

EXHIBIT 1
W265EF MINOR MODIFICATION APPLICATION FOR CP
ENGINEERING AND ENVIRONMENTAL ANALYSIS
250 WATTS DA 100.9 MHz NEWPORT NEWS, VIRGINIA
SEPTEMBER 2019

This application proposes a site change of 0.27 kilometers, an increase in RC AMSL of 15 meters with no change in ERP, DA Pattern or Frequency. Figure 1 attached depicts the CP and proposed minor mod 60 dBu contours. The minor mod contour envelops the CP 60 dBu contour.

The allocation study tabulation is pasted in below:

Search of channel 265 (100.9 MHz Class D) at 36-50-28.8 N, 76-08-09.4 W has been undertaken and no impermissible interference has been found.

CALL	CITY	ST	CHN	CL	DIST	SEP	BRNG	CLEARANCE
WVHT	NORFOLK	VA	263	B	6.51	0.00	257.7	-49.35 dB
WWDE-FM	HAMPTON	VA	267	B	10.40	0.00	261.9	-39.56 dB
W265EF CP	NEWPORT NEWS	VA	265	D	0.27	0.00	57.7	-26.44 dB
WFMI	SOUTHERN SHORES	NC	265	C2	74.67	0.00	161.6	6.95 dB
WJSR	LAKESIDE	VA	265	B1	139.64	0.00	308.8	11.75 dB
WHRO-FM	NORFOLK	VA	212	B	33.00	15.00	263.8	18.0
WAAI	HURLOCK	MD	265	A	199.10	0.00	6.2	30.34 dB
WQZL	BELHAVEN	NC	266	C2	165.16	0.00	203.5	34.71 dB
WKYV	PETERSBURG	VA	262	A	118.71	0.00	289.0	37.66 dB
WICO-FM	SNOW HILL	MD	266	A	168.65	0.00	24.9	39.28 dB
WVES	CHINCOTEAGUE	VA	268	A	136.99	0.00	28.7	44.02 dB
WBQB	FREDERICKSBURG	VA	268	B1	196.77	0.00	324.8	47.02 dB

The WVHT signal at the translator site is 98 dBu and the translator interfering contour is 138 dBu. The WWDE-FM signal at the proposed translator site is 90 dBu and the proposed interfering contour is 130 dBu. The translator antenna is 125 M AGL. The greatest signal level on the ground is 113.2 dBu, 16.8 dB below the level that is predicted to cause interference to WWDE-FM. Continued use of the Free Space protection methodology is requested.

Depression Angle, Degrees	Relative Field	ERP Watts	dBk	Distance to the Ground in Kilometers	Free Space Signal
90	0.001	0.0003	-66.0	0.1230	59.1
85	0.096	2.3040	-26.4	0.1235	98.7
80	0.186	8.6490	-20.6	0.1249	104.4
75	0.273	18.6323	-17.3	0.1273	107.5
70	0.357	31.8623	-15.0	0.1309	109.6
65	0.437	47.7423	-13.2	0.1357	111.1
60	0.514	66.0490	-11.8	0.1420	112.1
55	0.586	85.8490	-10.7	0.1502	112.7
50	0.654	106.9290	-9.7	0.1606	113.1
45	0.717	128.5223	-8.9	0.1739	113.2
40	0.774	149.7690	-8.2	0.1914	113.0
35	0.826	170.5690	-7.7	0.2144	112.6
30	0.871	189.6603	-7.2	0.2460	111.9
25	0.910	207.0250	-6.8	0.2910	110.8
20	0.942	221.8410	-6.5	0.3596	109.3
15	0.967	233.7723	-6.3	0.4752	107.1
10	0.985	242.5563	-6.2	0.7083	103.8
5	0.996	248.0040	-6.1	1.4113	97.9
Notes:					
Antenna radiation center above ground (meters):			123		
Maximum ERP (watts) at 0° Depression angle:			250		
Free Space Signal = 106.92 -20*log(distance in km) + dBk					
Relative field based on one bay antenna.					

RF Radiation for the proposed facility has been computed using the FCC FM Model online calculator. Power density has been based on a single bay, EPA type 1 element, an ERP of 250 watts H & V for a radiation center 125 meters AGL. The maximum calculated power density is $0.665 \mu\text{W}/\text{cm}^2$ which is 0.33% of the OET-65 Public Exposure Guideline. The applicant will comply with OET-65 Worker Exposure Guidelines by lowering power or ceasing transmission as necessary.

This minor mod application continues to comply fully with the requirements for fill-in operation for WGH(AM).

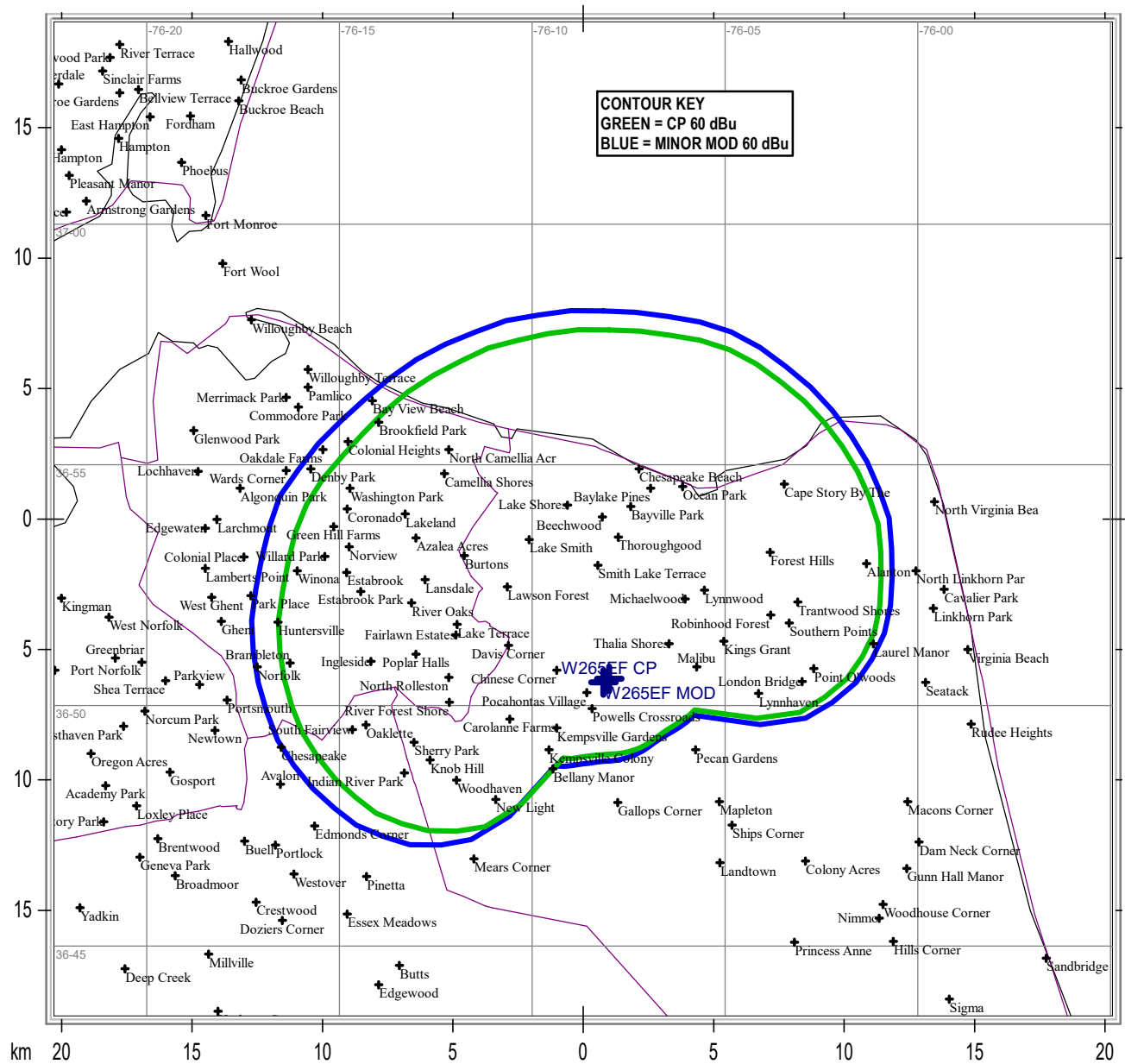
The foregoing was prepared on behalf of **MHR License LLC** by Clarence M. Beverage of *Communications Technologies, Inc.*, Marlton, New Jersey, whose qualifications are a matter of record with the Federal Communications Commission. The statements herein are true and correct of his own knowledge, except such statements made on information and belief, and as to these statements he believes them to be true and correct.



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W265EF MINOR MOD SITE CHANGE 0.25 kW DA NEWPOERT NEWS, VA



Communications Technologies, Inc. Marlton, New Jersey

National Borders
 City Borders
 Lat/Lon Grid