

Exhibit 11-1
Waiver Request for 2nd adjacent Spacing

(North Branch, MN Proposal, channel 220, 91.9 MHz)

4/7/2004

Refuge Media Group respectfully requests waiver of 47 C.F.R. § 74.1204(a)

This application is 3rd adjacent to Station KQRS-FM. The distance from this proposal's location to KQRS-FM's transmitting facility is *less* than what is required pursuant to § 74.1204(a). However, pursuant to the *lack of population* criteria set forth in § 74.1204(d), a waiver of § 74.1204(a) can be granted. As shown below, the predicted interference signal reaches a population of zero as the interfering signal does not reach the ground.

KQRS-FM Ch 223C (92.5 MHz)

45° 3' 30" NL, 93° 07' 27" WL

RCAMSL: 593 m

RCAGL: 316 meters

Bearing toward Proposal: 18° True

ERP: 100.0 kW

HAAT @ 18° True: 320.2 meters

Distance to Proposed site: 49.9 km

Signal @ 49.9 km in 18° radial: 70.7 dBu F(50,50)

Translator Proposal: Ch 220FX (91.9 MHz)

45° 29' 10" NL, 92° 55' 56" WL

RCAMSL: 334 meters

RCAGL: 60 meters

Bearing to KQRS-FM: 198° True

MERP: 0.038 kW

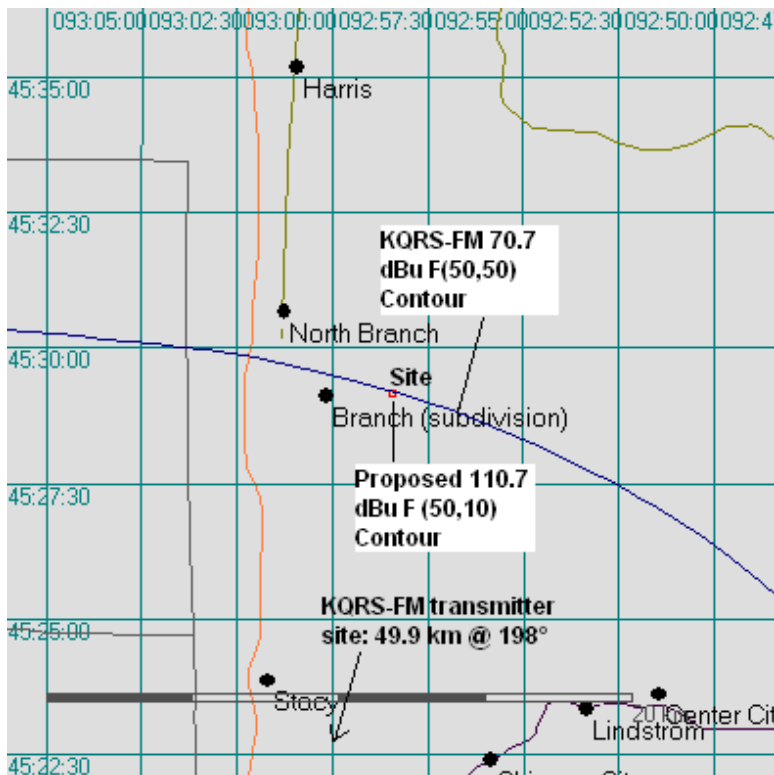
HAAT: (max of 12 radials:) 78.2 m

Interference Signal: 110.7 dBu F(50,10)**

Distance to Interference signal: 126 meters

Terrain Source: FCC 30-sec DEM (NGDC)

*Based on the ratios set forth in § 74.1204(a) for stations separated by 2 or 3 channels, the interference signal of this proposed 3rd adjacent translator must be 40 dB (100:1 ratio) higher before predicted interference to KQRS-FM will occur. ($70.7 + 40 = 110.7$)



Terrain Source: FCC 30-sec DEM (NGDC)

Interference Does Not Hit the Ground:

Based on the above data, the predicted interference *does* hit the ground. However, the field strength of the proposed translator's antenna *varies* with angle of depression from horizontal. The antenna relative fields are tabulated in page 2 of this exhibit. As shown in the table in Page 2 below, the interference contour **stays above** the ground by 1.5 m. Therefore a grant of this proposal will not cause predicted interference with anyone trying to receive station KQRS-FM.

Note: Even though the predicted interference stays above the ground, in the event any real world interference should occur to KQRS-FM or any other station, Refuge Media Group acknowledges to promptly suspend operation pursuant 47 C.F.R. § 74.1203.

Exhibit 11-1 Page 2
Vertical Ground Clearance Tabulations

Antenna Manufacturer: Armstrong

Max ERP: 0.038

Antenna Model: FMA-707-1 (Single Element)

RCAGL: 57 meters

Note: See Exhibit 11-2 "Antenna's Vertical Pattern"

Interfering contour: F(50,10) 110.7 dBu

Depression Angle (from COR)	Antenna Relative Field	ERP (watts)	Dist to F(50,10) Interfering Contour from antenna (m)	Horizontal Dist of F(50,10) Interfering from Tower (m)	Vertical Clearance of F(50,10) Interfering Contour above ground (m)
5	.99	37.2	125.0	124.5	49.1
10	.98	36.5	123.0	121.1	38.6
15	.94	33.6	119.0	114.9	29.2
20	.91	31.5	115.0	108.1	20.1
25	.88	29.4	111.0	100.6	13.1
30	.84	26.8	106.0	91.8	7.0
33	.80	24.3	101.0	84.7	5.0
34	.79	23.7	100.0	82.9	4.1
35	.77	22.5	97.0	79.5	4.4
36	.76	21.9	96.0	77.7	3.6
37	.75	21.4	95.0	75.9	2.8
40	.71	19.2	90.0	68.9	2.1
41	.70	18.6	88.0	66.4	2.3
42	.69	18.1	87.0	64.7	1.8
43	.67	17.0	84.0	61.4	2.7
44	.66	16.6	83.0	59.7	2.3
45	.65	16.0	82.0	58.0	2.0
46	.64	15.6	81.0	56.3	1.7
47	.63	15.1	80.0	54.6	1.5
48	.62	14.6	78.0	52.2	2.0
49	.61	14.1	77.0	50.5	1.9
50	.60	13.7	76.0	48.9	1.8
51	.58	12.8	73.0	45.9	3.3
52	.57	12.3	72.0	44.3	3.3
53	.55	11.5	69.0	41.5	4.9
55	.52	10.3	66.0	37.8	5.9
60	.45	7.70	57.0	28.5	10.6
70	.32	3.90	40.0	13.7	22.4
80	.18	1.23	22.0	3.8	38.3
90	.10	.40	20.0	0	40.0

Minimum Distance Above Ground Level:

1.5 meters