

Decision 97-11-066 November 19, 1997

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Elizabeth R. Patton,

Complainant,

vs.

GTE Mobile Net,

Defendant.

Case 96-08-023  
(Filed August 9, 1996)

**ORIGINAL**

**O P I N I O N**

**Summary**

The complainant alleged that the defendant's Manchester cellular base site could emit radiofrequency (RF) radiation exceeding the legal limit. In response, the defendant modified the site. Testing after the modifications demonstrated that the site complies with applicable federal standards for RF radiation exposure. The complaint is dismissed.

**Background**

The complaint was prompted, in part, by the proposed development (by a competing cellular company) of another cellular site near the defendant's Manchester site. The complainant quoted from a study of the proposed development, in which the study's author concluded that a region immediately adjacent to the rear of the defendant's Manchester site "may be subject to high RF fields that may approach the maximum permissible exposure...for whole body averaged exposure. . . . It would be appropriate to investigate these fields via direct measurement to confirm whether the RF fields in that particular area, despite the generally low likelihood of exposure to

passersby due to the steep nature of the terrain, are, in fact, in compliance with the most recent revision of the [American National Standards Institute (ANSI)] standard.”<sup>1</sup>

The defendant’s answer asserted that: (1) the Manchester site was in compliance with the ANSI standard adopted by the Federal Communications Commission (FCC) to regulate RF radiation from cellular sites; and (2) federal law preempts state jurisdiction over RF radiation safety for sites complying with FCC regulations. In support of its federal preemption argument, the defendant relied on 47 U.S.C § 332(c)(7)(B)(iv), added by the Telecommunications Act of 1996, which provides that “[n]o State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the [FCC’s] regulations concerning such emissions.” (Emphasis added.)

The assigned administrative law judge (ALJ) ruled on November 27, 1996, that before the Commission could reach the preemption question, the defendant would have to establish the factual predicate, namely, that the Manchester site complies with FCC regulations. Accordingly, the defendant undertook the testing whose results are discussed below.

#### Testing

The defendant retained TechnoCom Corporation (TechnoCom) to measure and assess RF radiation at the Manchester site. On December 27, 1996, the defendant submitted a report by TechnoCom of the results of testing conducted on December 16, 1996. TechnoCom concluded that the Manchester site was in compliance with the ANSI standard then in effect. However, TechnoCom also noted that the FCC planned to put revised RF radiation standards into effect as of September 1, 1997; “minor changes” would have to be made to the Manchester site to comply with the revised standards.

---

<sup>1</sup> Emphasis omitted. The complainant indicates that the proposed development for which the quoted study was performed was ultimately rejected by the City of Encinitas.

Following this first report, the assigned ALJ held a telephone conference with the complainant and the defendant, whose counsel indicated at the conference that it would modify the Manchester site (including erection of new antennas) to ensure compliance with the revised standards required by the FCC regulations, and that TechnoCom would retest the site after completion of the modifications.

On August 14, 1997, the defendant submitted a report by TechnoCom of the results of testing conducted on June 30, 1997. The report (at page 12) contains the following conclusions:

"The results of field measurements under worst case conditions: (a) with all the channels from the cell transmitting simultaneously, and (2) taking maximum levels observed at any given point, show that the levels of RF radiation exposure do not exceed, anywhere around the cell site, those levels specified in the present and future RF radiation exposure standards imposed on the Cellular industry. This result applies to points outside the current chain link fence, at the fence, and inside it going very close to the new antennas. The presence of the fence, in its present or some future form, is therefore not a requirement caused by RF radiation.

"The area near the new antennas was canvassed to determine the point of maximum RF exposure density. The maximum was found to be 24.9% of the level specified in the more restrictive future standard for uncontrolled exposure of the general public. This result indicates that there is ample room for channel expansion at the site (if needed to accommodate future growth) while remaining in compliance with the present and future RF radiation exposure standards."

The complainant submitted comments by her consulting engineer, Lasair Design (Lasair) on the second TechnoCom report. Lasair suggested that, while "[q]ualified calibrated equipment was used to take the RF radiation measurements," accuracy could have been further ensured by "perform[ing] a calibration check before after [sic] field measurements."

Regarding the conclusions of the second TechnoCom report, Lasair said:

"It is our opinion the site could exceed safety levels if any new antennas are placed at the Manchester site. The report . . . asserts there is ample room for additional capacity. This is a relative statement and could be misleading if one does not consider the complex nature of RF radiation

patterns from antennas. The old omnidirectional antenna if allowed to continue to operate with or without the new antennas would exceed the new federal safety standard at the site. . . . The inclusion of additional antennas at the same site clearly calls for a survey with all the antennas operating at maximum power levels. Antenna pattern and energy simulations should also be performed before the establishment of new antennas to lower the cost and health concerns for all parties concerned.

"Thus our conclusion is that each additional antenna will require a new survey to guarantee RF radiation levels are meeting the newer Federal safety standards. Beam patterns are complex and are effected [sic] by the presence of other antennas and the surrounding terrain. Because of the wave nature of RF radiation and the beam shaping properties of antennas simple additive thinking can not reasonably predict the effect of changes in the radiation environment around antennas."

The defendant responded to Lasair's comments. As to calibration of the equipment TechnoCom used to measure RF radiation, the defendant noted that the equipment was rented from GE Capital Test Equipment Management Services, which has guaranteed the performance of the equipment "during the standard one-year calibration period."<sup>2</sup>

Concerning the comments quoted above, the defendant responded that Lasair "is correct to point out that only the new antennas were tested. This was appropriate since they are the only antennas intended to be in operation. The purpose of the cell site modification was to replace the old antennas with the new antennas." The defendant also made the following commitment:

"As a matter of standard engineering practice, in the event that [the defendant] required additional antennas at the facility in the future, [the defendant] would evaluate the site according to the guidelines set forth by the Federal Communications Commission's Office of Engineering and

---

<sup>2</sup> Appendix A to TechnoCom's report on the June 1997 testing contains copies of "Certificates of Traceability" for the radiation survey meter and probe used during the testing. The certificates indicate that these instruments were calibrated on September 17, 1996, and September 30, 1996, respectively. The calibration due date stated in the certificates is more than two months after the second testing at the Manchester site was conducted.

Technology Bulletin No. 65, as in effect at the time, or successor guidelines, if any.”

#### **Discussion**

The Commission has limited jurisdiction regarding RF radiation at cellular sites, such as the defendant's Manchester site. Under the provisions of the Telecommunications Act of 1996 quoted earlier, the Commission may not set a safety standard for RF radiation emissions; rather, the standard set by FCC regulations is controlling, although the statute apparently leaves the Commission with jurisdiction to order testing to verify compliance with the FCC regulations and, possibly, to specify remedies in the event of noncompliance.

In the present case, the defendant has provided independent testing to support its assertion that with the installation of the new antennas, it has brought the Manchester site into compliance with the revised standard required under FCC regulations. The complainant, through her consulting engineer, tacitly accepted the defendant's assertion but hypothesized that the Manchester site would be out of compliance if the defendant were to operate the old antennas (whether or not in conjunction with the new antennas) or were to add more antennas.

We draw no inferences, either from TechnoCom's statement that the Manchester site could accommodate channel expansion while remaining in compliance or from Lasair's statement that the Manchester site could easily be out of compliance if it were operated differently from what the defendant now contemplates. What matters for present purposes is that the Manchester site is in compliance so long as the defendant operates the site in a manner consistent with the conditions tested by TechnoCom. If and when the defendant changes its operation of the Manchester site, the site would have to be re-evaluated for compliance, as the defendant concedes.

We conclude that, on this record, since the parties agree that the Manchester site is currently in compliance with FCC regulations, there is no triable issue of fact. Accordingly, we dismiss the complaint.

### **Findings of Fact**

1. The subject of the complaint is RF radiation emitted during the course of operation of the defendant's Manchester cellular base site.
2. Testing conducted on December 16, 1996, at the Manchester site showed emissions levels within the standard then prescribed by FCC regulations. However, the same testing showed that the emissions levels might exceed those allowed under the revised standard that the FCC planned to put into effect as of September 1, 1997.
3. After the December 1996 testing, the defendant made certain modifications (including erection of new antennas) to the Manchester site.
4. On June 30, 1997, following the modifications, further testing was conducted at the Manchester site. The June 1997 testing showed that the site, operating only with the new antennas, is in compliance with the revised standard prescribed by FCC regulations.
5. The complainant's consulting engineer did not dispute the compliance finding summarized in Finding of Fact 4; however, the complainant's consulting engineer hypothesized that the Manchester site would not be in compliance if any additional antennas were placed at the site, or if the old antennas were operated (whether or not in conjunction with the new antennas).
6. The defendant intends that only the new antennas be in operation.
7. As a matter of standard engineering practice, it is appropriate that the defendant re-evaluate the Manchester site's compliance with FCC regulations in the event that the defendant erects additional antennas in the future or otherwise operates the site in a manner that differs materially from the conditions observed in the June 1997 testing.

### **Conclusions of Law**

1. The standard for RF radiation emissions prescribed by FCC regulations for cellular sites, such as the Manchester site, is the governing standard in the present case.
2. Under the conditions observed in the June 1997 testing, the Manchester site is in compliance with the FCC regulations regarding RF radiation emissions.

3. On this record, there is no triable issue of fact, and the case should be dismissed.
4. In order to remove the uncertainty regarding the Manchester site, this decision should take effect immediately.

**O R D E R**

**IT IS ORDERED that:**

1. The complaint of Elizabeth R. Patton against GTE Mobilnet Incorporated, Contel Cellular Inc., GTE Mobilnet of Oregon Limited Partnership, and GTE Mobilnet of Northwest Oregon Limited Partnership, as tenants in common (U-3048-C), doing business as GTE Mobilnet of San Diego, Inc., named herein as "GTE Mobile Net," is dismissed with prejudice.

2. The proceeding is closed.

This order is effective today.

Dated November 19, 1997, at San Francisco, California.

P. GREGORY CONLON  
President

JESSIE J. KNIGHT, JR.  
HENRY M. DUQUE  
JOSIAH L. NEEPER  
RICHARD A. BILAS  
Commissioners