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***B. W. St. Clair***

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## COMPREHENSIVE TECHNICAL EXHIBIT

**Long Form Application for FM Translator Auction Window 83  
NEW, Facility ID 141727, Dickson, TN  
FCC File Number BNPFT-20030317HOK  
Singleton deriving from Auction 83 MX Group 427**

**Clearance of MX situation in Group 427.** The within long form application is filed in response to DA-13-1675, which lists the within applicant's Techbox application as a singleton. Previously, an MX situation existed between the instant application and cochannel application BNPFT-20030317MGQ, filed by Edgewater Broadcasting, Inc. at Clarksville, TN. In its long form application BNPFT-20130820ABI, Edgewater specifies a modified antenna pattern which eliminates the prohibited contour overlap between BNPFT-20030317MGQ and the within applicant's BNPFT-20030317HOK. This avoids prohibited overlap between the either application's 40 dBu F50,10 contour and the other application's 60 dBu F50,50 contour. This clears all facilities listed in MX group 427 and leaves BNPFT-20030317HOK as a singleton.

**Details of long form application.** The within application remains identical to the underlying Techbox application and is so filed in response to its new singleton status.

**Use of unregistered antenna structure.** The application is on a 24 meter tall communications tower to be constructed by ir on behalf of the proponent on his own rural property. The proposal was subjected to the FCC's Towair analysis and does not require registration thanks to being more than 8 km from any airport.

**Allocation study with respect to cochannel and adjacency relationships.** An allocation listing is attached for the amended application. Listed facilities are clear of prohibited overlaps.

**Proximity of 53/54 channel (IF) relationships.** The Effective Radiated Power (ERP) of the within proposal is limited to less than 0.099 kW in order to be considered a Class D station exempt from the distance limitations of the respective rulepart(s).

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**Non-ionizing Electromagnetic Radiation (NIEER).** The application was subjected the FCC checklist attached to the within application form 349. It is the sole facility to be located at the site. Calculations pursuant to the FCC worksheet #1 yielded an answer of less than 0.1% of the upper human exposure limit for this service; accordingly, the uncontrolled NIEER exposure is well within the ground level limits for the general population and complies with FCC requirements.

As always with RF radiating sites, there are normal safety concerns in the area of the site; accordingly, the general site area is entirely contained within the private property of the applicant. Signage and fences, together with a posted site management SOP will guide all use of the site, including turning down or off the RF power as required for workmen at the site or on the tower.

**Engineer's Statement.** I am a broadcast field and consulting engineer with over fifty years' experience, having prepared for filing numerous FM and TV broadcast applications. All findings and representations made herein are true and correct to the best of my knowledge and belief. Supporting studies and documentation used in this application that may not be included herein are kept on file in this office and are available to the Commission upon request.



James R. McDonald  
August 28, 2013

*Attachments:*

1. *Allocation study, adjacencies and map*

**APPLICATION FOR MINOR CHANGE; NEW/AMENDED, FI 141727, DICKSON, TN**

**ALLOCATION STUDY/WITHIN 100 KM OF PROPOSED SITE - ADJACENT 1,2,3 FACILITIES  
ALL SHOW CLEAR.**

Call FacilityID	Channel	Class ERP	Frequency Service	Status HAAT	City Dist(km)	City Dist(mi)	State Country	File Number Licensee/Permittee	Docket
WHOP-FM - kW	254 - m	C1 FA	98.7 MHz	USE	HOPKINSVILLE	341.15° -	KY US	---	- 27633
WHOP-FM 100. kW	254 189.1 m	C1 FM	98.7 MHz	LIC	HOPKINSVILLE	340.18°	KY US	BLH-20041018ACH HOP BROADCASTING, INC.	- 27633
WHOP-FM 0.121 kW	254 90. m	C1 FS	98.7 MHz	LIC	HOPKINSVILLE	341.15°	KY US	BXMLH-20070216AAP HOP BROADCASTING, INC.	- 27633
WHOP-FM 2. kW	254 83. m	C1 FS	98.7 MHz	LIC	HOPKINSVILLE	341.15°	KY US	BXLH-20100902AEB HOP BROADCASTING, INC.	- 27633
970829TG 0.08 kW	254 21. m	D FX	98.7 MHz	APP	NASHVILLE	105.40°	TN US	BNPFT-19970829TG GREAT SOUTHERN BROADCASTING COMPANY, INC.	- 88416
NEW 0.02 kW	254 0. m	D FX	98.7 MHz	APP	HENDERSONVILLE	92.06°	TN US	BNPFT-20030317MNB R & L NON-COM	- 158326
WCRT-FM1 0.075 kW	254 83. m	D FB	98.7 MHz	STA	DONELSON	106.56°	TN US	BSTA-20050803ADU BOTT COMMUNICATIONS, INC.	- 166220
970829TG 0.08 kW	254 0. m	D FX	98.7 MHz	APP	NASHVILLE	105.40°	TN US	BNPFT-19970829TG GREAT SOUTHERN BROADCASTING COMPANY, INC.	- 88416
W255AP 0.023 kW	255 49.6 m	D FX	98.9 MHz	LIC	DICKSON	201.66°	TN US	BLFT-20040120ABI PENNYRILE CHRISTIAN COMMUNITY, INC.	- 52225
NEW 0.055 kW	256 55.4 m	D FX	99.1 MHz	APP	DICKSON	0.00°	TN US	BNPFT-20030317HOK THOMAS MACH D/B/A DICKSON OMEGA RADIO	- 141727
NEW 0.02 kWDA	256 0. m	D FX	99.1 MHz	APP	NASHVILLE	112.97°	TN US	BNPFT-20130827AAX CARON BROADCASTING, INC.	- 142519
NEW 0.01 kWDA	256 0. m	D FX	99.1 MHz	APP	CLARKSVILLE	347.05°	TN US	BNPFT-20130820ABI EDGEWATER BROADCASTING, INC.	- 154860
W257AR 0.003 kW	257 90. m	D FX	99.3 MHz	LIC	DONELSON	104.09°	TN US	BLFT-19890915TB GREAT SOUTHERN BROADCASTING COMPANY	- 25032
W258AD 0.02 kW	258 93. m	D FX	99.5 MHz	LIC	CLARKSVILLE	332.47°	TN US	BLFT-19941103TA COMMUNITY BROADCASTING, INC.	- 63446

**633391.A**  
 BNPFT20030317HOK  
 Latitude: 36-17-46 N  
 Longitude: 087-15-44 W  
 ERP: 0.055 kW  
 Channel: 256  
 Frequency: 99.1 MHz  
 AMSL Height: 233.0 m  
 Elevation: 211.0 m  
 Horiz. Pattern: Omni  
 Vert. Pattern: No  
 Prop Model: Longley/Rice  
 Climate: Cont temperate  
 Conductivity: 0.0050  
 Dielec Const: 15.0  
 Refractivity: 311.0  
 Receiver Ht AG: 10.0 m  
 Receiver Gain: 0 dB  
 Time Variability: 50.0%  
 Sit. Variability: 50.0%  
 ITM Mode: Broadcast

