

TECHNICAL EXHIBIT

APPLICATION FOR DTV CONSTRUCTION PERMIT

FACILITY ID 178231
STATION WHME-DT
SOUTH BEND, INDIANA
CH 46 933 KW 305 M

Technical Narrative

This technical exhibit was prepared in support of an application for construction permit for station WHME-DT at South Bend, Indiana. Station WHME-DT filed a Petition for Rule Making (BPRM-20080619AET) to change its post transition DTV channel from 48 to 46. On July 2, 2008, the FCC released a Report and Order (MB Docket No. 08-102) substituting channel 46 for channel 48 at South Bend. In addition, the FCC ordered WHME-DT to file a minor change application specifying a DTV operation on channel 46 within 45 days of the effective date (June 2, 2009). Therefore, this application is being filed in response to the FCC's Report and Order.

By means of this application, WHME-DT proposes a post transition DTV operation on channel 46 with an effective radiated power (ERP) of 933 kW and an antenna radiation center height above average terrain (HAAT) of 305 meters. No other changes are proposed. The instant application is considered a minor change in facilities pursuant to Section 73.3572(a).

Proposed Facilities

It is proposed to operate WHME-DT from its licensed site (FCC Tower registration 1060842; NAD27 coordinates:41-35-43 N, 86-9-38 W) on DTV channel 46 (662-668 MHz) with an ERP of 933 kW and an antenna HAAT of 305 meters. It is proposed to utilize a RCA TFU-25G non-directional antenna which will be top-mounted at the 283 meter level on the existing tower structure and will incorporate an electrical beam tilt of 0.5 degrees. The proposed antenna radiation center height above mean sea level will be 549.8 meters.

Antenna Data

Exhibit 1 is a graph of the elevation pattern for the proposed RCA TFU-25G, horizontally polarized, non-directional antenna system.

Response to Paragraph 11 - Interference Protection

An interference analysis has been conducted using the procedures outlined in the FCC's OET-69 bulletin which demonstrates that the proposal complies with the interference protection provisions of Section 73.623(c)(2).¹

Class A Allocation Considerations

A study has been conducted which indicates that the WHME-DT proposal will not create prohibited interference to other existing, authorized or proposed Class A stations.

City Coverage and Replication of Appendix B Service

Exhibit 2 depicts the FCC Predicted 41 dBu and 48 dBu, F(50,90) coverage contours for the herein proposed WHME-DT channel 46 operation. As indicated, South Bend is located within the 48 dBu contour. The South Bend city limits were derived from information contained in the 2000 U.S. Census for Indiana.

The distances to the predicted 41 dBu and 48 dBu, F(50,90) coverage contours were determined in accordance with the provisions of Section 73.625. The average elevations from 3.2 to 16.1 kilometers from the transmitter site, were obtained from the USGS 3-second terrain database and were used for determining the distances to coverage contours.

According to Appendix B, the allotted post transition operation of WHME-DT on channel 46 serves 1,656,000 persons. Results of our interference analysis indicate that the proposed WHME-DT operation on channel 46 will have an interference free service population of 1,655,614. Therefore, the proposed operation replicates 100% of the Appendix B population.

Objectionable Interference

¹ LeSEA's DTV interference analysis program is based on the program and procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A normal grid size resolution of 2 km and nominal terrain increment of 1 km were employed.

Exhibit 3 provides a tabulation of the AM stations within 5.9 kilometers, FM and TV stations within 16 kilometers of the WHME-DT site. Although no adverse electromagnetic impact is expected, the applicant recognizes its responsibility to correct problems, which are a result of its proposed operation.

The proposed site is more than 1898 kilometers from the closest point of the Mexican border. The closest FCC monitoring station is at Allegan, Michigan located approximately 114 kilometers to the northeast. The National Radio Quiet Zone (VA/WV) is 546 kilometers to the east. The Table Mountain Radio Quiet Zone (CO) is more than 1617 kilometers to the west. The closest radio astronomy site conducting research on TV channel 37 is at North Liberty, Iowa, located approximately 451 kilometers to the west. These separations are sufficient to avoid interference from the proposed operation.

Canadian Coordination

The proposed transmitter site is 253 kilometers from the Canadian border, which is within the Canadian coordination distance. The proposed facility has received concurrence from the Canadian government for this allotment.

Environmental Protection Act

The proposed facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna is located 291 meters above ground level. The maximum DTV ERP is 933 kW (horizontal polarization). A conservative vertical plane relative field value of 0.1 (for angles below 60 degrees downward) is assumed for the antenna's downward radiation (see Exhibit 1). The calculated power density at a point 2 meters above ground level is 0.0035 mW/cm^2 . This is 0.8% of the FCC's recommended limit of 0.44 mW/cm^2 for channel 46 for an "uncontrolled" environment. Thus, it is believed that the WHMB-DT facility complies with the FCC's RF emission rules.

Access to the transmitting site will be restricted and appropriately marked with RFR warning signs. Furthermore, in the event that workers or other authorized personnel enter the restricted area or climb the tower, to ensure that 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.

Finally, it is noted that this technical exhibit only addresses the potential for radio frequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already has been provided to the FCC by the tower owner as part of the tower registration process.

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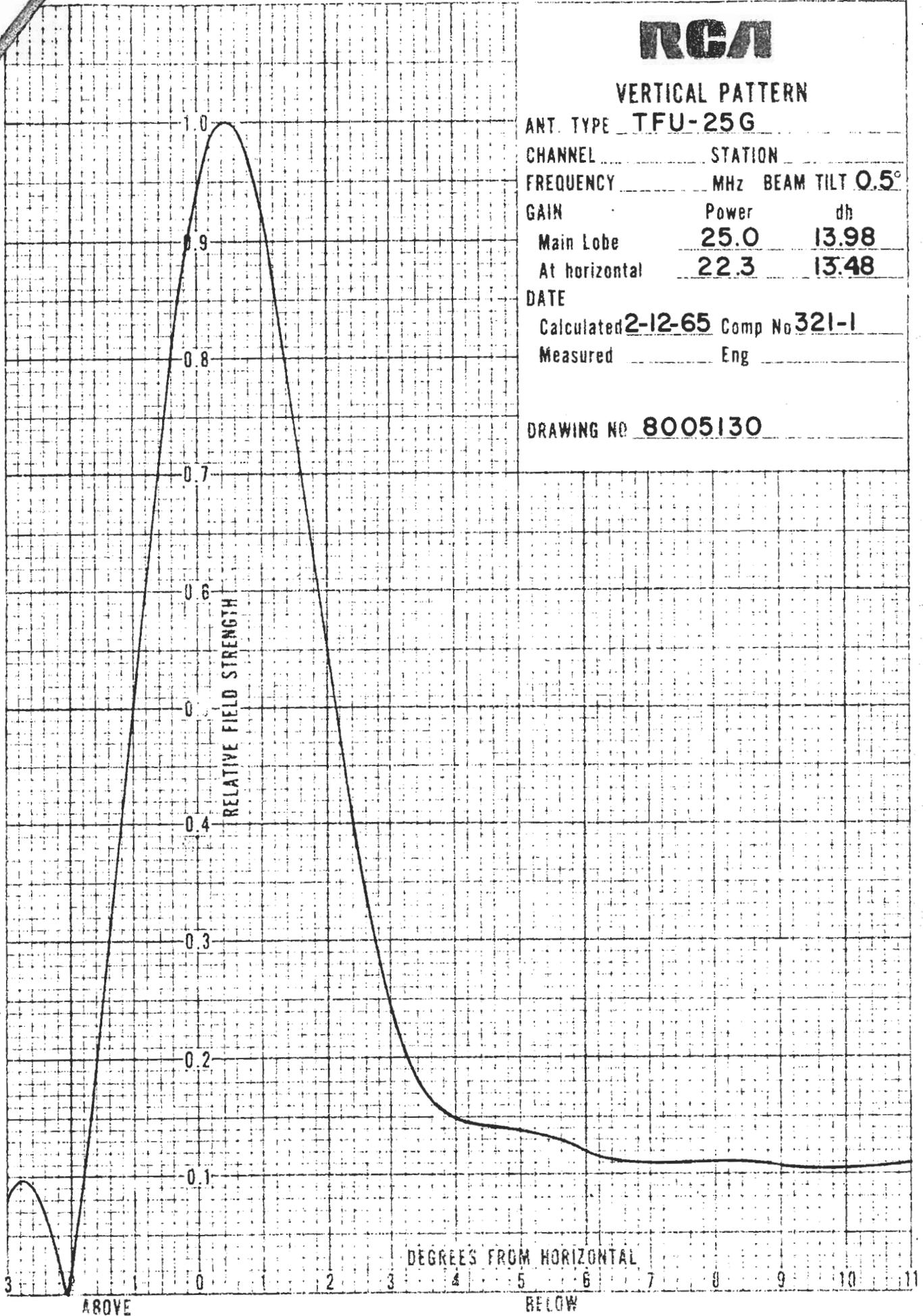
July 13, 2009

RCA

VERTICAL PATTERN

ANT. TYPE TFU-25G
CHANNEL _____ STATION _____
FREQUENCY _____ MHz BEAM TILT 0.5°
GAIN _____ Power _____ dh _____
Main Lobe 25.0 13.98
At horizontal 22.3 13.48
DATE
Calculated 2-12-65 Comp No 321-1
Measured _____ Eng _____

DRAWING NO 8005130



DWG. No. 8005130

Exhibit 3

AM Stations within 5.9 kilometers

Coordinates: 41-35-43 86-09-38

Fac ID	Call	Status	Freq	City	ST	Mode	Power	Bearing	km
73985	WSBT	Lic	960	South Bend	IN	DA2 U	5 kW Day	297	5.3
73985	WSBT	Lic	960	South Bend	IN	DA2 U	5 kW Night	297	5.3

Exhibit 3**FM Stations within 16 kilometers**

Coordinates: 41-35-43 86-09-38

Fac ID	Call	Status	Chan	City	ST	kW	HAAT	Bearing	km
19365	WVPE	Lic	201B	Elkhart	IN	11.5	304	311	3.1
51723	WBYT	Lic	264B	Elkhart	IN	15	277	310	3.6
79264	W241AD	Lic	241D	South Bend	IN	.015	88	309	3.7
140817	W233AU	Lic	223D	South Bend	IN	.01		309	3.7
81894	W300AL	Lic	300D	Mishawaka	IN	.01		309	3.7
70459	WSND	Lic	205A	Notre Dame	IN	3.4	110	284	4.5
41675	WNDV	Lic	225B	South Bend	IN	12	268	285	4.5
37149	WHME	Lic	276A	South Bend	IN	.3	91	281	4.6
147678	W266BF	Lic	266D	South Bend	IN	.02		39	5.3
73984	WNSN	Lic	268B	South Bend	IN	13	296	297	5.3
60920	WETL	Lic	219A	South Bend	IN	.3	91	296	7.1
27145	WRBR	Lic	280A	South Bend	IN	3	100	2	11.4
78392	W243AJ	Lic	243D	Mishawaka	IN	.25		2	11.4
12999	WZOC	Lic	232B1	Plymouth	IN	11.5	150	229	11.5
21927	WUBU	Lic	292A	South Bend	IN	3	92	320	11.8
124486	WLFQ-LP	Lic	254L1	Elkhart	IN	.1	30	42	12.4
28881	WUBS	Lic	209A	South Bend	IN	1.5	24	319	12.6
124343	WSBL-LP	Lic	251L1	South Bend	IN	.1	13	311	13.2
152865	W262AU	Lic	262D	Granger	IN	.09		7.1	14.1
86394	W208BF	Lic	208D	Elkhart	IN	.009		69	15.6

Exhibit 3**TV Stations within 16 kilometers**

Coordinates: 41-35-43 86-09-38

Fac ID	Call	Status	Chan	City	ST	kW	HAAT	Bearing	km
168663	WMYS-LD	Lic	23	South Bend	IN	15		317	3
168643	WCWW-LD	Lic	27	South Bend	IN	15		317	3
168647	WBND-LD	Lic	49	South Bend	IN	15		317	3
71431	WBNC-LP	Lic	57Z	South Bend	IN	58.2		317	3
24617	WCWW-LP	Lic	25Z	South Bend	IN	37.8		317	3
71426	WMYS-LP	Lic	69+	South Bend	IN	131		317	3
41671	WNIT	Lic	35DT	South Bend	IN	50	333	311	3.1
74007	WSJV	CP	28DT	Elkhart	IN	250	335	310	3.6
41674	WNDU-TV	Lic	42DT	South Bend	IN	560	282	284	4.5
41674	WNDU-TV	CP	42DT	South Bend	IN	800	310	285	4.5
73983	WSBT-TV	CPM	22DT	South Bend	IN	266	333	297	5.3
67973	W18CF	CP	18	Elkhart	IN	8		69	15.5
67973	W18CF	Lic	18-	Elkhart	IN	2		69	.15.5