



**FCC FORM 301, EXHIBIT 31  
ENVIRONMENTAL ASSESSMENT  
APPLICATION FOR  
CONSTRUCTION PERMIT  
FIRST BROADCASTING CAPITAL PARTNERS, LLC  
STATION WAOL(FM) AMELIA, OHIO  
CH 258A 2.0 KW (H&V) 175 METERS**

This environmental assessment was prepared on behalf of First Broadcasting Capital Partners, LLC (hereinafter FBCP), licensee of commercial FM station WAOL(FM), Amelia, Ohio, (Facility ID: 56226) in support of a FCC Form 301 minor change application for construction permit.

WAOL(FM) is licensed (FCC File Number BLH-20021101ABS) to operate on channel 258C3 (99.5 megahertz (MHz)) using a nondirectional antenna, effective radiated power (ERP) of 13 kilowatts (kW), circularly polarized, and antenna radiation center height above average terrain (HAAT) of 116 meters. The instant application proposes to change WAOL(FM) to a Class A facility, change the city of license from Ripley, Ohio to Amelia, Ohio, relocate WAOL(FM) to a new transmitter site, reduce ERP to 2.0 kW, and



increase the antenna radiation center HAAT to 175 meters.<sup>1</sup> The proposed antenna radiation center height is 160 meters above ground level.

Public access to the proposed communications site at which the proposed WAOL(FM) antenna and supporting structure will be located will be restricted by a fence with a locked gate. The fence will encircle the transmitter building and the antenna supporting structure. Only authorized personnel will be permitted within the enclosed restricted area.

### ENVIRONMENTAL ANALYSIS

#### WAOL(FM), AMELIA, OHIO

An analysis has been made of the human exposure to Radio Frequency Radiation (RFR) using the calculation methodology described in *OET Bulletin 65, Edition 97-01*, prepared by the FCC Office of Engineering and Technology. A vertical plane relative field factor of 0.16, obtained from

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<sup>1</sup> The proposed WAOL(FM) transmitter site is located at geographic coordinates 39° 06' 25" North Latitude, 84° 05' 50" West Longitude referenced to the 1927 North American Datum (NAD27).



the attached manufacturer's theoretical vertical plane radiation pattern for the proposed WAOL(FM) Electronics Research, Inc., type SHPX-3AE-HW, transmitting antenna, was used in the calculation of the WAOL(FM) power density. The WAOL(FM) circularly polarized ERP of 2.0 kW was used in the calculation of the WAOL(FM) power density, and to account for ground reflections, a coefficient of 1.6 was included in the calculations.

At the WAOL(FM) operating frequency of 99.5 MHz, the FCC Maximum Permissible Exposure (MPE) level for general population/uncontrolled exposures is 0.2 milliwatt per square centimeter ( $\text{mW}/\text{cm}^2$ ), and the FCC MPE level for occupational/controlled exposures is  $1.0 \text{ mW}/\text{cm}^2$ . At a reference point two meters above ground level at the base of the tower supporting the proposed WAOL(FM) antenna, the calculated WAOL(FM) power density is  $0.000137 \text{ mW}/\text{cm}^2$ , which is 0.0685 percent of the FCC MPE level for general population/uncontrolled exposures and 0.0137 percent of the FCC MPE level for occupational/controlled exposures.

Pursuant to the provisions of *OET Bulletin 65, edition 97-01*, only those licensees whose transmitters produce power density levels in excess of 5.0 percent of the applicable exposure limit are considered "significant



contributors” and share responsibility for actions necessary to bring the local RFR environment into compliance with FCC exposure limits. Since the proposed WAOL(FM) operation will contribute less than 5.0 percent of the more restrictive MPE at any location on the ground at the proposed site, WAOL(FM) is not considered a “significant contributor” to the local RF exposure environment.

While not a “significant contributor” to the exposure levels at any location on the ground, the WAOL(FM) operation will be a “significant contributor” to exposure at locations on the supporting structure near the WAOL(FM) transmitting antenna. If work is done on the tower in an area where overexposure could occur, FBCP take all actions necessary to prevent the overexposure of workers on the tower, including reducing WAOL(FM) transmitter power or ceasing WAOL(FM) operation completely.



CERTIFICATION

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge. Executed on January 19, 2007.

A handwritten signature in black ink that reads "Tiffany E. Shaw". The signature is written in a cursive, flowing style.

Tiffany E. Shaw

**SHPX-3AE-HW**

**ANTENNA THEORETICAL VERTICAL PLANE RADIATION PATTERN  
(RELATIVE FIELD)**

**Exhibit 31**

STATION WAOL(FM)      AMELIA, OHIO  
CH 258A      2.0 KW (H&V)      175 METERS

**Type:**

**SHPX3H**

**Channel:**

**239**

**Directivity:**

**Numeric**

**dBd**

**Location:**

**Main Lobe:**

**1.01**

**0.05**

**Beam Tilt:**

**0.00**

**Horizontal:**

**1.01**

**0.05**

**Polarization:**

**Circular**

**Relative Field**

