

**ENGINEERING EXHIBIT  
SUPPORTING APPLICATION FOR CONSTRUCTION PERMIT  
UNIVISION RADIO LICENSE CORPORATION  
KJFA (FM)  
CHANNEL 286C  
FACILITY ID NUMBER: 7051  
SANTA FE, NEW MEXICO**

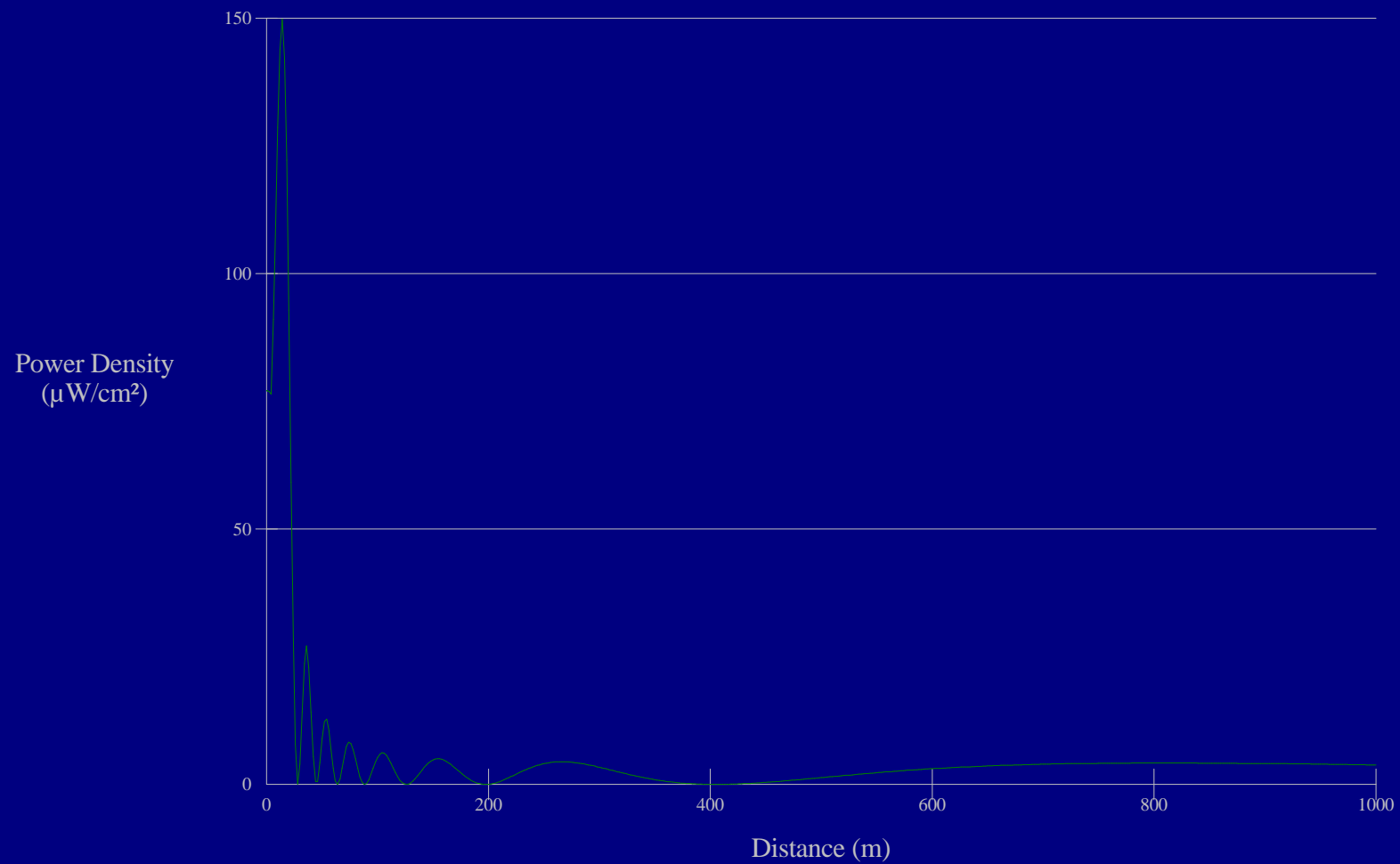
**PURPOSE OF APPLICATION**

KJFA is presently licensed with an effective radiated power of 100,000 Watts horizontal and vertical from the coordinates 35° 47'15" N, 106° 31'35" W, **NAD27**. Univision Radio License Corporation (Univision), has recently confirmed that these coordinates are incorrect, and the facility has actually been located all along, at the coordinates, **35°46'49" N, 106°31'34" W, NAD27**. This is a difference from the coordinates on the license of .8 Kilometer. The licensed height above average terrain is 590 Meters. The actual site with the antenna mounted at the same height above ground level, is 578 Meters above average terrain. The support structure registration number is 1006361. This site is fully spaced to all other licensees and applicants as defined by 73.207.

**ENVIRONMENTAL**

A grant of this instant application will not result in any tower or structure modifications, or any type of construction or alteration of the site. It is merely to correct the mistake made by the original applicant. This is a multiple user site on a remote mountaintop with five other FM, and two Television licenses either on the same tower or within one Kilometer of the site. The antenna utilized by KJFA is an ERI 8 bay full wave spaced Rototiller. The site was studied in accordance with OET publication, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields" Supplement A, Edition 97-01 to OET Bulletin 65, Edition 97-01. Using the OET FM Model software, it can be determined using the EPA "Rototiller" choice that the maximum power density level at two meters above ground level is 149.78 microwatts/centimeter<sup>2</sup> and occurs at 14 meters from the base of the tower. This is 14.98% of the maximum for occupational, restricted access exposure level. The site has been extensively studied in the past, and Univision has demonstrated compliance with 1.1310. Univision will reduce power or discontinue operation in the event of maintenance on the structure or antenna. See the following pages for the data from the OET FM Model program.

Power Density vs Distance



**100,000 Watts horizontal and vertical**  
**53 meters above ground level**  
**8 bay rototiller full wave spaced**  
**Power Density at 2m AGL**

Distance (meters) = 1000  
 Horizontal ERP (W) = 100000  
 Vertical ERP (W) = 100000  
 Antenna Height (m) = 53  
 Antenna Type = 3 "Roto-Tiller"  
 Number of Elements = 8  
 Element Spacing = 1  
 Y-axis (Linear) = -1  
 X-axis Setup = 0, 500

X (meters)	Y ( $\mu\text{W}/\text{cm}^2$ )
0	77.0653878014279
2	76.9376458650747
4	76.44552940502
6	91.0040974588657
8	110.004621437241
10	128.608765493651
12	143.886386911616
14	149.78240244919
16	142.287201148102
18	122.216380668308
20	92.8679716348103
22	59.1438023871619
24	28.5089724787457
26	7.81991275125479
28	6.93516221399916E-02
30	3.98552528613034
32	14.1834618315838
34	23.6803190702268
36	27.0952972026234
38	22.8143477991372
40	14.124944658806
42	5.50984070594285
44	.588141534401323
46	.582958618707428
48	4.24962310689186
50	8.99293895836261
52	12.2906507495148
54	12.780331794651
56	10.5821036113029
58	6.86103965432275
60	3.14481494429499
62	.674258628224048
64	.020240214727102
66	1.06805827393634
68	3.19268358787787
70	5.56063179238415
72	7.42171916834159
74	8.26478355845233
76	7.97410986948252
78	6.76377846616102
80	5.00698054237722
82	3.13373974626483
84	1.524689962018
86	.443161618830118
88	8.83031073687205E-03

90	.207120297572778
92	.925208675884438
94	1.98670666771603
96	3.18988125371617
98	4.34323529111284
100	5.2911200772867
102	5.9281448520803
104	6.20330110296007
106	6.11599080790719
108	5.70665269189853
110	5.03481106220576
112	4.18195063587421
114	3.26383975472522
116	2.36451289204697
118	1.55449769147827
120	.887100942342471
122	.397076306923302
124	.101186813169656
126	1.2968715882675E-04
128	8.13148052680401E-02
130	.322054648421546
132	.692811639501421
134	1.16024210748965
136	1.68986402400711
138	2.24825169884802
140	2.80472183627923
142	3.33472964741937
144	3.8146847743006
146	4.22720369041122
148	4.5600116667841
150	4.80559775471592
152	4.96080573443568
154	5.0263009736193
156	5.00596669980247
158	4.90627380769496
160	4.73565894010872
162	4.50393678273819
164	4.22176465754963
166	3.90017077225793
168	3.55015194091661
170	3.18234219990229
172	2.80675041336675
174	2.43256256806444
176	2.06800285999952
178	1.72024673352504
180	1.39537861340672
182	1.0983870504541
184	.833190275455308
186	.60268563445418
188	.40881698701853
190	.25265482911623
192	.134352904764462
194	5.37845080886737E-02
196	9.86149910688264E-03
198	9.51988155497766E-04
200	2.50214284265585E-02
202	7.97178927074502E-02

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206	.270462672771045
208	.400893018001397
210	.550835245912444
212	.717385761762083
214	.89768609103242
216	1.08895821922672
218	1.28853362941457
220	1.49387654182779
222	1.70260188672987
224	1.912488550676
226	2.12148843098322
228	2.32773181705511
230	2.52952959297046
232	2.72537272581969
234	2.91392947061207
236	3.09404068677802
238	3.26471362462921
240	3.42511450361767
242	3.57456016862111
244	3.71250907634476
246	3.8385518316759
248	3.95240146372582
250	4.05388360350601
252	4.14292669978412
254	4.21955238665532
256	4.28386609569916
258	4.3360479871834
260	4.37634425851135
262	4.40505887385382
264	4.42254574651634
266	4.42920139491679
268	4.42545808393551
270	4.4117774557009
272	4.38864464744293
274	4.35656288874836
276	4.31604856625399
278	4.2676267403979
280	4.21182709620145
282	4.14918030807447
284	4.08021479723051
286	4.00545385938249
288	3.925413139889
290	3.84077399468173
292	3.75211967006381
294	3.65963812232608
296	3.56379469881602
298	3.4650391137723
300	3.36380452051234
302	3.26050677997617
304	3.15554390726501
306	3.04929567880041
308	2.94212338373928
310	2.83436970429782
312	2.72635871064864
314	2.61839595705225
316	2.51076866685611

318	2.40374599493695
320	2.29757935706873
322	2.19250281656673
324	2.08873351938427
326	1.98647216962194
328	1.88590353814786
330	1.78719699772204
332	1.69050707866852
334	1.59597403974565
336	1.50372444942969
338	1.41387177335077
340	1.32651696410397
342	1.24174905010516
344	1.15964572057134
346	1.08027390408153
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354	.791095327830723
356	.726047647717657
358	.663938177429036
360	.604773792834695
362	.548554801625852
364	.495275397211215
366	.444924095263427
368	.397484152779946
370	.352933969627315
372	.311247472629353
374	.272394482339808
376	.236341062709152
378	.203049853914672
380	.172480388673598
382	.144589392401673
384	.119331067615016
386	9.66573630021349E-02
388	7.65182276161594E-02
390	5.88618506554168E-02
392	4.36348873139048E-02
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396	2.02494137682059E-02
398	1.19783914187258E-02
400	5.91212050461574E-03
402	1.99252100212571E-03
404	1.61069180269286E-04
406	3.58939806500652E-04
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410	6.60662370599312E-03
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414	2.02637303086922E-02
416	.02972401611676
418	4.08611036552797E-02
420	5.36172569160714E-02
422	6.79352540782047E-02
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448	.371447869511921
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456	.498433112762239
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464	.636194487813526
466	.672023599744857
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472	.782263747896298
474	.819814722755926
476	.857713617243849
478	.895929358801559
480	.934431825943981
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506	1.44899099940016
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554	2.36054791579434
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604	3.12220082263315
606	3.14753991578258
608	3.17251063476476
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634	3.46417045691597
636	3.48412751169788
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642	3.54194220683787
644	3.56053591412503
646	3.57879463843509
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654	3.64852911330054
656	3.66515032688947
658	3.6814517827319



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662	3.71310607644936
664	3.72846430817864
666	3.74351356534205
668	3.75825660104731
670	3.7726961870955
672	3.78683511200705
674	3.80067617912482
676	3.81422220479192
678	3.82747601660168
680	3.84044045171782
682	3.85311835526227
684	3.86551257876871
686	3.87762597869959
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690	3.90102174985902
692	3.91230984615857
694	3.92332856647135
696	3.9340807717426
698	3.94456932017184
700	3.95479706612044
702	3.96476685906772
704	3.97448154261411
706	3.98394395352986
708	3.99315692084752
710	4.00212326499698
712	4.01084579698139
714	4.01932731759275
716	4.02757061666562
718	4.03557847236783
720	4.04335365052669
722	4.05089890398966
724	4.05821697201815
726	4.06531057971331
728	4.07218243747266
730	4.07883524047655
732	4.08527166820325
734	4.09149438397172
736	4.09750603451109
738	4.10330924955576
740	4.10890664146533
742	4.11430080486829
744	4.11949431632881
746	4.12448973403551
748	4.12928959751155
750	4.1338964273453
752	4.13831272494058
754	4.14254097228597
756	4.14658363174229
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760	4.15412193713952
762	4.15762240799242
764	4.16094694047203
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772	4.1725326101933

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778	4.17948816773445
780	4.18148847351861
782	4.18333333484132
784	4.18502496635374
786	4.18656548022185
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804	4.19397523744236
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810	4.19402049714606
812	4.19378302292416
814	4.19342238778324
816	4.19294043289323
818	4.19233897921332
820	4.19161982759283
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866	4.14644544993835
868	4.14339161065013
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876	4.1304008656001
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880	4.12345838024209
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896	4.09293816281036
898	4.08883314905632
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902	4.08044221132554
904	4.07615845768935
906	4.07181727097591
908	4.06741970139232
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912	4.05845954599358
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916	4.04928612140139
918	4.04462191552072
920	4.03990734501863
922	4.03514336712291
924	4.03033092635322
926	4.02547095466217
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930	4.01561208433166
932	4.01061498801966
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936	4.00048988862585
938	3.99536361620861
940	3.99019599632231
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986	3.86171587240257
988	3.85578235364066
990	3.84982528388392
992	3.84384525297744
994	3.83784284238722
996	3.83181862530443
998	3.82577316674849
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