

ENGINEERING STATEMENT  
RE REQUEST FOR LICENSE TO COVER THE  
OUTSTANDING CONSTRUCTION PERMIT  
(FCC FILE NO. BMPCDT-20070207ABW)  
ON BEHALF OF  
NEXSTAR BROADCASTING, INC.  
**WQRF-DT, ROCKFORD, ILLINOIS**  
CHANNEL 42 900 KW MAX DA ERP 148 METERS HAAT

APRIL 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         )

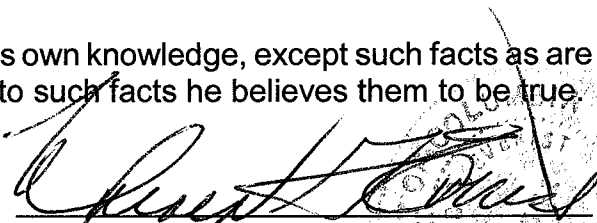
Donald G. Everist, being duly sworn upon his oath, deposes and states that:

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;

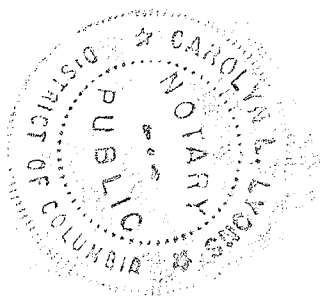
That his qualifications are a matter of record in the Federal Communications Commission;

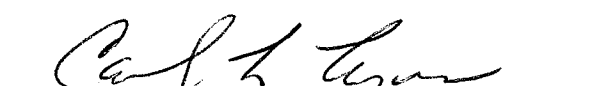
That the attached engineering report was prepared by him or under his supervision and direction and

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 3<sup>rd</sup> day of April, 2007.



  
Notary Public

My Commission Expires: 2/28/2008

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:

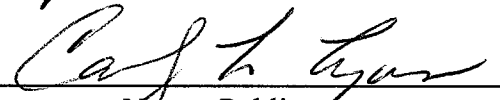
He is a graduate electrical engineer of the Pennsylvania State University, and is a staff engineer at Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

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

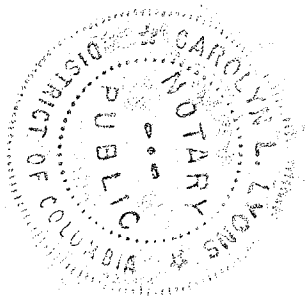
That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.

  
\_\_\_\_\_  
Martin R. Doczkat

Subscribed and sworn to before me this 3<sup>rd</sup> day of April, 2007.

  
\_\_\_\_\_  
Notary Public

My Commission Expires: 2/28/2008



### Introduction

This engineering statement has been prepared on behalf of Nexstar Broadcasting, Inc., (“Nexstar”), licensee of TV Station WQRF-TV, Rockford, Illinois, in support of its request for license to cover its outstanding construction permit (FCC File No. BMPCDT-20070207ABW) for digital television (“DTV”) operation. At present, WQRF-TV operates on NTSC TV Channel 39 (620-626 MHz) with 1050 kW effective radiated power (“ERP”) and 176 meters antenna height above average terrain (“HAAT”). The current analog Channel 39 operation of WQRF-TV is with a non-directional TV antenna and horizontal polarization. Station WQRF-DT has been allotted Channel 42 (638-644 MHz) for its digital TV operation and been authorized to construct a facility (FCC File No. BMPCDT-20070207ABW) with 900 kW maximum ERP and 148 meters HAAT on a tower that currently supports WTVO(TV) and WTVO-DT in Rockford, Illinois. WQRF-DT has constructed and herein requests a license to cover this authorized facility.

### Antenna Site

The WQRF-DT antenna is side-mounted on the existing WTVO(TV) tower at 192 meters above ground level.

The WTVO(TV) antenna site is located at 1917 N. Meridian Rd., Rockford, Illinois. The WTVO(TV) antenna structure registration number is 1035539.

The geographic coordinates of the existing tower are as follows:

North Latitude: 42° 17' 14"

West Longitude: 89° 10' 15"

(NAD-27)

The following data shows the pertinent information concerning the proposed operation.

Antenna Data

Antenna:	Dielectric	TFU-25JSC-R P210SP	
	Beam Tilt	0.75° electrical	
	Directional Max. Power Gain	46.2	16.65 dB

Power Data

Transmitter Power Output	22.7 kW	13.54 dBk
Transmission Line Loss (160 m (525 ft) of Dielectric 6-1/8" 75 ohm EIA/DCA)	86.0%	0.65 dB
Input Power to Antenna	19.5 kW	12.89 dBk
Antenna Gain, Directional	46.2	16.65 dB
Effective Radiated Power, Max.	900 kW	29.54 dBk

Elevation Data

Elevation of the site above mean sea level:	241.0 meters 790.7 feet
Elevation of the top of existing supporting structure above ground including WTVO antenna	216.0 meters 708.7 feet
Elevation of the top of supporting structure above mean sea level including WTVO antenna	457.0 meters 1499.3 feet
Height of DTV antenna radiation center meters above ground	150.9 meters 495.0 feet
Height of DTV antenna radiation center above mean sea level	391.9 meters 1285.7 feet
Height of DTV antenna radiation center above average terrain	148 meters

Special Operation Condition

Nexstar acknowledges that the grant of this DTV license is subject to the special operating condition specified in the outstanding construction permit. Therefore, Nexstar certifies that it has made a good faith effort to identify and notify potentially affected health care facilities within the WQRF-DT service area authorized by the outstanding construction permit (FCC File No. BMPCDT-20070207ABW).

### 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. <b>Main Studio Location.</b> 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. <b>Constructed Facility.</b> 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. <b>Special Operating Conditions.</b> 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.
<b>An exhibit may be required.</b> Review the underlying construction permit.		Exhibit No.
7. <b>Transmitter.</b> 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.**

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**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

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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 April 3, 2007	
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).