



**ENGINEERING STATEMENT**  
**OF**  
**BENJAMIN L. PIDEK, P.E.**  
**IN SUPPORT OF AN APPLICATION FOR**  
**CONSTRUCTION PERMIT FOR AN AUXILIARY STATION**  
**WEWS-TV**  
**CLEVELAND, OH**

**Background**

Scripps Media, Inc. (Scripps) is the licensee of WEWS-TV which is authorized to operate its post-transition DTV facility on Channel 15 (BLCDT-20091211ACS) at Cleveland, OH, with an ERP of 1000 kW at an HAAT of 300.7m. The tower is located at the following coordinates:

(NAD27)  
41° 22' 26" N  
81° 43' 04" W

Scripps, in the instant application, is applying for a construction permit for a WEWS Auxiliary DTV facility.

**Antenna System and Operating Parameters**

The main WEWS DTV facility antenna is top-mounted on a registered tower (ASR#1014861). In order to construct the main DTV facility, Scripps constructed a temporary

**PROVIDING COMMUNICATION  
SYSTEMS ENGINEERING**

CORPORATE OFFICE  
1475 NORTH 200 WEST  
POST OFFICE BOX 311  
NEPHI, UT 84648

TEL: (435) 623-8601  
FAX: (435) 623-8610

REGIONAL OFFICE  
1172 SOUTH M-13  
LENNON, MI 48449

TEL: (810)-621-5656  
FAX: (810)-621-4146

digital facility on a nearby, existing shorter tower during the DTV transition<sup>1/</sup>. While the temporary facility is no longer in operation, the equipment was never removed. Therefore, Scripps now proposes to make the former temporary digital facility a permanent auxiliary DTV facility for WEWS.

The proposed WEWS auxiliary facility would operate from a top-mounted omni-directional RCA TFU-24J antenna with an ERP of 850.9 kW. The antenna will have a center-of-radiation of 464m AMSL (with a calculated HAAT of 204m). No modifications to the overall structure height are necessary.

The proposed auxiliary DTV facility will have the following parameters:

WEWS Auxiliary DTV Facility (Ch. 15)

Coordinates: 41° 22' 26" N (NAD27)  
81° 43' 03" W  
ERP: 850.9 kW (omni)  
HAAT: 204m

**Tower/Registration**

As mentioned above, the WEWS auxiliary facility will operate with an omni-directional RCA TFU-24J antenna which will be top-mounted on an existing shorter tower near the main WEWS tower. While the shorter tower is taller than 200 ft. above ground level, it is only 101 ft from the existing, registered, WEWS main tower (ASR#1014861) which is approximately 855 ft. above ground level; therefore, the shorter tower is shielded by the main WEWS tower and does not require an FAA study nor registration.

---

<sup>1/</sup> The Commission granted Scripps a “phased” transition STA for its temporary digital facility (BDSTA-20090428AAU)

## **Coverage**

The entire principal community of Cleveland, OH will be well within the predicted F(50,90) 48 dBu contour of this facility. Furthermore, as shown in Figure 1, attached hereto, the predicted noise-limited contour of the proposed auxiliary facility would not extend beyond the noise-limited contour of the licensed facility.

## **Environmental/RFR**

This report addresses only the conditions specified in 47CFR1.1307 that deal with Radio Frequency Radiation. Any other non-RFR conditions that might require the preparation of an EA are beyond the scope of this report; since the structure is existing, such conditions should not be an issue requiring further consideration.

Given the close proximity of the main tower to the tower which will be used for the WEWS auxiliary DTV facility (102 ft. from base-to-base), operation of the proposed facility will create levels of radio frequency radiation (RFR) in excess of the occupational limit on a certain portion of the main WEWS tower. WEWS will implement a procedure to ensure that its ERP is reduced to bring RFR levels below the occupational limit when workers are passing through the affected area of the main tower (when the auxiliary facility is operational). [WEWS also intends to take RFR measurements to ensure that the RFR calculations are verified.]

The additional ground level RFR contributed to the site by this proposal in public areas has been calculated to be 0.018489 mW/cm<sup>2</sup> which is less than maximum public exposure limit (0.32 mW/cm<sup>2</sup>) at Ch. 15 (476-482 MHz). The WEWS transmitting location is not a multi-user site

### **PROVIDING COMMUNICATION SYSTEMS ENGINEERING**

CORPORATE OFFICE  
1475 NORTH 200 WEST  
POST OFFICE BOX 311  
NEPHI, UT 84648

TEL: (435) 623-8601  
FAX: (435) 623-8610

REGIONAL OFFICE  
1172 SOUTH M-13  
LENNON, MI 48449

TEL: (810)-621-5656  
FAX: (810)-621-4146



as WEWS is the only station operating from this location and the area around the base of the towers is a controlled area enclosed by a locked security fence. This area is subject to the occupational limit of RFR levels rather than the public exposure limit and the ground level RFR at the base of the tower is only approximately 1% of the occupational exposure limit (1.6 mW/cm<sup>2</sup>).

Scripps agrees to comply with the Commission's requirements regarding power adjustments or cessation of operation as may be necessary to ensure a compliant environment for worker access. Workers will be trained on RFR issues and encouraged to wear personal RFR monitors when on the structure. The tower base is enclosed by a locked security fence and appropriate signage warning of potential RFR hazards is posted.

### **Certification**

I hereby certify that the foregoing report or statement was prepared by me but may include work performed by others under my supervision or direction. The statements of fact contained therein are believed to be true and correct based on personal knowledge, information and belief unless otherwise stated; with respect to facts not known of my own personal knowledge, I believe them to be true and correct based on their origin from sources known to me to be generally reliable and accurate. I have prepared this document with due care and in accordance with applicable standards of professional practice.

A handwritten signature in black ink, appearing to read "B. Pidek", is written over a horizontal line.

Benjamin L. Pidek, P.E.  
September 7, 2012

#### **PROVIDING COMMUNICATION SYSTEMS ENGINEERING**

CORPORATE OFFICE  
1475 NORTH 200 WEST  
POST OFFICE BOX 311  
NEPHI, UT 84648

TEL: (435) 623-8601  
FAX: (435) 623-8610

REGIONAL OFFICE  
1172 SOUTH M-13  
LENNON, MI 48449

TEL: (810)-621-5656  
FAX: (810)-621-4146

## Mid-State Consultants

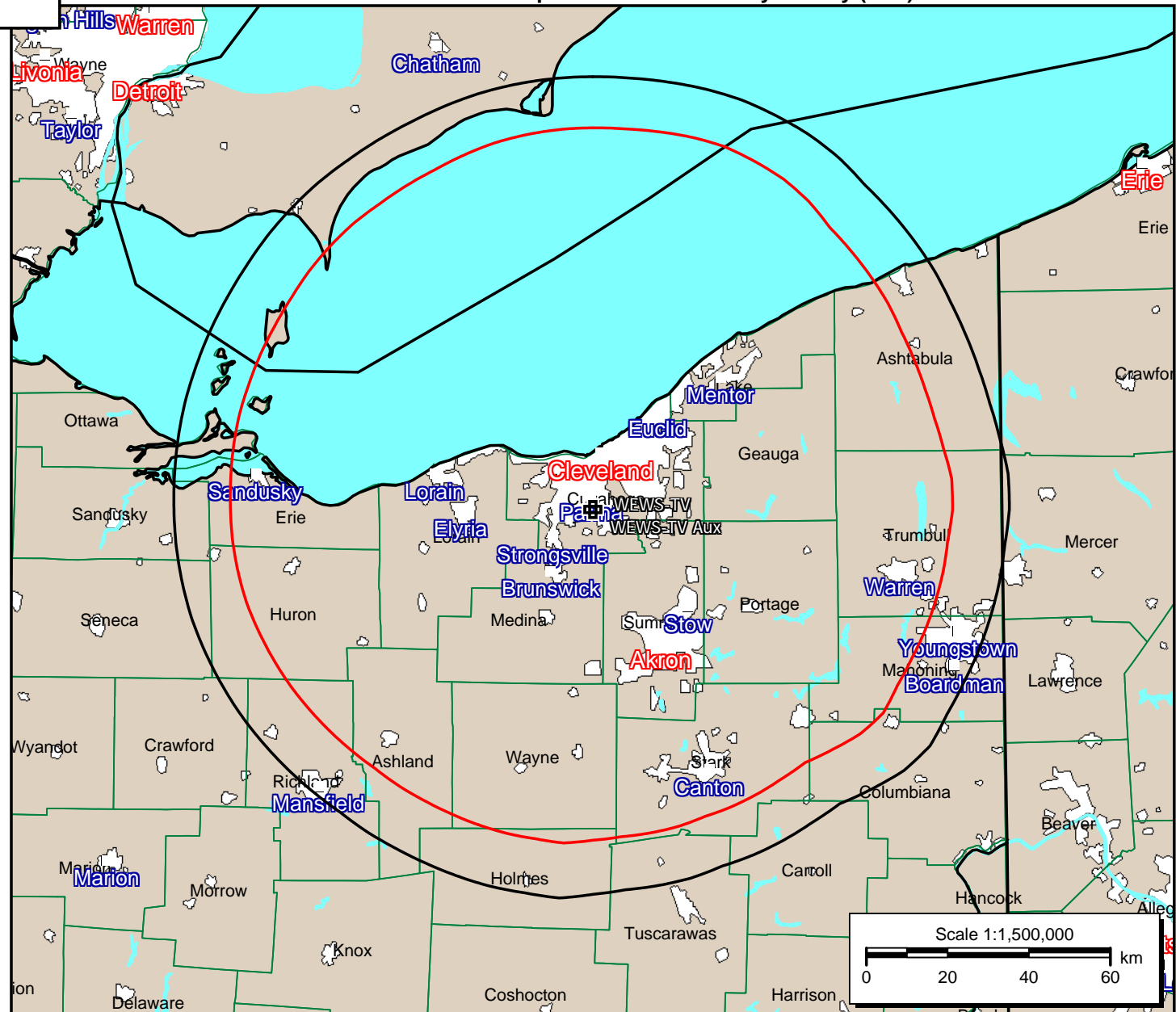
**WEWS-TV**  
BLCDT20091211ACS  
Latitude: 41-22-26 N  
Longitude: 081-43-04 W  
ERP: 1000.00 kW  
Channel: 15  
Frequency: 479.0 MHz  
AMSL Height: 560.5 m

**WEWS-TV**  
BLCDT20091211ACS  
Latitude: 41-22-26 N  
Longitude: 081-43-04 W  
ERP: 1000.00 kW  
Channel: 15  
Frequency: 479.0 MHz  
AMSL Height: 560.5 m

**WEWS-TV Aux**  
Latitude: 41-22-26 N  
Longitude: 081-43-03 W  
ERP: 850.90 kW  
Channel: 15  
Frequency: 479.0 MHz  
AMSLL Height: 464.0 m

**WEWS-TV Aux**  
Latitude: 41-22-26 N  
Longitude: 081-43-03 W  
ERP: 850.90 kW  
Channel: 15  
Frequency: 479.0 MHz  
AMSLL Height: 464.0 m

**Noise Limited Contour of WEWS Licensed Facility (Black) vs.  
Noise Limited Contour of Proposed WEWS Auxiliary Facility (Red)**



### Figure 1