

ORIGINAL
FILE

BEFORE THE

Federal Communications Commission RECEIVED

WASHINGTON, D.C. 20554

AUG 12 1992

In the Matter of)
)
Amendment of)
Section 90.621(c) and (d) of the)
Commission's Rules and Regulations)
Concerning Separations Between)
800 and 900 MHz Land Mobile Radio)
Systems in the Business and)
General Category Radio Service)
Pools)

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

RM-8028

To: The Commission

STATEMENT IN PARTIAL SUPPORT
OF
TEXAS UTILITIES ELECTRIC COMPANY

Texas Utilities Electric Company (TU), by its attorneys and pursuant to Section 1.405(a) of the Federal Communications Commission's (Commission's) rules, hereby respectfully submits this Statement in Partial Support of the Petition for Rule Making filed by the National Association of Business and Educational Radio, Inc. (NABER) on March 6, 1992.^{1/}

I. PRELIMINARY STATEMENT

1. TU is one of the largest utilities in the nation. It provides electricity across approximately 66,500

^{1/} Public Notice, Report No. 23944, Petitions for Rule Making Filed, released July 13, 1992.

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square miles -- an area about one-third the size of the State of Texas, or roughly the size of the State of Florida. TU's overall operating territory also includes an additional 22,000 square miles through which transmission facilities and vehicle access roads run. In total, then, TU's operating territory is roughly 88,500 square miles. Within its 88,500 square-mile operating territory, TU serves a population of approximately 5.2 million persons, or nearly the population of the Commonwealth of Virginia.

2. For the benefit of both TU's customers and its employees, TU must conduct its operations as safely and as efficiently as possible. Although societal order depends on TU maintaining its facilities and recovering from calamities as quickly as possible, extreme care must be taken at every step in the process. Electric utility operations involve inherent dangers in even the best conditions. TU's linemen often are working with facilities that carry hundreds of thousands of volts. TU, therefore, requires absolute reliability of communications for efficient restoration of service, as well as for the safety of linemen and the public. Reliable communications links are, in essence, the direct lifeline to the linemen and, as such, are part of the larger lifeline between the electric utility and the public.

3. To ensure reliable land mobile communications into the next century, TU is now implementing a 900 MHz system to cover its entire 88,500 square-mile operating territory. As the licensee of these significant 900 MHz facilities, TU has a strong interest in the issues raised in NABER's Petition.

III. STATEMENT IN PARTIAL SUPPORT

4. NABER's Petition seeks a more stringent co-channel separation standard for 800/900 MHz systems which employ frequencies from the Business and General Category frequency pools. Specifically, NABER asks the Commission to change the current 40/30 dBu standard to a 40/22 dBu standard.^{2/} The proposal does not include the Industrial/ Land Transportation or Public Safety Service channels. NABER leaves it to the Commission's discretion whether to include these frequency pools in any rule making initiative.

^{2/} The proposal is similar to the one NABER offered in the proceeding which led to the strengthening of the interference criteria for systems operating on SMR channels. However, NABER argues in this Petition against the adoption of a 40/22 dBu table similar to the one established for the SMR pool. See Report and Order, PR Docket No. 90-34, Amendment of Part 90 of the Commission's Rules to Permit the Short-Spacing of Specialized Mobile Radio Systems Upon Concurrence from Co-Channel Licensees, 6 FCC Rcd. 4929 (1991).

5. TU supports NABER's recommendation to implement a 40/22 dBu standard for the Business and General Category channels. In addition, TU urges the Commission to adopt this standard for the 800/900 MHz Industrial/Land Transportation channels.^{3/}

6. The proposed 40/22 dBu standard is wholly consistent with the Commission's finding in PR Docket No. 90-34 that the 40/30 dBu standard is not responsive to contemporary operating conditions. That proceeding dealt with SMR systems. Nonetheless, the rationale applies equally to today's Business, General Category, and Industrial/Land Transportation systems. Today's systems employ mobile units with more sensitive receivers than were available when the Commission first made the 800/900 MHz spectrum available. This has greatly increased the

^{3/} As a practical matter, TU notes that employment of the 40/22 dBu contour in coordination of only Business and General Category channels would be cumbersome and administratively burdensome. Industrial/Land Transportation, Business and General Category eligibles access "each other's" channels to expand existing trunked systems. Use of one interference criteria for a portion of the assigned channels, and another criteria to recommend additional channels would cause undue confusion and administrative difficulties in Commission's processing of these applications.

capability of today's systems, but it also creates a need for greater co-channel protection.^{4/}

7. Unfortunately, NABER's Petition also indirectly suggests that the Commission should continue to employ the R-6602 methodology in calculating the relevant contours. TU objects to this aspect of the Petition. TU has found that the R-6602 methodology often poorly predicts actual propagation in the irregular terrain of Central Texas. Consequently, it inadequately protects existing co-channel systems from applicants who seek to "engineer in" new systems. TU believes that the so-called TechNote 101 methodology, which is based on the more accurate Longley-Rice RF propagation model, is a superior methodology. TU, therefore, urges the Commission, in initiating a rule making proceeding, to address this larger issue and to adopt the more accurate propagation model.

8. TU's experience with engineering 900 MHz systems in Central Texas demonstrates that the Commission's R-6602 methodology is often extremely inaccurate in predicting

^{4/} TU concurs with NABER that the Commission should not attempt to structure a table, as it did in PR Docket No. 90-34, and should continue to permit the frequency coordinator to review the 40/22 dBu analysis based on the actual operating parameters of the existing and proposed systems.

actual propagation. The R-6602 methodology is highly generalized and relies on a "flat earth" model of RF propagation. Use of the methodology often results in extremely smooth, rounded contours, regardless of intervening terrain or, conversely, of circumstances conducive to propagation over long distances. The relatively simplistic R-6602 methodology may adequately serve the Commission's and applicants' purposes where the terrain indeed is flat, but it is wholly inadequate in describing the true service area of systems operating in the hilly, irregular terrain of Central Texas. Use of the TechNote 101/Longley-Rice would more accurately address the Commission's true concern with co-channel protection.

9. TU, like the majority of licensees in the 800/900 MHz Industrial/Land Transportation services, has extensive, critical systems. The infrastructures necessary to construct and operate the systems require a significant investment. Utilizing a propagation method that is not applicable in many areas of the country, such as the R-6602 methodology, jeopardizes the operations of these critical systems and the underlying investments. In addition to adopting a co-channel separation standard that more adequately serves the needs of today's systems, then, the

Commission ought to also adopt a more realistic method of determining whether that standard is met.

WHEREFORE, THE PREMISES CONSIDERED, Texas Utilities Electric Company encourages the Commission to grant NABER's Petition and to initiate a rule making procedure to amend Section 90.621(c) and (d) to provide a 40/22 dBu contour standard for the coordination of Industrial/Land Transportation, Business, Public Safety, and General Category channels. Further, in its Notice of Proposed Rule Making, the Commission should propose that the TechNote 101 methodology should be employed in calculating these contours.

Respectfully submitted,

**TEXAS UTILITIES ELECTRIC
COMPANY**

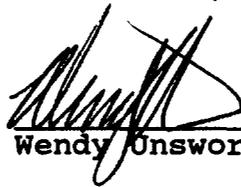
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Dated: August 12, 1992

CERTIFICATE OF SERVICE

I, Wendy Unsworth, a secretary at the law firm of Keller and Heckman, do hereby certify that on the 12th day of August 1992, I forwarded to the parties listed below a copy of the foregoing Statement in Partial Support of Texas Utilities Electric Company by first-class mail, postage pre-paid:

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