

Engineering Exhibit

**APPLICATION FOR A
DIGITAL TELEVISION STATION
LICENSE**

prepared for
United Communications Corporation

KEYC-TV Mankato, Minnesota
Facility ID: 68853
Ch. 12 52.7 kW 317 m

Table of Contents

FCC Form 302 - Section III – Engineering

Exhibit 7

Statement A	Constructed Facility
Figure 1	Antenna Vertical Plan (Elevation) Relative Field Pattern
Table 1	Antenna / Line System Gains and Losses

Exhibit 8

Statement B	Compliance with Special Operating Conditions
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This material supplies a “hard copy” of the engineering portions of this application as entered September 17, 2012 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: 12		
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
	7.19 dBk 5.23 kW		0.76 dB
	Antenna Input power	Maximum antenna power gain	Maximum effective radiated power
	6.43 dBk	10.79 dB	17.22 dBk 52.70 kW
3.	Antenna Data		
	Manufacturer ERI	Model ATW12V3-HTO-12	
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 See Explanation in [Exhibit 10]
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? If "Yes" to the above, the applicant certifies the following:		<input type="radio"/> Yes <input type="radio"/> No
	a. Auxiliary antenna service area. The proposed auxiliary facility complies with 47 C.F.R. Section 73.1675(a). Exhibit is required.		<input type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 11]
	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). 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.		<input type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 12]
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? 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.		<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 09/17/2012	

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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: KEYC-TV EXHIBIT 7

EXHIBIT 7 CONTAINS STATEMENT A, CONSTRUCTED FACILITY; FIGURE 1 AND TABLE 1.

Attachment 7

Description

[KEYC-TV Exhibit 7](#)

Exhibit 8

Description: KEYC-TV EXHIBIT 8

EXHIBIT 8 CONTAINS STATEMENT B, COMPLIANCE WITH SPECIAL OPERATING CONDITIONS; TABLE OF CONTENTS; AND A COPY OF THE ENGINEERING PORTIONS OF THE FCC FORM.

Attachment 8

Description

[KEYC-TV Exhibit 8](#)

Exhibit 8 - Statement B
COMPLIANCE WITH SPECIAL OPERATING CONDITIONS
prepared for
United Communications Corporation
KEYC-TV Mankato, Minnesota
Facility ID: 68853
Ch. 12 52.7 kW 317 m

United Communications Corporation (“*United*”) is the licensee of digital television station KEYC-TV Mankato, Minnesota. *United* has completed construction of the facility authorized in the construction permit (“CP”) FCC File No. BMPCDT-20080620AHS.

The KEYC-TV CP contains two Special Operating Conditions. The first condition requires notification of health care facilities prior to the commencement of operation. Such notification was mailed to area health care facilities on January 6, 2010. Thus, this special operating condition has been satisfied.

The second Special Operating Condition requires removal of the mutual exclusivity with an application filed for KCCW-TV, Walker, MN, FCC File No. BMPCDT-20080619AAY, as modified by BMPCDT-20100308ABD. An interference consent agreement was executed between the licensees thus removing the mutual exclusivity.