

ENGINEERING STATEMENT
RE APPLICATION FOR LICENSE TO COVER
OUTSTANDING CONSTRUCTION PERMIT
(FCC FILE NO. BMPCDT-20061228AAO)
ON BEHALF OF
RED RIVER BROADCAST CO., LLC
KVRR-DT, FARGO, NORTH DAKOTA
CHANNEL 19 1000 KW DA ERP 348 METERS HAAT

MAY 2007

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)

Ryan Felmlee, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer of the Pennsylvania State University, has successfully completed the Engineer-In-Training examination ("EIT") in the State of Virginia, and is a staff engineer 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;

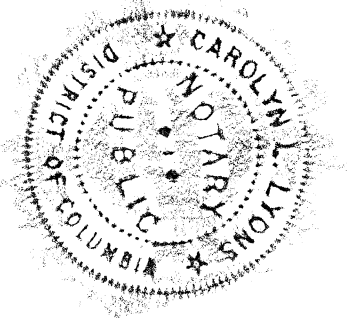
That the attached engineering report was prepared by him or under his supervision and direction and

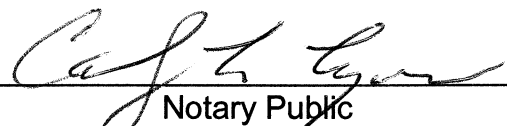
That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.



Ryan Felmlee
District of Columbia

Subscribed and sworn to before me this 9th day of May, 2007.





Notary Public

My Commission Expires: 2/28/2008

This engineering statement has been prepared on behalf of Red River Broadcast Co., LLC ("Red River") licensee of KVRR(TV), Fargo, North Dakota. The purpose of this engineering statement is to accompany its request for license to cover the outstanding construction permit for digital television ("DTV") facilities (FCC File No. BMPCDT-20061228AAO).

KVRR(TV) is licensed to operate on NTSC Television Channel 15 with a maximum visual horizontal effective radiated power ("ERP") of 4,170 kW directional at a height above average terrain ("HAAT") of 379 meters. KVRR(TV) has been allocated DTV Channel 19 with facilities of 196.5 kW at a HAAT of 379 meters in the revised DTV Table of Allotments.¹ KVRR-DT has constructed DTV facilities of 1000 kW directional ERP at an HAAT of 348 meters at its currently authorized tower site and requests to license these facilities herein.

The DTV antenna is side-mounted on an existing tower having a total overall structure height above ground of 335.5 meters (1100.7 feet). The existing transmitter site is located 1.6 km North and 0.5 km East of the intersection of Highway 32 and 34. The tower registration number of the existing tower is 1049364.

The geographic coordinates of the existing site are:

North Latitude: 46° 40' 29"

West Longitude: 96° 13' 40"

NAD-27

¹"In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service", MM Docket No. 87-286, Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order (FCC 98-24), 2/12/98, DTV Table of Allotments, Appendix B.

Equipment Data

Antenna: Dielectric Type TFU-24DSC-R P209
0.75° electrical beam tilt

Power Data

Transmitter output	25.35 kW	14.04 dBk
Dielectric waveguide combiner efficiency/loss	93.3%	0.3 dB
Transmission line efficiency/loss Dielectric, Type EIA/DCA 6-1/8", 75 ohm 1060 feet (323.1 meters)	76.7%	1.15 dB
Input power to the antenna	18.1 kW	12.59 dB
Antenna power gain, Main Lobe	55.1	17.41 dB
Effective Radiated Power, Maximum	1000 kW	30 dBk

Elevation Data

Elevation of the site above mean sea level:	443.2 meters (1454.4 feet)
Elevation of the top of existing supporting structure above ground including appurtenances	335.5 meters (1100.8 feet)
Elevation of the top of supporting structure above mean sea level including appurtenances	778.7 meters (2555.2 feet)
Height of DTV antenna radiation center meters above ground	292.6 meters (960 feet)
Height of DTV antenna radiation center above mean sea level	735.8 meters (2414.4 feet)

Height of DTV antenna radiation center
above average terrain

348 meters
(1141.7 feet)

Special Operating Condition

Red River acknowledges that the grant of this DTV license is subject to the special operating condition specified in the outstanding construction permit. Therefore, Red River certifies that it has previously made a good faith effort to identify and notify potentially affected health care facilities within the KVRR-DT service area.

Section III - 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 _____			
2. Operating Constants			
Transmitter power output (average power at input to transmission line, after any filter attached to the transmitter, if used)		Transmission line power loss	
kW		dBk	
dB		dB	
Antenna Input power	Maximum antenna power gain	Effective radiated power (average power)	
dBk	dB	kW	dBk
3. Antenna Data			
Manufacturer		Model	

NOTE: In addition to the information called for in the Certification Checklist, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.

CERTIFICATION

4. Main Studio Location. The main studio location complies with 47 C.F.R. Section 73.1125.	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Explanation in Exhibit No.
5. Constructed Facility. The facility was constructed as authorized in the underlying construction permit or complies with 47 C.F.R. Section 73.1690.	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Explanation in Exhibit No.
6. Special Operating Conditions. The facility was constructed in compliance with all special operating conditions, terms, and obligations described in the construction permit.	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Explanation in Exhibit No.
An exhibit may be required. Review the underlying construction permit.		Exhibit No.
7. Transmitter. The transmitter complies with 47 C.F.R. Section 73.1660.	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Explanation in Exhibit No.

PREPARER'S CERTIFICATION ON PAGE 6 MUST BE COMPLETED AND SIGNED.

APPLICATION FILED PURSUANT TO 47 C.F.R. SECTIONS 73.1675(c) or 73.1690(c).

Only applicants filing this application pursuant to 47 C.F.R. Sections 73.1675(c) or 73.1690(c) must complete the following

8. **Changing transmitter power output.** Is this application being filed to authorize a change in transmitter power output caused by the replacement of an omnidirectional antenna with another omnidirectional antenna or an alteration of the transmission line system? See 47 C.F.R. Sections 73.1690(c)(1) and (c)(10). ☐ Yes ☐ No

9. **Replacing a directional antenna.** Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(3) to replace a directional antenna with another directional antenna? ☐ Yes ☐ No

If "Yes" to the above, the applicant certifies the following:

- a. **Pattern of Directional Antenna.** The proposed theoretical antenna pattern complies with 47 C.F.R. Section 73.1690(c)(3). **Exhibit is required.** ☐ Yes ☐ No

See Explanation in Exhibit No.

Exhibit No.

10. **Use a formerly licensed main facility as an auxiliary facility.** Is this application being filed pursuant to 47 C.F.R. Section 73.1675(c)(1) to request authorization to use a formerly licensed main facility as an auxiliary facility and/or change the ERP of the proposed auxiliary facility? ☐ Yes ☐ No

If "Yes" to the above, the applicant certifies the following:

- a. **Auxiliary antenna service area.** The proposed auxiliary facility complies with 47 C.F.R. Section 73.1675(a). **Exhibit is required.** ☐ Yes ☐ No

See Explanation in Exhibit No.

- b. **Environmental Protection Act.** The proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1306 (*i.e.*, the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). ☐ Yes ☐ No

See Explanation in Exhibit No.

By checking "Yes" above, 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 radiofrequency electromagnetic exposure in excess of FCC guidelines.

11. **Change the license status.** Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(9) to change the license status from commercial to noncommercial or from noncommercial to commercial? ☐ Yes ☐ No

Exhibit No.

If "Yes" to the above, submit an exhibit providing full particulars. For applications changing license status from commercial to noncommercial, include Section II of FCC Form 340 as an exhibit to this application.

PREPARER'S CERTIFICATION ON PAGE 6 MUST BE COMPLETED AND SIGNED.

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		Relationship to Applicant (e.g., Consulting Engineer)	
Signature		Date	
Mailing Address			
City		State or Country (if foreign address)	ZIP Code
Telephone Number (include area code)		E-Mail Address (if available)	

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).