ENGINEERING REPORT

RADIO FREQUENCY EXPOSURE MEASUREMENTS
4 TIMES SQUARE BUILDING

At the request of the Durst Organization, owners and managers of the 4 Times Square Building, also referred to as the Conde Nast Building, the undersigned conducted measurements of the ambient level of power density at the upper levels of that building upon the installation there of a master FM transmitting antenna intended initially to serve as the auxiliary facilities of five FM stations presently having their main facilities at the Empire State Building or the World Trade Center. These stations are WAXQ, WHTZ, WKTU, WLTW, and WTJM, all of which are licensed to entities owned by AMFM, Inc.

Measurements were made with a Holaday HI-3001 Broadband RF survey meter, S/N 33178, last calibrated on April 9, 1999. Measurements were made on February 5, 2000, on the tower base level, the lowest Tower 2 catwalk, and the 50th floor roof. At the latter level, measurements were made only with the five stations in operation at the site. In the other two areas, the measurements were made with the stations both on the air and off.

Because the public has no access to these areas, we may properly employ the FCC standards for controlled areas, and, since the expected contributors are in the 100 MHz range, the reference level is 1.0 mw/cm^2. Power density levels were not predicted to approach that level in the areas under study and that was found to be the case.

Where the RF levels are expected to approach the reference value, it is typical to make several measurements at each location and then average them, to approximate whole-body exposure, that being the basis for the standard. However, expecting lower fields, our procedure was to explore the areas in question to first determine the general RF level, and

then to note locations at which higher levels were observed. For the most part, the higher levels resulted from reradiation from the many metallic objects in these areas. The notes were taken in V^2M^2, which are the units of the meter's scale, but the data herein has been converted to the equivalent power density in mw/cm^2.

Figure 1 shows the general layout of the tower base level, and provides data for the situation prior to putting the five FM stations in operation. The general RF level was quite low, but was generally measurable. Shown on the sketch are values of power density shown at specific locations. Figure 2 provides the same information, but with the FM stations operating as specified in their permits. As indicated, there was an increase of about an order of magnitude in the RF levels, but, again, the levels were well below the reference, with only two exceptions. At the transmission line elbow in the center of the tower, a field of approximately 1.0 mw/cm^2 was measured, and one could observe fields somewhat in excess of that value immediately adjacent to the tower structural members. Since these fields collapse at distances of a few centimeters from the metallic object, they are of no biological significance when related to a whole-body exposure standard. The only other places where the fields were elevated were at the handrails at the roof edge. Although these levels don't approach the reference, and are equally insignificant biologically, it should be fairly easy to ground the handrails so as to eliminate this "antenna".

As noted, certain measurements were made on a catwalk about 12 feet above the tower base. A maximum field of 0.13 mw/cm^2 was measured there, immediately in front of a parabolic grid antenna.

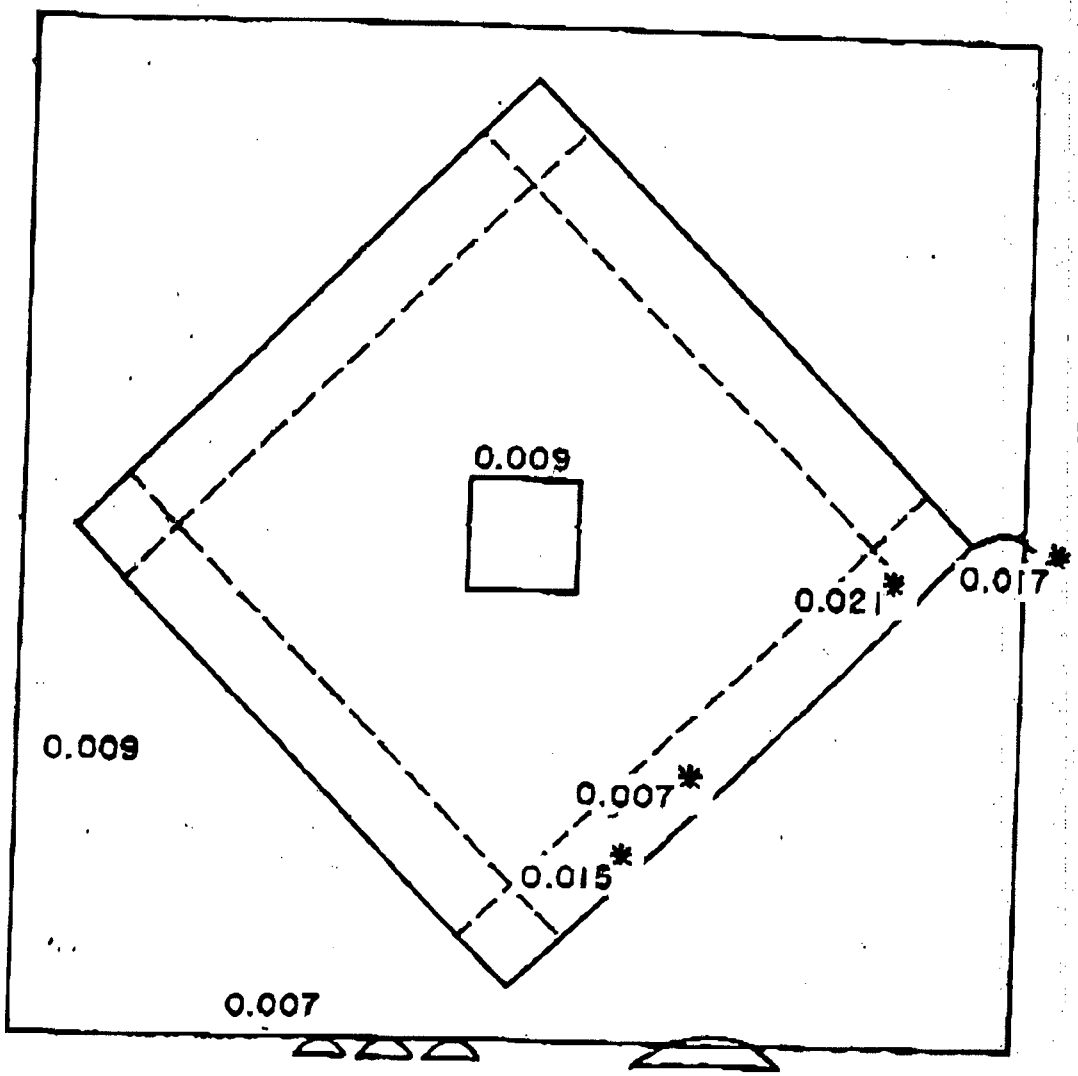
Figure 3 provides data for the 50th floor roof. Here, the maximum field was found to be 0.08 mw/cm^2, 8 percent of the reference. A hot spot of about 0.2 mw/cm^2 was associated with a window washing platform. Since the platforms can be picked up and moved around, that level is subject to change, but, in any event, this is another isolated hot spot having no biological significance.

A measurement of 0.024 mw/cm^2 was made at the platform railing about 15 feet up the side of a cooling tower.

All in all, the ambient power density levels are well below the reference throughout the areas studied. Personnel may work in these areas as necessary, without restriction. Although one cannot precisely predict the effect of adding additional FM stations to this system, it would appear that one could at least triple the number of stations without expecting excessive RF levels.

NEIL M. SMITH

February 11, 2000

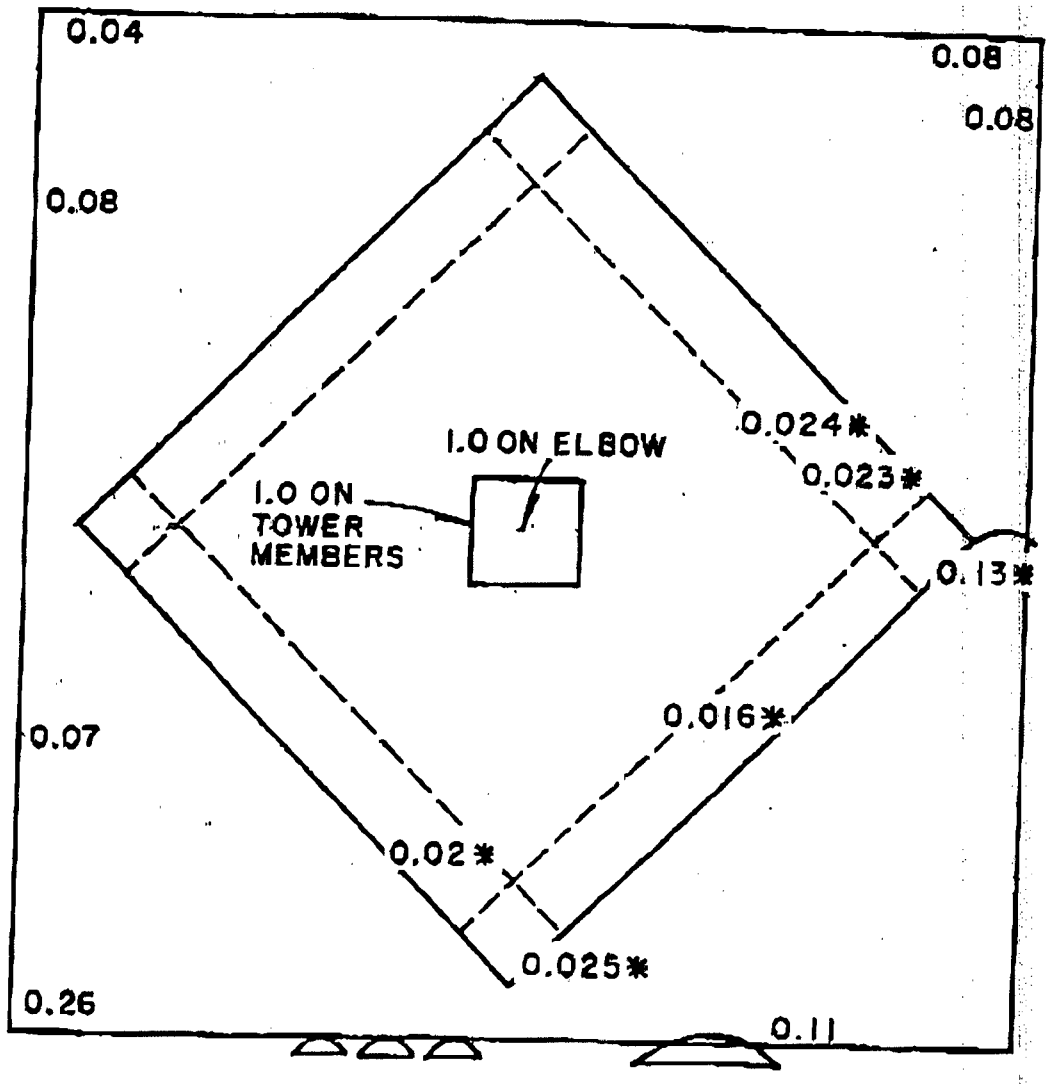


MEAS. IN MW/CM²
* ON CATWALK

FIGURE 1

TOWER BASE LEVEL
STATIONS OFF

GENERAL AMBIENT LEVEL : 0.003-0.005 MW/CM²



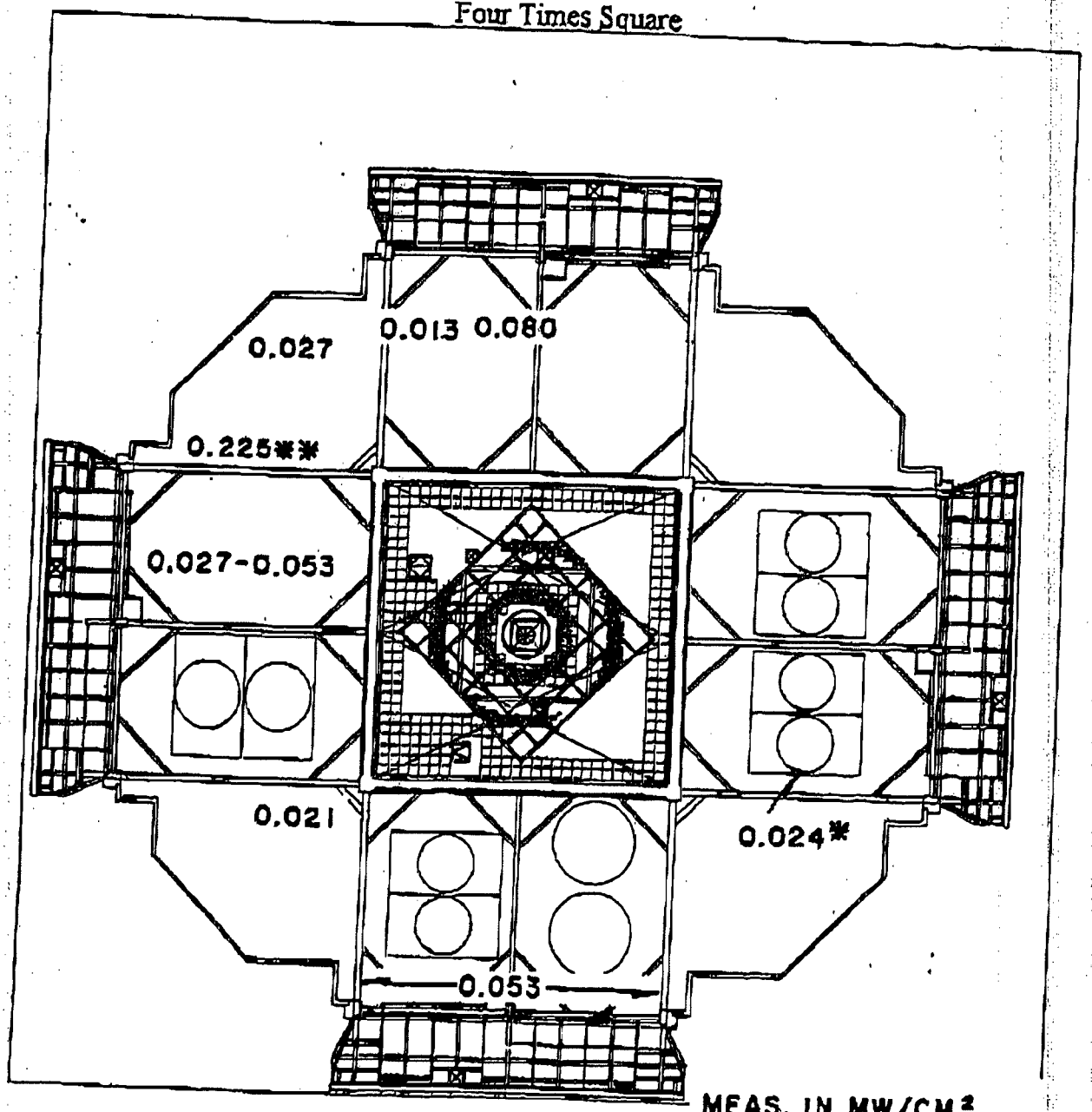
MEAS. IN MW/CM^2
* ON CATWALK

FIGURE 2

TOWER BASE LEVEL
STATIONS ON

GENERAL AMBIENT LEVEL : 0.03~0.04 MW/CM^2

Riser Management Systems
Four Times Square



MEAS. IN MW/CM²
* ON CATWALK RAILING
** ON WINDOW WASHING PLATFORM

FIGURE 3

50TH FLOOR ROOF
STATIONS ON

GENERAL AMBIENT LEVEL: 0.013-0.027 MW/CM²