

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

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| In the Matter of   | ) |                      |
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| Revisions to Rules Authorizing the Operation<br>of Low Power Auxiliary Stations in the 698-<br>806 MHz Band  | ) | WT Docket No. 08-166 |
|  | ) |                      |
| Public Interest Spectrum Coalition, Petition for<br>Rulemaking Regarding Low Power Auxiliary<br>Stations, Including Wireless Microphones, and<br>the Digital Television Transition | ) | WT Docket No. 08-167 |
|  | ) |                      |
| Amendment of Parts 15, 74 and 90 of the<br>Commission's Rules Regarding Low Power<br>Auxiliary Stations, Including Wireless<br>Microphones   | ) | ET Docket No. 10-24  |
|  | ) |                      |

**COMMENTS OF CTIA - THE WIRELESS ASSOCIATION®**

CTIA - The Wireless Association® (“CTIA”)<sup>1</sup> respectfully submits these comments in response to the Commission’s Further Notice of Proposed Rulemaking regarding low power “Wireless Audio Devices” and low power auxiliary stations (“LPAS”) operating in the core TV bands.<sup>2</sup> In these comments, CTIA responds to critical questions raised in the *FNPRM* to ensure

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<sup>1</sup> 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, 700 MHz, broadband PCS, and ESMR, as well as providers and manufacturers of wireless data services and products.

<sup>2</sup> *Revisions to Rules Authorizing the Operation of Low Power Auxiliary Stations in the 698-806 MHz Band*, Report and Order and Further Notice of Proposed Rulemaking, 25 FCC Rcd 643 (rel. Jan. 15, 2010) (“*Wireless Microphones R&O and FNPRM*” or “*FNPRM*”).

that interference-free operation of 700 MHz band licensees as directed in the *Wireless Microphones R&O* is achieved. Specifically, CTIA hopes that the Commission will:

- Ensure that new wireless microphone operations in the core TV bands do not result in interference to new commercial or public safety operations in the 700 MHz band;
- Limit LPAS and Wireless Audio Device operations to lower portions of the core TV bands to incent more efficient device operations and preserve opportunities for new and additional uses of the TV bands, including mobile broadband; and
- Require manufacturers, retailers and distributors of Part 74 LPAS devices, as proposed by the Commission in the *FNPRM*, to direct marketing practices only to parties eligible to operate such devices and impose labeling and point of sale verification requirements.

CTIA commends the Commission for taking action in the *Wireless Microphones R&O* and *FNPRM* to ensure that commercial and public safety licensees can operate in the 700 MHz band without interference. Notably, the Commission established that all LPAS devices, including wireless microphones, must cease operating in the 700 MHz band no later than June 12, 2010; any such operations must cease immediately if users of these devices cause harmful interference to a 700 MHz public safety or commercial licensee; and the manufacture, import, sale, lease, offer for sale or lease, or shipment of LPAS devices intended for use in the 700 MHz band is prohibited. The Commission's leadership will help pave the way for the successful introduction of 4G wireless broadband services, as well as interoperable Public Safety broadband communications, in the 700 MHz band.

## **I. WIRELESS MICROPHONE AND OTHER LOW POWER OPERATIONS IN THE TV BANDS MUST PROTECT NEW SERVICES OPERATING AT 698-704 MHZ (FORMERLY CHANNEL 52) AND OTHER 700 MHZ FREQUENCIES**

### **A. The Technical Rules Governing Wireless Audio Device Operations Must Provide Adequate Protection to Nearby 700 MHz Licensees**

The *FNPRM* seeks comment on a set of technical rules that would govern Part 15 unlicensed operation of Wireless Audio Devices, including wireless microphones, by entities that

are not eligible for a Part 74 LPAS license. The Commission seeks comment on whether operations under such rules could impact 700 MHz band operations.<sup>3</sup> The Commission should adopt appropriate power levels and out-of-band emission (“OOBE”) limits for new Wireless Audio Devices that provide adequate protection to new 700 MHz licensee operations. Further, CTIA supports a rule that prohibits the attachment of amplifiers to wireless microphones, the use of which would necessarily undermine the proposed power limit.<sup>4</sup>

CTIA commends the Commission for recognizing the potential that Wireless Audio Devices operating in the TV bands could cause interference to new commercial licensees operating in the 700 MHz band, especially in the 698-704 MHz band. Given that the Commission's significant undertaking to clear wireless microphone operations from the 700 MHz band is largely intended to avoid interference to new 700 MHz licensees, sound public policy dictates that any new, lawful operation of wireless microphones in the TV bands likewise avoid interference to the new licensees in the 700 MHz band.

**B. In the Event the Commission Allows the Use of Part 74 Certificated Devices in Nuclear Power Facilities Going Forward, Any Such Operation Must be Limited to the TV Bands**

If the Commission chooses to modify its rules to permit the use of Part 74 devices inside nuclear power plants, such operations should be strictly limited to the TV bands below 700 MHz identified in the revised Section 74.802(a).

The *FNPRM* notes that in 2009 the Nuclear Energy Institute and Utilities Telecom Council (“NEI/UTC”) sought a waiver to permit users in commercial nuclear power plants to operate pursuant to Part 90 devices that are certificated under Part 74, Subpart H covering all of

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<sup>3</sup> See *id.* at ¶¶ 118 & 119.

<sup>4</sup> See *id.* at ¶ 116.

the LPAS-authorized frequencies, including the entire 614-806 MHz band.<sup>5</sup> CTIA and others opposed the request.<sup>6</sup> The waiver request ignored the DTV transition; the evolution of the 700 MHz band from a TV band to a commercial wireless and public safety band; and the prior recognition by NEI/UTC of the need for nuclear power facilities to “swiftly develop[] alternative, frequency compliant equipment” and migrate to frequencies on which they were authorized to operate.<sup>7</sup> CTIA observed that the risk of interference in this new landscape is especially serious given that it could jeopardize the new commercial and Public Safety operations and endanger the plants’ workers and safety operations.<sup>8</sup>

In the *FNPRM*, the Commission seeks comment on whether to extend the license eligibility under Part 74, Subpart H to permit LPAS use inside nuclear power plants. In doing so, the Commission notes that revised Section 74.802(a) provides for operations under Part 74, Subpart H in the frequency band 614-698 MHz and not 614-806 MHz.<sup>9</sup> At a minimum, then, should the Commission take action on the NEI/UTC waiver request or otherwise extend license eligibility to LPAS use inside of nuclear power plants, it should make certain to limit any such operations to the frequencies encompassed in the revised Section 74.802(a).

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<sup>5</sup> See *id.* at ¶ 139; see also Petition for Waiver (Expedited Action Requested), Nuclear Energy Institute and Utilities Telecom Council (filed Sept. 23, 2009) (“NEI/UTC waiver request”).

<sup>6</sup> See Opposition of CTIA – The Wireless Association®, WT Docket No. 09-176 (filed Oct. 26, 2009) (“CTIA Opposition”); Opposition of Verizon Wireless, WT Docket No. 09-176 (filed Oct. 26, 2009).

<sup>7</sup> See generally CTIA Opposition. See also *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.

<sup>8</sup> See CTIA Opposition at 6-10.

<sup>9</sup> *Wireless Microphones R&O and FNPRM* at ¶ 139, n. 317.

## **II. THE COMMISSION SHOULD LIMIT PART 15 AND NEW PART 74 WIRELESS MICROPHONE OPERATIONS TO THE LOWER PORTION OF THE TV BANDS IN ORDER TO INCENT EFFICIENT USE AND ENABLE A RANGE OF USERS OF THE SPECTRUM**

The *FNPRM* observes that “in the core TV bands, we face tradeoffs and difficult choices concerning the competing uses of different devices that consumers will employ in this spectrum.”<sup>10</sup> It thus seeks comment on steps the Commission can take to ensure that wireless microphones operate more efficiently “in order to make spectrum available for other uses” – for example, “the continued development of wireless broadband.”<sup>11</sup>

The *FNPRM* recognizes that wireless microphone operations can “result in inefficient use of valuable spectrum.”<sup>12</sup> For example, the majority of wireless microphones in use are analog devices, and “the maximum number of wireless microphones that operate simultaneously in a 6 megahertz TV channel may be as few as six or eight.”<sup>13</sup> Because such operations leave valuable spectrum fallow, the Commission properly inquires what steps it can take to encourage efficient spectrum use and the adoption of new digital technology.

The Commission should authorize Wireless Audio Device and new Part 74 device operations in a limited portion of the TV bands – well removed from the 700 MHz band.<sup>14</sup> First, with more limited spectrum availability, manufacturers will have more incentive to develop devices that operate more efficiently. Restricting wireless microphone operations to the lower

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<sup>10</sup> *Id.* at ¶ 145.

<sup>11</sup> *Id.* at ¶ 146.

<sup>12</sup> *Id.* at ¶ 147.

<sup>13</sup> *See id.*

<sup>14</sup> In the *Wireless Microphones R&O and FNPRM*, the Commission provided that Wireless Audio Devices will be able to use the entire TV Band Spectrum (excluding channel 37). *See id.* at ¶ 115.

portion of the TV bands also will advance the goal of making the TV band spectrum “more available to a range of users for new and innovative products and services,” including the potential for mobile broadband operations in spectrum adjacent to the 700 MHz band.<sup>15</sup> Indeed, Chairman Genachowski has spoken of the benefits that can be achieved through the use of TV broadcast spectrum for mobile broadband resulting from the relocation of broadcasters.<sup>16</sup> Such restrictions thus will promote the migration to digital technology that the Commission seeks to facilitate and help to align the necessary incentives to create an environment ripe for innovative and efficient spectrum use.<sup>17</sup>

### **III. CTIA SUPPORTS PROPOSALS ESTABLISHING THAT MANUFACTURERS, RETAILERS AND DISTRIBUTORS ARE ACCOUNTABLE FOR ENSURING THAT PART 74 DEVICES ARE SOLD ONLY TO ELIGIBLE ENTITIES**

CTIA supports proposals that will ensure that Part 74 devices are marketed and sold only to eligible users. In the *FNPRM*, the Commission observes that, unlike the Part 15 rules, the Part 74 rules do not require labeling or other disclosure information, nor are there additional marketing requirements specific to these devices.<sup>18</sup> Thus, the Commission asks whether rules restricting the marketing and sale of Part 74 devices should be adopted.<sup>19</sup> In particular, the Commission proposes a number of requirements, including: allowing marketing solely to parties eligible to operate the equipment; mandatory labels or other advisory information; and other restrictions on the sale (including requirements related to record keeping, point of sale eligibility

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<sup>15</sup> *Id.* at ¶ 149.

<sup>16</sup> See “*Mobile Broadband: A 21st Century Plan for U.S. Competitiveness, Innovation and Job Creation*,” Remarks of Chairman Julius Genachowski at 5-6 (Feb. 24, 2010).

<sup>17</sup> See *Wireless Microphones R&O and FNPRM* at ¶¶ 147-49.

<sup>18</sup> *Id.* at ¶ 140.

<sup>19</sup> *Id.* at ¶¶ 141-44.

verification, and/or point of sale contractual acknowledgement) of Part 74 devices.<sup>20</sup> CTIA supports such proposals, which promise to ensure that Part 74 devices will end up in the hands of an informed and legitimate user population.

In light of the long history of marketing and sales of Part 74, Subpart H certificated devices to ineligible and unauthorized users, the public interest would best be served by rules that impose a level of responsibility and accountability on manufacturers, retailers, and distributors of such products. For years, there has been deliberate and targeted marketing of Part 74, Subpart H wireless microphones to churches, schools, convention centers, karaoke bars and a multitude of other illegitimate users – and the existence and use of these unauthorized devices in the 700 MHz band created the exigent need for this proceeding. The Commission and public interest would thus be well-served by putting in place appropriate safeguards surrounding the marketing and sale of Part 74 devices so that sales to ineligible users do not reoccur. Accordingly, CTIA supports the proposals outlined in the *FNPRM* to ensure that manufacturers, retailers and distributors have clear standards as to their respective responsibilities regarding the marketing and sale for Part 74 devices.

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<sup>20</sup> *See id.*

## CONCLUSION

CTIA appreciates the Commission's commitment to ensuring that public safety and commercial licensees in the 700 MHz band can operate without interference. The Commission should adopt the above-stated positions to avoid wireless microphone interference to such operations and create incentives for devices that use spectrum more efficiently, thereby creating opportunities for additional spectrum uses in the TV bands, including mobile broadband.

Respectfully submitted,

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