

Engineering Exhibit

APPLICATION FOR A DIGITAL TELEVISION STATION LICENSE

prepared for

West Central Minnesota Educational Television Company

KWCM-TV Appleton, Minnesota

Facility ID: 71549

Ch. 10 50 kW 381 m

Table of Contents

FCC Form 302 - Section III - Engineering

Exhibit 7

Table 1

Antenna / Line System Gains and Losses

Exhibit 8

Statement A

Compliance with Special Operating Conditions

This material supplies a "hard copy" of the engineering portions of this application as entered December 10, 2009 for filing electronically. Since the FCC's electronic filing system may be accessed by anyone with the applicant's name and password, and electronic data may otherwise be altered in an unauthorized fashion, we cannot be responsible for changes made subsequent to our entry of this data and related attachments.

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: 10		
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
4.34 dBk 2.7 kW		0.79 dB
Antenna Input power	Maximum antenna power gain	Maximum effective radiated power
3.55 dBk	13.44 dB	16.99 dBk 50 kW
3. Antenna Data		
Manufacturer DIE	Model THV-13A10-R C170	

NOTE: In addition to the information called for in this section, 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 checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 6]
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 checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 7]
6.	Special Operating Conditions. The facility was constructed in compliance with all special operating conditions, terms, and obligations described in the construction permit. An exhibit may be required. Review the underlying construction permit	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 8]
7.	Transmitter. The transmitter complies with 47 C.F.R. Section 73.1660.	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 9]

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 section.

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).	<input type="radio"/> Yes <input type="radio"/> 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? If "Yes" to the above, the applicant certifies the following:	<input type="radio"/> Yes <input type="radio"/> No
	a. Pattern of Directional Antenna. The proposed theoretical antenna pattern complies with 47 C.F.R. Section 73.1690(c)(3). Exhibit is required	<input type="radio"/> Yes <input type="radio"/> No

	47 C.F.R. Section 73.1675(c)(3). Exhibit is required.	See Explanation in [Exhibit 10]
10	<p>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?</p> <p>If "Yes" to the above, the applicant certifies the following:</p>	<input type="radio"/> Yes <input type="radio"/> No
	<p>a. Auxiliary antenna service area. The proposed auxiliary facility complies with 47 C.F.R. Section 73.1675(a). Exhibit is required.</p>	<input type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 11]
	<p>b. Environmental Protection Act. The proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1 306 (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).</p> <p>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.</p>	<input type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 12]
11.	<p>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?</p> <p>If "Yes" to 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.</p>	<input type="radio"/> Yes <input type="radio"/> No [Exhibit 13]

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 RICHARD H. MERTZ		Relationship to Applicant (e.g., Consulting Engineer) CONSULTANT	
Signature		Date 12/10/2009	
Mailing Address CAVELL, MERTZ & ASSOCIATES, INC. 7839 ASHTON AVENUE			
City MANASSAS	State or Country (if foreign address) VA		Zip Code 20109 -
Telephone Number (include area code) 7033929090		E-Mail Address (if available) RMERTZ@CAVELLMERTZ.COM	

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).

Exhibits

Exhibit 7**Description:** KWCM-DT EXHIBIT 7EXHIBIT 7 CONTAINS TABLE 1, ANTENNA/LINE SYSTEM GAINS AND LOSSES.

Attachment 7

Description
KWCM-DT Exhibit 7

Exhibit 8**Description:** KWCM-DT EXHIBIT 8EXHIBIT 8 CONTAINS STATEMENT A, COMPLIANCE WITH SPECIAL OPERATING CONDITIONS, TABLE OF CONTENTS, AND A COPY OF THE ENGINEERING PORTIONS OF THE FCC FORM.

Attachment 8

Description
KWCM-DT Exhibit 8

Exhibit 8 - Statement A
COMPLIANCE WITH SPECIAL OPERATING CONDITIONS
prepared for
West Central Minnesota Educational Television Company
KWCM-TV Appleton, Minnesota
Facility ID: 71549
Ch. 10 50 kW 381 m

West Central Minnesota Educational Television Company (“*West Central*”) is the permittee of digital television station KWCM-DT, Appleton, Minnesota. *West Central* has completed construction of the DTV facility authorized in the construction permit (“CP”) FCC File No. BPEDT-20080617ACY, terminated interim post-transition operation on Channel 31¹, and commenced post-transition operation on digital Channel 10.

The KWCM-TV CP contains two Special Operating Conditions. The first Special Operating Condition restricted operation of the KWCM-DT CP facility prior to February 17, 2009. This date was extended to June 12, 2009 by Congressional action² and has now past.

The second condition requires a good faith effort to notify health care facilities prior to the commencement of operation. Notification of biomedical telemetry devices became necessary when new DTV services were authorized on previously *unused* television channels. Such is not the case in this instance. KWCM-TV, analog Channel 10, has operated from the authorized KWCM-DT site for many years. As such, there should be no biomedical telemetry devices operating on 192 to 198 MHz (Channel 10) and no such devices located within the 10.3 km area past the analog facility’s Grade B contour³. The service contour of KWCM-DT Channel 10 facility does not extend past the 10.3 km extension of the Grade B contour. Therefore, further notification is not believed to be necessary.

¹ See BDSTA-20080818ACO as extended by BEDSTA-20090807ACA

² See Paragraph 3, Report And Order And Sua Sponte Order On Reconsideration, MB Docket No. 09-17, FCC 09-9, Released February 13, 2009.

³ See 15.242(d)(1) of the Commission’s Rules.