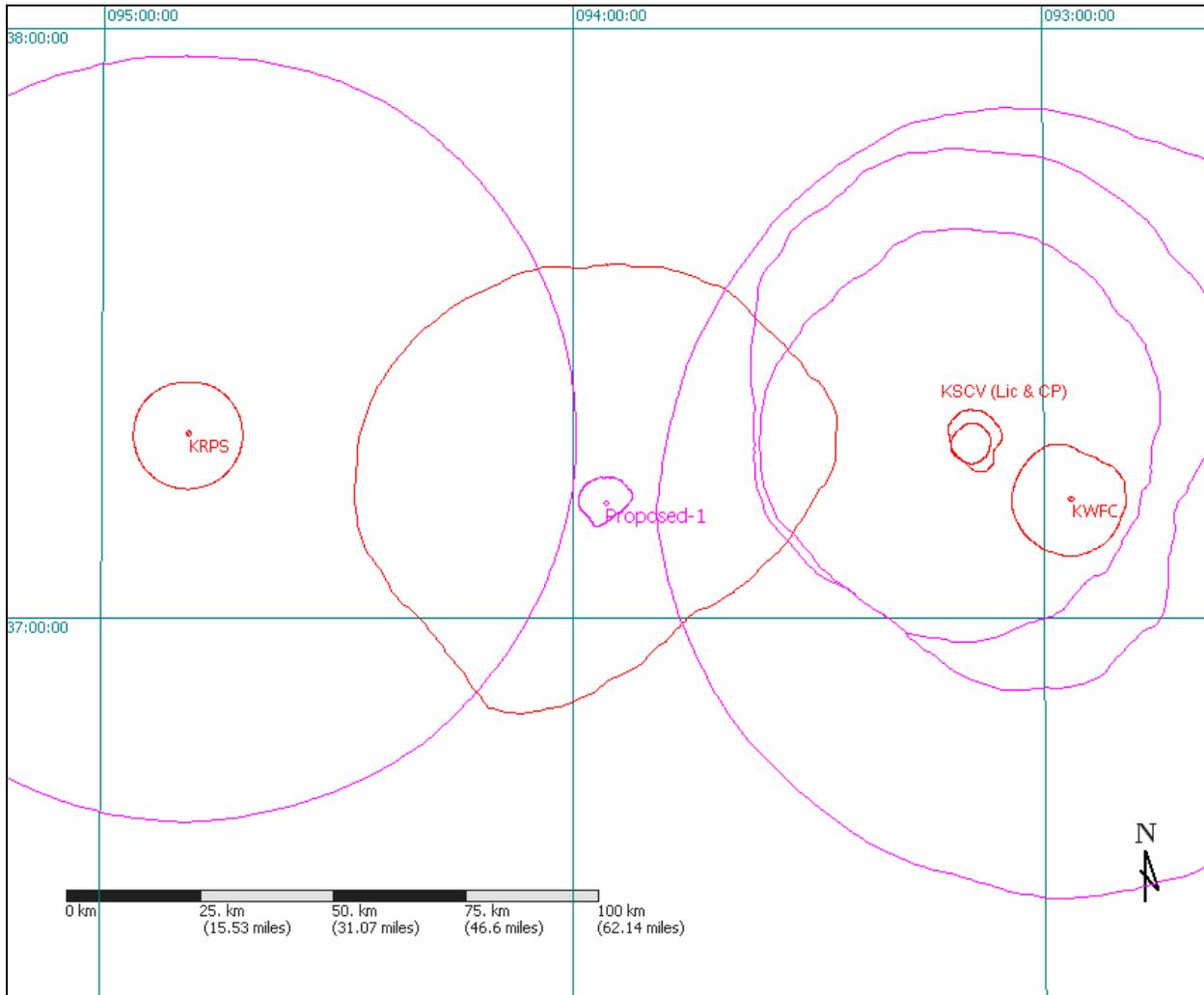
The following contour study demonstrates that the proposed facility complies with the provisions of 47 C.F.R. 73.509 in regards to each potentially affected first adjacent NCE station, construction permit and allotment.



*Illustration 15a(2): This map is color coded so that prohibited overlap is indicated by LIKE color contours overlapping.*

### **Proposal vs. Second and Third Adjacent Stations, CPs and Allotments**

The following contour study demonstrates that the proposed facility complies with the provisions of 47 C.F.R. 73.509 in regards to each potentially affected second and third adjacent NCE station, construction permit and allotment.



*Illustration 15a(3): This map is color coded so that prohibited overlap is indicated by LIKE color contours overlapping.*

## Exhibit 15b – Spacing Requirements

The proposed facility will operate on channel 213 and is not subject to 47 C.F.R. 73.207 except in regards to facilities operating on IF channels 261 and 262. The following table demonstrates the proposed facility’s compliance with 47 C.F.R. 73.207.

Callsign	Community	Channel	Class	73.207 Minimum	Distance	73 207 Clearance	Bearing	Latitude (NAD27)	Longitude (NAD27)
KOMC-FM	KIMBERLING CITY, MO	261 : 100.1	C2	20	90.8	70.8	144	N36:31:58	W093:19:43
KURM-FM	GRAVETTE, AR	262 : 100.3	A	15	99.5	84.5	212	N36:25:54	W094:30:46
KCVJ	OSCEOLA, MO	262 : 100.3	A	15	101.7	86.7	19	N38:03:43	W093:33:24

## Exhibit 15c – Grandfathered Short-Spaced

The requirements of 47 C.F.R. 213(a) are not applicable to the instant application.

## Exhibit 15d – Contour Protection

The requirements of 47 C.F.R. 215 are not applicable to the instant application.

## **Exhibit 18 – Environmental Impact**

Operation of this facility will not have a significant environmental impact. To the best knowledge of the Applicant:

1. The existing structure is not located in an officially designated wilderness area or wildlife preserve, nor does it threaten the existence or habitat of endangered species.
2. The proposed changes will not affect districts, sites, buildings, structures or objects significant in American history, architecture, engineering or culture that are listed in the National Register of Historic Places, or eligible for listing.
3. The site is not located in a flood plain. Nothing is proposed that would require significant changes in surface features such as wetland fill, deforestation or water diversion.
4. The structure is marked in accordance with FAA requirements.

### ***Radiofrequency Radiation Impact***

The proposed facility will not result in human exposure to radiofrequency (RF) radiation in excess of safety standards specified in Section 1.1307(b). Effective October 15, 1997, the FCC adopted revised guidelines and procedures for evaluating the environmental effects of RF emissions. These revised guidelines incorporate two tiers of exposure limits based on whether exposure occurs in a "controlled" (occupational) situation or an "uncontrolled" (general population) situation. Based on the methods published in OET Bulletin No. 65 (entitled "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields"), the predicted power density value produced by the proposed facility will be well below the established ANSI guideline limits.

Verification of compliance with FCC-specified guidelines for human exposure to RF radiation was determined utilizing the equations and graphs set forth in OET Bulletin No. 65. The bulletin prescribes that the fraction of the recommended limit incurred within each frequency interval should be determined and that the sum of all fractional contributions should not exceed 100%.

The proposed facility will utilize a four-bay Jampro JBCP antenna with full wave spacing. The antenna will be mounted so that the radiation centerline is 80.0 meters above ground level (AGL). An ERP of 50.0 kW on Channel 208 is requested in the instant application.

Utilizing FMMODEL it was determined that the highest value of power density occurs at 32 meters from the base of the tower which is 47.7 uW/cm<sup>2</sup> or 23.85% of the 200 uW/cm<sup>2</sup> MPE limit for uncontrolled/general exposures. It is 4.77% of the MPE for occupational/controlled areas.

Since the proposed power density is less than 100 percent of the ANSI guideline, the proposed facility complies with FCC requirements regarding radiofrequency radiation. In addition, the base of the tower will be fenced and warning signs will be posted at appropriate intervals to preclude casual access.

Furthermore, the applicant will ensure protection to station personnel working in the vicinity of their antenna. Access to the antenna supporting tower base will be restricted to authorized personnel only. The applicant for the proposed station will reduce power or cease operation, when appropriate and deemed necessary, during times of service or maintenance of the transmitting system or when work is being performed on the tower to avoid potentially harmful exposure to station personnel or workers. The applicant will initiate joint procedures with common users to be followed during times of service or maintenance of the transmission systems when necessary to avoid potentially harmful exposure to personnel.

It is submitted that the proposed facility will not constitute a potential hazard to the quality of the human environment. Accordingly, the instant application, as described herein, should be categorically excluded from RF environmental processing under Section 1.1307(b) of the Rules.

## **SUMMARY**

It is submitted that the proposed facility described herein complies with the Rules and Regulations of the Federal Communications Commission.

This statement and attached exhibits were prepared by me or under my direct supervision and are believed to be true and correct.

DATED: May 28, 2012



Jason Bennett