

ENGINEERING STATEMENT
RE DTV BROADCAST ENGINEERING DATA
APPLICATION FOR CONSTRUCTION PERMIT
ON BEHALF OF
RED RIVER BROADCAST CO., LLC
KNRR-DT, PEMBINA, NORTH DAKOTA
CHANNEL 12 4.44 KW DA ERP 427 METERS HAAT
MAY 2008

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

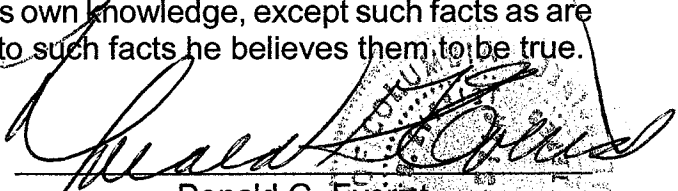
Donald G. Everist, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President, Secretary and Treasurer of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

That his qualifications are a matter of record in the Federal Communications Commission;

That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.



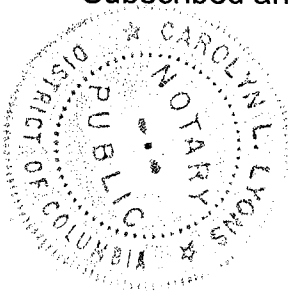
Donald G. Everist
District of Columbia
Professional Engineer
Registration No. 5714

Subscribed and sworn to before me this 12th day of May, 2008.



Notary Public

My Commission Expires: 2/28/2013



Introduction

This engineering statement has been prepared on behalf of Red River Broadcast Co., LLC, (“Red River”), licensee of KNRR(TV), Pembina, North Dakota, in support of its request to construct DTV facilities for post-transition operation.

KNRR(TV) is licensed to operate on NTSC television Channel 12 with a directional maximum visual effective radiated power (“ERP”) of 316 kW and an antenna height above average terrain (“HAAT”) of 427 meters (1400.9 feet). In Appendix B of the revised DTV Table of Allotments¹, Red River has been allocated a post-transition DTV operation of 28.7 kW directional ERP and HAAT of 413 meters. Red River hereby proposes to construct post-transition DTV facilities of 4.44 kW directional ERP at 427 meters HAAT.

In Paragraph 107², the Commission denied the petition for reconsideration by stating in part,

“...[KNRR] can accomplish what it seeks when it files its application for post-transition facilities for KNRR. In addition, by retaining the larger Appendix B facilities for the station, KNRR will ultimately have more flexibility to make changes for KNRR in the future. When it files its application for post-transition facilities on channel 12, KNRR should make its request for new parameters at that time. In the *Third DTV Periodic Report and Order*, the Commission stated that it would provide expedited processing to applications for facilities that are no more than five percent smaller than the facility specified in Appendix B with respect to predicted population, and that meet the other criteria for expedited processing. **Should KNRR’s application specify facilities that are more than five percent smaller than Appendix B**, in light of KNRR’s international coordination and other

¹In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service”, MM Docket 87-268, Memorandum Opinion and Order on Reconsideration of the Seventh Report and Order and Eighth Report and Order (FCC 08-72) Released March 6, 2008.

²Ibid.

concerns **it is likely that the application will nonetheless be approved.** By retaining herein the larger Appendix B facilities for the station, KNRR will have more flexibility to specify facilities at the application stage that fall within this larger Appendix B coverage area and may have the flexibility to increase facilities at a later date should that opportunity arise.” *Emphasis supplied*

Population Data

The following provides the population information based on the 2000 Bureau of Census data.

Final DTV Table of Allotments:

43,000 persons in 35,647 sq. km

Proposed Operation:

29,713 persons in 24,196 sq. km

The proposed operation is 69.1% of the population for Final DTV Table of Allotments and is 2.56 times the population of the current special temporary authority operation (11,589 persons and 8,887 sq. km). Thus, there will be no loss of service to current KNRR-DT viewers.

Proposed Parameters

The KNRR-DT post-transition operation will utilize the existing top-mounted VHF directional antenna on the existing tower. The existing tower has a total overall structure height above ground of 438.2 meters (1437.7 feet). The existing transmitter is located approximately 12 km west, north-west of Pembina, North Dakota.

There is no proposed change in overall height and therefore an FAA aeronautical study is not required. The FCC antenna structure registration number of the existing tower is 1048882. Exhibit E-1 is a vertical sketch of the existing tower and top-mounted transmitting antenna.

The geographic coordinates of the proposed site are as follows:

North Latitude: 48° 59' 44"

West Longitude: 97° 24' 28"

NAD-27

Equipment Data
(No Change)

Antenna: Bogner, Type B8VAH antenna. The antenna elevation pattern is on file and the associated tabulated data for the directional pattern are included as Exhibit E-2.

Transmission Line: 435.9 meters (1430 ft) of Dielectric rigid, Type DC 675-002, 6-1/8", 75 ohm or equivalent

Power Data

Transmitter Output	0.347 kW	-4.60 dBk
Transmission Line Efficiency/Loss	80.2%	0.96 dB
Input Power to the Antenna	0.278 kW	-5.56 dBk
Antenna Gain	16	12.04 dB
Effective Radiated Power	4.44 kW	6.48 dBk

Elevation Data
(No Change)

Elevation of Site	243.2 meters
Above Mean Sea Level	797.9 feet
Overall height above ground of existing antenna structure (including appurtenances)	438.2 meters 1437.7 feet
Center of radiation of Channel 12 antenna above ground	430.8 meters 1413.4 feet
Center of radiation of Channel 12 antenna above mean sea level	674 meters 2211.3 feet
Overall height above mean sea level of new tower (including beacon)	681.4 meters 2235.6 feet
Antenna height above average terrain	427 meters

Note: Slight height differences may result due to conversion to metric.

Allocation

The KNRR-DT proposed post-transition DTV facilities will not expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. 73.622(i) ("new DTV Table Appendix B"). Even so, an interference analysis has been performed and is attached as Table I.

Interference Analysis

A study of predicted interference caused by the proposed Ch. 12 DTV service has been performed using a version of the Longley-Rice program as described in OET Bulletin No. 69

(February 6, 2004) and the Public Notice, “Additional Application Processing Guidelines for Digital Television (DTV)” (August 1998). The FCC’s FORTRAN-77 code was modified only to the extent necessary (primarily input/output handling) for the program to run on a Windows XP platform. Comparison of service/interference areas and populations indicates that this model closely matches the FCC’s evaluation program. Best efforts have been made to use data and calculations identical to the FCC’s program. Any slight differences are attributable to compiler, operating system and/or processor characteristics. The effect of any variance in calculated population values versus the FCC’s program is minimized when differencing a given model’s results, such as calculating new interference as total interference less baseline interference. Any variance effect is further reduced when using ratios of calculated population values such as measuring the incremental population affected as a percent of the total population served. The model employs the Longley-Rice propagation methodology and evaluates in grid cells of approximately 4 km² using 3-second terrain data sampled approximately every 1.0 km at one degree azimuth intervals with 2000 census centroids.

The above considers all allotments in the Final DTV Table of Allotments, Appendix B released March 6, 2008.³

Coverage

The average elevation data for 3.2 to 16.1 km along each radial has been determined from the NGDC 3-second computerized terrain database. The F(50,90) DTV coverage contours have

³Ibid.

been computed from reference to the propagation data for Channels 7-13, as published by the FCC in Figure 10 and Figure 10a, Section 73.699 of the FCC Rules and Regulations. Utilizing the formula in Section 73.625(b)(2) of the Rules for the effective heights, it is found that the depression angle, A_h , varies from 0.569 to 0.578 degrees.

Table II includes the distances to the F(50,90) 43 and 36 dBu coverage contours, the average elevation 3.2 to 16.1 km, and the antenna height above average terrain for each radial spaced 10 degrees in azimuth. Table III provides the same contour levels as in Table II spaced at every 10 degrees in azimuth as authorized by the parameters listed in the final Appendix B. Exhibit E-3 provides a map of the computed coverage contours relative to the Appendix B DTV Allotment and the NTSC Grade B.

FCC Rule, Section 1.1307

The proposed operation based upon the current OET Bulletin No. 65, Edition No. 97-01, dated August 1997 and Supplement A meets the provisions of the FCC radio frequency field ("RFF") guidelines, and thus, complies with Section 1.1307 of the FCC Rules. Provisions will be made to reduce power or to terminate the transmitter emissions, as appropriate, when it is necessary for authorized personnel to be on the tower.

The following equations from OET Bulletin No. 65 have been used to calculate the predicted radiofrequency fields at 2 meters above ground at the base of the tower:

Digital Television Broadcast Stations

$$S = [(33.4)(F^2)(ERP^2)]/R^2$$

S = Power Density in Microwatts/sq. cm ($\mu\text{W}/\text{cm}^2$)

F = Relative Field Factor in the downward direction of interest (-60° to -90° elevation)

ERP_V = Total Peak Visual ERP in Watts

ERP_A = Total Aural ERP in Watts

ERP = Power in Watts

R = Distance from 2 meters above ground to center of radiation in meters

<u>Station</u>	<u>Statuts</u>	<u>ERP</u> (kW)	<u>Frequency</u> (MHz)	<u>Ch</u>	<u>RCAGL</u> (m)	<u>Relative</u> <u>Field</u>	<u>S</u> ($\mu\text{W}/\text{cm}^2$)	<u>RFF</u> (%)
KNRR-DT	Proposed	4.4	204-210	12	430.8	0.3	0.07	0.04%

For the post-transition operation, KNRR-DT proposes to use the existing top-mounted Bogner, B8VAH antenna (or equivalent). Using a conservative relative field factor of 0.3 based on the antenna elevation pattern and the procedures outlined in OET Bulletin 65, the maximum RFF resulting from the proposed operation is less than $0.07 \mu\text{W}/\text{cm}^2$. This is less than 0.04% of the $200 \mu\text{W}/\text{cm}^2$ maximum human exposure to RFF recommended by the current FCC guidelines for the general population.

The total contribution by all post-transition broadcast facilities and the addition of the proposed post-transition operation of KNRR-DT at 2 meters above ground level is less than 0.1% of the current FCC guidelines for maximum permissible exposure (“MPE”) for the general population/uncontrolled exposure.

Authorized personnel and rigging contractors will be alerted to the potential zone of high field levels on the tower, and if necessary, the station will operate with reduced power or terminate the operation of the transmitter as appropriate when it is necessary for authorized personnel or contractors to perform work on the tower. Workers and the general public, therefore, will not be subjected to RFF levels in excess of the current FCC guidelines.

Environmental Assessment

An environmental assessment ("EA") is categorically excluded under Section 1.1306 of the FCC Rules and Regulations as the tower was constructed prior to the requirements specified in WT Docket No. 03-128 and the licensee indicates:

- (a)(1) The existing tower is not located in an officially designated wilderness area.
- (a)(2) The existing tower is not located in an officially designated wildlife preserve.
- (a)(3) The proposed facilities will not affect any listed threatened or endangered species or habitats.
- (a)(3)(ii) The proposed facilities will not jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.
- (a)(4) The proposed facilities are located on a tower which was built prior to the adoption of WT Docket No. 03-128 and therefore grandfathered, and have not affected any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
- (a)(5) The existing tower is not located near any known Indian religious sites.
- (a)(6) The existing tower is not located in a flood plain.

- (a)(7) The installation of the DTV facilities on an existing guyed tower will not involve a significant change in surface features of the ground in the vicinity of the tower.
- (a)(8) It is not proposed to equip the tower with high intensity white lights unless required by the FAA.
- (b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines contained in OET Bulletin No. 65, Edition 97-01, dated August 1997 and Supplement A.

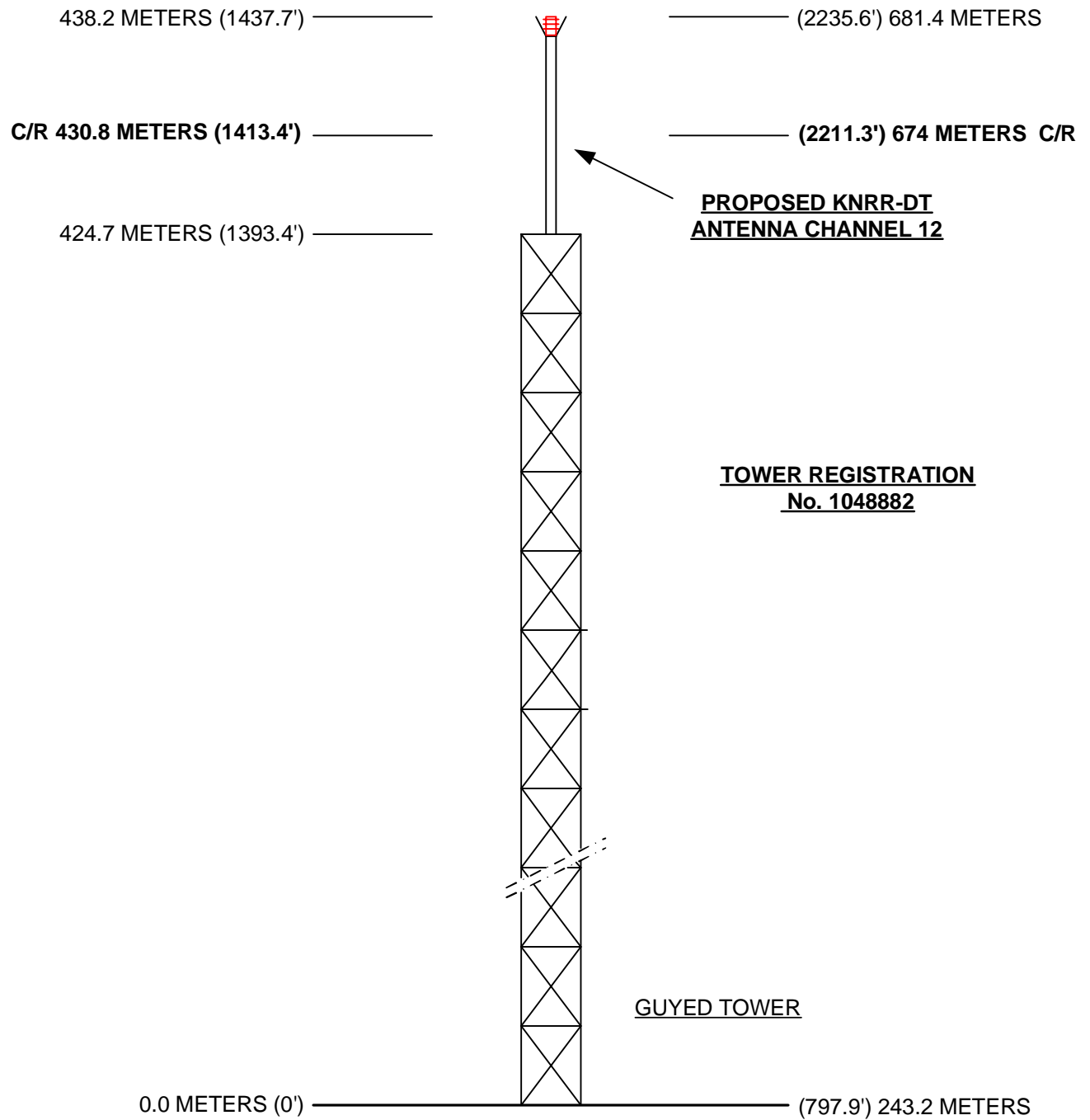
COHEN, DIPPELL AND EVERIST, P.C.

TABLE I
LONGLEY-RICE ANALYSIS
FOR THE POST-TRANSITION OPERATION OF
KNRR-DT, PEMBINA, NORTH DAKOTA
CH 12 4.44 KW DA ERP 427 METERS HAAT
APRIL 2008

<u>Station</u>	<u>City</u>	<u>State</u>	<u>Channel</u>	<u>Distance</u>	<u>Status</u>	<u>FCC File No.</u>	Interference From KNRR-DT <u>Appendix B Allotment</u>	Additional Interference From KNRR-DT <u>Proposed Operation</u>
				km				
KBSL-TV	GOODLAND	KS	10	197.2	7th R&O	BPCDT-19991015ABH	No New Interference	No New Interference
KGIN	GRAND ISLAND	NE	11	359.6	7th R&O	BLCT-1143	0.0%	0.0%
KSNK	MCCOOK	NE	12	228.6	7th R&O	BPCDT-19990709LF	No New Interference	No New Interference

ABOVE GROUND

ABOVE MEAN SEA LEVEL



(NOT TO SCALE)

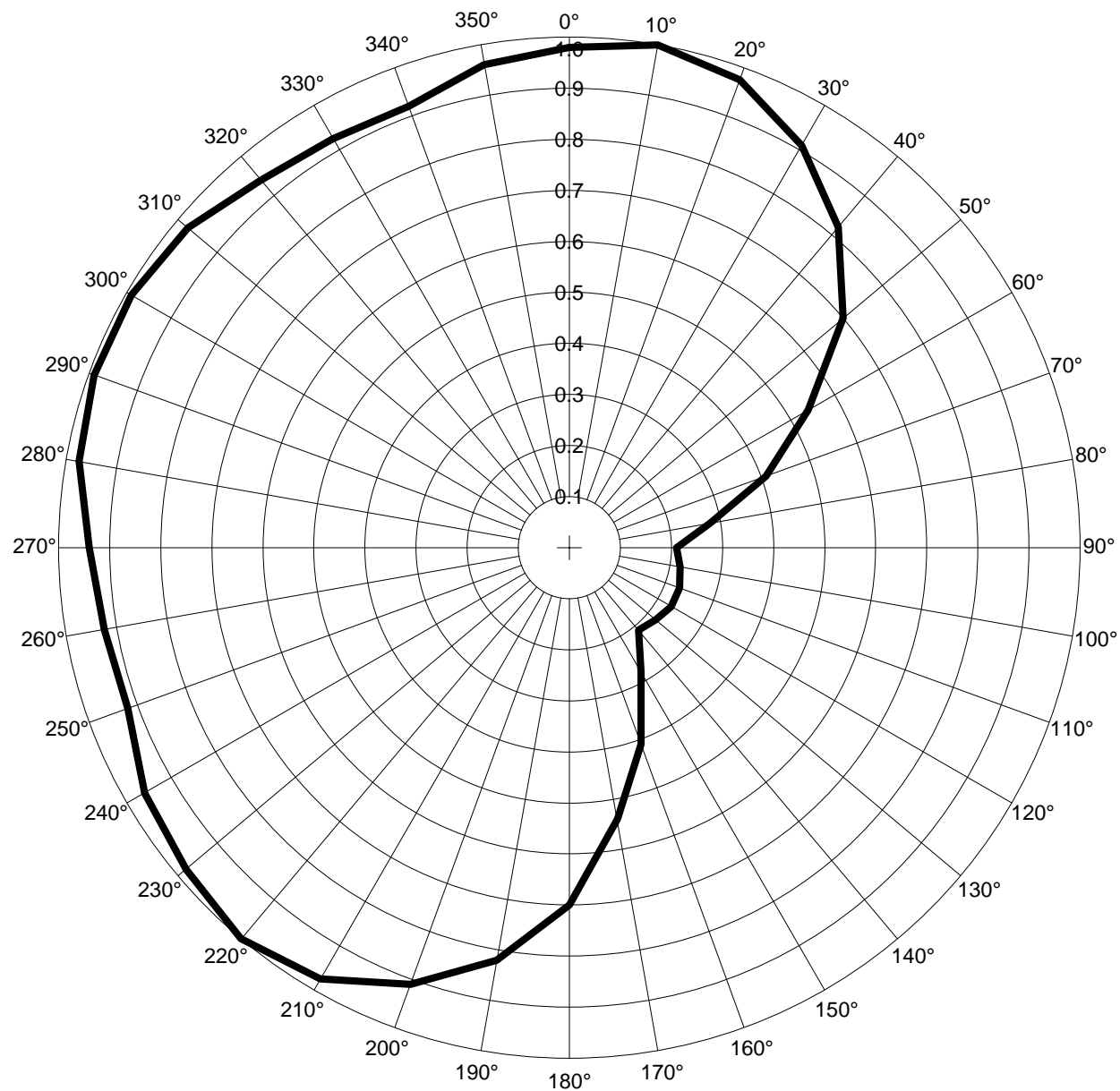
EXHIBIT E-1
VERTICAL SKETCH
FOR THE PROPOSED OPERATION OF
KNRR-DT, PEMBINA, NORTH DAKOTA
APRIL 2008

EXHIBIT E-2

ANTENNA DATA

KNRR-DT, PEMBINA, NORTH DAKOTA

HORIZONTAL PLANE PATTERN

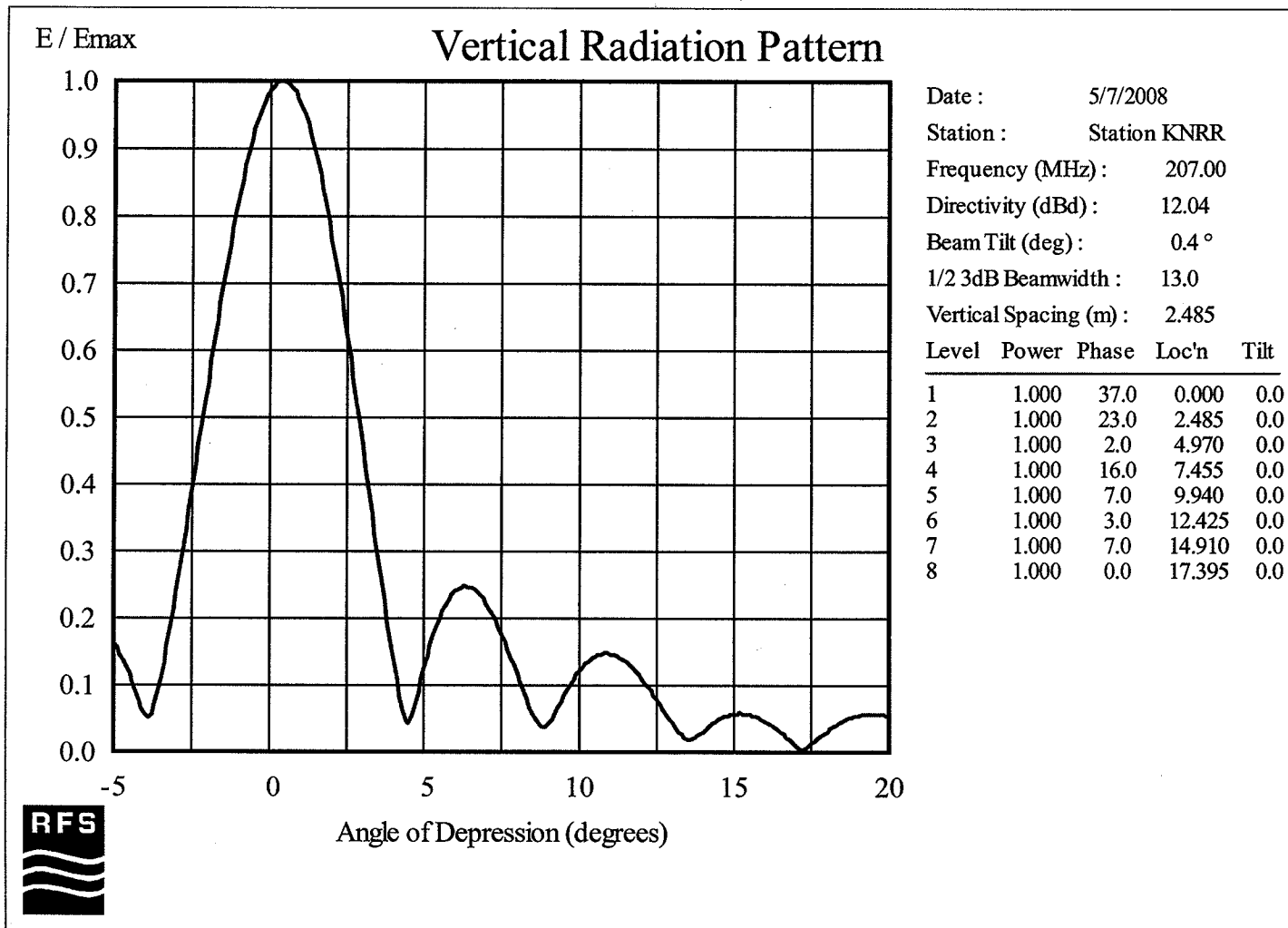


Relative Intensity

Pattern file: KNRR PATTERN.pat

EXHIBIT E-2b
TABULATION OF RELATIVE FIELD
FOR THE PROPOSED OPERATION OF
KNRR-DT, PEMBINA, NORTH DAKOTA
CH. 12 4.44 KW DA 427 METERS
APRIL 2008

<u>Azimuth</u> N ° ET	<u>Relative Field</u>	<u>Azimuth</u> N ° ET	<u>Relative Field</u>
0.0	0.980	190.0	0.820
10.0	1.000	200.0	0.910
20.0	0.975	210.0	0.975
30.0	0.910	220.0	1.000
40.0	0.820	230.0	0.980
50.0	0.700	240.0	0.960
60.0	0.540	250.0	0.920
70.0	0.410	260.0	0.925
80.0	0.280	270.0	0.940
90.0	0.210	280.0	0.975
100.0	0.220	290.0	0.990
110.0	0.230	300.0	0.990
120.0	0.230	310.0	0.975
130.0	0.220	320.0	0.940
140.0	0.210	330.0	0.925
150.0	0.280	340.0	0.920
160.0	0.410	350.0	0.960
170.0	0.540		
180.0	0.700		



PATTERN CALCULATED FROM MANUFACTURING DATA – AS BUILT
B8V

TABLE II
COMPUTED COVERAGE DATA
FOR THE PROPOSED DTV OPERATION OF
KNRR-DT, PEMBINA NORTH DAKOTA
CHANNEL 12 4.44 KW DA ERP 427 METERS HAAT
APRIL 2008

<u>Radial</u> N ° E, T	<u>Average*</u> <u>Elevation</u> meters	<u>Effective</u> <u>Height</u> meters	<u>Depression</u> <u>Angle</u> degrees	<u>ERP</u> kW	<u>Distance to Contour</u>	
					<u>F(50,90)</u> <u>43 dBu</u> km	<u>F(50,90)</u> <u>36 dBu</u> km
0	241.7	432.3	0.576	4.26	82.7	94.8
10	241.4	432.6	0.576	4.44	83.0	95.1
20	240.8	433.2	0.577	4.22	82.6	94.8
30	239.6	434.4	0.577	3.68	81.6	93.8
40	239.2	434.8	0.578	2.99	80.0	92.2
50	240.0	434.0	0.577	2.18	77.3	89.8
60	240.1	433.9	0.577	1.29	73.0	86.0
70	240.4	433.6	0.577	0.75	68.4	81.7
80	240.2	433.8	0.577	0.35	62.3	75.4
90	239.3	434.7	0.578	0.20	58.1	70.7
100	240.1	433.9	0.577	0.21	58.7	71.4
110	240.2	433.8	0.577	0.23	59.4	72.2
120	240.9	433.1	0.576	0.23	59.4	72.1
130	242.0	432.0	0.576	0.21	58.6	71.3
140	241.1	432.9	0.576	0.20	58.0	70.6
150	240.5	433.5	0.577	0.35	62.3	75.4
160	241.1	432.9	0.576	0.75	68.4	81.7
170	243.5	430.5	0.575	1.29	72.8	85.8
180	244.6	429.4	0.574	2.18	77.0	89.6
190	245.7	428.3	0.573	2.99	79.5	91.9
200	246.7	427.3	0.573	3.68	81.1	93.4
210	248.2	425.8	0.572	4.22	82.1	94.3
220	248.6	425.4	0.571	4.44	82.5	94.7
230	249.3	424.7	0.571	4.26	82.1	94.4
240	250.4	423.6	0.570	4.09	81.7	94.0
250	251.4	422.6	0.569	3.76	81.0	93.3
260	251.3	422.7	0.570	3.80	81.1	93.4
270	250.9	423.1	0.570	3.92	81.4	93.6
280	249.2	424.8	0.571	4.22	82.1	94.3

TABLE II
COMPUTED COVERAGE DATA
FOR THE PROPOSED DTV OPERATION OF
KNRR-DT, PEMBINA NORTH DAKOTA
CHANNEL 12 4.44 KW DA ERP 427 METERS HAAT
APRIL 2008
(continued)

<u>Radial</u> N ° E, T	<u>Average*</u> <u>Elevation</u> meters	<u>Effective</u> <u>Height</u> meters	<u>Depression</u> <u>Angle</u> degrees	<u>ERP</u> kW	<u>Distance to Contour</u>	
					<u>F(50,90)</u> <u>43 dBu</u> km	<u>F(50,90)</u> <u>36 dBu</u> km
290	248.1	425.9	0.572	4.35	82.4	94.6
300	247.2	426.8	0.572	4.35	82.4	94.6
310	246.5	427.5	0.573	4.22	82.3	94.4
320	244.9	429.1	0.574	3.92	81.8	94.0
330	244.1	429.9	0.574	3.80	81.6	93.8
340	242.6	431.4	0.575	3.76	81.6	93.8
350	242.3	431.7	0.576	4.09	82.3	94.4

*Based on data from FCC 30-second data base.

DTV Channel 12 (204-210 MHz)
Average Elevation 3.2 to 16.1 km 244 meters AMSL
Center of Radiation 674 meters AMSL
Antenna Height Above Average Terrain 427 meters
Effective Radiated Power 4.44 kW (6.47 dBk) Max

North Latitude: 48° 59' 44"
West Longitude: 97° 24' 28"

(NAD-27)

TABLE III
DTV COVERAGE DATA
FOR MEMORANDUM OPINION AND ORDER OPERATION OF
KNRR-DT, PEMBINA, NORTH DAKOTA
CHANNEL 12 28.7 KW DA ERP 413 METERS HAAT
APRIL 2008

<u>Radial</u> N ° E, T	<u>Average*</u> <u>Elevation</u> meters	<u>Effective</u> <u>Height</u> meters	<u>Depression</u> <u>Angle</u> degrees	<u>ERP</u> kW	<u>Distance to Contour</u> <u>F(50,90) 36 dBu</u> km
0	241.7	414.3	0.564	17.7	105.4
10	241.4	414.6	0.564	16.8	104.9
20	240.8	415.2	0.564	16.1	104.6
30	239.6	416.4	0.565	15.9	104.6
40	239.2	416.8	0.566	16.1	104.8
50	240.0	416.0	0.565	17.0	105.2
60	240.1	415.9	0.565	18.3	105.8
70	240.4	415.6	0.565	20.0	106.6
80	240.2	415.8	0.565	21.8	107.4
90	239.3	416.7	0.565	23.6	108.1
100	240.1	415.9	0.565	19.2	106.2
110	240.2	415.8	0.565	26.0	108.9
120	240.9	415.1	0.564	26.8	109.1
130	242.0	414.0	0.564	27.5	109.3
140	241.1	414.9	0.564	28.2	109.6
150	240.5	415.5	0.565	28.6	109.8
160	240.7	415.3	0.564	28.7	109.8
170	243.7	412.3	0.562	28.1	109.3
180	244.7	411.3	0.562	26.9	109.8
190	245.9	410.1	0.561	25.2	108.2
200	246.8	409.2	0.560	23.3	107.4
210	248.2	407.8	0.559	21.7	106.7
220	248.7	407.3	0.559	20.6	106.2
230	249.4	406.6	0.559	20.1	105.9
240	250.6	405.4	0.558	20.4	106.0
250	251.6	404.4	0.557	21.1	106.2
260	251.4	404.6	0.557	22.0	106.5
270	251.0	405.0	0.557	22.9	106.9
280	249.3	406.7	0.559	23.4	107.2

TABLE III
DTV COVERAGE DATA
FOR MEMORANDUM OPINION AND ORDER OPERATION OF
KNRR-DT, PEMBINA, NORTH DAKOTA
CHANNEL 12 28.7 KW DA ERP 413 METERS HAAT
APRIL 2008
(continued)

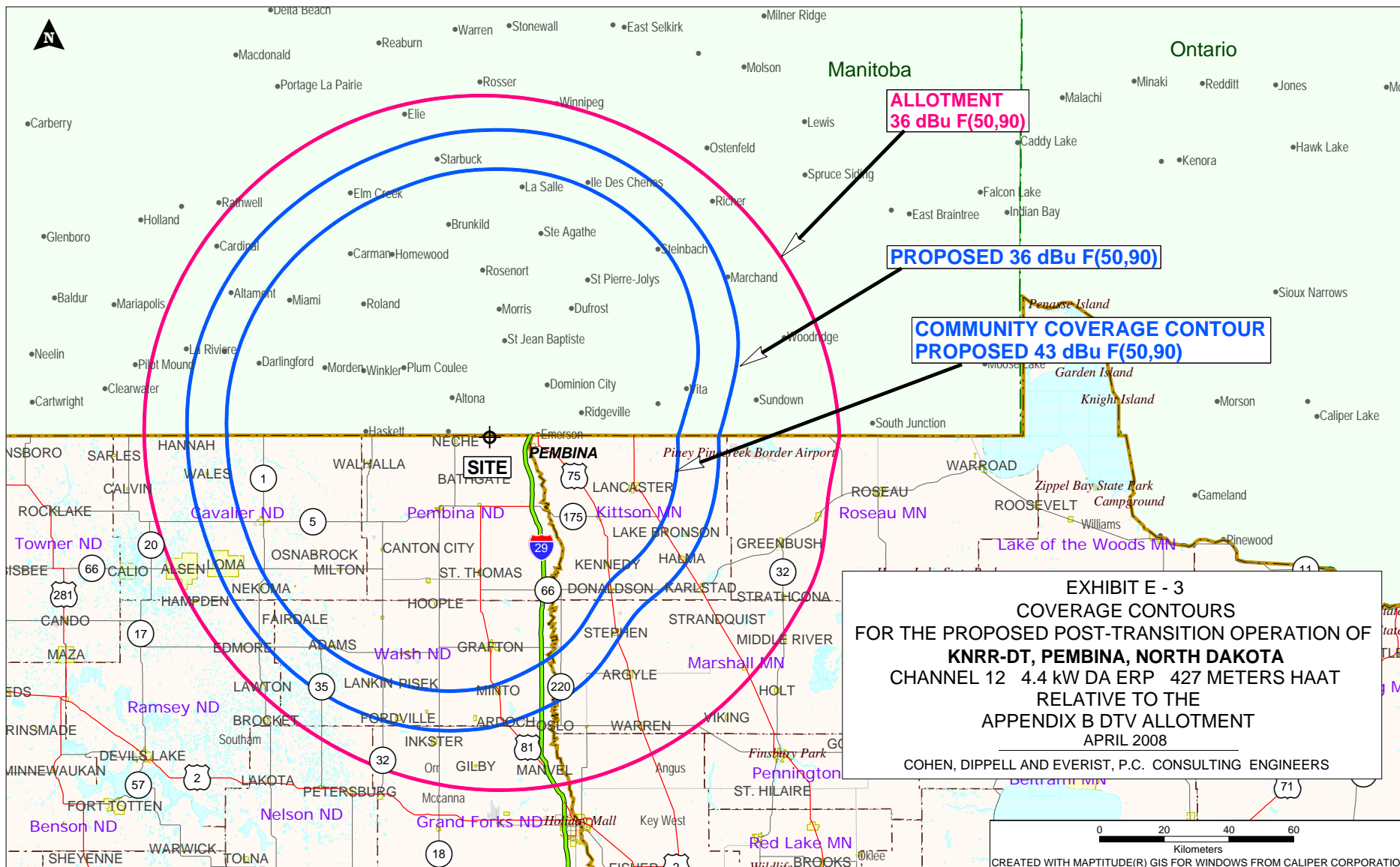
<u>Radial</u>	<u>Average*</u>	<u>Effective</u>	<u>Depression</u>		<u>Distance to Contour</u>
<u>N ° E, T</u>	<u>Elevation</u>	<u>Height</u>	<u>Angle</u>	<u>ERP</u>	<u>F(50,90) 36 dBu</u>
	meters	meters	degrees	kW	km
290	248.3	407.7	0.559	23.2	107.3
300	247.3	408.7	0.560	22.7	107.2
310	246.6	409.4	0.560	22.1	107.0
320	245.0	411.0	0.562	21.3	106.8
330	244.2	411.8	0.562	20.5	106.5
340	242.7	413.3	0.563	19.6	106.2
350	242.3	413.7	0.563	18.7	105.8

*Based on data from FCC 30-second data base.

DTV Channel 12 (204-210 MHz)
Average Elevation 3.2 to 16.1 km 244 meters AMSL
Center of Radiation 656 meters AMSL
Antenna Height Above Average Terrain 413 meters
Effective Radiated Power 28.7 kW (14.58 dBk) Max

North Latitude: 48° 59' 44"
West Longitude: 97° 24' 28"

(NAD-27)



SECTION III - D - DTV Engineering

Complete Questions 1-5, and provide all data and information for the proposed facility, as requested in Technical Specifications, Items 1-13.

Pre-Transition Certification Checklist: An application concerning a pre-transition channel must complete questions 1(a)-(c), and 2-5. A correct answer of "Yes" to all of the questions will ensure an expeditious grant of a construction pen-nit application to modify pre-transition facilities. However, if the proposed facility is located within the Canadian or Mexican borders, coordination of the proposal under the appropriate treaties may be required prior to grant of the application. An answer of "No" will require additional evaluation of the applicable information in this form before a construction permit can be granted.

Post-Transition Expedited Processing. An application concerning a post-transition channel must complete questions 1(a), (d)-(e), and 2-5. A station applying for a construction permit to build its post-transition channel will receive expedited processing if its application (1) does not seek to expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B"); (2) specifies facilities that match or closely approximate those defined in the new DTV Table Appendix B facilities; and (3) is filed within 45 days of the effective date of Section 73.616 of the rules adopted in the Report and Order in the Third DTV Periodic Review proceeding, MB Docket No. 07-91.

1. The proposed DTV facility complies with 47 C.F.R. Section 73.622 in the following respects:
 - (a) It will operate on the DTV channel for this station as established in 47 C.F.R. Section 73.622. ☐ Yes ☐ No
 - (b) It will operate a pre-transition facility from a transmitting antenna located within 5.0 km (3.1 miles) of the DTV reference site for this station as established in 47 C.F.R. Section 73.622. ☐ Yes ☐ No
 - (c) It will operate a pre-transition facility with an effective radiated power (ERP) and antenna height above average terrain (HAAT) that do not exceed the DTV reference ERP and HAAT for this station as established in 47 C.F.R. Section 73.622. ☐ Yes ☐ No
 - (d) It will operate at post-transition facilities that do not expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B"). ☐ Yes ☐ No
☐ N/A
 - (e) It will operate at post-transition facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the new DTV Table Appendix B. ☐ Yes ☐ No
☐ N/A
2. The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RIF radiation exceeding the applicable health and safety guidelines, and therefore will not come within 47 C.F.R. Section 1.1307. ☐ Yes ☐ No

Applicant must **submit the Exhibit** called for in Item 13.

3. Pursuant to 47 C.F.R. Section 73.625, the DTV coverage contour of the proposed facility will encompass the allotted principal community. ☐ Yes ☐ No
4. The requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations have either been satisfied or are not applicable. ☐ Yes ☐ No
5. The antenna structure to be used by this facility has been registered by the Commission and will not require reregistration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely effect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7. ☐ Yes ☐ No

SECTION III - D DTV Engineering

TECHNICAL SPECIFICATIONS Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1. Channel Number: DTV _____ Analog TV, if any _____
2. Zone: ☐ I ☐ II ☐ III
3. Antenna Location Coordinates: (NAD 27)
- _____ ° _____ ' _____ " ☐ N ☐ S Latitude
_____ ° _____ ' _____ " ☐ E ☐ W Longitude
4. Antenna Structure Registration Number: _____
- ☐ Not applicable ☐ FAA Notification Filed with FAA
5. Antenna Location Site Elevation Above Mean Sea Level: _____ meters
6. Overall Tower Height Above Ground Level: _____ meters
7. Height of Radiation Center Above Ground Level: _____ meters
8. Height of Radiation Center Above Average Terrain: _____ meters
9. Maximum Effective Radiated Power (average power): _____ kW
10. Antenna Specifications:
- a.

Manufacturer	Model
--------------	-------
- b. Electrical Beam Tilt: _____ degrees ☐ Not Applicable
- c. Mechanical Beam Tilt: _____ degrees toward azimuth _____ degrees True ☐ Not Applicable
- Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c). Exhibit No.
- d. Polarization: ☐ Horizontal ☐ Circular ☐ Elliptical

TECH BOX

e. Directional Antenna Relative Field Values:

☐

Not applicable (Nondirectional)

Rotation: _____

☐

No rotation

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0		60		120		180		240		300	
10		70		130		190		250		310	
20		80		140		200		260		320	
30		90		150		210		270		330	
40		100		160		220		280		340	
50		110		170		230		290		350	
Additional Azimuths											

If a directional antenna is proposed, the requirements of 47 C.F.R. Section 73.625(c) must be satisfied. **Exhibit required.**

Exhibit No.

11. Does the proposed facility satisfy the pre-transition interference protection provisions of 47 C.F.R. Section 73.623(a) (Applicable only if **Certification Checklist** Items 1(a), (b), or (c) are answered "No.") and/or the post-transition interference protection provisions of 47 C.F.R. Section 73.616?

☐

Yes

☐

No

If "No," attach as an Exhibit justification therefore, including a summary of any related previously granted waivers.

Exhibit No.

12. If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefore. (Applicable only if **Certification Checklist** Item 3 is answered "No.")

Exhibit No.

13. **Environmental Protection Act. Submit in an Exhibit** the following:

Exhibit No.

- a. If **Certification Checklist Item 2** is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site.

By checking "Yes" to **Certification Checklist Item 2**, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radio frequency electromagnetic exposure in excess of FCC guidelines.

If **Certification Checklist Item 2** is answered "No," an Environmental Assessment as required by 47 C.F.R. Section 1.1311.

PREPARER'S CERTIFICATION IN SECTION III MUST BE COMPLETED AND SIGNED.

13. **Petition for Rulemaking/Counterproposal to Add New FM Channel to FM Table of Allotments.** If the application is being submitted concurrently with a Petition for Rulemaking or Counterproposal to Amend the FM Table of Allotments (47 C.F.R. Section 73.202) to add a new FM channel allotment, petitioner/counter-proponent certifies that, if the FM channel allotment requested is allotted, petitioner/counter-proponent will apply to participate in the auction of the channel allotment requested and specified in this application.

☐ Yes ☐ No ☐ N/A

I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in 'good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and request an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

Typed or Printed Name of Person Signing	Typed or Printed Title of Person Signing
Signature	Date

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

SECTION III PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name <i>David G. Everist</i>	Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer	
Signature <i>David G. Everist</i>	Date <i>May 12, 2008</i>	
Mailing Address Cohen, Dippell and Everist, P.C, 1300 L Street, NW Suite 1100		
City Washington	State or Country (if foreign address) DC	ZIP Code 20005
Telephone Number (include area code) (202) 898-0111	E-Mail Address (if available) cde@attglobal.net	

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