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In the matter of:

Q-Broadcasting Corporation

W279DG

BMPFT-20180830AAZ

RF EXPOSURE STUDY

To address the conditions placed upon the above captioned construction, Q-Broadcasting Corporation ("Grantee") prepares this joint RF exposure study for the above captioned FM translator broadcast station placed on the roof of a high-rise residential structure in West Palm Beach, Florida.

This station is equipped with a Nicom BKG-88 circularly polarized antenna. The antenna is mounted on the top of an equipment penthouse. The penthouse is 8 meters from the main roofline to the roofline of the penthouse. The lowest point on the radiating portion of the antenna is located yet another 2.5 meters above the roof of the penthouse. This means at the roofline, the nearest radiating section of the antenna is 12.5 meters above. The highest point of uncontrolled access is 2 meters below the roofline (based on the elevation above ground level of the landing of the highest floor plus 2 meters to account for the height of the average person). This means that the nearest portion of the radiating section of the antenna is at least 14.5 meters in height from the nearest occupied area.

The design of the BKG-88 antenna in the three-bay configuration focuses more RF energy outward than downward. As presented in the *Comprehensive Exhibit* in the application as a part of the waiver request of §74.1204(a) of the Commission's Rules, we had stated that the -5, -10, -15, -20, -25 and -30 degree depression angles do not reach the occupied areas. All angles from -35 to -90 are angled towards the roof of the structure. Along the -35 to -90 degree depression angles, the maximum ERP does not exceed 5 watts ERP.

There are two antennas mounted on this roof, the above captioned antenna and an antenna for W281CJ (see BMPFT-20180830AAZ). That facility will utilize a 3-bay Nicom BKG-88 circularly polarized antenna located at the same height but at a different location on the roof.

In the *Comprehensive Exhibit*, the Grantee also demonstrated that using the accepted FM MODEL prediction method, the aggregate power density of the site is 13.495 uW/cm² based on the full authorized combined ERP for both sites. This value well exceeds the general population/uncontrolled exposure guideline of 200 uW/cm².

The access doors to the roof are normally locked, inaccessible to residents and the general public and only accessible to authorized personnel. The Grantee has voluntarily placed industry standard warning signs at each roof access door to advise of the potential of any exposure. The photos following are authentic and were taken at the antenna site.

I certify under penalty of perjury that the information presented (including the photos) are true and to the best of my knowledge.

/S/

George M. Arroyo

President

Q Broadcasting Company, permittee of W279DG

In the instant cases, the Grantees have demonstrated that the RF exposure on the roof and throughout the building is well within the guidelines in accordance with OET Bulletin No. 65, Edition 97-01, August 1997 and that appropriate visual warning signs have been placed at all roof access points.

Prepared by,

/S/

Michelle Bradley

REC Networks

202 621-2355

202 621-2040 (FCC staff)

November 27, 2018

EXHIBIT 1 – DEPRESSION ANGLES FROM THE RADIATION CENTER OF THE NICOM BKG-88

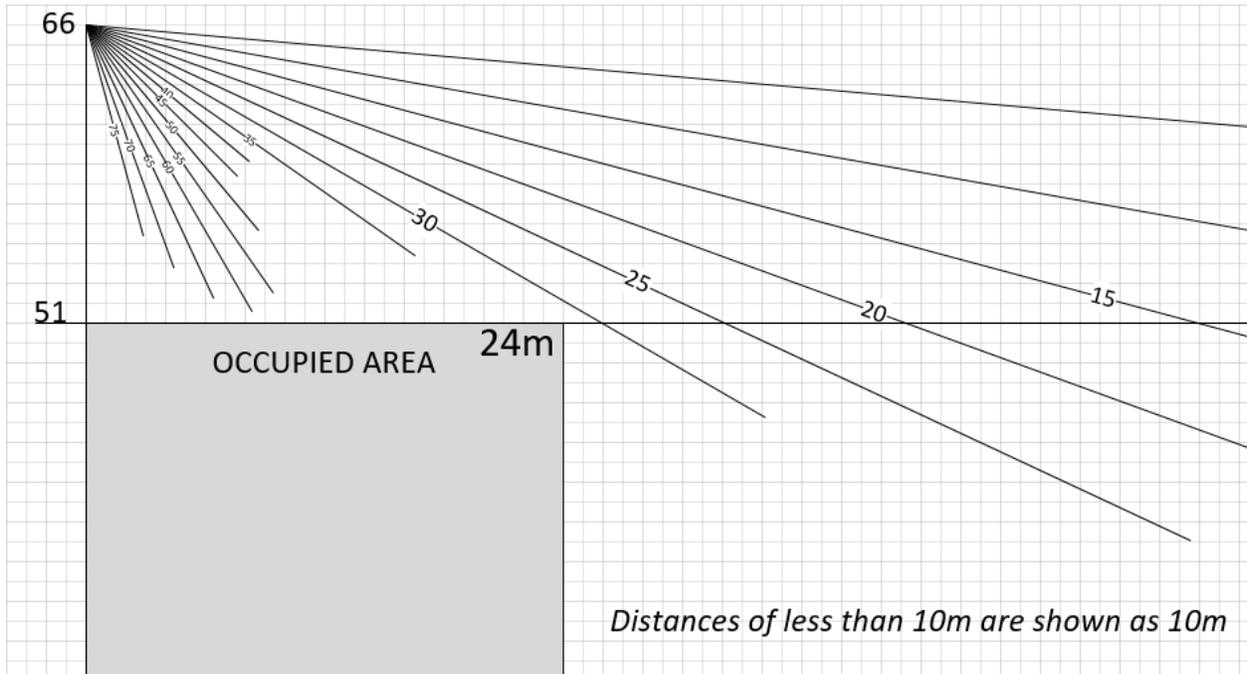


EXHIBIT 2 – LOCATION OF ANTENNA IN RESPECT TO OCCUPIED AREAS

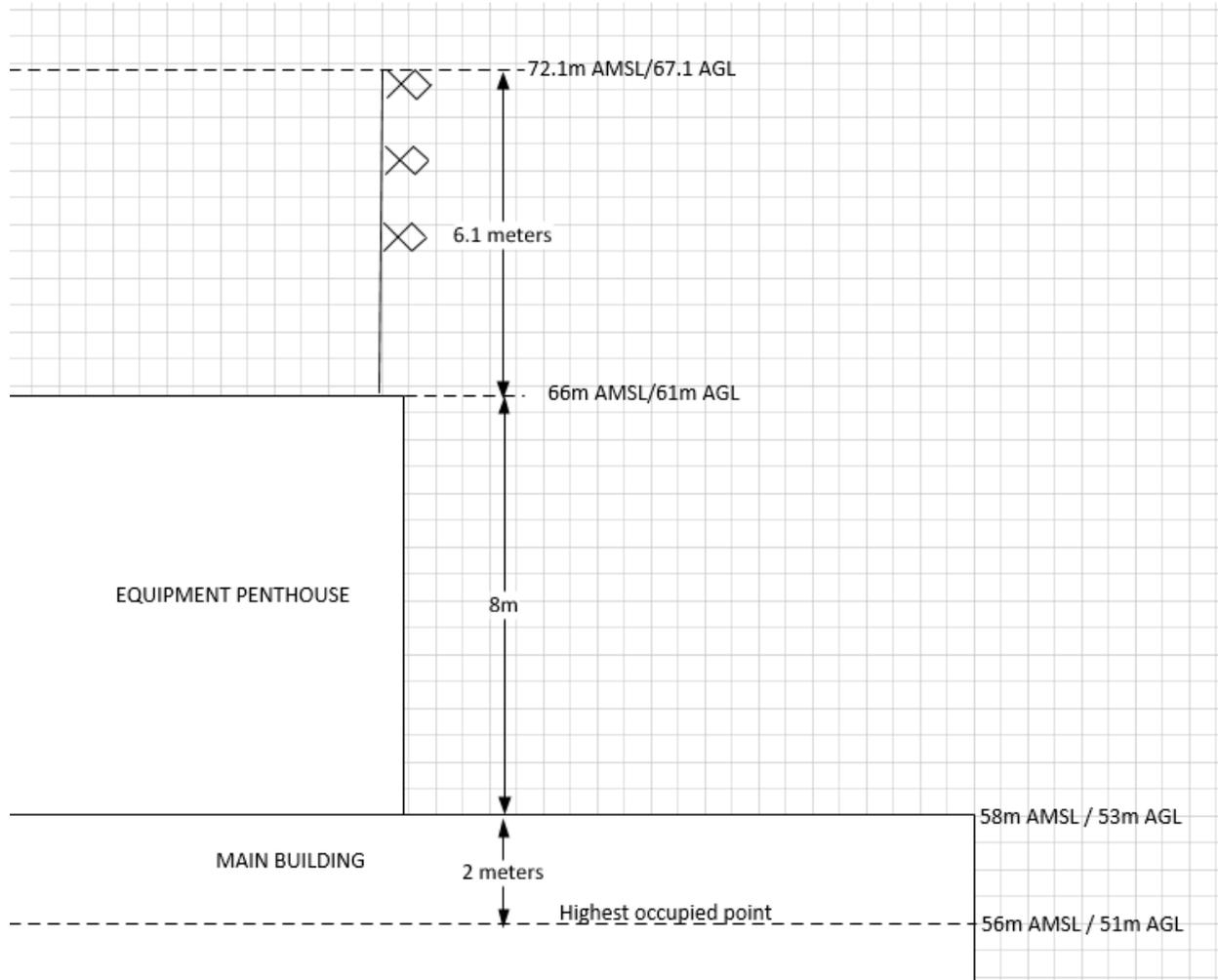
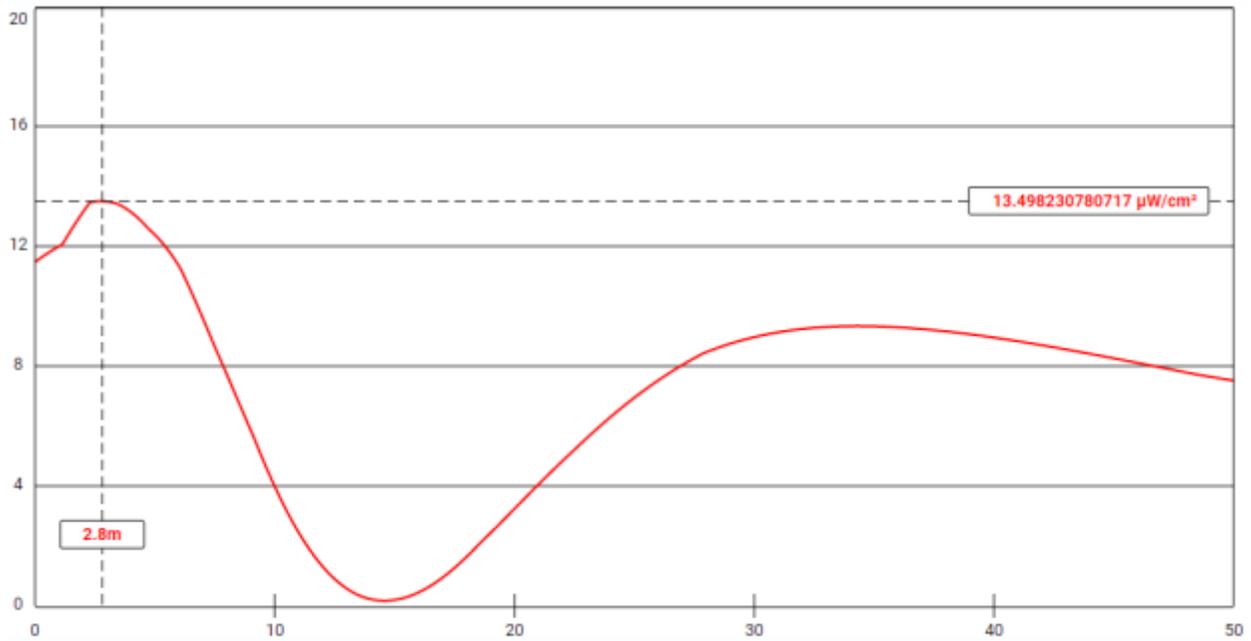


EXHIBIT 3 - NEPA COMPLIANCE DEMONSTRATION (BOTH W279DG & W281CI)



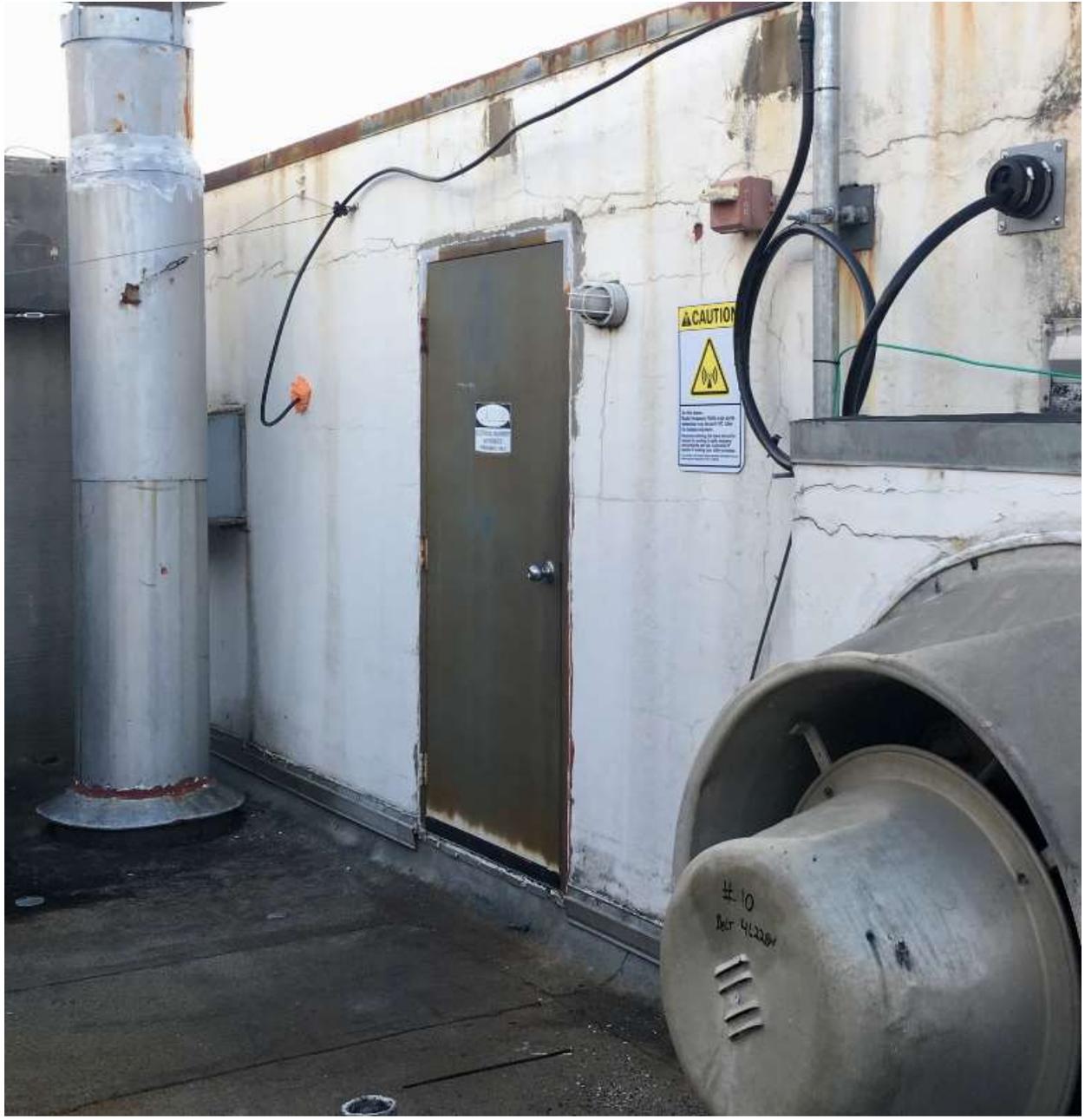
Call Sign	Radiation Center above highest point of occupation	Maximum ERP	Predicted Power Density ($\mu\text{W}/\text{cm}^2$)
W279DG (prop)	15 m	0.250 kW-H + 0.250 kW-V	6.789
W281CI (prop)	15 m	0.247 kW-H + 0.247 kW-V	6.708
Combined	15 m	0.497 kW-H + 0.497 kW-V	13.498

EXHIBIT 4 – ELEVATION PATTERN OF 3-BAY NICOM BKG-77

Proposed Power:				0.25 kW				
Antenna Height AGL:				66 m				
Interference Contour:				118.1 dBu				
Artificial RX Antenna Height:				51 m				
Antenna Type:				Nicom BKG77 - 3 bay Half-wave spacing				
Angle Below Horizon	Antenna Relative Field	ERP in kW	ERP in dBk	Distance from Ant to Interference Contour	Distance from Ant to Artificial Plane	Field Strength in dBu @ Artificial Plane	Distance from Ant to Ground Level	Field Strength in dBu @ Ground Level
5	0.974	0.237	-6.25	134.44	172.11	115.95	757.27	103.09
10	0.896	0.201	-6.97	123.67	86.38	121.22	380.08	108.35
15	0.766	0.147	-8.34	105.73	57.96	123.32	255.00	110.45
20	0.609	0.093	-10.33	84.06	43.86	123.75	192.97	110.88
25	0.441	0.049	-13.13	60.87	35.49	122.79	156.17	109.92
30	0.282	0.020	-17.02	38.92	30.00	120.36	132.00	107.49
35	0.142	0.005	-22.97	19.60	26.15	115.60	115.07	102.73
40	0.032	0.000	-35.92	4.42	23.34	103.64	102.68	90.77
45	0.045	0.001	-32.96	6.21	21.21	107.43	93.34	94.56
50	0.092	0.002	-26.74	12.70	19.58	114.34	86.16	101.47
55	0.113	0.003	-24.96	15.60	18.31	116.71	80.57	103.84
60	0.114	0.003	-24.88	15.74	17.32	117.27	76.21	104.40
65	0.103	0.003	-25.76	14.22	16.55	116.78	72.82	103.91
70	0.087	0.002	-27.23	12.01	15.96	115.63	70.24	102.76
75	0.069	0.001	-29.24	9.52	15.53	113.85	68.33	100.98
80	0.053	0.001	-31.54	7.32	15.23	111.73	67.02	98.86
85	0.042	0.000	-33.56	5.80	15.06	109.81	66.25	96.94
90	0.040	0.000	-33.98	5.52	15.00	109.42	66.00	96.55

EXHIBIT 5 – PHOTOS OF ROOF ACCESS AREA DEMONSTRATING SIGN PLACEMENT





CAUTION



On this tower:
Radio frequency fields near some antennas may exceed FCC rules for human exposure.
Personnel climbing this tower should be trained for working in radio frequency environments and use a personal RF monitor if working near active antennas.
In accordance with Federal Communications Commission rules on radio frequency emissions 47 CFR 1.1327(b)

AUTHORIZED PERSONNEL ONLY

NOTICE

RF Controlled Area Beyond This Point

Radio frequency (RF) emissions may exceed FCC Standards for general public exposure. Only authorized workers are permitted to enter.

For your safety:

- ▶ Obey all posted signs.
- ▶ Maintain minimum distance of 7 feet from all antennas.
- ▶ Do not stop in front of antennas.

For further information, please call 1-800-462-0820 and reference Site Number _____





CAUTION



On this tower:
Radio frequency fields near some antennas may exceed FCC rules for human exposure.
Personnel climbing this tower should be trained for working in radio frequency environments and use a personal RF monitor if working near active antennas.
in accordance with Federal Communications Commission rules on radio frequency emissions 47 CFR 1.1303(a)



CAUTION



On this tower:
Radio frequency fields near some
antennas may exceed FCC rules
for human exposure.
Personnel climbing this tower should be
looked for working in radio frequency
equipment and use a personal RF
meter. If working near active antennas,
do not touch antennas or cables.
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