

TECHNICAL STATEMENT

This technical statement and exhibits were prepared on behalf of Blue Sky Radio in support of a new LPFM (LP100) station to provide radio programming to the area being served by this not-for-profit organization.

The location chosen for the facility is on an existing unregistered tower owned by K2 Towers located at 210 East Marcy St., Santa Fe, NM.

TECHNICAL PARAMETERS

Facilities Proposed

Location (NAD83)	35° 41' 17" N Latitude, 105° 56' 04.5" W Longitude
Channel	288L1 (105.5MHz)
Tower Overall AGL Height-	55m
Tower ASR	None
Proposed Antenna	2-bay, 3/4 Wave Spaced EPA Type 2
Antenna AGL Height-	36m
Site AMSL Height-	2136m
COR AMSL Height	2172m
HAAT	-47m
Requested ERP	0.1kW Non-Directional

FIGURE 1- ALLOCATION

ComStudy 2.2 search of channel 288 (105.5 MHz Class LP100) at 35-41-16.9 N, 105-56-04.5 W.

CALL	CITY	ST	CHN	CL	DIST	SEP	BRNG	CLEARANCE
KKRG-FM	SANTA FE	NM	286	C	54.53	93.00	281.0	-38.5 Exhibit A
KRZY-FM	SANTA FE	NM	290	C	54.53	93.00	281.0	-38.5 Exhibit B
KLBU-FM2	SANTA FE	NM	234	D	4.01	3.00	271.4	1.0 IF- NA
KQRI	BOSQUE FARMS	NM	288	C1	127.22	111.00	219.3	16.2
KTRZ	TAOS	NM	288	A	83.96	67.00	21.7	17.0
KLBU	SANTA FE	NM	234	C1	45.31	20.00	349.3	25.3

LMS as of 12/5/2023

Second-adjacent Protection

The proposed facility will be short-spaced to two second-adjacent stations, KKRG-FM (286C) and KRZY-FM (290C). The applicant respectfully requests a waiver of 73.807 with respect to second adjacent interference. Exhibits A and B demonstrate that there will be no actual interference to those stations at 2 meters AGL.

Interference to Translator or Booster Input Signals (73.827 Compliance)

There are no translators of concern for 73.827 compliance

Reasonable Assurance

Received from Tracy Crittendon, Authorized Representative (440) 903-9949.

Environmental Considerations

The operation of the LP100 is proposed to operate on a 180ft existing tower at 36 meters AGL. There will be no modification to the proposed tower, therefore this antenna will be compliant with the Nationwide Programmatic Agreement and NHPA Section 106.

The FCC program "FM Model for Windows" calculated that the maximum RF radiation at 2m AGL will be $0.33 \mu\text{W}/\text{cm}^2$ or 0.2% of the $200 \mu\text{W}/\text{cm}^2$ allowed for public exposure. There are no other non-excluded facilities at this site. The proposed operation will thus be compliant with FCC and OSHA regulations.

Respectfully Submitted



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(214) 395-5067

EXHIBIT A – Second Adjacent protection to KKRGM-FM (286C)

PROP Santa Fe, NM, Showing Protection to KKRGM-FM , Channel: 286

Geographic Coordinates: N. 354116N W. 1055604.5W

74.1204(d) Study - Using NED 03 SEC Terrain Database

Translator or LPFM Maximum Licensed ERP = 0.1 kW, Channel: 288

Translator or LPFM Antenna Height AG = 36 meters

PROP Antenna Azimuth Model = Vertical Model Name = NIC BKG-77 2-BAY 3-4 SPACE

Protected Station's Contour = 76.57805 dBu

Translator's or LPFM's full Interference contour 116.57805

Review Azimuth = 0 Degrees True

Horizontal Relative Field at Review Azimuth = 1.000

Translator/LPFM ERP on the horizontal at Review Azimuth = 0.1 kW

Distance between stations = 54.4 km

Protected Station= KKRGM-FM, 100 kW, 3054 M meters COR AMSL

Depression Angle From Degree(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle (m)	Dist to IX Contour From Tower Base (m)	Height IX Above Ground (m)
00.00	1.0	1.0	0.1000	104.0154	104.0154	036.000
05.00	0.967	1.0	0.0935	100.5829	100.2001	027.234
10.00	0.871	1.0	0.0759	090.5974	089.2210	020.268
15.00	0.711	1.0	0.0506	073.9549	071.4350	016.859
20.00	0.518	1.0	0.0268	053.8800	050.6306	017.572
25.00	0.31	1.0	0.0096	032.2448	029.2237	022.373
30.00	0.112	1.0	0.0013	011.6497	010.0890	030.175
35.00	0.062	1.0	0.0004	006.4490	005.2827	032.301
40.00	0.198	1.0	0.0039	020.5950	015.7767	022.762
45.00	0.288	1.0	0.0083	029.9564	021.1824	014.818
50.00	0.336	1.0	0.0113	034.9492	022.4649	009.227
55.00	0.349	1.0	0.0122	036.3014	020.8216	006.264
60.00	0.331	1.0	0.0110	034.4291	017.2145	006.184
65.00	0.295	1.0	0.0087	030.6845	012.9678	008.190
70.00	0.246	1.0	0.0061	025.5878	008.7515	011.955
75.00	0.197	1.0	0.0039	020.4910	005.3035	016.207
80.00	0.151	1.0	0.0023	015.7063	002.7274	020.532
85.00	0.122	1.0	0.0015	012.6899	001.1060	023.358
90.00	0.117	1.0	0.0014	012.1698	000.0000	023.830

EXHIBIT B- Second Adjacent protection to KRZY-FM (290C)

PROP Santa Fe, NM, Showing Protection to KRZY-FM , Channel: 290

Geographic Coordinates: N. 354116N W. 1055604.5W

74.1204(d) Study - Using NED 03 SEC Terrain Database

Translator or LPFM Maximum Licensed ERP = 0.1 kW, Channel: 288

Translator or LPFM Antenna Height AG = 36 meters

PROP Antenna Azimuth Model = Vertical Model Name = NIC BKG-77 2-BAY 3-4 SPACE

Protected Station's Contour = 76.7466 dBu

Translator's or LPFM's full Interference contour 116.7466

Review Azimuth = 0 Degrees True

Horizontal Relative Field at Review Azimuth = 1.000

Translator/LPFM ERP on the horizontal at Review Azimuth = 0.1 kW

Distance between stations = 54.4 km

Protected Station= KRZY-FM, 100 kW, 3065 M meters COR AMSL

Depression Angle From Degree (Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle (m)	Dist to IX Contour From Tower Base (m)	Height IX Above Ground (m)
00.00	1.0	1.0	0.1000	102.0164	102.0164	036.000
05.00	0.967	1.0	0.0935	098.6499	098.2745	027.402
10.00	0.871	1.0	0.0759	088.8563	087.5064	020.570
15.00	0.711	1.0	0.0506	072.5337	070.0621	017.227
20.00	0.518	1.0	0.0268	052.8445	049.6576	017.926
25.00	0.31	1.0	0.0096	031.6251	028.6621	022.635
30.00	0.112	1.0	0.0013	011.4258	009.8951	030.287
35.00	0.062	1.0	0.0004	006.3250	005.1812	032.372
40.00	0.198	1.0	0.0039	020.1992	015.4735	023.016
45.00	0.288	1.0	0.0083	029.3807	020.7753	015.225
50.00	0.336	1.0	0.0113	034.2775	022.0332	009.742
55.00	0.349	1.0	0.0122	035.6037	020.4215	006.835
60.00	0.331	1.0	0.0110	033.7674	016.8837	006.757
65.00	0.295	1.0	0.0087	030.0948	012.7186	008.725
70.00	0.246	1.0	0.0061	025.0960	008.5833	012.417
75.00	0.197	1.0	0.0039	020.0972	005.2015	016.588
80.00	0.151	1.0	0.0023	015.4045	002.6750	020.830
85.00	0.122	1.0	0.0015	012.4460	001.0847	023.601
90.00	0.117	1.0	0.0014	011.9359	000.0000	024.064