

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Improving Public Safety Communications in the 800 MHz Band)	WT Docket No. 02-55
)	
Consolidating the 800 and 900 MHz Industrial/Land Transportation and Business Pool Channels)	

To: The Commission

OPPOSITION TO PETITIONS FOR RECONSIDERATION

CTIA – THE WIRELESS ASSOCIATION™

1400 16th Street, NW Suite 600
Washington, D.C. 20036
(202) 785-0081

Diane J. Cornell
Vice President, Regulatory Policy

Christopher Guttman-McCabe
Assistant Vice President, Regulatory Policy &
Homeland Security

Its Attorneys

April 21, 2005

TABLE OF CONTENTS

I.	INTRODUCTION AND SUMMARY	1
II.	DISCUSSION	6
	A. The Commission Should Reject the Request to Apply the Permanent Interference Protection Standard to NPSPAC Channels During the Interim Period Prior to Rebanding.....	6
	1. There is No Basis to Provide the NPSPAC Channels with a Special Interference Protection Standard Prior to Rebanding	6
	2. The Commission Should Affirm its Interim Interference Abatement Program.....	9
	B. The Commission Should Reject Claims to Extend Public Safety-Specific Abatement Measures to Other Non-Cellular 800 MHz Licensees or Grandfather Legacy Systems with New Interference Protections	11
III.	CONCLUSION.....	12

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Improving Public Safety Communications)	WT Docket No. 02-55
in the 800 MHz Band)	
)	
Consolidating the 800 and 900 MHz)	
Industrial/Land Transportation and)	
Business Pool Channels)	

To: The Commission

OPPOSITION TO PETITIONS FOR RECONSIDERATION

CTIA – The Wireless Association™ (“CTIA”),¹ pursuant to section 1.429 of the Commission’s rules, 47 C.F.R. § 1.429, hereby submits this opposition to several petitions for reconsideration filed in the above-captioned proceeding.²

I. INTRODUCTION AND SUMMARY

On July 8, 2004, the Commission adopted a far-reaching *Report and Order* to address interference to public safety operations in the 800 MHz band.³ On December 22, 2004, the Commission adopted the *Supplemental Order* which, among other things, waived application of the interference protection standard set forth in the *Report and Order* and adopted an interim interference abatement program pending reconfiguration of

¹ CTIA – The Wireless Association™ is the international organization of the wireless communications industry for both wireless carriers and manufacturers. Membership in the organization includes Commercial Mobile Radio Service (“CMRS”) providers and manufacturers, including cellular, broadband PCS, and ESMR, as well as providers and manufacturers of wireless data services and products.

² *Improving Public Safety Communications in the 800 MHz Band*, WT Docket No. 02-55, Report and Order, 19 FCC Rcd 14969 (2004) (“*Report and Order*”); *Improving Public Safety Communications in the 800 MHz Band*, WT Docket No. 02-55, Supplemental Order and Order on Reconsideration, 19 FCC Rcd 25120 (2004) (“*Supplemental Order*”).

³ *Report and Order*, 19 FCC Rcd at 14971, ¶ 1.

the 800 MHz band within each NPSPAC region. Several petitions for reconsideration were filed, and the Commission extended the period for filing oppositions to petitions for reconsideration of the *Report and Order* to create “a single round of oppositions to all reconsideration petitions filed in response to both orders.”⁴ CTIA takes this opportunity to oppose the petition filed by Tri-State Radio Planning Committee (FCC Region 8) (“Tri-State”), which urges the Commission to undo the interim interference protection thresholds as applied to the NPSPAC channels and instead impose the post-rebanding interference protection levels as set forth in the *Report and Order*.⁵ CTIA also opposes the petitions of several non-public safety, non-cellular 800 MHz licensees⁶ seeking to extend certain public safety-only protections to other non-cellular 800 MHz licensees or grandfather legacy systems with new protections.⁷

The *Report and Order* included a two-pronged approach to address interference to public safety operations in the 800 MHz band.⁸ For the short-term, the Commission utilizes a set of interference protection criteria and standard interference mitigation

⁴ *Improving Public Safety Communications in the 800 MHz Band*, WT Docket No. 02-55, Order, DA 05-411 (WTB – PSCID, rel. Feb. 14, 2005).

⁵ Petition for Reconsideration of Tri-State Radio Planning Committee, WT Docket No. 02-55, at 1 (filed Jan. 20, 2005) (“Tri-State Petition”).

⁶ The Commission has used the term “non-cellular” in this proceeding to refer to “systems which do not employ a ‘high-density cellular’ architecture” – namely, public safety, private wireless and some SMR systems. *Report and Order*, 19 FCC Rcd at 14973, ¶ 2 n.9.

⁷ Petition for Reconsideration of Entergy Corporation and Entergy Services, Inc., WT Docket No. 02-55, at 2 (filed Dec. 22, 2004) (advocating that Critical Infrastructure Industry entities require interference protection) (“Entergy Petition”); Petition for Reconsideration of the American Petroleum Institute and the United Telecom Council, WT Docket No. 02-55, at 1 (filed Mar. 10, 2005) (arguing that the Commission should apply the same interference protections to all licenses in the 800 MHz band or, at the very least, treat public safety and Critical Infrastructure entities alike) (“API and UTC Petition”); Petition for Clarification and Reconsideration of Consolidated Edison Company of New York, Inc., WT Docket No. 02-55, at 5 (filed Dec. 22, 2004) (arguing that its currently licensed and operating iDEN system be grandfathered to ensure full interference protection); Petition for Reconsideration of Consolidated Edison Company of New York, Inc., WT Docket No. 02-55, at 3 (filed Mar. 10, 2005) (“ConEdison March Petition”).

⁸ *Report and Order*, 19 FCC Rcd at 14971, ¶ 1.

techniques to resolve interference prior to rebanding.⁹ It then established procedures for Enhanced Special Mobile Radio (“ESMR”) and cellular licensees to follow in abating interference to public safety and other 800 MHz non-cellular licensees. For the long-term, the Commission adopted a plan to reconfigure the 800 MHz band after concluding that “separating generally incompatible technologies” would best address the root cause of the interference in the band.¹⁰ The new band plan will have contiguous spectrum blocks for the non-cellular, high-site systems used by public safety, private wireless and some SMR licensees, and for the cellular-architecture, multi-cell systems used by CMRS providers.

The Commission has acknowledged that the -101/-104 dBm interference protection standard established in the *Report and Order* was derived from industry proposals that were intended to go into effect only after reconfiguration of the band.¹¹ Nonetheless, in its initial *Report and Order*, the Commission imposed this standard prior to rebanding “because there was nothing in the record” that presented an alternative, and the absence of any interference protection requirements at all prior to rebanding “was unacceptable.”¹²

Following release of the *Report and Order*, Nextel submitted a proposal for interim interference protections prior to reconfiguration of the band.¹³ Nextel proposed -85/-88 dBm protection levels during the interim period, as well as additional interference abatement measures for public safety licensees. This interim proposal was supported by

⁹ In the *Report and Order*, the Commission originally provided that, well in advance of 800 MHz band reconfiguration, non-cellular 800 MHz licenses would be eligible for interference protection if they received a minimum measured input signal level of -101 dBm for portable units and -104 dBm for vehicular units. *Id.* at 15029, ¶ 105.

¹⁰ *Id.* at 14973, ¶ 3.

¹¹ *Supplemental Order*, 19 FCC Rcd at 25136-37, ¶ 37

¹² *Id.* at 25137, ¶ 37.

¹³ See Nextel Letter, WT Docket No. 02-55, at 2-4 (filed Sept. 28, 2004).

public safety and industry alike. Notably, a coalition of Public Safety entities, including APCO, the International Association of Chiefs of Police, the International Association of Fire Chiefs, the National Sheriff's Association, the Major Cities Chiefs Association, and the Major Counties Sheriff's Association found that the interim levels would be satisfactory.¹⁴ Further, a law firm that represents numerous Part 90 public safety, private radio and SMR licensees, including the City and County of Denver, concluded that the interim standard "is fair" and that it "adequately protects incumbent licensees temporarily."¹⁵ CTIA also expressed support for the interim protection levels.¹⁶

On December 22, 2004, the Commission adopted the *Supplemental Order* that waived application of the interference protection standard and adopted an interim interference abatement program patterned after Nextel's recommendations, pending band reconfiguration within a NPSPAC region.¹⁷ This included the -85/-88 dBm protection levels as well as certain additional interference abatement measures applicable to public safety licensees that do not meet the interim levels but would be afforded protection under the original interference protection thresholds. As part of the *Supplemental Order*, the Commission declined to exempt the NPSPAC channels from the interim levels and refused to extend the additional protections to non-public safety licensees.¹⁸

Tri-State challenges the NPSPAC conclusion and seeks application of the permanent interference protection standard. In its petition for reconsideration filed in response to the *Supplemental Order*, Tri-State asserts that "[s]ince the NPSPAC band in [sic] not interleaved with CMRS we feel this interference protection standard *can* be

¹⁴ See APCO Letter, WT Docket No. 02-55 (filed Oct. 5, 2004).

¹⁵ Comments of Shulman Rogers, WT Docket No. 02-55, at 4 (filed Nov. 8, 2004).

¹⁶ See CTIA Letter, WT Docket No. 02-55, at 2-3 (filed Oct. 13, 2004).

¹⁷ *Supplemental Order*, 19 FCC Rcd at 25137, ¶ 38.

¹⁸ See *id.* at 25140-41, ¶ 43.

achieved in the NPS PAC band.”¹⁹ The Commission, however, already has addressed this issue and established the interim standard, recognizing both the need of “ESMR and cellular carriers adequately to serve their subscribers,”²⁰ and adoption of the interim standard as a temporary measure to be met until band realignment is complete.

In a petition for reconsideration of the *Report and Order*, Entergy seeks to extend a public safety-only interference measure, known as the “safety valve,” to Critical Infrastructure Industry (“CII”) licensees who could then petition the FCC to immediately discontinue CMRS operations “when the continued presence of interference constitutes ‘a clear and imminent danger to life or property.’”²¹ The American Petroleum Institute and the United Telecom Council petition the Commission to extend the interim interference protections for public safety licensees to all non-cellular 800 MHz licensees, or at least to CII licensees.²² ConEdison requests that its iDEN system be grandfathered “to receive the same level of interference protection that other licensees using TIA Class A equipment enjoy,” even though its voice radios do not meet the minimum standards set forth in the rules.²³

As discussed below, these petitions are unpersuasive and should be denied.

¹⁹ Tri-State Petition at 3 (emphasis in the original).

²⁰ *Supplemental Order*, 19 FCC Rcd at 25139, ¶ 41.

²¹ Entergy Petition at 7 (quoting *Report and Order*, 19 FCC Rcd at 15044, ¶ 140).

²² See API and UTC Petition at 4-9.

²³ ConEdison March Petition at 4.

II. DISCUSSION

A. **The Commission Should Reject the Request to Apply the Permanent Interference Protection Standard to NPSPAC Channels During the Interim Period Prior to Rebanding.**

In the *Supplemental Order* the Commission recognized that the interim interference protection values were not “an exact balance” but nonetheless were “within the range of reason,” noting the competing interests of interference protection and “the ability of ESMR and cellular carriers adequately to serve their subscribers” prior to rebanding.²⁴ The Commission specifically recognized the need for ESMR and cellular carriers to be able to serve their customers. The interim standards strike the proper balance.

The Commission went on to acknowledge that the interim values, even with the Enhanced Best Practices, “may compromise some public safety systems,” and therefore adopted additional provisions to protect public safety systems that do not meet the interim values but would be afforded protection under the post-rebanding rules.²⁵ As demonstrated below, the Tri-State petition does not put forth new evidence or arguments that would cause the Commission to disrupt the balance it struck in adopting the interim rules and should be denied.

1. **There is No Basis to Provide the NPSPAC Channels with a Special Interference Protection Standard Prior to Rebanding**

The Tri-State petition fails to grasp the current NPSPAC channel interference environment or the significance the Commission assigned to rebanding. It offers no sensible basis to provide NPSPAC licensees with special interference protections

²⁴ *Supplemental Order*, 19 FCC Rcd at 25139, ¶ 41.

²⁵ *Id.* at 25140, ¶ 42.

unavailable to others during the interim period or to impose more significant interference abatement obligations on cellular licensees.

Although the NPSPAC channels are not interleaved in the same dense manner that exists in the lower portion of the band, they are interleaved in the sense that they are bounded on both sides by CMRS spectrum blocks (the ESMR and cellular bands). It is this close proximity that creates the potential for interference. Under the current 800 MHz band configuration, the NPSPAC channels are “subject to the possibility of intermodulation interference from ESMR and cellular carriers”²⁶ – just as other 800 MHz non-cellular channels are. Intermodulation interference occurs when two undesired signals mix in a receiver and produce a third, interfering signal. The example provided by the Commission involves an ESMR signal and a cellular signal mixing in a public safety receiver and generating a third frequency that blocks an incoming desired signal.²⁷ Frequently, this intermodulation interference can be mitigated through a variety of standard engineering techniques (*e.g.*, power reduction, changes to antenna parameters, etc.). However, in some instances, these modifications to the CMRS system may significantly affect the level of service provided to wireless consumers. The Commission recognized both the interest of protecting public safety and preserving commercial service when it adopted the interim protection levels pending band reconfiguration.

As part of the *Report and Order*, the Commission made the fundamental decision that reconfiguring the 800 MHz band – including removing the NPSPAC channels from between the ESMR and cellular spectrum – is the most effective long-term solution for reducing interference to public safety. As the Commission noted, “locating public safety

²⁶ *Id.* at 25141, ¶ 43.

²⁷ *Report and Order*, 19 FCC Rcd at 15024, ¶ 91.

channels in the lower portion of the band – as far as possible from the ESMR and cellular channels – would provide significant relief from interference on public safety channels.”²⁸ The Commission emphasized that band reconfiguration would reduce the potential for intermodulation interference.²⁹

Tri-State ignores the fact that under the Commission’s approach, rebanding, coupled with both short-term and long-term technical requirements, is intended to limit both the risk of interference to public safety as well as the impact on wireless consumers. Instead, Tri-State asserts that the Commission should provide immediate full interference protection to NPSPAC licensees. Tri-State states that cellular licensees are responsible for “much of the interference” experienced by NPSPAC and, because “they are not affected by rebanding,”³⁰ should be required to provide full protection from interference. Tri-State ignores the fact that the interference problems experienced by NPSPAC licensees are often just as challenging to resolve and were a significant factor in the Commission’s identification of rebanding as the optimal long-term solution to interference.

First, the Commission treats NPSPAC channels and interleaved public safety spectrum alike in terms of the risks and mitigation of interference. Tri-State’s effort to provide NPSPAC channels with special interference protection status during the rebanding period is without basis as it provides no technical showing distinguishing the NPSPAC from other non-cellular 800 MHz channels with respect to intermodulation

²⁸ *Id.*

²⁹ *Id.* at 15046, ¶ 146; *see also id.* at ¶ 145 n.389 (noting that “when the 800 MHz band is reconfigured, the ‘front door’ [of new public safety radios] need be opened only widely enough to admit signals from 851 - 862 MHz. With the door not open as wide, signals above 862 MHz – including ESMR and cellular telephone signals – would have a difficult time squeezing through and causing interference”).

³⁰ Tri-State Petition at 1.

interference generally and the interim interference abatement procedures. Second, for purposes of assessing interference abatement obligations, it is immaterial that the Commission chose to relocate the NPSPAC channels while cellular operations stay put. Rebanding – regardless of which service is moved – reduces the potential for interference. Finally, throughout the proceeding the Commission focused heavily on the nature of intermodulation interference, and it chose to impose the same interference abatement obligations on all potential interference contributors. Tri-State offers no evidence to support its suggestion that cellular licensees should be subjected to more stringent interference protection obligations prior to rebanding.

2. The Commission Should Affirm its Interim Interference Abatement Program

Tri-State’s claim that the interim protection level “essentially nullifies” the near-term framework to mitigate interference is also unfounded. Tri-State fails to take into account the overall interim protection program including the specific interim abatement measures adopted for public safety systems.³¹

The interim protection standards of -85/-88 dBm provide a balanced and reasonable approach to interference mitigation during the interim period before rebanding. In evaluating the interim interference protection thresholds, the Commission observed that they are similar to the Telecommunications Industry Association’s minimum signal contour recommendation for public safety systems’ operations in urban markets – the very environments “where interference is more likely to occur than in

³¹ *Id.* at 3.

‘quieter’ suburban or rural areas.’³² According to the *Supplemental Order*, moreover, with this signal field “intermodulation interference [is] less likely.”³³

As noted above, the Commission found that the interim standards were a balance and were “within the range of reason,” and noted they will apply “only until band reconfiguration is completed in each NPSAC region.”³⁴ Moreover, the Commission adopted three interference abatement measures to protect public safety systems that do not meet the interim values but would receive protection under the permanent rules.

Specifically, the Commission required the following:

- CMRS carriers must mitigate unacceptable interference on public safety control channels (up to four channels) such that the public safety receiver maintains a minimum C/(I+N) of 17dB;
- CMRS carriers must exercise best efforts to mitigate CMRS/public safety interference on the public safety system’s voice channels using interference mitigation measures such as those set out in the *Best Practices Guide* so that the public safety receiver maintains a minimum C/I+N of 17dB; and
- If the CMRS carrier(s) are unable to mitigate interference to a public safety system’s voice channels, CMRS carriers must provide a report to the public safety licensee demonstrating why mitigation is not practicable in the specific circumstance, even after application of Enhanced Best Practices, including modification or replacement of public safety equipment. After receipt of the report, if the public safety licensee determines that it expects serious system degradation, it may request the Transition Administrator to facilitate mandatory mediation between the parties to obtain relief. If such mediation is unsuccessful, the public safety licensee may seek relief from the Public Safety and Critical Industry Division of the Wireless Telecommunications Bureau.³⁵

Although Tri-State contends that the interim values would result in a loss of interference protection to over one-third of its system coverage, it does not acknowledge, let alone assess, how the supplemental interim abatement measures would mitigate the

³² *Supplemental Order*, 19 FCC Rcd at 25138, ¶ 40.

³³ *Id.* (citing Comments of the Telecommunications Industry Association, WT Docket No. 02-55 (filed May 6, 2002) and TIA 50 dBu Contour Recommendation, TR-8.18/02-08-00 19 (Apr. 1, 2001)).

³⁴ *Id.* at 25139-40, ¶¶ 41, 42. Note that NPSAC Region 8 will be among the first to be returned.

³⁵ *Id.* at 25140, ¶ 41.

potential for interference. Tri-State has not shown that the Commission should undo the interim framework. Its petition should be denied.

B. The Commission Should Reject Claims to Extend Public Safety-Specific Abatement Measures to Other Non-Cellular 800 MHz Licensees or Grandfather Legacy Systems with New Interference Protections

The Commission should dispose of the petitions seeking to extend public safety-only protections to other licensees in the 800 MHz band. In particular, Entergy filed a petition for reconsideration in response to the *Report and Order* seeking to expand the public safety-only “safety valve” provision to allow other 800 MHz licensees to seek immediate discontinuance of a CMRS service “when the continued presence of interference constitutes a clear and imminent danger to life or property.”³⁶ API and UTC filed a joint petition against the *Supplemental Order* seeking to apply the interim interference abatement measures intended solely for public safety licensees to other non-cellular 800 MHz licensees.³⁷

The Commission should affirm its decision. As noted above, the *Supplemental Order* struck the appropriate balance among licensees’ obligations during the interim period prior to rebanding. As the Commission stated in the *Supplemental Order*, CII licensees “generally have greater access to funds sufficient to improve signal strength than public safety entities which operate on an appropriated funds basis.”³⁸ The Commission should not upset this balance, which will allow CMRS providers to focus its interference mitigation efforts on the public safety community during the period prior to rebanding.

³⁶ *Report and Order*, 19 FCC Rcd at 15044, ¶ 140.

³⁷ See API and UTC Petition at 4-9.

³⁸ *Supplemental Order*, 19 FCC Rcd at 25140, ¶ 43.

In addition, the Commission should deny ConEdison's request to grandfather its iDEN system, which does not meet the minimum performance requirements set forth in the interference protection standard.³⁹ In essence, ConEdison seeks a waiver of the Commission's rules. Under the Commission's rules, the Commission will grant a waiver of its rules only upon a showing of special circumstances warranting deviation from the rules, and a finding that the public interest will be served by waiver.⁴⁰ ConEdison's request does not purport to make an adequate showing under this standard.

III. CONCLUSION

For the reasons set forth above, CTIA urges the Commission to reject these petitions for reconsideration of the *Report and Order* and the *Supplemental Order*.

Respectfully submitted,

/s/ Diane J. Cornell

CTIA – THE WIRELESS ASSOCIATION™

1400 16th Street, NW Suite 600
Washington, D.C. 20036
(202) 785-0081

Diane J. Cornell
Vice President, Regulatory Policy

Christopher Guttman-McCabe
Assistant Vice President, Regulatory Policy &
Homeland Security

Its Attorneys

April 21, 2005

³⁹ 47 C.F.R. § 22.970(b).

⁴⁰ See 47 C.F.R. §§ 1.3 (waiver appropriate “for good cause shown,”) and 1.925(b)(3)(ii) (waiver appropriate where unique or unusual factual circumstances render application of the rule “inequitable, unduly burdensome or contrary to the public interest”); *Northeast Cellular Telephone Co. v. F.C.C.*, 897 F.2d 1164, 1166 (D.C. Cir. 1990), citing *WAIT Radio v. F.C.C.*, 418 F.2d 1153, 1157-59 (D.C. Cir. 1969).

CERTIFICATE OF SERVICE

I, Donna M. Crichlow, hereby certify that copies of the foregoing “Opposition to the Petitions for Reconsideration” were served via U.S. Mail, postage-prepaid, this 21st day of April, 2005, on the parties listed below.

Peter W. Meade,
Chairman, Region 8
Assistant Fire Marshal
Fire & Rescue Services
Nassau County Fire Commission
140 – 15th Street
Mineola, NY 11501

Wayne V. Black
Nicole B. Donath
Keller and Heckman, LLP
1001 G Street, NW, Suite 500 West
Washington, DC 20001

Jill M. Lyon
United Telecom Council
1901 Pennsylvania Avenue, NW
Fifth Floor
Washington, DC 20006

Harold Mordkofsky
Blooston, Mordkofsky, Dickens,
Duffy & Prendergast
2120 L Street, NW
Washington, DC 20037

Shirley S. Fujimoto
Jeffrey L. Sheldon
Keith A. McCrickard
McDermott Will & Emery LLP
600 Thirteenth Street, NW
Washington, DC 20005

/s/
Donna M. Crichlow