

ENGINEERING STATEMENT  
REQUEST FOR LICENSE TO COVER THE  
OUTSTANDING CONSTRUCTION PERMIT  
(FCC FILE NO. BMPCDT-20070125ACV)  
ON BEHALF OF  
MISSION BROADCASTING, INC.  
**KHMT-DT, HARDIN, MONTANA**  
CHANNEL 22 1000 KW ERP 247.5 METERS HAAT

FEBRUARY 2009

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 )

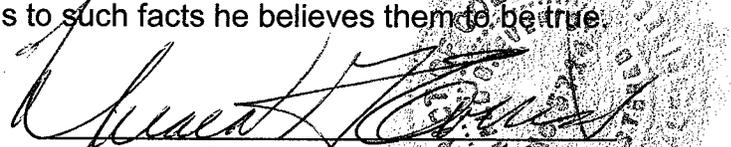
Donald G. Everist, being duly sworn upon his oath, deposes and states that:

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;

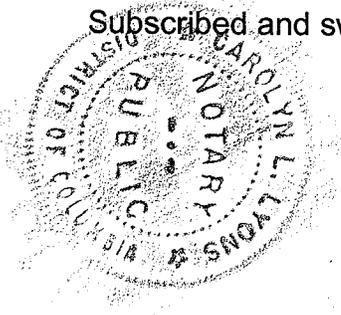
That his qualifications are a matter of record in the Federal Communications Commission;

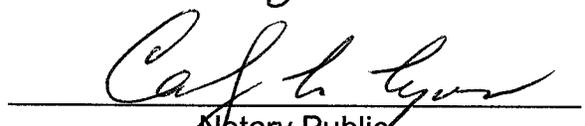
That the attached engineering report was prepared by him or under his supervision and direction and

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 20th day of February, 2009.



  
Notary Public

My Commission Expires: 2/28/2013

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington )  
 ) ss  
District of Columbia )

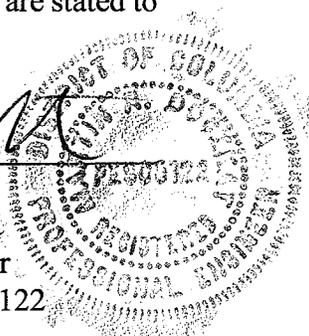
Martin R. Doczkat being duly sworn upon his oath, deposes and states that:

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

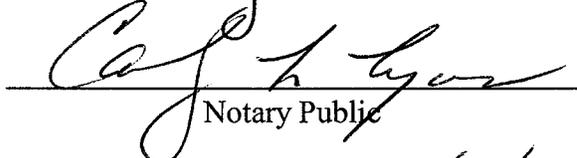
That the attached engineering report was prepared by him or under his supervision and direction and

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.

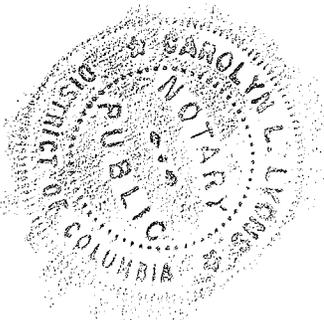
  
Martin R. Doczkat  
District of Columbia  
Professional Engineer  
Registration No. PE905122



Subscribed and sworn to before me this 20th day of February, 2009.

  
Notary Public

My Commission Expires: 2/28/2013



### Introduction

This engineering statement has been prepared on behalf of Mission Broadcasting, Inc., licensee of TV station KHMT(TV), Hardin, Montana, in support of its request for license to cover the outstanding construction permit for digital television ("DTV") operation (FCC File No. BMPCDT-20070125ACV). At present, KHMT(TV) operates on NTSC TV Channel 4 (66-72MHz) with 100 kW effective radiated power ("ERP") and 323 meters antenna height above average terrain ("HAAT"). The current analog Channel 4 operation of 100 kW ERP is with a non-directional TV antenna. Station KHMT(TV) has been allotted Channel 22 (518-524 MHz) for its digital TV operation and has been authorized to construct a facility (FCC File No. BMPCDT-20070125ACV) with 1000 kW non-directional maximum ERP and 247.5 meters HAAT. KHMT-DT has constructed and proposes to operate from the existing tower (no change in overall height) with its authorized parameters.

### Antenna Site

The DTV antenna has been side-mounted on the existing tower at 61 meters (200 feet) above ground level. The KHMT(TV) antenna site is located west of Hardin, Montana. The KHMT(TV) antenna structure registration number is 1026263.

The geographic coordinates of the existing tower are as follows:

North Latitude: 45° 44' 24"  
West Longitude: 108° 08' 18"  
(NAD-27)

The following data shows the pertinent information concerning the proposed KHMT-DT operation.

Antenna Data

Antenna:	Dielectric	TFU-34JSC-R O3 with 0.5° electrical beam tilt	
	Antenna Power Gain	32	15.05dB

Power Data

Transmitter Output Power	34.7 kW	15.403 dBk
Transmission Line Efficiency/Loss Dielectric, DC-677, 6-1/8", 75 ohm-- length 408 feet (124.4 meters)	90.1%	0.453 dB
Input Power to Antenna	31.3 kW	14.95 dBk
Antenna Power Gain	32	15.05 dB
Effective Radiated Power	1000 kW	30 dBk

Elevation Data

Elevation of the site above mean sea level:	1236.2 meters 4055.8 feet
Elevation of the top of existing supporting structure above ground including DTV antenna	193.5 meters 634.8 feet
Elevation of the top of supporting structure above mean sea level including DTV antenna	1429.7 meters 4690.6 feet
Height of DTV antenna radiation center meters above ground	112.1 meters 367.8 feet
Height of DTV antenna radiation center above mean sea level	1348.3 meters 4423.6 feet
Height of DTV antenna radiation center above average terrain	247.5 meters

Special Operation Condition

Mission acknowledges that the grant of this DTV license is subject to the special operation condition specified in the outstanding construction permit. Therefore, Mission

certifies that it has made a good faith effort to identify and notify health care facilities (e.g., hospitals, nursing homes, see 47 CFR 15.242(a)(1)) within the KHMT-DT service area potentially affected by these authorized DTV operations. During this pre-broadcast period, Mission provided all notified entities with relevant technical details of its authorized operation of KHMT-DT, such as DTV channel, targeted on-air date, effective radiated power, antenna location, and antenna height. Documentation of the notifications and contacts made has been placed in the station's public inspection file. During this pre-broadcast period and for up to twenty (20) days after commencing operations, should Mission become aware of any instances of medical devices malfunctioning or that such that devices are likely to malfunction due to the KHMT-DT operations, it shall cooperate with the health care facility so that it is afforded a reasonable opportunity to resolve the interference problem.

**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
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.  Yes  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.  Yes  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.  Yes  No See Explanation in Exhibit No.
- Exhibit No.
- An exhibit may be required.** Review the underlying construction permit.
7. **Transmitter.** The transmitter complies with 47 C.F.R. Section 73.1660.  Yes  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 Martin R. Doczkat		Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer	
Signature 		Date February 20, 2009	
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	

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).