

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

In the Matter of)
)
Nuclear Energy Institute and Utilities)
Telecom Council)
) WT Docket No. 09-176
Request for Waiver to Permit The Use of)
Two-Way Wireless Headsets and Intercom)
Devices Inside Nuclear Power Plants)

To: Chief, Wireless Telecommunications Bureau

OPPOSITION OF CTIA – THE WIRELESS ASSOCIATION®

CTIA – The Wireless Association® (“CTIA”)¹ hereby opposes the Petition for Waiver of the Nuclear Energy Institute and Utilities Telecom Council (“Petitioners”). Petitioners once again seek a waiver to permit licensing to commercial nuclear power plants of low power auxiliary service (“LPAS”) devices authorized under Part 74 Subpart H, under Part 90 of the Federal Communications Commission’s (“FCC” or “Commission”) rules.² As discussed in detail below, the Wireless Telecommunications Bureau (“Bureau”) should deny the Petition seeking a waiver for equipment operating in the 698 – 806 MHz bands (“700 MHz”) because (1) Petitioners’ request would contradict the vision of Congress and efforts of the Commission to make certain that the 700 MHz band is clear to enable effective communications by Public Safety and commercial wireless licensees, and (2) Petitioners have failed to sufficiently meet the two-part test required for waiver of the Commission’s rules. Importantly, under no circumstances do 700 MHz

¹ CTIA – The Wireless Association® is the international organization of the wireless communications industry for both wireless carriers and manufacturers. Membership in the organization covers Commercial Mobile Radio Service (“CMRS”) providers and manufacturers, including cellular, Advanced Wireless Service, broadband PCS, ESMR and 700 MHz licensees, as well as providers and manufacturers of wireless data services and products.

² See Public Notice, *Wireless Telecommunications Bureau Seeks Comment on Request by Nuclear Energy Institute and Utilities Telecom Council for Waiver to Permit the Use of Part 74 Two-Way Wireless Headsets and Intercom Devices Inside Nuclear Power Plants*, WT Docket No. 09-176, DA 09-2171 (WTB rel. Oct. 5, 2009) (“*Public Notice*”); Nuclear Energy Institute and Utilities Telecom Council, Petition for Waiver, dated Sept. 23, 2009 (“*Petition*”).

Public Safety and commercial wireless licensees want to risk threatening the safety of workers inside nuclear power facilities, Public Safety first responders, or the public due to interference among incompatible devices operating in the 700 MHz band.

I. INTRODUCTION & BACKGROUND

Commercial operators and Public Safety agencies are poised to deliver on the promise of the long-awaited Digital Television Transition (“DTV Transition”) by repurposing the valuable 700 MHz spectrum in ways that Congress envisioned would bring tremendous benefits to the American public. Commercial wireless providers, who spent billions of dollars to acquire 700 MHz licenses at auction, are eager to invest in new networks and roll out next-generation wireless broadband services. Today’s 700 MHz commercial licensees are among the world leaders in developing and deploying next generation “4G” wireless networks. Verizon Wireless, for example, has announced plans to turn on Long Term Evolution (“LTE”) service in 25 to 30 markets covering a population of 100 million in 2010 and cover its entire 3G footprint by 2013.³ AT&T will be starting LTE trials in 2010 and commercial service in 2011, with plans to provide LTE service covering 87 percent of the nation’s population.⁴ And fifth-largest network operator MetroPCS expects to deploy LTE in mid-2010 in 700 MHz.⁵ CTIA expects other carriers to announce their upcoming 700 MHz buildout plans in the coming months as well.

Public Safety, moreover, has already begun deploying systems in its narrowband 700 MHz spectrum. Approximately 45 narrowband 700 MHz mission critical Public Safety systems have

³ See, e.g., Phil Goldstein, FierceWireless, *Verizon’s Melone details 4G plans for backhaul, antennas, and backup power* (Sept. 22, 2009), available at <http://www.fiercewireless.com/story/verizons-melone-stresses-collaboration-4g/2009-09-22> (last visited Oct. 25, 2009).

⁴ See, e.g., Andrew Berg, Wireless Week, *Rinne: AT&T Ready for 4G Jump* (Sept. 15, 2009), available at <http://www.wirelessweek.com/News/2009/09/Rinne--AT-T-Ready-for-4G-Jump/> (last visited Oct. 25, 2009).

⁵ See *MetroPCS Goes for LTE 4G Technology*, Prepaid Reviews, available at <http://www.prepaidreviews.com/blog/metropcs/metropcs-goes-for-lte-4g-technology-35419/> (last visited Oct. 26, 2009).

been deployed in areas where TV operations were not present or had ceased operations.⁶ The Commission also has before it a dozen waiver requests seeking to deploy early buildout Public Safety networks using the broadband spectrum allocated to Public Safety in the 700 MHz band.⁷ However, these deployments could be placed at risk due to the threat of interference if the Bureau grants Petitioners' waiver request.

The request for a waiver to permit nuclear power plants to utilize the Telex Communications ("Telex") devices at issue is not new and is, arguably, the "third bite at the apple" regarding this issue. By way of background, in 2003, Telex was granted special temporary authority ("STA") under part 74 of the Commission's rules to operate its equipment in nuclear facilities.⁸ Telex subsequently petitioned the Bureau for "a blanket waiver of the Commission's Rules to permit operation of its equipment at certain nuclear facilities in spectrum reserved for over-the-air television broadcasting."⁹ The Bureau, however, found that the facts presented by Telex did not satisfy its two-part waiver test, and denied the Telex petition.¹⁰

Specifically, the Bureau found that Telex failed to demonstrate that interfering emissions actually were contained within the nuclear facilities, and that alternatives were ineffective.¹¹ While Telex claimed emissions would be contained, it admitted that actual attenuation would vary by facility.¹² Further, Telex failed to demonstrate that alternatives available to nuclear power facilities under part 90 of the Commission's rules were ineffective.¹³

⁶ Comments of the National Public Safety Telecommunications Council, WT Docket Nos. 08-166, 08-176 at 4 (Oct. 3, 2008).

⁷ See Public Notice, *Public Safety and Homeland Security Bureau Seeks Comment on Petitions for Waiver to Deploy 700 MHz Public Safety Broadband Networks*, PS Docket No. 06-229, DA 09-1819 (PSHSB rel. Aug. 14, 2009)..

⁸ *Telex Communications, Inc. Request for Waiver to Allow the Use of Certified Wireless Intercom Equipment at Nuclear Facilities for Security Operations Near Reactors*, Order, 19 FCC Rcd 23169 (2004) ("Telex Waiver Order") at ¶ 2.

⁹ *Telex Waiver Order* at ¶ 1.

¹⁰ *Id.* at ¶¶ 4-9; 47 C.F.R. § 1.925(b)(3) (2008).

¹¹ *Telex Waiver Order* at ¶¶ 6-8.

¹² *Id.* at ¶ 6.

¹³ *Id.* at ¶ 7.

Telex filed a Petition for Reconsideration in 2004, re-asserting that the facts met the two-part test and seeking a waiver conditioned on Telex equipment operators' coordination with local users of the spectrum. The Bureau affirmed its denial of Telex's petition, finding that the facts presented did not meet its two-part waiver test.¹⁴ Further, the Bureau found the conditional waiver request impractical because Telex could not ensure coordination of the independent nuclear facilities with local users of the spectrum.¹⁵

While Telex's reconsideration was pending, Petitioners filed their own petition for waiver in 2005 to allow nuclear power facilities to continue to operate Telex equipment in spectrum reserved for over-the-air television broadcasting under Part 74, Subpart H.¹⁶ Following a comment and reply-comment period, NEI and UTC negotiated a Consensus Plan with the National Association of Broadcasters, Association of Maximum Service Television, and the Society of Broadcast Engineers,¹⁷ which allowed nuclear power facilities to continue to use the Telex equipment on an experimental basis, so long as the facilities coordinated with local users of the broadcast spectrum.¹⁸ The Consensus Plan also expressly recognized the need for nuclear power facilities to develop a plan for migrating to new communications equipment in frequencies on which they were authorized to operate.¹⁹ NEI and UTC withdrew their waiver petition following

¹⁴ *Telex Communications, Inc. Request for Waiver to Allow the Use of Certified Wireless Intercom Equipment at Nuclear Facilities for Security Operations Near Reactors*, Order on Reconsideration, 22 FCC Rcd 1250 (2007) (“*Telex Reconsideration Order*”) at ¶ 1.

¹⁵ *Telex Reconsideration Order* at ¶ 6.

¹⁶ *Office of Engineering and Technology Seeks Comment on Nuclear Energy Institute and United Telecom Council Request for Waiver of Section 74.832(h)*, Public Notice, 20 FCC Rcd 20035, (2005).

¹⁷ *Nuclear Energy Institute and Utilities Telecom Council Waiver to Permit the Use of Certain Wireless and Intercom Devices at Nuclear Facilities*, ET Docket No. 05-345, NEI and UTC Supplement to Petition for Waiver (filed Apr. 12, 2007) (“*Coordination Plan*”) at 1-2.

¹⁸ *Coordination Plan* at Exhibit A.

¹⁹ *Coordination Plan* at Exhibit A, 1-2.

the submission of the Consensus Plan.²⁰ Individual nuclear power facilities subsequently sought, and were granted, experimental licenses. These licenses are set to expire on February 19, 2010.²¹

II. PETITIONERS' WAIVER REQUEST IGNORES THE CHANGES OCCURRING IN THE 700 MHZ BAND AS A RESULT OF THE DTV TRANSITION AND FAILS THE TWO-PART WAIVER TEST

A. A Grant of Petitioners' Request Would Undermine the DTV Transition and the Commission's Steps to Clear the 700 MHz Band of LPAS Devices to Ensure Effective Public Safety and Commercial Wireless Communications

Petitioners are asking the Bureau to contradict its own effort to clear the band for Public Safety and commercial wireless use by seeking to license the Telex devices in effect through a waiver of the Commission's Part 74 eligibility rules. In implementing the DTV Transition, the Commission has embarked on a path forward for clearing the 700 MHz band to become fully available for Public Safety and commercial wireless services. The Commission in 2008 recognized its obligation "to take all steps necessary to make this spectrum effectively available both to public safety and commercial licensees at the end of the DTV transition."²² In the *700 MHz Wireless Microphones Order and NPRM*, the Commission determined "that continuing to accept new license applications for low power auxiliary station licenses that involve the operation of such stations on [700 MHz band] spectrum after [the DTV transition] would impair the objectives that we are proposing in this proceeding."²³ Petitioners' waiver request asks the FCC to permit the use of LPAS devices in the very bands the Commission is trying to clear.

Petitioners' attempt to style their request as a waiver of the FCC's Part 90 and Part 2 rules, rather than as a waiver of the Part 74 rules, should be rejected. As noted *supra* Section I, in 2005

²⁰ Letter from J. Jeffrey Crave, Counsel, NEI & UTC to Marlene Dortch, Secretary, FCC, ET Docket No. 05-345 (filed July 20, 2007)

²¹ Petition at 1 n.2.

²² Revisions to Rules Authorizing the Operation of Low Power Auxiliary Stations in the 698-806 MHz Band, *Notice of Proposed Rulemaking and Order*, 23 FCC Rcd 13106, ¶ 1 (2008) ("*700 MHz Wireless Microphones Order*").

²³ *Id.* at ¶ 23.

Petitioners filed a similar request as a waiver of the Part 74 rules.²⁴ Moreover, Petitioners propose *individual licensing* upon a grant of the requested waiver.²⁵ Thus, it is clear that despite Petitioners' current attempt to package the request as a waiver of the FCC's Part 90 and Part 2 rules, it effectively amounts to a 700 MHz LPAS license application that the agency has declared it will no longer grant.²⁶ As the Commission made clear in its 2008 Order, “[a]ny applications received on or after [August 21, 2008] will be returned as unacceptable for filing.”²⁷ Further, to the extent Petitioners challenge or seek reconsideration of this holding of the Commission's 2008 Order in their filing, it is untimely and must be rejected. Petitioners' request must therefore be denied.

B. Petitioners Do Not Satisfy the Two-Part Test Required for Waiver of the Commission's Rules.

Petitioners have not sufficiently demonstrated that the underlying rule would be served by waiver, nor that the rule is burdensome, inequitable, or against the public interest.²⁸ “To make this public interest finding, *the waiver cannot undermine the purposes of the rule*, and there must be a stronger public interest benefit in granting the waiver than applying the rule.”²⁹

First, it is clear in light of the Commission's priority to clear LPAS devices from the 700 MHz spectrum to enable reliable Public Safety and commercial wireless operations³⁰ that the waiver would actually undermine – rather than advance – the underlying rule. Second, Petitioners

²⁴ See *supra* Section I.

²⁵ Petition at 22, n.39.

²⁶ *700 MHz Wireless Microphones Order* at ¶ 23.

²⁷ *Id.* at ¶ 23.

²⁸ See 47 C.F.R. 1.925 (authorizing Commission to grant a waiver request upon a petitioner's demonstration that: “(i) The underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of the requested waiver would be in the public interest; or (ii) In view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.”).

²⁹ *Globalstar Licensee LLC, Order and Authorization*, 23 FCC Rcd 15975 (rel. Oct. 31, 2008) (citing *WAIT Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969) and *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990)).

³⁰ *700 MHz Wireless Microphones Order* at ¶¶ 1, 23.

proffer no evidence that the Telex systems will not interfere with Public Safety and commercial wireless mobile use of 700 MHz spectrum. Indeed, the Petition is crafted as if the interference risk were still the threat to over-the-air broadcasters. Additionally, the potential for interference to the Telex equipment could endanger the plants' workers and safety operations, undermining the public interest. Petitioners' expressly conceded in the 2007 Consensus Plan the *likelihood of increased interference* in the band due to new uses of the spectrum after the DTV Transition.³¹ As discussed *infra* Section II.C., Petitioners engage in no analysis regarding the interference potential of the Telex systems with mobile 700 MHz systems. Third, Petitioners do not submit sufficient evidence that alternatives don't exist or that they have taken adequate steps to fulfill their commitment to "swiftly developing alternative, frequency compliant equipment."³² By their own admission, Petitioners claim to have collected observations of six categories of off-the-shelf communications equipment "used widely" in the nuclear energy industry.³³ Petitioners offer no information concerning research beyond what equipment may be already in use, or the potential to adapt existing equipment or obtain new equipment, as the Bureau specifically pointed out in its past decisions denying the requested relief.³⁴ Petitioners could, for example, explore the potential for deployment of communications equipment in other bands, such as unlicensed PCS spectrum at 1920-1930 MHz, or utilize managed services from commercial providers.

Because Petitioners have not demonstrated that the underlying rule would be served by waiver, or that the rule is burdensome, inequitable, or against the public interest, the Bureau should deny the Petition.

³¹ *Coordination Plan* at Exhibit A, § IV.H. (noting that "[t]he Plants also acknowledge that this risk of interference could increase further as a result of the Commission's plan to repackage the spectrum currently used by broadcast television, in connection with the end of the DTV transition" and "that Plants using Telex Equipment may receive harmful interference from incumbent operations and that such interference may disrupt communications among Plant personnel.").

³² *Coordination Plan* at Exhibit A, 1-2.

³³ Petition, Attachment B.

³⁴ See, e.g., *Telex Waiver Order* at ¶ 7; *Telex Reconsideration Order* at ¶¶ 5-6, 8.

C. Petitioners' Waiver Request Entirely Disregards Interference Impacts To and From 700 MHz Public Safety and Commercial Wireless Deployments

In support of their waiver request, Petitioners claim that “there have been no reported incidents of interference” during the past five years by the Telex equipment to over-the-air broadcast licensees.³⁵ This assertion entirely misses the mark in the post-DTV Transition environment. The Petition fails to recognize that interference effects between nuclear plant personnel and new 700 MHz licensees are significantly different than those of prior incumbent, stationary, analog broadcast operations. The nuclear power facilities’ current experimental authorizations, premised on coordination with local broadcasters, are impractical in the current post-DTV transition environment. This is the case given the mobile nature of wireless users and devices, the numerous commercial and Public Safety licensees, the nature of CMRS buildout and the subsequent splitting of cells. In short, the dynamic and continuously evolving radiofrequency environment for new 700 MHz primary licensees contrasts sharply with the spectrum environment that remained relatively constant under analog broadcasters’ use for extended periods. The Petition ignores these different environments and likely effects, and Petitioners offer no evidence that they have been tested.

Interference issues for new 700 MHz commercial and Public Safety wireless licensees have important technical implications. For example, there is the potential for the Telex equipment emitting a strong enough signal to cause 700 MHz commercial mobile radio users to increase power, which could degrade or render inoperable a wireless cell site due to uplink interference. This is especially true if the equipment is used outdoors, as many plants currently do.³⁶ Downlink

³⁵ Petition at 2.

³⁶ Petition, Attachment at 1 (noting outdoor use by 10 plants out of the 47 plants surveyed, out of a total of 108). Although the Petition ostensibly seeks the waiver for indoor use only, Petition at 12, it fails to adequately detail how equipment use will be monitored and enforced.

interference from Telex equipment also could negatively impact commercial subscribers in and around a nuclear facility where the Telex equipment may be in use.

The Telex equipment may seriously impede Public Safety responders utilizing 700 MHz,³⁷ threatening the critical role that Public Safety licensees could play in an emergency response situation. In an emergency, Public Safety personnel could be inside the facility (as well as within tens or hundreds of feet outside) operating on 700 MHz channels. The Telex equipment could interfere with such operations. The risk of incompatibility between the Telex devices and first responders talking on 700 MHz Public Safety radios could disrupt or degrade vital Public Safety communications. Even Telex equipment used inside a facility could interfere up to 1,000 feet outside of the building and interfere with first responders.

Additionally, as noted *supra*, the potential for interference to the Telex equipment from new commercial and Public Safety 700 MHz operations could endanger the plants' workers and safety operations. This interference could render the Telex equipment inoperative and risk disrupting critical power plant communications.³⁸ Petitioners' expressly conceded in the 2007 Consensus Plan with broadcasters the chances of disruptions to plant communications from primary licensees and that "this risk of interference could increase further as a result of the Commission's plan to repackage the spectrum currently used by broadcast television, in connection with the end of the DTV transition."³⁹

Petitioners' failure to address the potential for harmful interference to or from new 700 MHz licensees is particularly curious in light of the Bureau's concern in prior decisions about co-

³⁷ Petitioners claim that the maximum interference zone is within 500 to 1,000 feet of the plant, Petition at i, yet this interference zone could be even greater given the actual outdoor use of Telex equipment outside the plants, as noted *supra* note 31.

³⁸ For example, MediaFLO USA, Inc. holds nationwide licenses at 716 – 722 MHz and is licensed to transmit at 50 kW power to deliver high quality video content to mobile devices. Such high transmit power levels to numerous mobile devices in and around a nuclear facility could result in serious disruption and degradation to plants' communications equipment.

³⁹ *Coordination Plan* at Exhibit A, § IV.H.

channel interference between the Part 74 devices and primary licensees' operations.⁴⁰ Because the Petition entirely fails to account for the interference impacts involving 700 MHz Public Safety and commercial wireless deployments, and does not meet the Commission's two-part waiver test, the Bureau should deny the Petition.

Finally, as discussed above, some nuclear power plant facilities currently have been authorized for Part 5 experimental use of the LPAS devices in the 700 MHz band through February 2010. Consistent with its rules and policies, the Commission should exercise its authority to modify these licenses to prohibit operations in 700 MHz frequencies through the end of the license term.⁴¹

III. CONCLUSION

For the reasons discussed above, the Bureau should deny the Petition for Waiver.

Respectfully submitted,

/s/ Brian M. Josef

Brian M. Josef
Director, Regulatory Affairs

Christopher Guttman-McCabe
Vice President, Regulatory Affairs

Michael F. Altschul
Senior Vice President, General Counsel

CTIA – THE WIRELESS ASSOCIATION®
1400 16th Street, NW Suite 600
Washington, D.C. 20036
(202) 785-0081

Its Attorneys

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⁴⁰ See, e.g., *Telex Waiver Order* at ¶¶ 5-6, 8; *Telex Reconsideration Order* at ¶¶ 5-6.

⁴¹ See 47 C.F.R. § 5.83.