

SMITH AND FISHER

SECOND 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, this firm conducted measurements in February, 2002, 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 having their main facilities at the Empire State Building or the World Trade Center. We have now conducted another set of measurements since there are now eight FM stations having auxiliary facilities at this location: WAXQ, WHTZ, WKTU, WLTW, WWPR, WPAT-FM, WNYC-FM, and WSKQ-FM.

The previous measurements were made with a Holaday HI-3001 Broadband RF survey meter. That meter not being available, these new measurements were made with a Narda Model 8715 digital survey meter (S/N 06015) and Model 8742D Probe (SN06001), both calibrated October, 2001. Because the public has no access to these areas, we may properly employ the FCC standards for controlled areas. Power density levels were not predicted to exceed that level in the areas under study and that was found to be the case. Measurements were made on April 2, 2002, on the tower base level, the first and second catwalks, and the 50th floor roof.

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

SMITH AND FISHER

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.

Figure 1 shows the general layout of the tower base level. Shown on the sketch are values of power density at specific locations with the FM stations operating as specified in their permits. As indicated, the levels were generally well below the reference, but with certain exceptions. At the four corners and on the upper of the two catwalks, the exposure reached as much as 50 percent of the standard, and at the transmission line elbow, it was 70 percent of the standard. These higher fields tended to be associated with metallic objects. Since these fields collapse at distances of a few centimeters from the object, they are of no biological significance when related to a whole-body exposure standard.

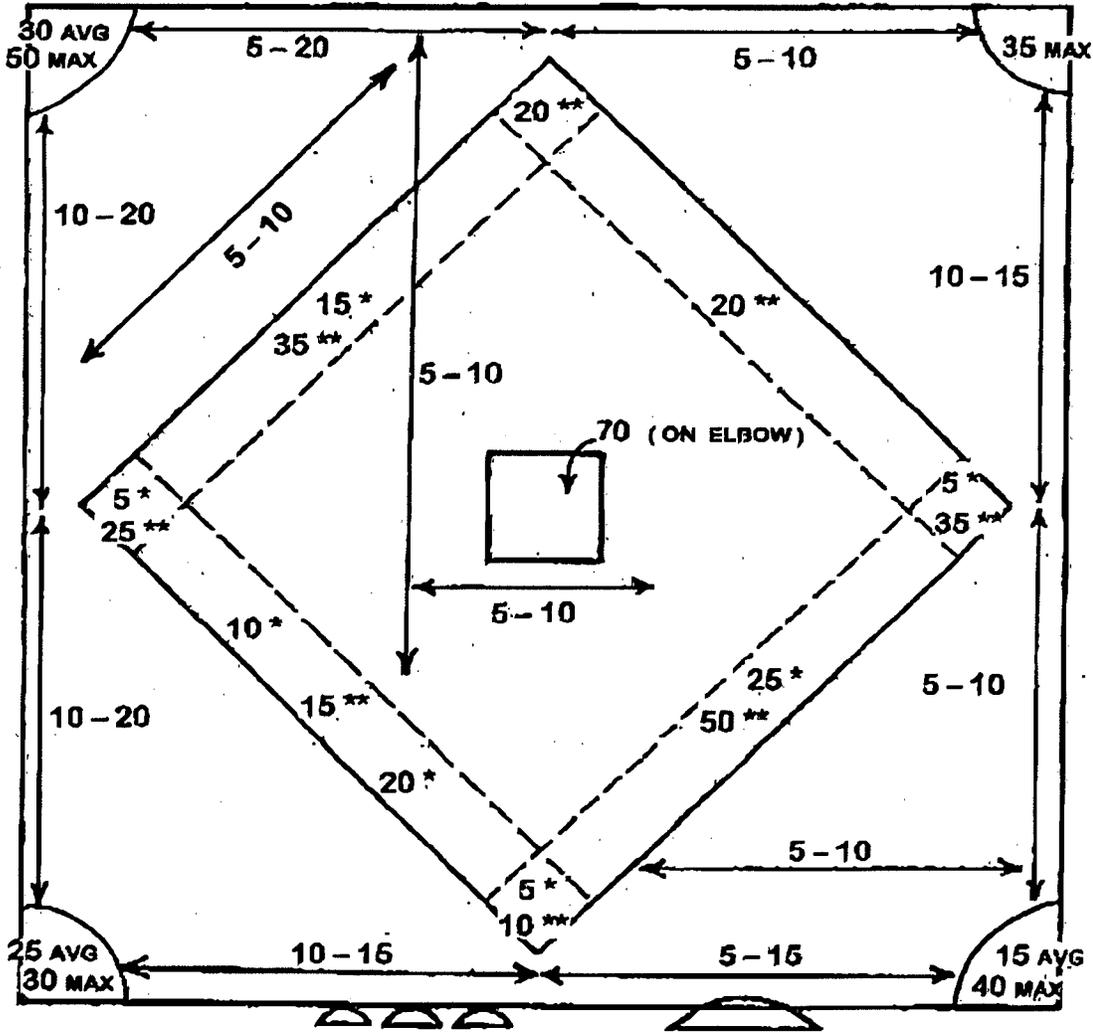
Figure 2 provides data for the 50th floor roof. Here, the fields were also low although at two specific locations the percentage figure approached 50 percent. Atop a cooling tower the exposure percentage was as high as 55 percent.

Thus, of all the areas studied, the highest exposure level was 70 percent at the transmission line elbow.

All in all, the ambient power density levels are well below the reference throughout the areas studied except for biologically insignificant hot spots at discrete locations. Personnel may work in these areas as necessary, without restriction.


NEIL M. SMITH

April 24, 2002



* : MEASUREMENT TAKEN ON 1ST CATWALK
** : MEASUREMENT TAKEN ON 2ND CATWALK

MEASUREMENTS IN
PERCENTAGE OF
CONTROLLED AREA
REFERENCE

FIGURE 1

TOWER BASE LEVEL

