

TECHNICAL STATEMENT  
KNIT(AM), SALT LAKE CITY, UTAH, 1320 KHZ, 0.73 KW-U, ND  
KONA COAST RADIO, LLC  
FCC FORM 301  
JULY 2018

The Technical Statement supports a minor change application to the licensed operation (BZ-20001005ABZ) for KNIT(AM) Class B station on 1320 kHz at Salt Lake City, Utah, facility ID 53500. Kona Coast Radio, LLC (“KCR”) is the current licensee of KNIT(AM).

### **Proposed Transmitter Location**

Due to the loss of its current licensed tower site, KNIT seeks to relocate to an existing AM transmitter site just south of Salt Lake City, Utah. The site is the currently licensed tower site of KRRF(AM) Murray, Utah, facility ID 58303 operating as a class C AM station on 1230 khz with 1kw-U, ND. A “diplexed” operation is between KNIT(AM) and KRRF(AM) is being proposed. KNIT has been operating at this same site using a temporary long wire antenna as authorized under BSTA-20180105ABE. KRRF(AM) is operating under a low power STA at a temporary location due to the failure of the 167 foot tower at this site. However, KCR is acquiring this tower site with the purchase of KRRF(AM) Murray, UT, FCC assignment pending, BAL-20180625ABN. Once it closes on the station and property, KCR is planning on restoring the former 167 foot tower and restore the licensed operation of KRRF(AM) at this site. 70 feet of the tower has already been replaced to allow a support structure for the KNIT(AM) temporary long wire operation. Once the former tower is fully replaced,

KCR plans to diplex both KRRF(AM) and KNIT(AM) from the 165 foot non-directional series fed guyed replacement tower.

The proposed tower is a 50.9 meter overall guyed tower that is the licensed tower site for KRRF(AM). The tower is located at N40°-39'-57.4", W111°-54'-26.0", NAD 27. The electrical height of the tower will be 79.7 degrees, or 50.3 meters (165 feet). The proposed ground system will consist of 120, equally spaced, 61 meter (200 feet) meter long radials at the base of the tower. In addition 120 interspaced radials, 15.2 meters (50 feet) in length are also installed. This ground system is already in place since it is the current license site for KRRF(AM).

### **Blanketing**

There are 120 persons residing within the 1000 mV/m contour based on the 2010 U.S. Census data. A map is attached showing the 1000 mV/m coverage area for the unlimited operation, and the 25 mV/m coverage area. Since there are no occupied homes within the immediate area around the tower site, no blanketing interference issues are anticipated.

### **Community Coverage**

The proposed daytime field strength contours are attached with an exhibit. As indicated, the proposed un-limited 5 mV/m contour will completely encompass the city limits of Salt Lake City. The Nighttime Interference Free contour is calculated to be 3.35 mv/m. Hence, the 5 mv/m city grade contour will apply to the daytime and nighttime operation of KNIT. FCC M-3 ground conductivity data was used in determining the extent of the coverage contours. The nighttime interference free contour study is also attached.

### **Daytime Allocation Study**

A daytime allocation study was made utilizing FCC figure M-3. Daytime field strength contours for the proposed 0.73 KW (730 watts) daytime non-directional operation were calculated in accordance with Section 73.183. Based on this analysis, the proposed facility will comply with all relevant allocation criteria. An exhibit is attached showing all of the pertinent co-channel and adjacent channel stations of interest.

### **Nighttime Allocation Study**

A nighttime allocation study was made to determine the limiting station for the proposed operation with 0.73 KW (730 watts) using the same non-directional Daytime operation tower. KOLT(AM) Scottsbluff, NE on 1320 khz was found to be the most limiting. Also attached are several exhibits showing the protection to all pertinent co-channel and adjacent channel stations. Also the calculations for the nighttime interference free contour (NIF). KNIT(AM) is a licensed class B station and is proposing to remain a class B service.

### **Ground Level Radiofrequency Electromagnetic Field Exposure and Environmental Statement**

A fence restricting access will be installed at the base of the tower to assure that persons on the property outside the fenced area will not be exposed to radiofrequency field levels in excess of those recommended by ANSI. Using Figures 2 and 3 of Supplement A to OET Bulletin 65, the worse case interpolated distance at which the electric and magnetic fields would fall below ANSI guidelines is less than 5 meters. A fence will be 6 meters (20 feet) square centered around the base of the tower. RF radiation signs will be posted on each face of the fencing. This is in compliance with

the standards specified in Section 1.1307(b) for human exposure to radiofrequency radiation. The station will cease operation when maintenance work is performed on the tower to insure safety to tower personnel.

The applicant feels that that existing tower should be categorically excluded from any further environmental processing under the provisions of 47 CFR 1.1306 and 1.1307, since the tower has been existence since 1980, and that the no changes will be made.