

**ANTENNA BEAM TILT
KYCS CH. 236C1 ROCK SPRINGS, WY
FACILITY ID 20482**

This exhibit provides technical information related to the special operating condition in BPH-20170607AAF concerning the use of electrical antenna beam tilt. A copy of the vertical plane radiation pattern is attached as Figure 1. The technical specifications for the FM facility based on the beam tilt antenna are outlined below. Transmitter output power and effective radiated power have been rounded in accordance with Section 73.212(a).

FM Station

Call Sign: KYCS
Principal Community: Rock Springs, WY
Channel: 236 (95.1 MHz)
Proposed Class: C1

<u>Effective Radiated Power</u>	<u>H-Pol</u>	<u>V-Pol</u>
Maximum (kW):	12.0	12.0
Horizontal Plane (kW):	11.5	11.5

Antenna System

Type: Nondirectional
Description: Harris Model FMH-10AC¹
Number of Sections: 10
Spacing Between Sections: 1.0 Wavelength
Electrical Beam Tilt: -0.6
First Null Fill: 10%
Second Null Fill: 0%
Maximum gain: 5.404 (7.33 dBd)
Power Gain in the horizontal: 5.223 (7.18 dBd)

Transmission Line

Description: 7/8 inch Air Helix HJ5-50
Length: 48.8 meters
Efficiency: 87.51%

Transmitter power output: 2.55 kW

¹ Harris is an authorized reseller of antennas manufactured by Electronics Research, Inc. (ERI). The cross-reference model number for the existing Rototiller Series 10-bay antenna is ERI Model SHP-10AC.

ELECTRONICS RESEARCH, INC.
100 MARKET STREET
NEWBURGH, IN. 47630

VERTICAL PLANE RELATIVE FIELD

7/30/86

FIGURE 1

10 DAYS WITH -0.6 DEGREES BEAM TILT
10 PERCENT FIRST NULL FILL
0 PERCENT SECOND NULL FILL

POWER GAIN IS 5.223 IN THE HORIZONTAL PLANE (5.404 IN THE MAX.)

