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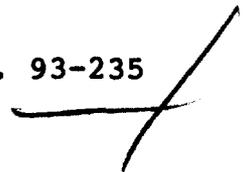
DEC 23 1993

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

In the Matter of )  
 )  
Amendment of Parts 15 and 90 )  
of the Commission's Rules to )  
Provide Additional Frequencies )  
for Cordless Telephones )

PR Docket No. 93-235



To: The Commission

REPLY COMMENTS OF THE  
UTILITIES TELECOMMUNICATIONS COUNCIL

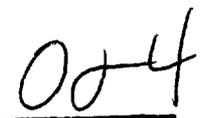
Pursuant to Section 1.415 of the Commission's Rules, the Utilities Telecommunications Council (UTC) hereby submits its reply comments with respect to the Notice of Proposed Rulemaking (NPRM), 8 FCC Rcd 6782 (1993), in the above captioned matter.<sup>1/</sup>

I. INTRODUCTION AND BACKGROUND

As the national representative on communications matters for the nation's electric, gas, water, and steam utilities, and natural gas pipelines, UTC submitted comments in this proceeding generally opposing an allocation of additional frequencies for the operation of cordless telephones in Private Land Mobile Radio (PLMR) spectrum. Below, UTC reiterates its concerns in the context of reviewing comments submitted by other parties.

<sup>1/</sup> By Order, DA 93-1318, released November 5, 1993, the Commission extended the comment and reply comment dates to December 8, 1993, and December 23, 1993, respectively.

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**II. PRIVATE RADIO USERS AGREE THAT ADDITIONAL CORDLESS TELEPHONE CHANNELS SHOULD NOT BE ALLOCATED FROM PRIVATE LAND MOBILE RADIO SPECTRUM**

**A. PLMR Spectrum is Inappropriate for Cordless Telephones**

By this NPRM the Commission proposes to provide additional frequencies for the operation of cordless telephones.

Specifically, the Commission proposes to reallocate 15 channel pairs using 30 frequencies near the 44 MHz and 49 MHz bands for use by cordless telephones on a Part 15 basis. These frequencies are currently allocated to services within the Private Land Mobile Radio Service.

The American Petroleum Institute (API) and Forest Industries Telecommunications (FIT) echo UTC's concern that low-end mass market consumer devices, such as cordless telephones, should not be introduced into spectrum that has been set aside to meet the communications requirements of the nation's essential services. As FIT notes, serious concerns are raised by the FCC's proposal to introduce sharing between widely dissimilar types of usage: high priority, high powered short dispatch messages for safety of life and property and critical to efficiency of operation; compared with long social calls primarily of little importance on low power devices.<sup>2/</sup>

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<sup>2/</sup> FIT, p. 3.

Alternative frequency bands exist that can be used for cordless telephones. As API notes, recent FCC allocations and orders have set the stage for inundating the marketplace with wireless devices which possess the same, if not superior qualities as the cordless devices proposed for use in the 44 and 49 MHz bands.<sup>3/</sup> For example, the 902-928 MHz and 2450 MHz frequencies are available for cordless telephone operation, and the recently reallocated unlicensed PCS spectrum in the 1890-1930 MHz band is also suitable for such devices. Accordingly, UTC reiterates that there is no justification for further burdening private radio spectrum.

As indicated by UTC, FIT and API there are a number of gas pipelines, forest product companies and petroleum companies operating on these frequencies, as well as a host of other PLMR users licensed pursuant to intercategory sharing. Further, the FCC's on-going "refarming" initiatives will make these frequencies available for licensing to almost all private radio services.<sup>4/</sup> Accordingly, contrary to the assumption of the Telecommunications Industry Association (TIA),<sup>5/</sup> it is likely that the utilization of these frequencies for PLMR operations will dramatically increase in the future.

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<sup>3/</sup> API, p. 17.

<sup>4/</sup>Notice of Proposed Rulemaking (NPRM), 7 FCC Rcd 8105 (1992).

<sup>5/</sup> TIA, p. 3.

**B. Cordless Telephones Would Cause and Be Susceptible to Interference**

Both API and FIT agree with UTC that there is an unacceptable risk of interference from the operation of cordless telephones to PLMR systems licensed on these frequencies.<sup>6/</sup> Such potential interference is intolerable for pipeline and utility communications requirements. Further exacerbating this situation is the practical difficulty that private radio licensees would face in attempting to eliminate interference due to the unlicensed, itinerant nature of cordless telephone use.

There is an even greater risk of interference to cordless telephones from private land mobile radio systems operating in the vicinity of cordless telephones. Uniden acknowledges this point stating that PLMR transmitters will probably cause interference to cordless telephones. Uniden believes that such interference can be avoided through the adoption of a feature on cordless telephones that will find an open channel to avoid high power PLMRs transmitters.<sup>7/</sup> UTC considers Uniden's analysis to be overly optimistic. As related by COBRA and discussed below, PLMR base stations operating in the vicinity of cordless telephones could effectively render "open channel" finding technologies useless by blocking the reception of cordless telephone base station inquiries.

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<sup>6/</sup> API, pp. 6-7; and FIT, p. 2.

<sup>7/</sup> Uniden, pp. 4-5.

that reliable PLMR channels are most vital to these industries.

**C. The FCC Should Adopt Specific Interference Avoidance Measures**

A number of commenters raise serious questions regarding the viability of proposed automatic channel selection methods. API raises valid concerns regarding the inability of the proposed channel monitoring systems to account for two inherent characteristics of two-way land mobile operations: mobility, and temporary inactivity.<sup>11/</sup> In addition COBRA, a cordless telephone manufacturer, asserts that automatic channel monitoring will not work in situations where a PLMR transmitter blocks the signal to a portable cordless receiver.<sup>12/</sup>

UTC reiterates its concern that if cordless telephones are allowed to operate on the proposed frequencies, the FCC must adopt specific requirements to avoid potential interference. Given the questions expressed by commenting parties regarding automatic channel monitoring, UTC recommends that no further action be taken until these specific concerns are addressed.

Further, UTC continues to recommend that the FCC adopt measures to ensure frequency stability in cordless telephones in order to avoid drift. Specifically, the FCC should increase the

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<sup>11/</sup> API, pp. 7-8.

<sup>12/</sup> COBRA, p. 3.

attenuation requirements for off-channel signals to at least -40 dB, and should require manufacturers to design their phones in a way that makes it difficult for end users to tamper with the power output levels.

### III. CONCLUSION

UTC continues to urge the Commission to reconsider its proposal. Allocation of spectrum from the Private Land Mobile Radio band for cordless telephones would not serve the public interest. Commenters other than cordless telephone manufacturers agree that there is already sufficient spectrum available in other bands for cordless telephones. The use of these frequencies by cordless telephones would inevitably lead to unacceptable interference between Private Land Mobile Radio licensees and cordless telephone operations.

If cordless telephones are allowed to operate on the proposed frequencies, the FCC must adopt specific requirements to avoid potential interference. Automatic monitoring techniques must be reviewed to ensure that they will be effective in an environment consisting of: (1) mobile operations; and (2) higher power PLMR base stations. The FCC should also adopt stricter measures to ensure frequency stability.

**WHEREFORE, THE PREMISES CONSIDERED, the Utilities  
Telecommunications Council respectfully requests the Commission  
to take actions consistent with the views expressed herein.**

Respectfully submitted,

**UTILITIES TELECOMMUNICATIONS  
COUNCIL**

By:

\_\_\_\_\_  
Jeffrey L. Sheldon  
General Counsel

By:

\_\_\_\_\_  
Sean A. Stokes  
Staff Attorney

Utilities Telecommunications  
Council  
1140 Connecticut Avenue, N.W.  
Suite 1140  
Washington, D.C. 20036

(202) 872-0030

December 8, 1993

**B. Cordless Telephones Would Cause and Be Susceptible to Interference**

Both API and FIT agree with UTC that there is an unacceptable risk of interference from the operation of cordless telephones to PLMR systems licensed on these frequencies.<sup>6/</sup> Such potential interference is intolerable for pipeline and utility communications requirements. Further exacerbating this situation is the practical difficulty that private radio licensees would face in attempting to eliminate interference due to the unlicensed, itinerant nature of cordless telephone use.

There is an even greater risk of interference to cordless telephones from private land mobile radio systems operating in the vicinity of cordless telephones. Uniden acknowledges this point stating that PLMR transmitters will probably cause interference to cordless telephones. Uniden believes that such interference can be avoided through the adoption of a feature on cordless telephones that will find an open channel to avoid high power PLMRs transmitters.<sup>2/</sup> UTC considers Uniden's analysis to be overly optimistic. As related by COBRA and discussed below, PLMR base stations operating in the vicinity of cordless telephones could effectively render "open channel" finding technologies useless by blocking the reception of cordless telephone base station inquiries.

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<sup>6/</sup> API, pp. 6-7; and FIT, p. 2.

<sup>2/</sup> Uniden, pp. 4-5.

FIT points out that the FCC already has enough difficulty responding to various interference complaints without adding a potential new burden of hundreds or thousands more interference complaints from irate consumers.<sup>8/</sup>

UTC disagrees with AT&T's assessment that interference is unlikely to occur since the PLMR users of the band are not located in major metropolitan areas.<sup>9/</sup> As API and FIT indicate many of their radio facilities operating on these frequencies are in the vicinity of major urban areas.<sup>10/</sup> UTC's gas pipeline members also operate systems in and around urban areas such as Houston and New Orleans.<sup>11/</sup> Moreover, AT&T's assumption fails to take into account the growing use of cordless telephones in suburban and rural areas.

Finally, UTC strongly disputes AT&T's assumption that the interference potential is minimal because "only a small amount of frequency usage by these industries would be at night or on weekends, when cordless usage is at its highest levels. Major storms, accidents and other catastrophic events requiring

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<sup>8/</sup> FIT, p. 5.

<sup>9/</sup> AT&T, p. 3.

<sup>10/</sup> API, p. 13; and FIT, p. 4.

<sup>11/</sup> For example, a cursory review of FCC licensing records indicates that there are 482 license records for these frequencies within 100 miles of New York City, 213 within 100 miles of Los Angeles, and 164 within 100 miles of Portland Oregon.

emergency communications and restoration services are not limited to weekday schedules. In fact, it is precisely at these times when public communications channels are likely to be in high use that reliable PLMR channels are most vital to these industries.

**C. The FCC Should Adopt Specific Interference Avoidance Measures**

A number of commenters raise serious questions regarding the viability of proposed automatic channel selection methods. API raises valid concerns regarding the inability of the proposed channel monitoring systems to account for two inherent characteristics of two-way land mobile operations: mobility, and temporary inactivity.<sup>12/</sup> In addition COBRA, a cordless telephone manufacturer, asserts that automatic channel monitoring will not work in situations where a PLMR transmitter blocks the signal to a portable cordless receiver.<sup>13/</sup>

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Further, UTC continues to recommend that the FCC adopt measures to ensure frequency stability in cordless telephones in order to avoid drift. Specifically, the FCC should increase the attenuation requirements for off-channel signals to at least -40 dB, and should require manufacturers to design their phones in a way that makes it difficult for end users to tamper with the power output levels.

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