

EXHIBIT 10 - 7  
RF EXPOSURE SURVEY AND  
COMPLIANCE STATEMENT

## INTRODUCTION

This report is prepared on behalf of Jackson Hole Community Radio, Incorporated, licensee of non-commercial station KHOL(FM) at Jackson, Wyoming. It presents technical information relating to the new Auxiliary Antenna and transmission system to be used for KHOL(FM).

## CONSTRUCTED FACILITY

The Auxiliary system was installed at the existing multiple user communications site at Rendezvous Mountain. The existing large cross section antenna mounting grid at the roof of the mountain top shelter (Corbets Cabin) supports a Scala type CLFM Log Periodic antenna mounted in the vertical polarization orientation at 10 meters AGL and 3.5 meters above the roof. The transmitter power was adjusted so that after line loss and antenna gain the Effective Radiated Power (ERP) is 600 Watts.

## RF EXPOSURE SOURCES

Several other RF Emission sources are licensed at that site. In addition to several low power two-way and cellular operations, there are four licensed FM or TV translators as listed below.

### Present

K29HG	128W - Digital	20M AGL
K25ID	298W - Analog	10M AGL
K56BT	1.13kw - Analog	10M AGL
K265DA	76W - Analog	5M AGL

These sources are not co-located with the KHOL-FM Auxiliary antenna but are located nearby.

## RF EXPOSURE CALCULATION

The KHOL(FM) Auxiliary antenna has a very sharply controlled field pattern in the vertical plane as indicated on the attached antenna pattern plot. At all vertical angles in excess of 50 degrees below the horizontal plane (40 degrees up from the vertical), the relative field is 20% of maximum or less and the resultant ground level RF Exposure is less than 10: W/Cm.Sq. This level of exposure is less than 5% of the FCC Adopted Uncontrolled Environment (Public) exposure level.

## RF EXPOSURE SURVEY

In compliance with the conditions on the KHOL-FM Auxiliary construction permit, FCC File BXPED-20090716ADH, the RF Exposure produced at the Auxiliary antenna has been surveyed. Broad band exposure measurements were made using a Holiday Industries Type 3002 meter, using the E-Field probe and meter indications of Field Strength Units Squared. Because of the very low power in the Auxiliary antenna and the well controlled field pattern described previously, the area in which any RF Exposure measurement values could be obtained were confined to immediately below and in front of the antenna.

Using the maximum reach of the measurement probe above the operators head, approximately 2.5 meters above roof level, several critical exposure level locations were spotted. Those locations were where the Controlled Environment RF Exposure was equal to or below; 100%, 50% and 25% respectively of the FCC adopted long term exposure value. Since the meter indications are in  $FSQ^2$ , the corresponding  $E^2$  values are; 4000, 2000 and 1000 $V^2$ . Measurements below this minimum value are problematical as it would require interpolation below the lowest marked meter value, between zero and 1000  $V^2$ . The measurement locations were photographed and will be retained for future reference.

Additional probe measurements were made immediately in front of other operating antennas where RF sources were confirmed to be active and exposure values were found to be very low, even at near contact distances in front of the antennas or with the probe elevated as high as possible in front of the elevated antennas. None of the various antennas contribute to the exposure of any other individual antenna.

Additional measurements were made using the same elevated probe procedure at ground level around the building on which the KHOL-FM Auxiliary antenna is mounted and

no up-scale reading was obtained.

## RF EXPOSURE COMPLIANCE STATEMENT

The KHOL(FM) RF Exposure contribution is significantly controlled by the Auxiliary Antenna vertical pattern and is calculated to be less than 5% of the FCC Adopted Uncontrolled Environment limit at all public accessible locations and therefore is not subject to any further RF Exposure controls. This very low ground level exposure was confirmed by measurements when no up-scale readings were seen at the most sensitive level of the RF Exposure meter used.

A site user agreement will be entered into so that workers who may have access to the roof top antenna location are not subject to RF Exposure in excess of the Controlled Environment limits when work is required in the vicinity of any location near any of the RF sources at the site.

The general site area will be posted with suitable RF Exposure warning signs and controls to prevent climbing the supporting structure.

Respectfully Submitted  
Lohnes and Culver

by Robert D. Culver

Robert Culver, P.E.  
MD Reg. No. 19672

SCALA - Kathrein

CLFM – Vertical Polarization – Vertical Plane – Relative Field Pattern

