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

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JUL 30 1999

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

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

Dear Ms. Salas:

Enclosed are comments and 4 copies submitted by Kansas City, Missouri Water Services Department in response to the Federal Communication Commissions request for comments on WT Docket 99-87, Revised Competitive Bidding Authority.

The Kansas City, Missouri Water Services Department appreciates the opportunity to offer the attached comments on this important rulemaking.

Best regards,

Franklyn W. Pogge, P. E.
Deputy Director

cc: (Utility's Congressional Delegation)
Attachments

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

In the Matter of)
Revised Competitive Bidding Authority)
)
)
)

WT Docket 99-87

To: The Commission

COMMENT

Kansas City, Missouri Water Services Department
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Dated: July 29, 1999

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EXECUTIVE SUMMARY

Spectrum set aside for public safety radio services should be technically appropriate for drinking water utilities applications. A Supervisory Control and Data Acquisition (SCADA) system, utilizing a 928/952 MHz radio system offers the Kansas City, Missouri Water Services Department the ability to monitor and control its water plant and distribution system. The radio based SCADA system offers reliable and timely data. The private sector communications providers are not providing the services needed and are not sufficiently reliable for drinking water critical system applications. Many of the sites requiring a Remote Terminal Unit (RTU) do not have the infrastructure available.

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 actions. In this Act, particular frequency spectrums 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 action process.

The Kansas City, Missouri Water Services Department supports the rulemaking petition submitted by the 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. The Kansas City, Missouri Water Services Department believes that this approach is feasible and appropriate for other frequency bands including PLMR frequencies above 470 MHz.

INTRODUCTION

My utility is the Kansas City, Missouri Water Services Department is a Municipal organization. Kansas City, Missouri Water Services Department provides drinking water to 150,000 customers representing more than 650,000 people. This services area is geographically unique encompassing over 318 square miles including hilly terrain, which poses challenging problems for path for commercially available services (i.e. Trunk Systems). The Kansas City, Missouri Water Services Department relies on four frequencies in the 928/952 MHz range for data communication. The service area is expanding and the need to acquire data from further outlying areas has become a necessity. Also, the amount of data gathered, including critical distribution pressures, pump status, and flow rates has added to channel congestion and the need for additional repeaters. Some of the environmental data through put has increased due to Regulatory Mandates.

Managing the Kansas City's and surrounding Communities water supply to protect the health and safety of 650,000 citizens, the Kansas City, Missouri Water Services Department maintains close communication ties to MEPC and the MARC Emergency Radio System.

COMMENTS

The Balanced Budget Act of 1997, Public Law No. 1-5-33, Title III, 111 Statute 251 (1997) ("Balanced Budget Act"). The Balanced Budget Act revised the Commission's auction authority for wireless telecommunications services. The Kansas City, Missouri Water Services Department 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 the 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 clean 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

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 requirements 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

The Kansas City, Missouri Water Services Department 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 Kansas City, Missouri Water Services Department, should be eligible for auction exempt spectrum identified by the FCC as it implements the Balanced Budget Act provisions. Kansas City, Missouri, Water Services and other drinking water utilities across the United States are finding it difficult to obtain suitable spectrum to meet critical system needs. Kansas City, Missouri Water Services Department utilizes our SCADA system to monitor and control pumping operation and filter controls at the Water Treatment Plant, Intake, six major pump stations, ten booster stations, seventeen distribution points, six miscellaneous facilities including valve vaults, and water towers, for approximately 4000 point at 54 Remote Terminal Units (RTUs). The system will grow in phases, to include 200 remote sites, including Atherton (remote water treatment facility) and the chemical processes at the Water Treatment Plant.

Many of the additional sites will be for monitoring distribution pressures. It is critical that minimum pressures be maintained to provide adequate fire flow, these additional distribution sites will ensure that result. A prime example of this benefit would be the 1998 fire in the West Bottoms of Kansas City. The SCADA system allowed the operator to immediately set the valve in the West Bottoms valve vault to a allow a higher sustained pressure. This allowed for a higher water pressure to be maintained in the West Bottom area, ensuring the pressure required by the Fire fighters. If, the SCADA system not been communicating, an operator would have had to be dispatched, potentially slowing down the Firefighters efforts. During the sustained fire fight the remaining system could have been unmanageable without the SCADA system.

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 Kansas City, Missouri, Water Services. For the public safety pool to assist Kansas City, Missouri, Water Services 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, 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. For example Kansas City, Missouri Water Services Department has four (4) frequencies, one of which has problems with interference. We have identified the need for four more frequencies. These are needed to effectively meet the growing water demand, including customers in a larger geographic area and to comply with ever tightening water regulations.