

**MINOR CHANGE APPLICATION**  
**RADIO LICENSE HOLDING CBC, LLC**  
**WKY AM RADIO STATION**  
**930 kHz - 0.51/5.0 kW - NDU**  
**OKLAHOMA CITY, OKLAHOMA**  
**May 2016**

**EXHIBIT #4**

**Radio Frequency Assessment**

A study has been made to determine whether this proposal is in compliance with 47 C.F.R. §1.1307 of the Commission's rules and with OET Bulletin #65, dated August 1997 ("Bulletin"), regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. This study considers all nearby stations and utilizes the appropriate formulas contained in the OET Bulletin.

At the WKY frequency of 930 kHz, the tower is  $161^\circ$  ( $0.447 \lambda$ ) in electrical height. The tower is fenced at a minimum distance of 9.25 meters (30 feet) from the radiating structure. Based on the guidelines of the OET bulletin, at the WKY operating daytime power of 5.0 kilowatts and using the worksheets for this application (RF Worksheet #2: AM), the tower should be fenced at a minimum distance of 2.0 meters. Since the tower is fenced at 9.25 meters it is believed the proposed WKY facility is in compliance with the radio frequency radiation exposure limits, as required by the Federal Communications Commission. Radio License Holding will also insure that warning signs have been posted in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, Radio License Holding will reduce the power of the facility or cease operation in cooperation and coordination with other tower users, as necessary, to protect persons having access to the site, tower, or antenna from radio frequency radiation in excess of FCC guidelines.

## RF WORKSHEET #2: AM

PLEASE COPY THIS WORKSHEET PRIOR TO USING. IN THE CASE OF A MULTIPLE TOWER ARRAY, A COPY IS NECESSARY FOR EACH TOWER LISTED IN RF WORKSHEET #2a. See AM Instruction b. to "How to Use RF Worksheets" on page 5 Appendix A.

### SINGLE TOWER

Enter the transmitted power ..... 5.0 kW (1)  
Enter the distance from the tower to the nearest point of the fence or other  
restrictive barrier enclosing the tower ..... \_\_\_\_\_ m (2)

### DETERMINATION OF WAVELENGTH

#### Method 1: Electrical Height

The tower height in wavelength may be obtained from the electrical height in degrees of the radiator.

Electrical height of the radiator ..... 161 degrees (3a)  
Divide Line 3(a) by 360 degrees ..... 0.447 wavelength (3b)

#### Method 2: Physical Height

Alternatively, the wavelength may be obtained from the physical height of the radiator above the tower base and the frequency of the station.

Overall height of the radiator above the tower base ..... \_\_\_\_\_ m (4a)  
List the station's frequency ..... \_\_\_\_\_ kHz (4b)  
Divide 300,000 by Line (4b) ..... \_\_\_\_\_ m (4c)  
Divide Line (4a) by Line 4(c) ..... \_\_\_\_\_ wavelength (4d)

### REQUIRED RESTRICTION DISTANCE

Use the appropriate AM fence distance table based on the wavelength determined in either Line (3b) or Line (4d) above. If the transmitted power is not listed in the table, use next highest value (e.g., if the transmitted power is 2.5 kW, use the fence value in the 5 kW column).

List the fence distance obtained from the appropriate table ..... 2 m (5)

Is the value listed in Line (5) less than or equal to the value listed in Line (2)? ☒ Yes ☐ No (6)

If Line (6) is "Yes," are warning signs posted at appropriate intervals which describe the nature of the potential hazard? ☒ Yes ☐ No (7)

IF EITHER LINE (6) OR LINE (7) WAS ANSWERED "NO", you may need to prepare an Environmental Assessment. However, in order to determine the need for such an Assessment please see the NOTE on page 5 of Appendix A. If after consideration of such factors as the antenna radiation pattern, measurement data and the barriers which restrict access you conclude that an Environmental Assessment is required, please see Section I of the instructions to this worksheet entitled "Environmental Assessment."

IF BOTH LINE (6) AND LINE (7) WERE ANSWERED "YES", it appears that this tower complies with the FCC guidelines with respect to the general public. Please be aware, that each site user must also meet requirements with respect to "on-tower" or other exposure by workers at the site (including RF fields caused by other facilities on tower or towers). These requirements include, but are not limited to the reduction of access to the site, tower, or antenna. See OET Bulletin 65 for more details.

**EXHIBIT #4a**  
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