

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)
)
Amendment of Parts 1 and 22 of the) WT Docket No. 12-40
Commission’s Rules with Regard to the)
Cellular Service, Including Changes in)
Licensing Unserved Areas)

REPLY COMMENTS OF APCO

The Association of Public-Safety Communications Officials-International, Inc. (“APCO”), hereby submits the following Reply Comments in response to the Commission’s *Further Notice of Proposed Rulemaking*, FCC 14-181, released November 10, 2014 (“*FNPRM*”), in the above-captioned proceeding. APCO’s principal concern in this proceeding is to ensure that there are adequate rules in place to prevent interference from cellular services to public safety radio communications in the 800 MHz band.

Founded in 1935, APCO is the nation’s oldest and largest public safety communications organization. APCO is a non-profit association with over 20,000 members, most of whom are state or local government employees who manage and operate communications systems for police, fire, emergency medical, forestry conservation, highway maintenance, disaster relief, and other public safety agencies. APCO appears regularly before the Commission on a wide range of public safety communications issues, and is the largest FCC-certified frequency coordinator for Part 90 Public Safety Pool channels.

The *FNPRM* includes proposals to increase certain cellular power levels and to adopt power spectral density (PSD) limits and/or power flux density (PFD) limits. Pericle Communications Company and Shulman, Rogers, Gandel, Pordy & Ecker, PA (“Pericle”) submitted joint comments that address these technical proposals and provide details regarding

real-life interference problems that have impacted public safety operations in the City of Oakland, California. The National Public Safety Telecommunications Council (“NPSTC”), of which APCO is a member, is today filing reply comments agreeing with many of Pericle’s recommendations. APCO supports the NPSTC response, and submits the following to emphasize the importance of this issue and certain recommendations.

As the Commission is well aware, hundreds of public safety agencies across the nation were forced to undergo substantial “rebanding” of their 800 MHz radio systems to avoid interference from the cellular operations of Sprint Nextel and other providers. While Sprint Nextel paid most of the expenses of that rebanding, it was (and in some areas continues to be) a major drain on scarce public safety agency resources and personnel, who were often forced to divert attention away from critical communications projects to oversee the difficult and sometimes contentious rebanding process. Moreover, all forms of interference to public safety systems have the potential to endanger the safety of first responders and the public they serve. Therefore, the Commission must take every reasonable step to ensure 800 MHz public safety systems are not once again exposed to sources of dangerous interference.

The Commission’s discussion in the *FNPRM* regarding potential interference to public safety systems references *ex parte* letters from Florida public safety entities concerning AT&T’s Florida PSD Waiver Request, and the conclusion that the test conditions did not show degraded performance on the part of the affected public safety systems.¹ However, the AT&T tests in Florida were for PSD-based signal levels in the 800 MHz Cellular "B" block, which is further separated than the 800 MHz Cellular "A" block from the pre- and post- reconfiguration public safety 800 MHz allocations. The testing apparently did not address “Sprint + Cellular A” mixing

¹ FNPRM at ¶119-120.

and other intermodulation impacts that Pericle raised in its comments. APCO recommends that additional analysis be performed addressing the issues of multiple carrier (all potential combinations of broadband Sprint, Cellular "A" and Cellular "B") operations at adjacent and/or co-located transmit sites before the Commission adopts a PSD standard for the 800 MHz band.

APCO supports NPSTC's recommendation that the Commission adopt a PFD limit to help control the ground-level signal level in the vicinity of cellular transmitter sites, which is necessary to minimize the risk of interference to public safety mobiles and portables operating near those sites. Further, APCO agrees with Pericle's recommendations that the Commission not allow the PFD to be exceeded at any ground level location within a 1 km radius of the site; that the PFD limit be complied with at all ERP and/or PSD levels; that the Commission should only allow non-compliance at locations well above ground level, and that these non-compliant locations should be limited to a small percentage of the 1 km area.

However, PFD limits should not be the end of the story. If there is *any* harmful interference to public safety systems, regardless of the PFD levels, cellular carriers contributing to the problem must be responsible for eliminating it. Thus the current interference reporting and mitigation process contained in Parts 22.970-22.973 of the cellular service rules must remain in place.

Investigating and resolving interference problems can be a major drain on public safety agencies' time and resources. Therefore, APCO supports suggestions that the Commission amend its rules to require that cellular licensees be responsible for direct and indirect expenses incurred by public safety licensees in attempting address interference caused by cellular licensees.

APCO also agrees with Pericle that the peak-to-average power ratio of interfering signals should be considered when specifying both the environment and the method to test for compliance. This will take into account newer generation cellular technology signals such as LTE that have high peak-to-average ratios, and that peak power, not average power, is more likely to create intermodulation products that cause interference to nearby receivers.

Pericle's recommends that the Commission also pursue receiver standards in ET Docket No. 13-101. APCO generally supports improvements in receiver standards, but shares the concerns of NPSTC and others that improved receiver standards should not be adopted at the expense of significant increases in equipment costs or limitations on performance (including the size and weight of radios). In addition, the realities of public safety equipment replacement cycles (often 10-20 years), and the fact that many public safety 800 MHz radios were replaced as a result of rebanding, means that implementing improved receiver standards would necessarily be a very long term process.

CONCLUSION

Therefore, for the reasons set forth above, the Commission should proceed to adopt rules that will prevent future cellular interference to 800 MHz band public safety communications systems.

Respectfully submitted,

/s/

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