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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

November 3, 1999

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Ms. Magalie R. Salas
Secretary
Federal Communications Commission
The Portals TW-A325
445 12th Street, S.W.
Washington, D.C. 20554

VIA HAND DELIVERY

Re: PR Docket No. 92-235; WT Docket No. 97-81;
WT Docket No. 99-87; WT Docket No. 99-168; RM-9405
Ex Parte Meeting

Dear Madam Secretary:

The purpose of this letter is to provide notice that on November 2, 1999, the following members of the Commission's Wireless Telecommunications Bureau attended a portion of the semi-annual Joint Meeting of the American Petroleum Institute's Microwave/Satellite and Radio Committees: D'wana Terry, Jeanne Kowalski, Ramona Melson, Scott Stone, and Herb Zeiler. Also in attendance at the meeting (which was held at the Embassy Suites Hotel in Washington, D.C.) were Wayne V. Black, Nicole Donath, Peter Saari and Randy Young of the law firm of Keller and Heckman LLP (telecommunications counsel for API).

The portion of the meeting that was attended by the Commission's staff began with a description by various API members of the manner in which their companies employ Multiple Address Systems. There then followed a brief discussion of various aspects of the above-referenced rule making proceedings. Any substantive views expressed by API members or counsel were consistent with the positions put forth by API in its Comments or other pleadings filed in these proceedings. Finally, API members made a presentation to the Commission's staff regarding the need for greater coordination protections for incumbent petroleum and natural gas

Ms. Magalie R. Salas
November 3, 1999
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industry systems in the Private Land Mobile Radio bands below 470 MHz. A copy of the written materials associated with this presentation is attached hereto.

In accordance with Section 1.1206 of the Commission's rules, an original and nine copies of this letter have been submitted to the Secretary's office. Should the Commission require further information, it is respectfully requested to contact the undersigned.

Very truly yours,



Wayne V. Black

Enclosure

cc: D'wana Terry, Chief, Public Safety & Private Wireless Division,
Wireless Telecommunications Bureau
Jeanne Kowalski, Deputy Chief, Public Safety & Private Wireless Division,
Wireless Telecommunications Bureau
Ramona Melson, Counsel to the Chief of the Public Safety & Private Wireless Division,
Wireless Telecommunications Bureau
Scott Stone, Deputy Chief, Policy Branch, Public Safety & Private Wireless Division,
Wireless Telecommunications Bureau
Herb Zeiler, Deputy Chief (Technical), Public Safety & Private Wireless Division,
Wireless Telecommunications Bureau

KEEPING 470 MHz AND
BELOW SUITABLE FOR
PETROLEUM OPERATIONS

(In a Refarmed Environment)

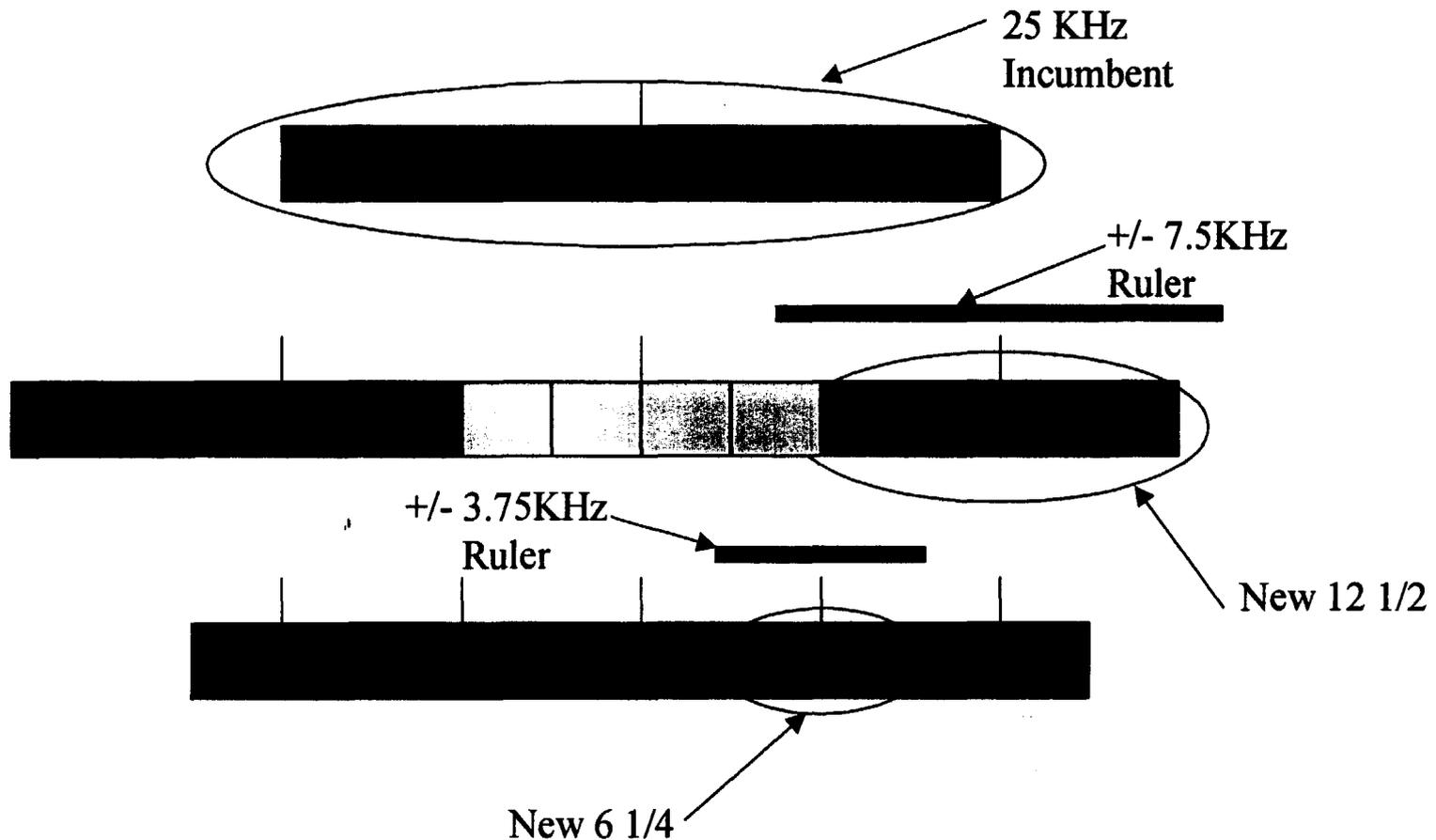
API Company Situation

- Must protect public, employees, and the environment
- Activities vital to society, but unavoidably pose risk to the general public
- Commercial alternatives suitable for only a portion of API operational needs
- Companies depend upon private radio for most critical operations
- Using frequencies 470 MHz and below can not be avoided.
- **Changes brought about by refarming are presenting challenges to the reliability of 470 MHz and below.**

What challenges do we see?

- The rule section that forms the cornerstone of frequency coordination and protection, 90.187 is technically unsound
- The combining of most of the 20 radio service cultures into one, combined with competitive frequency coordination, is driving system integrity to a lowest common denominator
- The cornerstone of frequency sharing is “listen before you speak”. How do you do that when you “can’t really hear” because of a frequency offset, or a modulation incompatibility
- Distributed trunked systems are a “new animal,” for which their impact on non exclusive frequencies must be accounted

The rule section that forms the cornerstone of frequency coordination and protection, 90.187 is technically unsound, and/or ambiguous in interpretation.



The combining of most of the 20 radio service cultures into one, combined with competitive frequency coordination, is driving system integrity to a LCD

- Traditionally users in different radio services employ a different amount of care in respecting their channel partners.
- Coordinators for each of the original groups had variations in their policies with respect to things not mandated by the FCC, such as reasonable channel loading, the number of channels that can be coordinated by one entity at one time, when to grant an inter-service sharing request, etc.
- In today's competitive frequency coordination environment, it is **economic suicide for coordinators to deny applicants for reasons "best practice."** Clients often say, "If you won't coordinate it, I'll find someone who will!"

The cornerstone of frequency sharing is “listen before you speak”. How do you do that when you “can’t really hear” because of a frequency offset, or a modulation incompatibility

- Wider channel receivers hear, but not clearly, those more narrow channels that are off-set in frequency, but are still within the bandwidth of the wider receiver
- 6.25 KHz transmissions are usually unintelligible to traditional FM receivers, regardless of frequency offset, because 6.25 KHz systems generally employ non-FM modulation techniques.
- FM system performance will be degraded in the presence of non-FM adjacent and co-channel systems.

There are human and man-machine issues that affect the effectiveness of listen before you speak as means of sharing a non-exclusive channel.

- You hear someone on the channel. You can make out what they are saying, but the transmission is scratchy....so you assume you can talk without “over powering” their conversation...after all if you waited till the channel was completely clear...you would never get a word in edgewise
- You hear someone on the channel. You hear they are talking about an emergency. You wait till the channel is clear to talk...and you postpone your business to leave the channel clear for their further traffic
- Differences in legacy environments of the “old radio services” has resulted in differences of the “median” radio educate. These differences can become critical with respect to safety.

**Distributed trunked systems are a “new animal,”
for which their impact on non exclusive
frequencies must be accounted**

- Distributed trunked systems are machines sharing the channel with humans without consideration for how busy the channel is, or what the content of the conversation is
- A single distributed trunked system can block many non-exclusive channel users without inconvenience to the distributed trunked users

Concluding Thoughts

- Given the risk of the foregoing, API needs protection beyond that which exists today in the post reformed environment
- Affirming API's frequency coordinator's right of refusal will meet the short term problem
- A longer term solution is to clean up these post refarming issues for the benefit of API, and all other general category users
- It is likely some special considerations will need to be built into the post refarming rules, or the establishment of a third pool, to provide adequate protection of quasi public safety systems

Recommended improvements

- Fix or clarify 90.187 (b) (2) immediately, & force all coordinators to consider frequency overlap with incumbents
- Don't allow the listen before you speak requirement to be ignored in the coordination of non exclusive users. This means non exclusive users can be on top of each other, but not half way on top of each other, by virtue of frequency offset, differing emission bandwidth, or modulation incompatibility, such that listen before you speak becomes impossible to do
- Establish common rules amongst the various coordinators on issues such as the maximum number of users to share an non-exclusive channel, the number of frequencies that can be applied for at one time, and devise a common way to measure and control the implementation of distributed trunked systems