

**Human Exposure to Radiofrequency Electromagnetic Field  
&  
Section 106 Compliance  
(Environmental)**

Riverfront Broadcasting, LLC, ("Riverfront") is the permittee of construction permit BNPH-20120529AEW for Channel 283C0 at Murdo, South Dakota (Facility ID No. 190370). Riverfront is filing an FCC Form 301 construction permit modification to specify operation on Channel 283C1 with service to Blunt, South Dakota.

The existing tower which has been assigned Antenna Registration Number (ASR) 1042183 is located at 44 18' 42" N, 100 21' 10" (NAD 27). The tower will be modified by increasing the overall height from 139.2 meters (456.6 feet) to 152.1 meters (499 feet). The proposed modification represents an increase in overall height 12.9 meters (42.3 feet) which is an increase in height of 9.15 percent.

This tower was constructed prior to March 16, 2001. Section I(c) 1-3 of the Nationwide Programmatic Agreement states that a modification of a tower represents a substantial increase in the size of the tower and requires a Section 106 review by the SHPO/THPO if:

(1) The height of the tower will be increased by more than the greater of: (a) 10% of the height of the tower; or (b) the height extension needed to accommodate one additional antenna array with a separation of 20 feet from the nearest existing antenna. Thus, a 150-foot tower may be increased in height by up to 15 feet without constituting a substantial increase in size. If there is already an antenna at the top of the tower, the tower height may be increased by up to 20 feet plus the height of a new antenna to be located at the new top of the tower.

Therefore it is believed the proposed modification is exempt from the policies of the Nationwide Programmatic Agreement and a Section 106 Review by the SHPO/THPO is not required.

An FAA Form 7460-1 Notice of New Construction/Alteration was filed with the Federal Aviation Administration "FAA". FAA Aeronautical Study No. 2013-AGL-3766-OE, issued on April 30, 2013 made a "Determination of No Hazard to Air Navigation" for the proposed tower modification.

The proposed KLXS-FM Channel 237C1 facility transmitting antenna will be a side mounted Shively Model 6810 ten bay full wave antenna with a center of radiation at 137 meters AGL. The proposed facility will operate with 100 kW ERP at 158 meters HAAT. Riverfront is also modifying KLXS-FM Channel 237C2, Facility ID No. 60860, to operate on Channel 237C1 at Pierre SD. The proposed Channel 237C1 facility will be diplexed into the same Shively 6810 antenna. This facility will also operate with 100 kW ERP at 158 meters HAAT.

The proposed Channel 283C1 operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. Using the FM Model for Windows the predicted power density for proposed facility near the tower at two meters above ground level attributable to the proposed facility is  $12.72 \mu\text{W}/\text{cm}^2$  at 36 meters, which is 6.36 percent of the general population/uncontrolled maximum permitted exposure limit and 1.27% of the limit for "controlled" environments.

The following other FM broadcast facility will operate from this tower:  
KLXS-FM    Channel 237C1    Pierre, SD    Facility ID# 68060

The proposed KLXS-FM Channel 237C1 operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. Using the FM Model for Windows the predicted power density for Channel 237C1 near the tower at two meters above ground level attributable to the proposed facility is  $12.72 \mu\text{W}/\text{cm}^2$  at 36 meters, which is 6.36 percent of the general population/uncontrolled maximum permitted exposure limit and 1.27% of the limit for "controlled" environments. The FM Model for Windows exhibit include with this application shows the combined operation of both stations operating with a combined ERP of 200 kW at 137 meters above ground level.

<u>CALL</u>	<u>Channel/Class</u>	<u>Polarity</u>	<u>Antenna AGL</u>	<u>ERP</u>	<u>% of Uncontrolled Limit</u>
KLXS-FM	237C1	H&V	137 m	100 kW	6.36 %
Blunt, SD	283C1	H&V	137 m	100 kW	6.36%

**Total of ANSI "Uncontrolled" value = 12.72%**

The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission during times of maintenance or inspection.