Comprehensive Engineering Exhibit
Long Form of BNPFT-20030314BLS
Facility ID No. 139444

This exhibit is for the Long Form application for file number BNPFT-20030314BLS with no changes in the tech box of the application except for a minor correction to the antenna model number.

Below as Figure 1 is a spacing/clearance table from which it can be determined that the "Living Way" method must be utilized to demonstrate that no actual interference will be caused to, or received from proposed collocated translator BNPFT-20130812ACT.

This instant proposal will be collocated on the same tower as BNPFT-20130812ACT but the antennas are proposed at different heights above ground of 25 meters and 44 meters respectively. Utilizing the line of sight equations listed below it was determined that 80 watts emitted by an isotropic antenna mounted 44 meters above ground will develop a 123 dBu signal at ground level. The +40dB interfering contour of 163 dBu developed by 150 watts, as proposed, will extend for a distance of less than 1 meter from the antenna, thus no interference will be caused to proposed translator BNPFT-20130812ACT. In a similar fashion, it was determined that 150 watts emitted by an isotropic antenna mounted 25 meters above ground will develop a 131 dBu signal at ground level. The +40dB interfering contour of 171 dBu developed by 80 watts will also extend for a distance of less than 1 meter from the antenna, thus no interference will be received from BNPFT-20130812ACT.

Distance (Free Space) Equation: =(10^((106.92-[desired dBu]+[ERP in dBk])/20))*1000

Field Strength (dBu) Equation "=106.92-(20*(LOG10[DistMeters]/1000)))+[ERPin dBk]

The proposed facilities were evaluated in terms of potential radio frequency radiation exposure at ground level in accordance with OET Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation."

The proposed antenna system is an ERI Model 100A-2F-HW, two-element, half-wave spaced antenna mounted 25 meters above ground. For purposes of this analysis the FM Model program has been set to calculate values for a worst case "Ring Stub" antenna element, operated with an effective radiated power of 0.150 Kilowatts in both the horizontal and vertical polarizations. At 2 meters above the surface, at 36 meters from the base of the tower, this proposal will contribute worst case, 2.25 microwatts per square centimeter, or 0.23 percent of the allowable ANSI limit for controlled exposure, and 1.13 percent of the allowable limit for uncontrolled exposure. This figure is less the 5% of the applicable FCC limit at all locations extending out from the base of the tower. Section 1.1307(b)(3) excludes applications when the calculated level is predicted to be less than 5% of the applicable exposure limit. It is therefore believed that his proposal is in compliance with OET Bulletin Number 65 as required by the FCC.

Further, the applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The site itself is restricted from public access. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, was necessary to limit human exposure to levels less than specified by the FCC should anyone be required to climb the tower for maintenance or inspection.

Figure 1. Spacing/Clearance Table

Callsign	Channel	ERP_w	ARN	Class	Status	Dist_km	Sep	Clr	Clr Note
NEW	257	80	BNPFT20130812ACT	D	APP	0	0	-58.68 dB	Living Way
WJKD	259	50000	BMLH20040527AKU	C2	LIC	71.05	0	0.14 dB	Clear
WLLY-FM	258	6000	BLH20090403BRO	A	LIC	43.28	0	4.23 dB	Clear
NEW	262	4000	BNPH20130709ABK	A	CP	43.28	0	8.99 dB	Clear
WJPP-LP	261	100	BMLL20121101AAL	LP100	LIC	11.3	6	9.89 dB	Clear
WJPP-LP	261	100	BPL20130211ACQ	LP100	CP	13.34	6	12.91 dB	Clear
WQCS	205	100000	BLED19860414KD	C1	LIC	35.15	22	13.2	Clear
WKIS	260	100000	BLH19871216KH	C0	LIC	126.79	0	18.60 dB	Clear
NEW	260	220	BNPFT20030314AEF	D	APP	43.28	0	20.35 dB	Clear
NEW	260	170	BNPFT20130805ACD	D	APP	43.28	0	21.47 dB	Clear
WEDR	256	100000	BMLH20090908ADD	C1	LIC	129.57	0	21.92 dB	Clear

Figure 2. Aerial View of Antenna Location

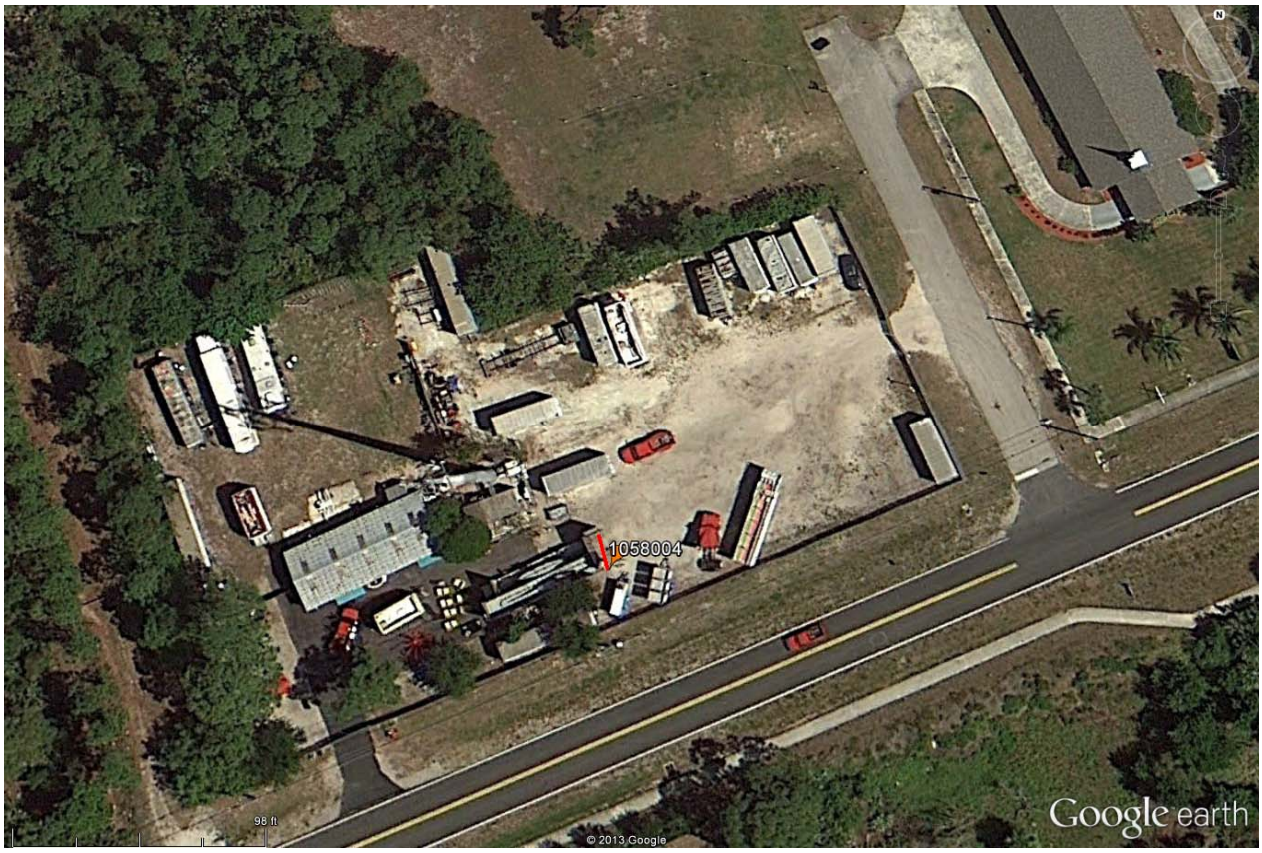

Figure 3. Map of 60 dBu Contours