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**ENGINEERING EXHIBIT EE-1:**

**KM LPTV OF ATLANTA, L.L.C.  
CLASS A LOW POWER TELEVISION STATION WSKC-LP**

**CHANNEL 22(+) ATLANTA, GA**

**APPLICATION FOR AUTHORITY TO MAKE  
CHANGES IN CLASS A  
LOW POWER TELEVISION BROADCAST STATION**

**OCTOBER 2005**

**FCC FACILITY NUMBER  
35090**

**ENGINEERING EXHIBIT  
IN SUPPORT OF  
AN APPLICATION FOR AUTHORITY TO MAKE  
CHANGES IN CLASS A  
LOW POWER TELEVISION BROADCAST STATION  
CLASS A LOW POWER TELEVISION STATION WSKC-LP**

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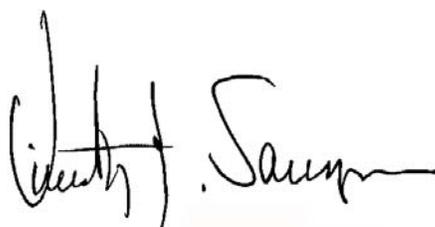
1. F.C.C. Form 346 or Form 301-CA (technical sections)
2. F.C.C. Form 346 or Form 301-CA (certification)
3. Declaration of Engineer
4. Narrative Statement
5. Figure 1, Predicted 74 dBu Coverage Contours
6. Figure 2, Directional Antenna Details
7. Figure 3, Allocation Study

## DECLARATION

I, Timothy Z. Sawyer, declare and that I have provided engineering services in the area of telecommunications since 1969. My qualifications are a matter of record with the Federal Communications Commission. I am a senior engineer with the firm of Mullaney Engineering, Inc., consulting radio telecommunications engineers with offices in Gaithersburg, Maryland.

The firm of Mullaney Engineering, Inc., has been retained by KM LPTV OF ATLANTA, L.L.C., to prepare the instant engineering exhibit in support of *an application for authority to make changes in Class A Low Power Television Broadcast Station WSKC-LP, Atlanta, Georgia.* (FCC FACILITY ID NUMBER: 35090 ).

All facts contained herein are true of my own knowledge except those stated to be on information and belief, and as to those facts, I believe them to be true. I declare under the penalty of perjury that the foregoing is true and correct.

A handwritten signature in black ink, appearing to read "Timothy Z. Sawyer". The signature is written in a cursive, flowing style.

Digitized Signature - Original ON FILE - Timothy Z. Sawyer

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Timothy Z. Sawyer

Executed on the 5<sup>th</sup> day of October 2005

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**NARRATIVE STATEMENT:**

**I. GENERAL:**

This engineering statement and the instant engineering exhibit of which it is part has been prepared on behalf of KM LPTV OF ATLANTA, L.L.C., (hereinafter "KM").

By means of the instant application, KM proposes to make certain minor changes to the technical facilities authorized for station WSKC-LP. Specifically KM proposes to change the antenna manufacture and model number, add 1-degree of electrical beam tilt, and reduce the maximum effective radiation (ERP) of the station at (towards) the radio horizon. No other changes are proposed.

In accordance with the Commission's rules and policies, the proposed changes have been classified by the Commission as "minor" with regards to application processing and grant procedures.

The facilities will be built to comply with the *FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields* and the instant proposal is categorically excluded from environmental processing pursuant to the provisions of Section 1.1306 of the Commission's Rules. A more detailed discussion of environmental factors is included under the heading Environmental Considerations below.

Information requested as exhibits in response to technical questions on FCC Form 346 or FCC Form 301-CA (whichever form is applicable) are incorporated in the following paragraphs, figures, and tables.

Processing of this application is requested under the rules currently in effect at the time of filing.

## **II. ENGINEERING DISCUSSION:**

### **A. Transmitter/Antenna Location:**

KM proposes to make changes in its directional antenna system by adding 1-degree of electrical beam tilt and reduce the authorized effective radiated power (ERP) at (towards) the radio horizon to 127-kilowatts and change the antenna make and model. The maximum ERP at any horizontal and vertical angle remains at 150-kilowatts (as previously authorized).

The proposed transmitter site /tower is the existing tower and transmitter site of the station. No change in the height of the tower is proposed or the location of the antenna upon the tower. The tower is less than 200 feet in height and does not require registration with the FCC or notification to the FAA.

The antenna will be side-mounted on the existing 54.9 meter tall tower with a center of radiation at 34.0 meters above ground level (AGL), and 546.0 meters above mean sea level (AMSL).

### **B. Coverage & Service Contours:**

Figure 1, is a map showing the location of the present and proposed 74 dBu f(50,50) contours. As can be seen from this figure, the protected contours of the proposed and present operation overlap - therefore the requested changes are classified as "minor" in accordance with the Commission's rules.

### **C. Proposed Antenna:**

The antenna consists of a directional Dielectric (DIE) Model TLP-12 C380 slotted-wave antenna. Information regarding the antenna is included in Figure 2

The horizontal field pattern (directional pattern) is identical to that previously proposed by KM.

The purpose of this application is to specify 1-degree of electrical beam tilt for the antenna and change the antenna type and model.

**D. Allocation Study:**

The Commission's LP-1 computer program and the Longley Rice propagation method described in OET Bulletin No. 69 were used in this determination.

The Commission's LP-1 computer program predicts that interference will occur to the following stations based upon contour overlap

CALL	CHANNEL	SERVICE	CITY, STATE
WPBA-DT	21	DTV	ATLANTA, GA
WCNC-DT	22	DTV	CHARLOTTE, NC
W22CZ	22	NTSC	BLUE RIDGE, GA
W22AC	22	NTSC	HARTWELL & ROYSTON

However each station has been analyzed using the methods described in OET Bulletin No. 69, and the results indicate that no interference (unmasked) or new interference above 0.5% of the service population of the station studied will occur.

Accordingly, KM respectfully requests a waiver of Sections 73.6011 and 74.705 of the Commission's rules, based on the results of the Longley-Rice terrain dependent propagation study presented herein, as expressly permitted by Section 74.705(e) of the Commission's rules, since the proposed WSKC-LP facilities would not be likely to cause new interference to any current or proposed (application's on-file) facilities. The results of the OET Bulletin No. 69 based study are contained with Figure 3.

**E. Environmental Considerations:**

The applicant believes its proposal will not significantly affect the environment for the following reasons.

The proposal does not meet any of the criteria specified in Section 1.1307 of the FCC Rules. More specifically, the proposed facilities are not known to fall within any of the categories enumerated in Sections 1.1307(a)(1)-(7) and will not involve the use of high intensity white lights.

Furthermore, operation of the proposed facility will not involve the exposure of workers or the general public to levels of radio frequency electromagnetic fields exceeding guidelines adopted by the Federal Communications Commission. (The current FCC guidelines are based upon criteria contained in the National Council of Radiation Protection and Measurements (NCRP) Report No.86 (1986) and ANSI/IEEE C95.1-1992.)

Based upon a worst case downward field value of 0.15 for all angles below the horizon greater than 10 degrees, and a peak horizontal power of 150- kilowatts, with an antenna height of 34.0 meters above ground. The power density level 2-meters above ground is predicted to be 0.0551 mW/cm<sup>2</sup> or less. The computed power density is 3.17 % of the Commission's maximum permissible exposure (MPE) guidelines for a controlled area and 15.9 % for an uncontrolled area.

The applicant will fully-cooperate and coordinate with all site users (if any) as required by the Commission's rules.

**III. SUMMARY:**

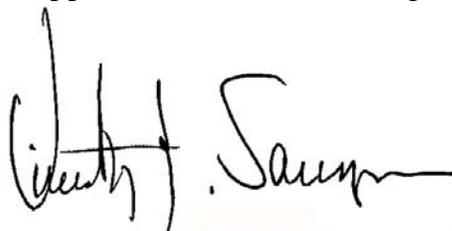
KM proposes to MODIFY the construction permit facilities of Class-A Low-Power Television Station WSKC-LP to add the use of electrical beam tilt, to its authorized directional antenna system, the use of electrical beam tilt will decrease the effective radiated power towards the radio horizon to 127-kilowatts. The maximum radiated power at any horizontal and vertical angle will remain unchanged at 150-kilowatts. The proposed station will operate on analog Television Channel 22(+)

Operation as proposed herein would not cause/increase any normally prohibited contour overlap using a terrain dependant - OET Bulletin No. 65 review, and would not have any significant impact on the environment. The proposed operation will not create any new prohibited interference.

Waivers of Sections 73.6011 and 74.705 of the Commission's Rules are hereby requested as needed or required.

The proposed operation is fully in compliance with all other areas of the Commission's rules and applicable international agreements.

5 October 2005



Digitized Signature - Original ON FILE - Timothy Z. Sawyer

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Timothy Z. Sawyer

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