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**ENGINEERING EXHIBIT EE-1:**

**KM LPTV OF ATLANTA, L.L.C.**

**CLASS A TELEVISION STATION WSKC-CA  
ANALOG CHANNEL 22, ATLANTA GA**

**APPLICATION FOR SPECIAL TEMPORARY AUTHORITY**

**CLASS A TELEVISION BROADCAST STATION**

**FEBRUARY 17, 2006**

**FCC FACILITY NUMBER  
35090**

**ENGINEERING EXHIBIT  
IN SUPPORT OF  
AN APPLICATION FOR SPECIAL TEMPORARY AUTHORITY  
CLASS A TELEVISION BROADCAST STATION**

**CLASS A TELEVISION STATION WSKC-CA  
ATLANTA, GEORGIA**

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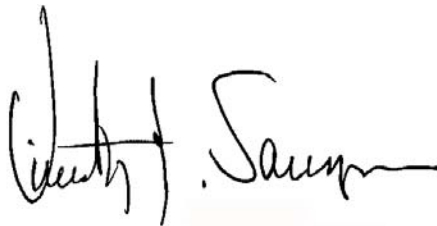
1. Declaration of Engineer
2. Narrative Statement
3. Figure 1, Predicted 74 dBu Coverage Contours
4. Figure 2, Directional Antenna Details
5. Figure 3, OET Bulletin No. 69 Results.

## **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 Special Temporary Authorization Concerning Class A Television Broadcast Station WSKC-CA 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 fluid and cursive, with the first name "Timothy" and last name "Sawyer" clearly distinguishable.

Digitized Signature - Original ON FILE - Timothy Z. Sawyer

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Timothy Z. Sawyer

Executed on the 17<sup>th</sup> day of February 2006

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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 is requesting special TEMPORARY authorization to make changes to the directional antenna system utilized by station WSKC-CA. Specifically KM proposes to increase the ERP of the station from 127-kilowatts at the radio horizon (150-kilowatts maximum any angle) to 150 kilowatts at the radio horizon (310-kilowatts maximum any angle) by means of the addition of mechanical beam tilt to the existing antenna.

No other changes are proposed. The antenna location, antenna heights above ground, height above average terrain and height above sea level remain as licensed.

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 by exhibits in response to questions concerning this engineering STA are incorporated in the following paragraphs, figures, and/or tables.

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

## **II. ENGINEERING DISCUSSION:**

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

KM proposes no changes in the currently authorized antenna location.

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

Figure 1, is a map showing the location of the present (authorized) and proposed (STA) 74 dBu f(50,50) contours. As discussed elsewhere in this application (request) and stated here, the primary purpose of this request is to improve service to areas located within the present contour by increasing the downward radiation from the antenna. The topography within the present service area (northern Atlanta suburbs) is characterized by rolling (hilly) and occasional mountainous terrain. Such terrain produces pockets of marginal (or unusable) signal strength well within the primary service contour of the station.

KM proposes to try to correct (on a STA basis) for this deficiency within its present service area by increasing the beam tilt (downward) of the antenna mechanically by 1 degree in the direction of the main lobe at 90 degrees true.

**C. Proposed Antenna:**

The antenna is a Dielectric (DIE) Model TLP-12-C380 custom antenna. This antenna employs 1.0 degrees of electrical beam tilt and is the licensed antenna. As stated previously 1 degree of mechanical beam tilt will be added to the antenna at an azimuth of 90 degrees true. The addition of the mechanical tilt will cause a minor increase in the horizontal radiation pattern opposite the direction of beam tilt. This is a saucer effect - as you tilt one side down the opposite side must come up. As the antenna already employs electrical beam tilt - the result is that the radiation at the horizon - opposite the mechanical beam tilt azimuth must increase slightly. The results of the slight increase in radiation at the horizon to the west can be seen in Figure 1 as the slight extension beyond the existing service contour. As the radiation opposite the mechanical tilt can up the radiation at the radio horizon inline with the mechanical tilt decreases - therefore to compensate for this decrease in the primary lobe of the antenna the overall ERP of the station is raised from 127 kilowatts to 150 kilowatts. As can be also seen in Figure 1 this slight increase in ERP to the east (0.7 dB) recovers the service area that would normally have been lost by the decrease in radiation from the antenna at the radio horizon - as a result of the additional beam tilt in that direction.

The overall effect is that the service area is maintained as near as possible to the existing service area, while the downward signal (delivered to receivers) is improved by as much as 3 Db. The details of the antenna are included herein as Figure 2.

**D. Allocation Study:**

Use of the marginally higher power requested by WSKC-CA with the proposed changes to its licensed directional antenna will not result in an increase in interference to any operating full service analog or digital television stations Class A television stations or TV translator stations.

The Commission's LP-1 computer program and the Longley Rice propagation method described in OET Bulletin No. 69 were used in this determination. A summary tabulation of the OET Number 69 Styled analysis is included herein as Figure 3.

**E. Environmental Considerations:**

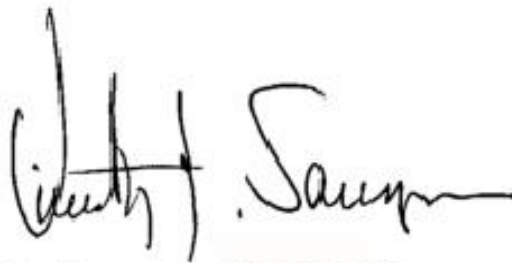
The applicant believes its proposal will not significantly affect the environment for the following reasons.

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 maximum power (at all angles) of 310- kilowatts, with an antenna height of 34.0 meters above ground. The power density level 2-meters above ground is predicted to be 0.1138 mW/cm<sup>2</sup> or less. The computed power density is 6.55 % of the Commission's maximum permissible exposure (MPE) guidelines for a controlled area and 32.73 % for an uncontrolled area.

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

17 February 2006

A handwritten signature in black ink, appearing to read "Timothy Z. Sawyer". The signature is fluid and cursive, with a large initial "T" and "S".

Digitized Signature - Original ON FILE - Timothy Z. Sawyer

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