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# FCC FORM 301, EXHIBIT 43
# ENVIRONMENTAL ANALYSIS
# APPLICATION FOR CONSTRUCTION PERMIT
# WPXI-TV HOLDINGS, INC.
# STATION WJAC-DT
# JOHNSTOWN, PENNSYLVANIA
# CH 34 1,000 KW (MAX-DA, BT) 386 METERS

This environmental analysis was prepared on behalf of WPXI-TV Holdings, Inc. (hereinafter WPXI-TV), licensee of station WJAC-DT, Johnstown, Pennsylvania, in support of an FCC Form 301 application for construction permit

WJAC-DT is licensed (FCC File Number BLCDT-20030711AAX) for digital television (DTV) operation on channel 34 (590 to 596 megahertz (MHz)) with 250 kilowatts (kW) maximum average effective radiated power (ERP), horizontally polarized, 383 meters antenna radiation center height above average terrain (HAAT), from a site located at geographic coordinates 40º 22' 17" North Latitude, 78º 58' 56" West Longitude, referenced to the 1927 North American Datum. The WJAC-DT antenna radiation center is 100 meters above ground level (AGL).

The instant application proposes to increase the WJAC-DT maximum average ERP from 250 kW to 1,000 kW and to increase the WJAC-DT antenna radiation center HAAT from 383 meters to 386 meters to conform the authorized antenna radiation center HAAT with that computed using the FCC's *tv_proc*ess computer program. No other changes to the licensed WJAC-DT facilities are proposed.

Public access to the existing WJAC-DT antenna and supporting structure is restricted by a two-meter chain link fence, topped with barbed wire, which encircles the WJAC-DT supporting structure.

An analysis has been made of the human exposure to RFR using the calculation methodology described in *OET Bulletin 65, Edition 97-01*, prepared by the FCC Office of Engineering and Technology. A conservative vertical plane relative field factor of 0.14, obtained from the manufacturer's theoretical vertical plane radiation pattern for the existing WJAC-DT Dielectric Communications, type TFU-24DSC-R C170, transmitting antenna was used in the calculation of the WJAC-DT power density. The WJAC-DT maximum average ERP of 1,000 kW was used in the calculation of the WJAC-DT power density. To account

for ground reflections, a coefficient of 1.6 was included in the calculation. The WJAC-DT power density calculations reported herein were made at 590 MHz, the lower edge of the WJAC-DT channel.

The FCC maximum permissible exposure (MPE) for general population/uncontrolled exposure is 0.39 milliwatt per square centimeter ($mW/cm^2$) at 590 MHz. The FCC MPE limit for occupational/controlled exposure is 1.97 $mW/cm^2$ at 590 MHz. At a reference point two meters AGL at the base of the WJAC-DT supporting structure, the calculated WJAC-DT power density is 0.068 $mW/cm^2$, which is 17.4 percent of the FCC MPE limit for general population/uncontrolled exposure, and 3.45 percent of the FCC MPE limit for occupational/controlled exposure.

Pursuant to the provisions of *OET Bulletin 65, edition 97-01*, at multiple-user sites, 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 calculated power density indicates that the WJAC-DT operation could contribute more than

5.0 percent of the maximum permissible exposure limit for general population/uncontrolled exposure at the reference point, WJAC-DT may be a "significant contributor" to the local RF exposure environment and contributions to exposure from other sources in the vicinity of WJAC-DT must be taken into account when determining total exposure at the proposed multiple use site. The WJAC-DT site is located in an extremely remote area where access by the general population is highly unlikely.

Experience has shown that in many cases the actual exposure present at ground level is much less than that predicted using the conservative assumptions incorporated into the *Bulletin 65* methodology that includes the use of a 60 percent reflection factor. The difficulty predicting exposures at multiple use sites is exacerbated by many additional factors that cannot be easily modeled including, but not limited to, tower reflections, obstructions, and the actual antenna vertical plane radiation patterns for all transmitting antennas in use at the site. Accordingly, once construction is complete, WPXI-TV will conduct measurements at the site to demonstrate that the addition of WJAC-DT does not result in exposures exceeding the FCC MPE for general population/uncontrolled exposure at any publicly accessible location at or near the site. WPXI-TV will submit

measurement data to the FCC demonstrating compliance with Section 1.1310 of the FCC Rules in support of the WJAC-DT program test authority and license application.

The WJAC-DT operation will be a "significant contributor" to exposure at locations on the supporting structure near the WJAC-DT transmitting antenna. If work is done on the tower in an area where overexposure could occur, WPXI-TV will take action necessary to prevent the overexposure of workers on the tower, including reducing WJAC-DT transmitter power or ceasing WJAC-DT operation completely. Additionally, WPXI-TV will cooperate with other site users to assure that work is performed at the site without exceeding the FCC MPEs for occupational/controlled exposure.

The instant proposal is categorically excluded from environmental processing since none of the conditions of Sections 1.1306(b)(1), (2), or (3) of the FCC Rules would be involved for the following reasons:

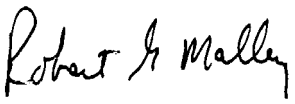
1. The WJAC-DT channel 34 DTV facility utilizes an existing antenna supporting structure located at a multiple use communications site.

2. The provision of Section 1.1306(b)(2) of the FCC Rules pertaining to the use of high-intensity strobe lighting does not apply as an existing supporting structure will be used, and no change in the existing obstruction lighting is proposed.

3. Finally, with regard to RFR exposure concerns, compliance with applicable FCC MPE limits will be demonstrated by measurement and maintained through cooperation with other users at the site.

CERTIFICATION

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge. Executed on March 4, 2004.



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