

Community of License Coverage

As shown in the minor change request to the license, BPED-20080730AKP, the community of license for KKRO is Redding, CA. The city of Redding contains an area of 154.2 km² and a population of 80,601 persons¹. The 60 dBu F(50,50) contour of the originally proposed directional antenna covers 88.61 km² and 53,413 persons within the city limits of Redding. Table 1 shows the percentages of both area and population covered within the city limits of Redding by the original proposal (see Exhibit 9D-1, light blue fill in).

Table 1 – Originally Proposed Directional Antenna (60 dBu contour)

Redding, CA	Area (km ²)	Population
Total	154.2	80,601
Covered	88.61	53,416
Percent of Coverage	57.46%	66.27%

The 60 dBu F(50,50) contour of the proofed pattern of the physical antenna covers an area that is slightly reduced from the theoretical antenna (see Exhibit 9D-1, dark blue contour). Nonetheless, KKRO still serves more than 50% of the population. Using data from the antenna manufacturer's proof (see Exhibit 9A) demonstrates 60 dBu F(50,50) coverage to 74.25 km² and 42,094 persons within the city limits of Redding. Table 2 below shows the percentages of both area and population covered by the actual antenna.

Table 2 – Physical Directional Antenna Proof 60 dBu contour

Redding, CA	Area (km ²)	Population
Total	154.2	80,601
Covered	74.25	42,094
Percent of Coverage	48.15%	52.23%

Since 42,094 persons is greater than 50% of the population of the community of Redding, the facility in this application meets the requirement of Section 73.515 that the 60 dBu cover at least 50% of the community *or* reach 50% of the population within the community.

¹ The city limits and population were calculated using the 2000 Census data as rendered by V-Soft Communications program Probe 3.

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Exhibit 9 - D1

KKRO

Latitude: 40-54-27 N
Longitude: 122-26-37 W
ERP: 0.42 kW
Channel: 218
Frequency: 91.5 MHz
AMSL Height: 1174.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 311.0
Receiver Ht AG: 2.0 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

