

ENGINEERING EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
RADIO STATION WWRM(FM) (AUXILIARY)
TAMPA, FLORIDA

July 7, 2001

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Engineering Statement

This Engineering Statement was prepared on behalf of radio station WWRM(FM), Tampa, Florida, in support of an application for construction permit for an auxiliary antenna. WWRM(FM) is authorized for operation at a transmitter site located near Riverview, Florida, on Channel 235C with a maximum effective radiated power (ERP) of 100 kW and antenna height above average terrain (HAAT) of 470 m. The proposed auxiliary antenna will employ the same tower as the authorized WWRM(FM) main antenna, with a nominal ERP of 100 kW, but with a lower antenna HAAT of 363 m.

Proposed Facilities

A Harris, model FMH-7BC full-wave 7-bay transmitting antenna will be employed with a center of radiation located at 361 m AGL (384 m AMSL). See Appendix for a graph of the transmitting antenna elevation pattern as supplied by the antenna manufacturer.*

There are no AM broadcast stations located within 3.2 km of the proposed transmitter site. No adverse electromagnetic impact is expected with respect to any of the other broadcast facilities located in the vicinity of the proposed antenna.

* A Harris, FMH-7BC is equivalent to an ERI, SHP-7AC as indicated in the Appendix.

However, the applicant recognizes its responsibility to correct objectionable electromagnetic interference problems that result from its proposed operation.

Tower Registration

The antenna structure has been registered with the FCC. The antenna structure registration number is 1057473. The structure is located at 13623 Rhodine Road, Riverview, Florida. The antenna structure site elevation is 23.4 m AMSL with an overall structure height of 479.2 m AGL.[†] There will be no change in the overall structure height as a result of the instant proposal.

Predicted Coverage Contours

The predicted 60 dBu coverage contours for the authorized and proposed facilities were calculated in accordance the FCC Rules. The 3-16 km terrain data were obtained through use of the U.S.G.S. 3-second computer database. The predicted coverage contours are projected on a map included herein as Figure 1.

Environmental Considerations

The proposed facility is categorically excluded from environmental processing pursuant to Section 1.1306 of the FCC Rules. An analysis of the RF exposure at 2-m above ground level indicates that the proposed WWRM auxiliary facility would

[†] Antenna structure registration as issued on June 6, 2001.

contribute no greater than 3.2% of the general population/uncontrolled environment standard for RF exposure. The following table summarizes the results:

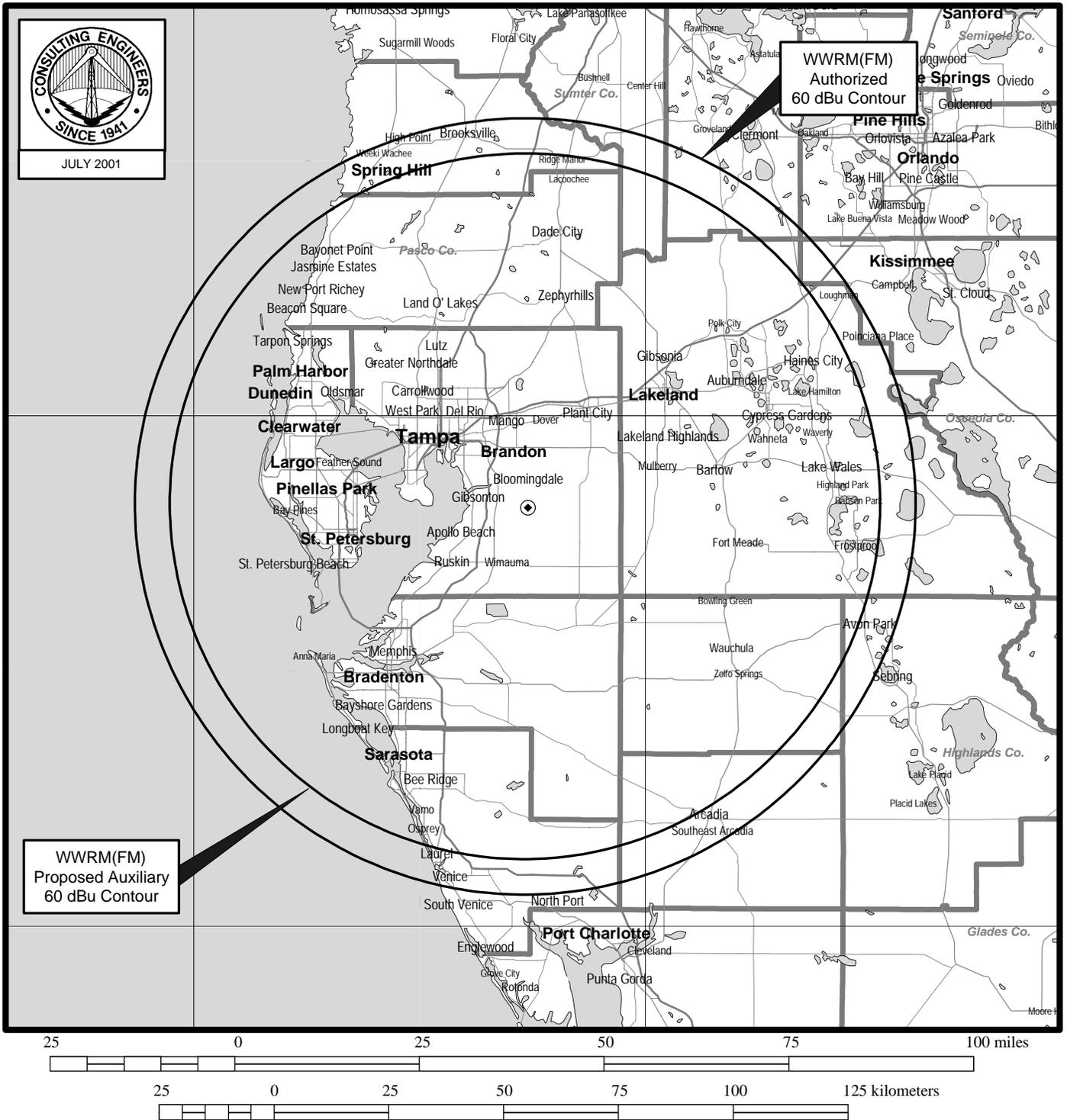
Call Sign	Channel	Peak Visual ERP or Average ERP (kW)	Aural ERP (kW)	Relative Field Factor[‡]	FCC Limit[§] (mW/cm²)	Percentage of Limit
WWRM(Aux)	235	--	200	0.35	0.200	3.17%

As indicated, the total RF exposure a 2-m above ground level will not exceed 3.2% of the FCC limit for uncontrolled environments. Therefore, the proposal complies with the FCC limits for human exposure to RF radiation and it is categorically excluded from environmental processing. The applicant shall reduce power or cease operation as necessary to protect persons having access to the tower from RF energy in excess of the FCC guidelines.

Louis Robert du Treil, Jr.

July 7, 2001

[‡] This is a conservative estimate of the relative field factor in the downward direction.
[§] for general population/uncontrolled environments



PREDICTED 60 DBU COVERAGE COMPARISON

RADIO STATION WWRM(FM) (AUXILIARY) TAMPA, FLORIDA

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

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Transmitting Antenna
Manufacturer's Vertical Plane Pattern

(one page follows)

ELECTRONICS RESEARCH, INC.
108 MARKET STREET
NEWBURGH, IN. 47630

-----THEORETICAL-----
VERTICAL PLANE RELATIVE FIELD

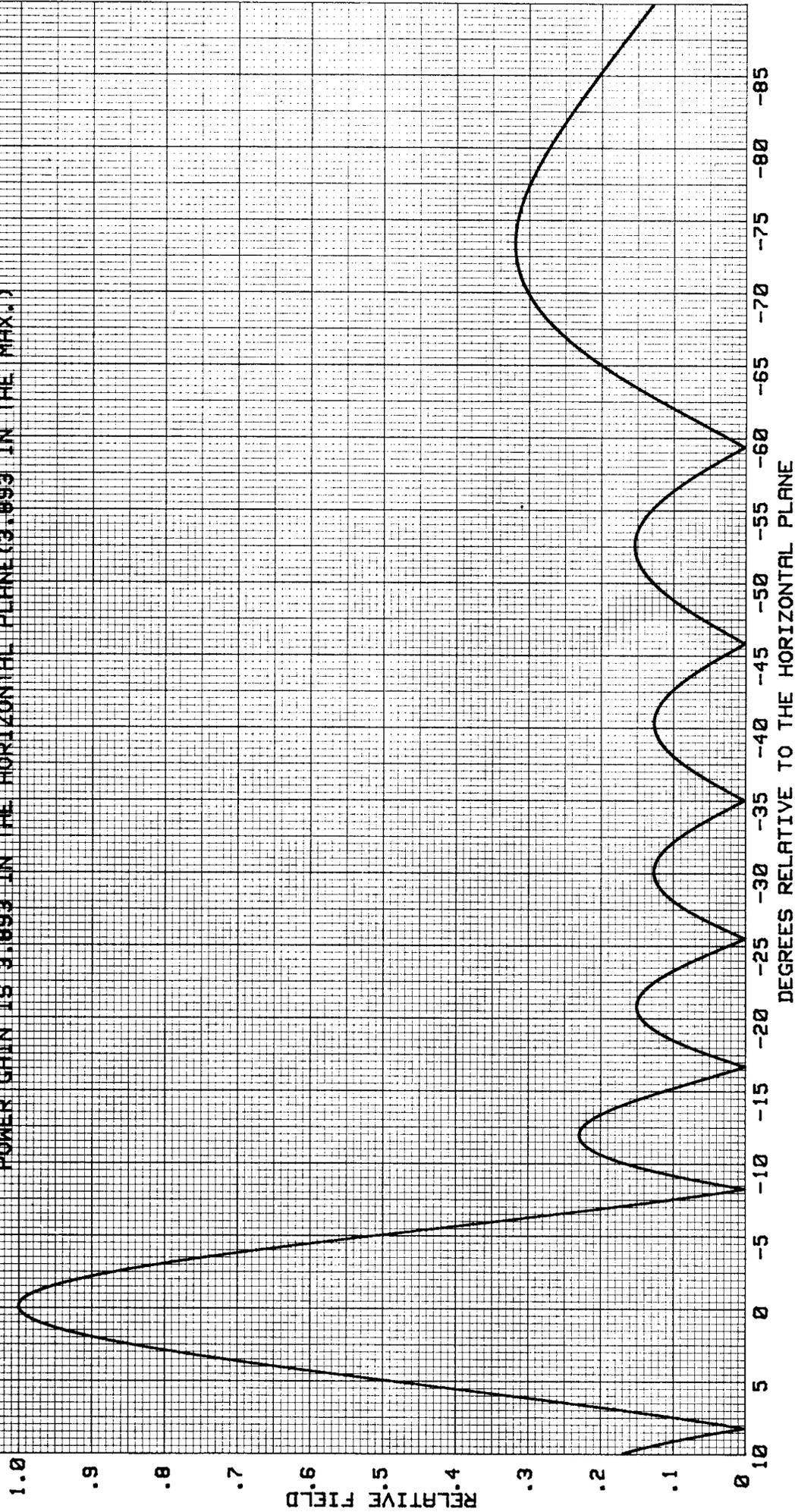
MAY 24, 1993

ELEMENT SPACING:
1.0 WAVELENGTH

7 ERI TYPE SHP, SHPX, LP, OR LPX ELEMENTS
0 DEGREE(S) BEAM TILT
0 PERCENT FIRST NULL FILL
0 PERCENT SECOND NULL FILL

POWER GAIN IS 3.693 IN THE HORIZONTAL PLANE(3.693 IN THE MAX.)

FIGURE F7



DEGREES RELATIVE TO THE HORIZONTAL PLANE