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PUBLIC UTILITIES COMMISSION
WATER QUALITY BUREAU

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WATER DEPARTMENT

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SAN FRANCISCO
CLEAN WATER PROGRAM

July 30, 1999

Magalie Roman Salas, FCC Secretary
Office of the Secretary
Federal Communications Commission
The Portals, 445 Twelfth Street, S.W.,
Washington, D.C. 20554

RE: WT Docket 99-87, Revised Competitive Bidding Authority

Dear Ms. Salas:

Enclosed are comments and 4 copies submitted by the San Francisco Public Utilities Commission, Water Quality Bureau in response to the Federal Communication Commissions request for comments on WT Docket 99-87, Revised Competitive Bidding Authority.

The San Francisco Public Utilities Commission supports the rulemaking petition submitted by the Utilities Telecom Council (UTC), American Petroleum Institute, and Association of American Railroads proposing to create a third radio pool, in addition to the Public Safety and Industrial/Business Radio Pools already used for private radio frequencies below 470 MHz, to be known as the Public Service Radio Pool open to entities that do not qualify for Public Safety Radio Pool spectrum, but are eligible to use the public safety radio services that the Balanced Budget Act exempted from the Commission's auction authority.

San Francisco Public Utilities Commission appreciates the opportunity to offer the attached comments on this important rulemaking.

Best regards,

Andrew DeGraca, PE
Water Quality Bureau Manager

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Ms. Salas
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cc: PUC Commissioners (10 copies w/o attachments)
Nancy Pelosi, Congress District 8
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Anson Moran, GM
Carolyn Olsen, GM
John Rodgers, GM
John Roddy, City Attorney
Cheryl Davis, WS&TD
Manouchehr Boozarpour, WQB
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Fonda Davidas, UEB

Attachment

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington D.C. 20554

In the Matter of)
)
Revised Competitive Bidding Authority) WT Docket 99-87
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To: The Commission

COMMENT

San Francisco Public Utilities Commission
Andrew DeGraca
Water Quality Bureau Manager
1000 El Camino Real
Millbrae, CA 94030

Dated: July 30, 1999

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EXECUTIVE SUMMARY

In the Telecommunications Act of 1996 the Congress charged the Federal Communication Commission (FCC) with the requirement that radio frequency spectrum for communication, both voice and data, be assigned as a result of auctions. In this Act particular frequency spectrums

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were set aside for use by "public safety" organizations. In the Act, "public safety" was identified as police and fire protection services.

The Balanced Budget Act of 1997 directed the FCC to provide spectrum set-aside for a more broadly described "public safety services" including critical national infrastructure entities outside the auction process.

San Francisco Public Utilities Commission supports the rulemaking petition submitted by the Utilities Telecom Council (UTC), American Petroleum Institute, and Association of American Railroads proposing to create a third radio pool, in addition to the Public Safety and Industrial/Business Radio Pools already used for private radio frequencies below 470 MHz, to be known as the Public Service Radio Pool open to entities that do not qualify for Public Safety Radio Pool spectrum, but are eligible to use the public safety radio services that the Balanced Budget Act exempted from the Commission's auction authority. San Francisco Public Utilities Commission believes that this approach is feasible and appropriate for other frequency bands including PLMR frequencies above 470 MHz.

INTRODUCTION

The San Francisco Public Utilities Commission, a municipal and regional water system for a majority of the greater San Francisco Bay Area (including the area also known as Silicon Valley). San Francisco Public Utilities Commission provides drinking water to the City and County of San Francisco and to over 32 other cities and water retail agency customers representing more than 2.5 million people. Besides serving water, the San Francisco Public Utilities Commission operates hydroelectric facilities along the same drinking water aqueduct which generates electricity that is utilized for City public services such as public transit. The aqueduct starts from the Hetch Hetchy Reservoir located in the Sierra Mountains in Yosemite National Park and flows through varying geography before reaching San Francisco's water distribution system. This service area is geographically unique as drinking water travels through mountain tunnels and pipes for over 186 miles, crossing Tuolumne, San Joaquin, Alameda, Santa Clara, and San Mateo Counties. In addition to the aqueduct, the San Francisco Public Utilities Commission has two large capacity treatment plants that are located about 50 miles apart. Thus, radio service is vitally important for communication from the mountainous areas of Tuolumne County, the rural foothills of San Joaquin County, and to the urban areas of San Francisco. San Francisco Public Utilities Commission currently relies on low band and UHF frequencies. However, common system improvements include the Public Utilities Commission's Supervisory Control And Data Acquisition (SCADA) system which provides remote telemetry and control of operations to enhance emergency response and protect the health and safety of 2.5 million citizens in the greater San Francisco Bay Area. The availability of the proposed frequencies will improve the communications reliability of the system during emergencies that cause the public telephone system to fail.

Managing the region's water supply to protect the health and safety of over 2.5 million citizens, San Francisco Public Utilities Commission maintains close communication ties to the State of California Office of Emergency Services. These links are important in disasters such as earthquakes which have ravaged San Francisco in the past. For example, the great 1906 earthquake destroyed much of San Francisco with the sweeping fires that followed due to a lack of water. The most recent major earthquake was the 1989 Loma Prieta which left sections of the city burning and destroyed major roadways in and out of San Francisco. Thus, the availability of radio links is important for such a large regional water system to ensure delivery of water during unexpected emergencies. The difficulty of water delivery is exacerbated by the different

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elevations throughout the city. Private sector communication providers are not reliable for critical drinking water system applications, especially during extreme emergencies.

COMMENTS

The Balanced Budget Act of 1997, Public Law No. 105-33, Title III, 111 Statute 251 (1997) ("Balanced Budget Act"). The Balanced Budget Act revised the Commission's auction authority for wireless telecommunications services. San Francisco Public Utilities Commission believes that the timely implementation of the Balanced Budget Act provisions regarding spectrum access for critical infrastructure entities is critical to meeting a need expressly recognized by the U.S. Congress.

Exemption from Auction

The Balanced Budget Act of 1997 and associated report language provide clear legislative direction to the FCC to insure that public safety radio services as defined in the Act and report language are exempt from auction. In determining that there was a specific need for access to spectrum outside of the auction process, Congress implicitly recognized the need for adequate availability of spectrum to activities deemed public safety radio services. And, that that spectrum should be made available to these activities through a mechanism other than auctions.

Definition of Public Safety Radio Service

The definition for "public safety radio services" as stated by Congress is broader than the current "public safety radio services." The Act and associated report language specifically avoid the use of language that would limit the applicability of this section to the current definition of public safety (i.e., police, fire, rescue applications).

The Balanced Budget Act of 1997 by reference and specific language describes "public safety radio services" as including private internal radio services, that were:

1. Used by State and local government,
2. Used by non-governmental entities to protect safety of life, health or property, and not made commercially available to the public.

The Balanced Budget Act of 1997 was accompanied by report language that provides a clear descriptive summary of public safety radio services that meet the private internal radio services definition included in the Act:

"The exemption from competitive bidding authority for "public safety radio services" includes "private internal radio services" used by utilities, railroads, metropolitan transit systems, pipelines, private ambulances, and volunteer fire departments. Though private in nature, the services offered by these entities protect the safety of life, health, or property and are not made commercially available to the public."

Access to the exemption from competitive bidding authority for public safety radio service and associated spectrum allocations, is a function of the service provided "protection of safety of life, health, or property."

Definition of Private Internal Radio Services

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Access to the exemption from competitive bidding authority for private internal radio services should be held against the same yardstick as described above with the additional requirement that the radio service does not involve the commercial sale of the radio service itself. When applying this test of eligibility and the applicant will serve a group of users, all users must meet the eligibility tests of (1) used to protect safety of life, health or property and (2) radio service is not sold commercially.

Establishing a Public Safety Radio Service Pool

San Francisco Public Utilities Commission supports the formation of a public safety radio service pool to ensure that exempt spectrum is designated for the public safety needs identified in the Balanced Budget Act. Exemption from auction implies the formation of a core spectrum allocation to meet public safety radio service needs.

Critical Infrastructure Entity Need Spectrum

Drinking water utilities, including San Francisco Public Utilities Commission should be eligible for auction exempt spectrum identified by the FCC as it implements the Balanced Budget Act provisions. San Francisco Public Utilities Commission and other drinking water utilities across the United States are finding it difficult to obtain suitable spectrum to meet critical system needs. Again, for a regional water system that stretches 186 miles, the San Francisco Public Utilities Commission needs to have the necessary communications to ensure delivery of high quality drinking water during unusual natural events such as earthquakes, floods, landslides (that can sever a major pipeline), and storm events; and possible man-made threats such as terrorism.

UTC has estimated that at least 6 MHz of spectrum (with the majority of that allocation being above 900 MHz) is needed to meet power, pipeline, railroad, and water utility spectrum needs for the near future. While the public safety radio services pool will not meet this total need, as eligible entities the proposed pool would help address a portion of the spectrum needs identified by UTC for the critical infrastructure entities.

Spectrum Utility

The spectrum provided in the public safety pool should have utility for the eligible entities, like San Francisco Public Utilities Commission. For the public safety pool to assist San Francisco Public Utilities Commission and others with similar interoperability and private internal communication applications the pool should be developed from:

1. 928-952-956 Mhz MAS band, where current licensee is a member of the original Power Services Pool.
2. 932-941 Mhz MAS band, a minimum of 20 channel pairs
3. 6, 11, and 18 Ghz microwave bands, which are currently in use for private internal radio service.
4. 700 Mhz band for interoperability with emergency responders.

These bands are identified based on several general principles: (1) appropriateness for radio applications typical of critical national infrastructure entities which are eligible for this pool, (2) current installed equipment base and availability of equipment suitable for critical national infrastructure entity applications of this spectrum, and (3) historical use of this spectrum by critical national infrastructure entities.