ENGINEERING STUDY

LICENSE MODIFICATION

K216GQ

TECHNICAL STATEMENT

This technical statement and attached exhibits were prepared on behalf of the Board of Education, City of Albuquerque, NM, licensee of K216GQ, Facility ID 6049. This Modification is being filed to modify the antenna at the same location and AGL height as the currently licensed facility. K216GQ will continue to operate as a fill-in translator for station KANW, 206C, Albuquerque, NM, Facility ID 4273

Facilities Requested

Location (NAD27) (no change)	41° 44' 14" N Latitude, 122° 46' 36" W Longitude
Channel	216D (91.1MHz)
Tower Overall AGL Height-	25m
Tower ASR	N/A
Proposed Antenna	Kathrein/ Scala CA2-FM/CP x 2, 90deg offset.
Antenna AGL Height-	17m
Site AMSL Height-	3671m
COR AMSL	3688m
ERP	250 Watts- (directional, Exhibit A)

COMPLIANCE WITH 74.1204(a) [contour overlap]

The translator on channel 296D will be fully compliant with 74.1204(a), An allocation study is shown as Exhibit B. A map showing the closest protection, to K216CU is shown in Exhibit C.

COMPLIANCE WITH 74.1204(d) [2nd Adjacent Interference]

The proposed translator on 216D will be compliant with 74.1204(d). As shown in Exhibit D The 100dBu interfering contour for the proposed K216GQ does not encompass any population. Therefore, there will be no interference to either KFLQ (218C) or KQLV (214C).

COMPLIANCE WITH 74.1201(g) [Fill-in Operation]

Exhibit C demonstrates that the proposed translator remains entirely contained within the 60dBu contour of the primary station, KANW, 206C, Albuquerque, NM..

The facility is not within 320km of the common border between the US and Canada.

COMPLIANCE WITH 74.1233 [Minor Change]

Because the proposed translator is at the same location as the existing licensed location and on the same frequency, this is considered a minor modification.

ENVIRONMENTAL EXHIBIT

The proposed translator facility will utilize a directional antenna located on the same tower and centered at the same height as the current antenna. The attachment of the proposed translator antenna will not alter the existing structure significantly for purposes of the Nationwide Programmatic Agreement and the NHPA Section 106.

The proposed 216D facility will utilize a two-level level Scala CA2-FM-CP Yagi antenna located at 17m AGL, Based upon the FCC "FM Model"[1] program using a worst-case ring-stub antenna, the proposed 2-level, 0.87 wavelength spaced antenna 216D operation will produce 36.2

[1] https://www.fcc.gov/general/fm-model

μW/cm² at a distance of 2.8m from the base of the tower at ground level or 18.1% of the MPE level. There are no other non-excluded RF sources on the tower. Therefore, the proposed antenna operating as proposed is considered compliant with MPE limits.

Based upon the information above, it is calculated that the facility will be in compliance with FCC guidelines and is excluded from further Environmental Assessment under 47CFR 1.1306 and 1.1307.

The proposed FM translator along with other users at the site maintain an occupational safety policy and agrees to reduce power or cease operation during periods of maintenance to avoid potentially harmful exposure of personnel to non-ionizing RF radiation.

Respectfully Submitted

Bert Goldman

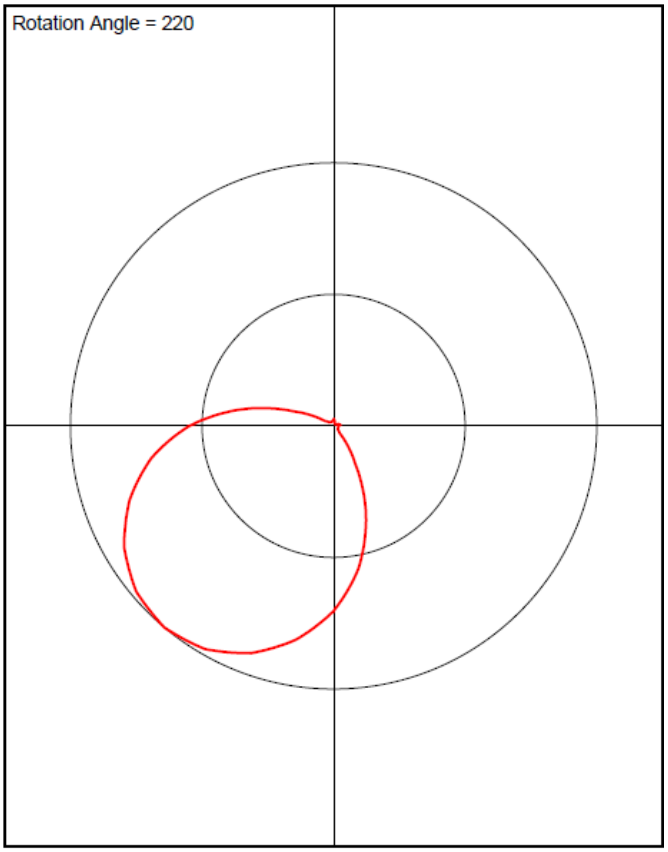
Technical Consultant

EXHIBIT A- ANTENNA PATTERN

Antenna Pattern

Post-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	0.026
5.0	0.0235
10.0	0.021
15.0	0.016
20.0	0.011
25.0	0.0105
30.0	0.01
35.0	0.01
40.0	0.01
45.0	0.01
50.0	0.01
55.0	0.0105
60.0	0.011
65.0	0.016
70.0	0.021
75.0	0.0235
80.0	0.026
85.0	0.022
90.0	0.018
95.0	0.018
100.0	0.018
105.0	0.018
110.0	0.018
115.0	0.0185
120.0	0.019
125.0	0.02
130.0	0.021
135.0	0.0285
140.0	0.036
145.0	0.099
150.0	0.162
155.0	0.2605
160.0	0.359
165.0	0.4535
170.0	0.548
175.0	0.6255
180.0	0.703
185.0	0.764
190.0	0.825
195.0	0.872
200.0	0.919
205.0	0.949
210.0	0.979
215.0	0.9895
220.0	1.0
225.0	0.9895
230.0	0.979
235.0	0.949
240.0	0.919
245.0	0.872
250.0	0.825
255.0	0.764
260.0	0.703
265.0	0.6255
270.0	0.548
275.0	0.4535
280.0	0.359
285.0	0.2605
290.0	0.162
295.0	0.099
300.0	0.036
305.0	0.0285
310.0	0.021
315.0	0.02



320.0	0.019
325.0	0.0185
330.0	0.018
335.0	0.018
340.0	0.018
345.0	0.018
350.0	0.018
355.0	0.022

EXHIBIT B- ALLOCATION STUDY

ComStudy 2.2 search of channel 216 (91.1 MHz Class D) at 35-47-08.1 N, 105-46-57.0 W.

CALL	CITY	ST	CHN	CL	DIST	SEP	BRNG	CLEARANCE	
KFLQ	ALBUQUERQUE	NM	218	C	87.74	0.00	223.8	-1.59 dB	Exhibit D
KQLV	SANTA FE	NM	214	C	87.75	0.00	223.8	-1.77 dB	Exhibit D
K216CU	CUBA	NM	216	D	99.18	0.00	285.2	0.71 dB	Exhibit C
KEZF	GRANTS	NM	216	C2	174.85	0.00	250.7	5.06 dB	
KFCY	GRANTS	NM	216	C2	174.86	0.00	250.7	6.56 dB	
KEDP	LAS VEGAS	NM	216	A	55.05	0.00	112.6	10.20 dB	
KQGC	BELEN	NM	216	C3	190.67	0.00	216.3	12.56 dB	
KFLQ	ALBUQUERQUE	NM	218	C	87.74	0.00	223.8	13.85 dB	
K215DT	SAN AUGUSTIN	NM	215	D	68.50	0.00	128.0	19.62 dB	
K216AW	GRANTS	NM	216	D	206.17	0.00	249.4	20.87 dB	
KTAO	TAOS	NM	270	C1	52.44	22.00	12.6	30.4	
KRRT	ARROYO SECO	NM	215	A	71.25	0.00	17.4	31.06 dB	

EXHIBIT C Pertinent Contours, 74.1201(g). 74.1204(a) Compliance

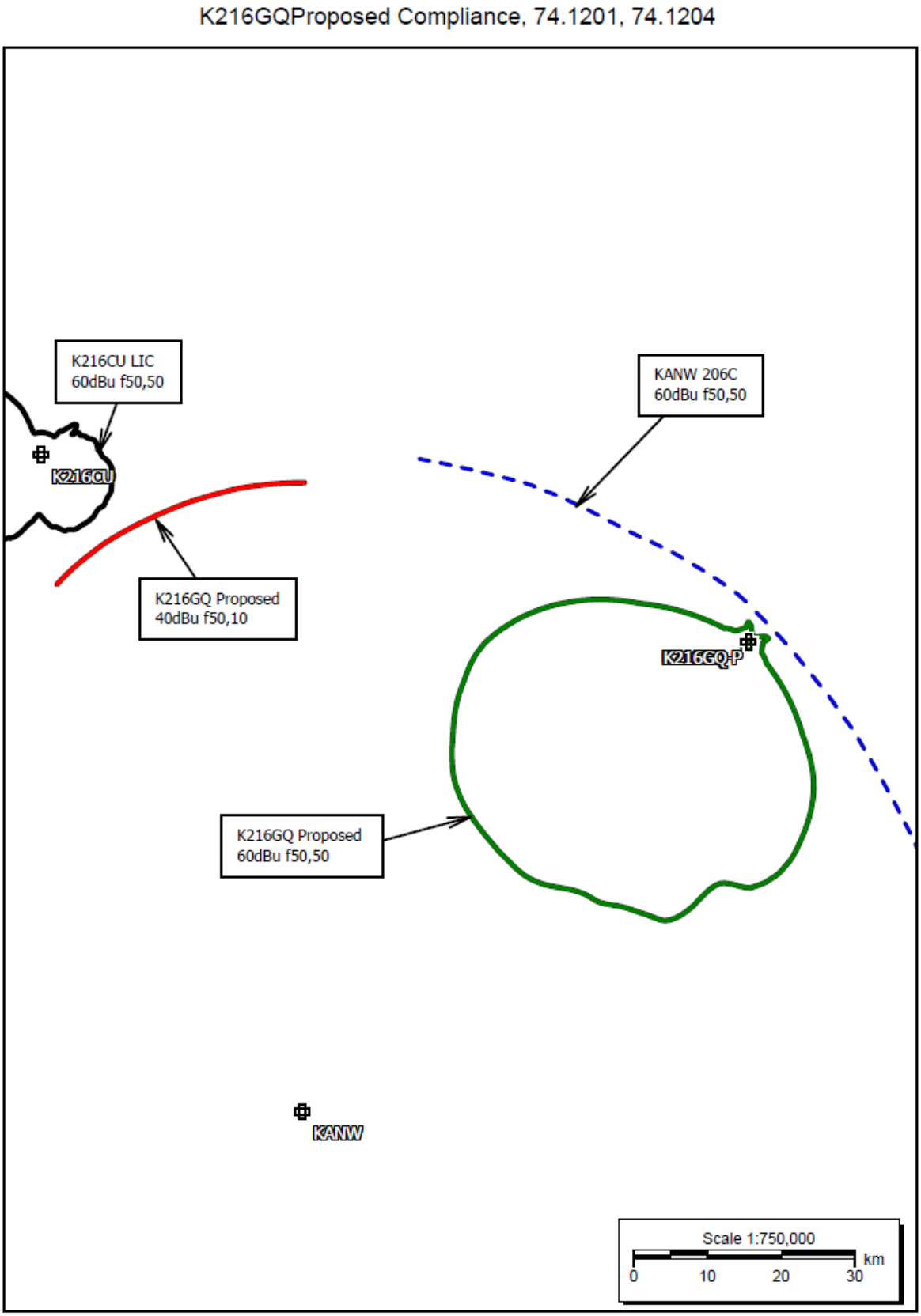


EXHIBIT D, 74.1204(d) Compliance- No population in Area of Interference