TECHNICAL EXHIBIT
APPLICATION FOR LICENSE
AUXILIARY FM STATION WRNB (FACILITY ID 12211)
PENNSAUKEN, NEW JERSEY
CH 300A 0.5 KW 252 M

Technical Narrative

The technical exhibit of which this narrative is part was prepared on behalf of radio station WRNB at Pennsauken, New Jersey. The WRNB main facility is presently licensed on channel 300A with an effective radiated power of 0.78 kilowatts and antenna height above average terrain of 276 meters.[1] By this application, WRNB proposes to license its former main facility[2] as an auxiliary operation.

Coverage Contours

The predicted coverage contours for the proposed operation were calculated in accordance with the provisions of Section 73.313. Pursuant with current FCC practice, the distances to the contours were calculated without consideration given to terrain roughness correction factors.

Figure 1 is a map showing the predicted 60 dBu coverage contours for the licensed and proposed auxiliary operations. As the map illustrates, the predicted auxiliary's 60-dBu contour is entirely encompassed by the WRNB main 60-dBu contour.

Radiofrequency Electromagnetic Field Exposure

The proposed auxiliary antenna is an existing Alford-Teleplex crossed polarized, 4-element dipole antenna located on a top-mounted spire on a building. A conservative downward radiation relative field of 0.27, along with a combined ERP of 1 kW (0.5 kW horizontal polarization & 0.5 kW vertical polarization) was assumed. The assumed downward relative field value was determined from the graph in Figure 2 by dividing the maximum value into 1.0 (1 / 3.75 = 0.27), which represents the constant line at 1.00 relative

[1] See FCC File No. BLH-20050622AAL
[2] See FCC File No. BLH-20041201BND

field on the graph. Therefore, it is safe to assume that a relative value of 0.27 applies to all angles below 15 degrees from horizontal for WSNJ-FM at 107.9 MHz.

The highest occupied/public floor for the building supporting the antenna structure is the 55th floor. Assuming 2 meters above this height of 167.6 meters (550 feet), the study distance used for the general population/uncontrolled calculation is 97.3 meters. Therefore, the "worst-case" calculated power density at a point 2 meters above the top occupied floor is 0.0003 mW/cm^2, which is less than 0.2% of the FCC's recommended limit of 0.2 mW/cm^2 for FM channels, applicable to general population/uncontrolled exposure areas.

For a controlled environment calculation the antenna was determined to be 10.7 meters (35 feet) above the rooftop. Using this distance of 10.7 meters, therefore, the "worst-case" calculated power density is 0.03 mW/cm^2, which is 3% of the FCC's recommended limit of 1.0 mW/cm^2 for FM channels, applicable to controlled exposure areas.

Access above the 55th floor is restricted from public access. In the event that workers or other authorized personnel enter restricted areas or climb the spire (antenna structure), appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down. It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure.

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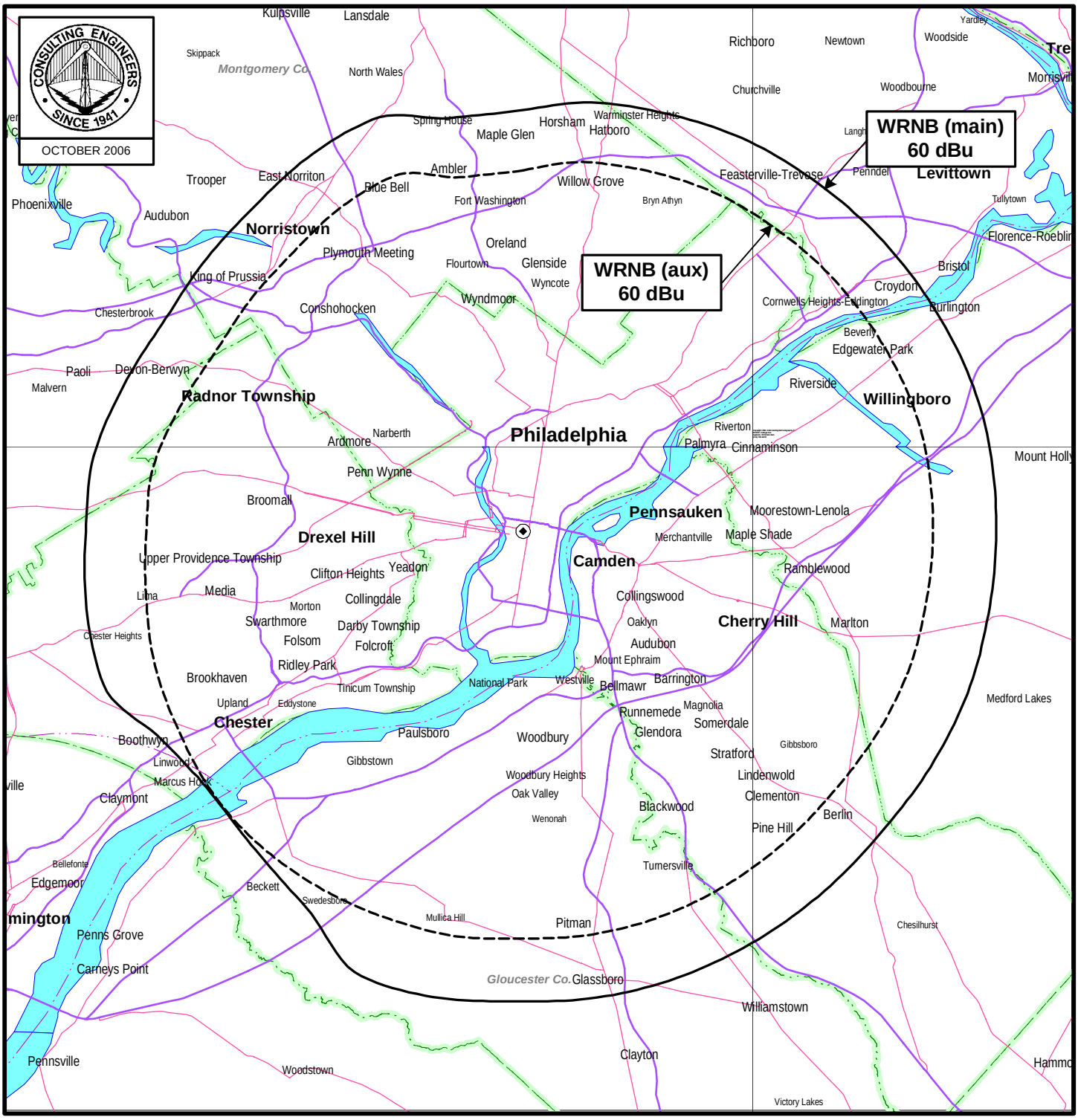
WRNB(FM) RF Transmission System Specifications

Description	System
Transmitter Power Output (0.3 kW):	-5.23 dBk
Diplexer Insertion Loss*:*	0.17 dB
Transmission Line Loss (1-5/8" Rigid) 60 feet:	0.117 dB
ALF 9710 Antenna Gain (1.8 Power Gain):	2.55 dB
Effective Radiated Power (0.5 kW):	-3.0 dBk



PREDICTED COVERAGE CONTOURS

AUXILIARY FM STATION WRNB

PENNSAUKEN, NEW JERSEY

CH 300 0.50 KW 252 M

du Treil, Lundin & Rackley, Inc Sarasota, Florida

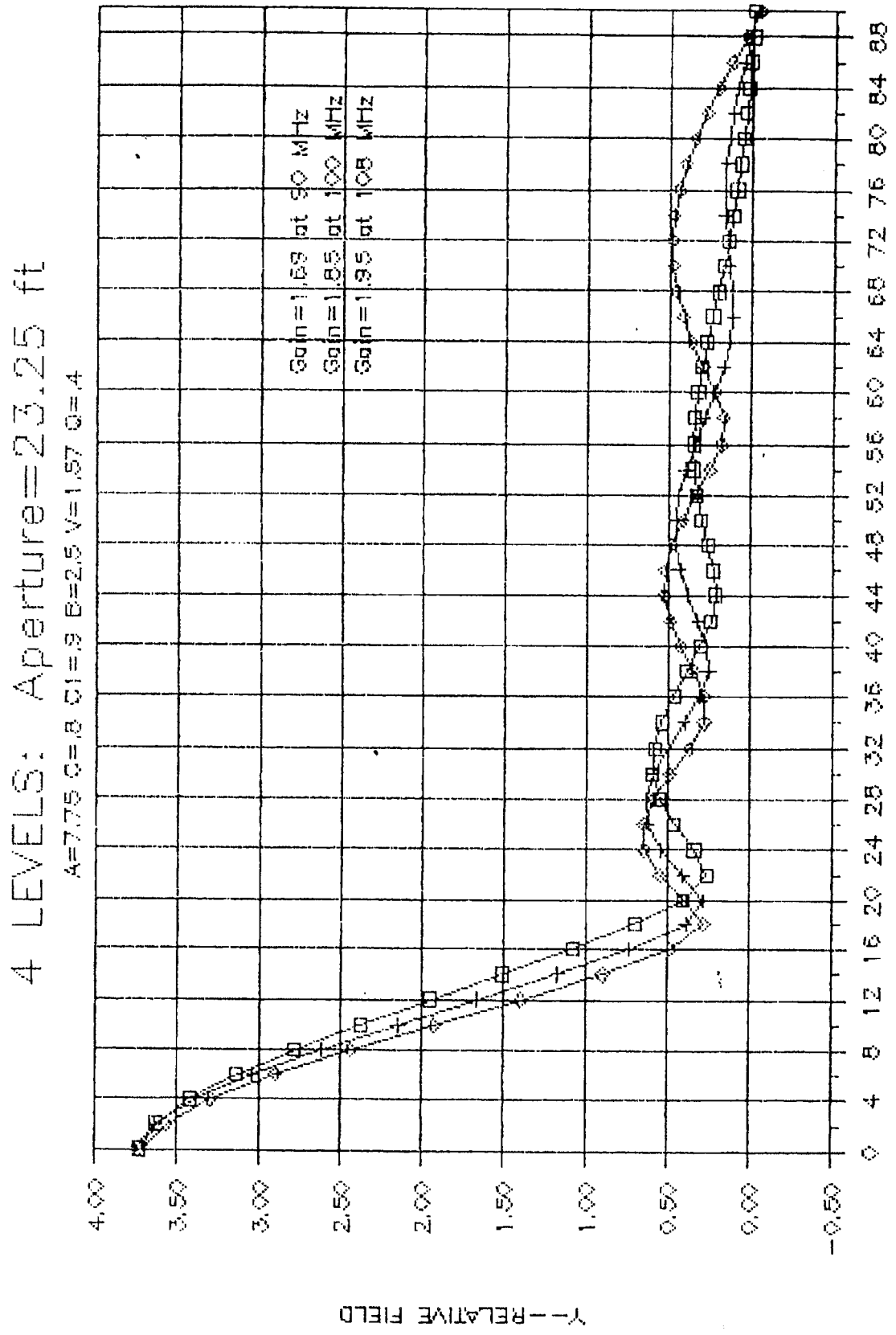

4 LEVELS: Aperture=23.25 ft
A=7.75 C=.8 D1=.8 B=2.5 V=1.57 Q=.4
Gain=1.63 at 90 MHz
Gain=1.85 at 100 MHz
Gain=1.95 at 108 MHz
Y--RELATIVE FIELD
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
-0.50
0 4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80 84 88
THETA (Degrees)
□ F=90 MHz
+ F=100 MHz
◇ F=108 MHz

Fig. 3