

DENNY & ASSOCIATES, P.C.
CONSULTING ENGINEERS
OXON HILL, MARYLAND

**AMENDMENT TO APPLICATION FOR
FM BROADCAST STATION LICENSE
(FCC FILE NO. BLH-20030604ACH)
AMFM RADIO LICENSES, LLC
STATION WKTU(FM)
LAKE SUCCESS, NEW YORK
CH 278B 6.0 KW (H&V) 415 METERS**

ENGINEERING STATEMENT

INTRODUCTION

This engineering statement was prepared on behalf of AMFM Radio Licenses, LLC (hereinafter AMFM), licensee of commercial FM station WKTU, Lake Success, New York, to provide additional information concerning public exposure to radiofrequency radiation (RFR) at the Empire State Building (ESB) in support of the pending WKTU license application (FCC File No. BLH-20030604ACH). An extensive protocol for the avoidance of worker overexposure is in use at the ESB. Because of the relatively low WKTU effective radiated power (ERP) and the large number of high power broadcast facilities authorized to operate at the ESB, no change to the existing protocol is necessary to avoid the overexposure of workers at the site.

Amendment to Application for
FM Broadcast Station License
Station WKTU(FM), Lake Success, New York

Page 2

Therefore, the survey did not include measurements made for the purpose of determining the exposure of workers.

DISCUSSION

Measurements were made on August 29, 2003, between 5:00 a.m. and 7:00 a.m. by the undersigned assisted by Josh Hadden, Director of Engineering for the Clear Channel New York City radio stations. The measurements were made at eight locations on the 86th floor outdoor observatory customarily used for this purpose as previous surveys have identified the 86th floor outdoor observatory area of the ESB as having the highest exposure levels found in any publicly accessible area at the site. The measurement locations are shown in the sketch of Figure 1 of this statement.

A Narda, model 8718, meter and a Narda, model B8742D, conformal general population electric field probe were used to make the exposure

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Amendment to Application for
FM Broadcast Station License
Station WKTU(FM), Lake Success, New York

Page 3

measurements.¹ The frequency response of the B8742D electric field probe is shaped so that when used in conjunction with the 8718 meter, the meter indicates exposure in terms of percentage of the maximum permissible exposure (MPE) limit for general population/uncontrolled exposure. To determine the spatially averaged exposure present at each measurement location, the electric field probe was scanned in a vertical line at a constant rate from head to ankle (from approximately 2 meters above the observation deck to approximately eight centimeters above the observation deck) over a period of ten to twelve seconds. During the scan period, the meter recorded exposure approximately four times per second, and, at the end on the scan, the meter displayed the average of all the exposure measurements recorded during the scan. These data are tabulated in Figure 2 of this statement.

All broadcast stations at the ESB were operating with their authorized main facilities during the survey period except for noncommercial educational television station WNYE-TV, channel 25, New York, New York.

¹ The Narda, model 8718 meter (Serial Number 06002), used in the survey was last calibrated on September 5, 2002, and was on loan to this firm from the Narda engineering department. This firm's Narda, model B8742D (serial Number 01004), conformal general population electric field probe used in the survey was last calibrated on October 15, 2002.

WNYE-TV began experiencing technical difficulties prior to the beginning of the scheduled survey period, and, because of immediately irreconcilable problems with the transmitter, WNYE-TV remained off the air for the duration of the survey period. The decision was made to proceed with the survey because the absence of the WNYE-TV signal was determined to have little effect on the aggregate exposure levels present on the 86th floor outdoor observatory.² The WNYE-TV antenna radiation center is approximately 73 meters above the level of the 86th floor outdoor observatory. Taking into account the WNYE-TV maximum ERP of 2,540 kilowatts (kW) and a vertical plane relative field factor for the WNYE-TV slot antenna of 0.03 at steep depression angles between 80 and 90 degrees, the calculated WNYE-TV power density at a point two meters above the 86th floor outdoor observatory deck would be two percent of the maximum permissible exposure limit for general population/uncontrolled exposures. Increasing the overall exposure

² Slot-type antennas of the type used by WNYE-TV have virtually no radiation at steep depression angles. Further, the path between the WNYE-TV channel 25 antenna and the 86th floor outdoor observatory is obstructed to a great extent by building features and other appurtenances below the antenna. Finally, the dominant contributors to exposure on the 86th floor outdoor observatory operate in the 30 to 300 megahertz frequency range where the most stringent exposure limit applies.

measured at all of the survey locations by two percent would not result in exposures approaching the MPE limit for general population/uncontrolled exposures. Prior to obtaining the measurement data reported herein, the WKTU transmitter at the ESB was activated and adjusted so that the authorized WKTU ERP of 6.0 kW was achieved.

FINDINGS

Figure 2 of this statement is a tabulation of the measurement data obtained during the survey. As the data show, the exposure levels present at the eight representative measurement locations on the 86th floor outdoor observatory are well below the MPE limit for general population/uncontrolled exposure with WKTU operating at the ESB with its authorized ERP of 6 kW. Operation of WKTU as authorized by the outstanding construction permit (FCC File Number BPH-20011001AAV) and as specified in the pending license application does not result in a substantive increase in the exposure levels present at any of the survey locations and in no case do the exposure levels measured mildly approach the MPE limit for general population/uncontrolled exposure at any measurement location.

DENNY & ASSOCIATES, P.C.
CONSULTING ENGINEERS
OXON HILL, MARYLAND

Amendment to Application for
FM Broadcast Station License
Station WKTU(FM), Lake Success, New York

Page 6

CERTIFICATION

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge. Executed on September 8, 2003.

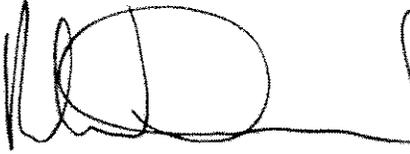
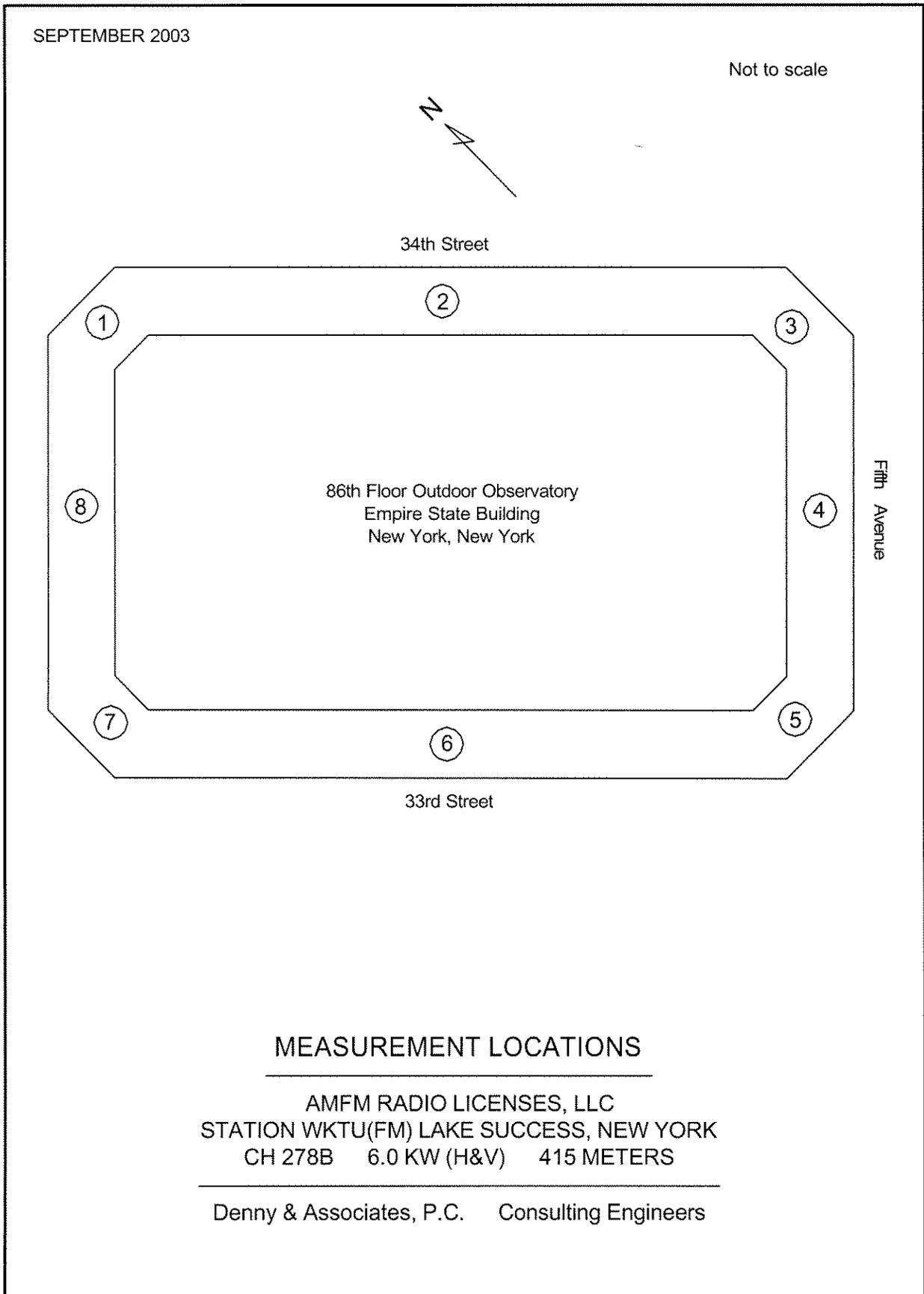

Robert W. Denny, Jr., P.E.



Figure 1



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**MEASURED RF EXPOSURE LEVELS
 86TH FLOOR OUTDOOR OBSERVATORY
EMPIRE STATE BUILDING**

<u>Measurement Location¹</u>	<u>Average Whole-Body Exposure Level</u> (% MPE ²)
1	53.6
2	14.6
3	10.7
4	9.92
5	16.0
6	5.55
7	31.7
8	24.8

Note: Data shown are with WKTU in operation as specified in BLH-20030604ACH. The survey was taken on August 29, 2003, from 5:00 a.m. to 7:00 a.m.

¹ Refer to Figure 1 of this engineering statement for identification of measurement locations.

² Referenced to the maximum permissible exposure limit for general population/uncontrolled exposure.