Radio Frequency Field Strength Measurements

KCNU CH-280 103.9 MHz

SILVER CITY, ID

Prepared by:
Dustin Pamplona
Sr. Field Technician
CSN International, Inc.
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This report is the result of an RF field strength survey taken at the transmitter site of KCNU Silver City, ID. This report is being submitted to comply with part 3 of the "Special operating conditions or restrictions" of the license, license file number: BMPH-20180122ABG, which requires RF field strength measurements to ensure compliance with FCC guidelines (OET Bulletin No. 65, Edition 97-01, August 1997).

KCNU is a class C3 station operating on channel 280 (103.9 MHz) with an ERP of 0.38 kW. The antenna is a single bay, circularly polarized Bext TFC2K with a center of radiation at 11 meters and is non-directional. The transmitter site is located on War Eagle Mountain, near Silver City, ID. Another FM full power station, KAWS, is located on the same tower and was in operation at the time of this survey.

Equipment used for the survey consisted of the following:
Narda model NBM-520A RF field strength meter.
Narda model EA-5091 "E field" probe.
The meter was set to read and store instantaneous peak values using the FCC standard for "Controlled Exposure". (100% = 1.0mW/cm^2)

The survey was conducted along 8 radials beginning from the base of the tower and extending out approximately 100 meters, or to the limit that terrain would allow. The probe of the field strength meter was held upward approximately 7-8 feet off the ground and swept horizontally while walking the radials.

Radial	Peak Value
0 deg.	18%
45 deg.	12%
90 deg.	12%
135 deg.	06%
180 deg.	06%
225 deg.	04%
270 deg.	05%
315 deg.	10%

The variations in level along the 8 radials are due to terrain. The tower sits approximately 15 feet below the peak of the mountain, which is located to the Northwest. Terrain is relatively flat West of the tower, and drops off rapidly to the East and South of the tower.

In summary, the field strength measurements around the tower of the KCNU transmitter indicate that the highest field strength readings of 18% of maximum for Controlled Exposure are within the 0.2mW/cm² Uncontrolled Exposure limit.

I hereby certify that I have been a broadcast technician for over 12 years. I have been involved in or supervised the construction of 15 full power FM stations, and numerous FM translator stations. I presently hold the title of Senior Field Technician for CSN International.

I further certify that the preceding is true and correct to the best of my knowledge and ability.

Respectfully,

Dustin Pamplona
Sr. Field Technician
CSN International, Inc.