

Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C. 20554

In the Matter of	)	
	)	
Request by Auspion Inc.	)	OET Docket No. 19-83
For Waiver of Section 18.107(c)	)	
of the Commission's Rules	)	

**REPLY COMMENTS OF AUSPION INC.**

Auspion Inc. (“Auspion”), has requested waiver of Section 18.107(c) and, to the extent necessary, Section 2.1 of the Federal Communications Commission’s (“FCC” or “Commission”) rules,<sup>1/</sup> which set out definitions for Industrial, Scientific, and Medical (“ISM”) equipment. Auspion seeks authorization to deploy a system that performs wireless power transfer at distance (“WIPOD”) under Part 18 of the Commission’s rules, which requires that RF be used “locally.” This contemplated use was not expressly authorized during the development of the Part 18 rules, which were established more than fifty years ago.<sup>2/</sup>

The public interest will be served by grant of the waiver, as there is no other option for bringing true wireless power at a distance to market in the United States. Allowing access to wireless power transfer by industrial, retail, and enterprise customers will bring many other

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<sup>1/</sup> *Request by Auspion Inc. for Wavier of Section 18.107(c) of the Commission's Rules, Request for Waiver at 1 and n.3, OET Docket 19-83 (filed Jan. 3, 2019) (“Waiver Request”).*

<sup>2/</sup> When Part 18 was codified, affordable microwave technology was not available for frequency bands above 6 GHz. At that time, to focus RF power at frequencies that were commercially viable, antennas were too large to be of practical use due to the large wavelengths of those frequencies. Hence, the focusing of power for transfer was not practical. Today, these technologies have matured and can use much higher spectrum, enabling the well-focused power transfer in the 24 GHz frequency range designed by Auspion.

benefits, including supporting the Internet of Things (“IoT”) industry and enterprise infrastructure sectors by completely changing the manner in which wireless devices are powered.

## **DISCUSSION**

Auspion appreciates the support of others in the industry, and is in full agreement that the Commission should provide clear, predictable, and expeditious paths to market for the wireless power transfer at a distance industry as a whole. As a nascent but quickly developing industry, regulatory certainty will promote investment and spur further technological development for a range of products. While specific technologies, frequency bands, features, and use cases may differ, the adoption of through-the-air wireless power has the potential to be even more impactful in society than wireless data, and will be a necessity for information technology to reach its full potential. The FCC should ensure that the United States takes and maintains the lead in this important technology sector.

All parties involved in the industry agree on one common point: regulatory delays in approving wireless power transfer at a distance will be detrimental to the industry, and processes must be in place and acted upon in a timely manner to provide appropriate regulatory structure for this burgeoning industry.<sup>3/</sup> While it is widely acknowledged in industry that wireless power has enormous potential, the principal factor in technology investment decisions today in this field is the regulatory outlook. Auspion supports clear, flexible, and technologically neutral requirements to enable the industry to invest in and market a wide range of technologies, without the need for serial waivers or long KDB inquiry processes.

The Commission may grant a waiver upon good cause shown, which can be demonstrated “when particular facts would make strict compliance with the rules inconsistent

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<sup>3/</sup> See Comments of MetaPower at 5; Comments of Nikola Labs at 6.

with the public interest.”<sup>4/</sup> Here, the public interest in providing prospective customers with access to WIPOD technology, aiding in launching the industry in the U.S., is far stronger than a strict application of the rule, and waiver should be granted.

Auspion appreciates the comments of the IT’IS Foundation, which supports grant of the waiver.<sup>5/</sup> IT’IS is a self-described leading research organization in the areas of RF exposure assessment and dosimetry.<sup>6/</sup> IT’IS finds that Auspion has met the requirements of a waiver. It notes that Auspion has “demonstrated that the size of the power spot at the target location can be very well controlled and the system has various built-in mechanisms to determine if charging should be stopped or adjusted according to human presence within the charging vicinity.”<sup>7/</sup> It then concludes that this design “will substantially reduce the potential for human exposure.”<sup>8/</sup>

Two parties question whether a waiver is needed under these circumstances, noting that the Commission could define “locally” to include Auspion’s proposed operations rather than granting a waiver of the rules.<sup>9/</sup> Auspion fully supports this alternative proposal, insofar as it allows full functioning of its WIPOD system. Auspion has always believed that its proposed system – which uses energy locally by transmitting power to “power spots,” and is designed to perform the “work” of charging – is consistent with the characteristics envisioned for Part 18 equipment, and that Part 18 can be interpreted to allow for WIPOD. The administrative history

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<sup>4/</sup> See *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (1990).

<sup>5/</sup> IT’IS Foundation Comments, OET Docket No. 19-83 (filed April 25, 2019) (“IT’IS Comments”).

<sup>6/</sup> *Id.* at 1.

<sup>7/</sup> *Id.*

<sup>8/</sup> *Id.*

<sup>9/</sup> Comments of MetaPower LLC; Comments of Nikola Labs.

of Part 18 indicates that that the local use language was put into place long before any technology of this kind was contemplated, without any stated reason.<sup>10/</sup>

It is not Auspion's intent to foreclose opportunities to others in the industry by seeking this waiver, which would only be applicable to Auspion. Auspion recognizes the existence of other paths forward suggested by other parties.<sup>11/</sup> However, the Commission has a responsibility to provide relief to parties where strict compliance with its rules – as interpreted by staff – could result in hardship, inequity, or harm to the public interest.<sup>12/</sup> The Commission has been willing to grant waiver requests for other technologies that did not exist at the time that the relevant rules were put into place and therefore, like in this instance, never factored in to the adopted rules.<sup>13/</sup> Thus, grant of a waiver can be appropriate under these circumstances. And the Commission should act promptly, both to allow marketing by Auspion and to move the industry forward.

Nikola Labs raises concerns that grant of this waiver could preclude its ability to obtain relief through the case-by-case KDB process.<sup>14/</sup> KDB inquiries are both useful and necessary in bringing innovative technologies to market. The requested waiver here is unique to Auspion, and is not intended to create regulatory hurdles for other parties or foreclose other paths forward for

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<sup>10/</sup> Waiver Request at 9-10. Indeed, the Commission's Public Notice for this proceeding states that the "rules do not provide a precise specification for 'local use' conditions, whether by distance, frequency, or power." *Public Notice, Office of Engineering and Technology Seeks Comment on Auspion USA, Inc. Request for Waiver of ISM "Local Use" Requirement in Parts 2 and 18 for a 24 GHz Wireless Power Transfer Device over Distance*, DA 19-211 (rel. March 26, 2019).

<sup>11/</sup> Comments of MetaPower at 3. MetaPower supports classification of WPT AAD as Part 18 devices, but suggests that Auspion should be able to obtain regulatory relief through rule interpretation.

<sup>12/</sup> *WAIT Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969).

<sup>13/</sup> *See UltraVision Security Systems, Inc. Request for Interpretation or Waiver of Section 15.511(a) & (b) of the Commission's Rules for Ultra-Wideband Devices*, Order, 23 FCC Rcd 17632 (2008); *Headsight, Inc. Waiver of Part 15 of the Commission's Rules Applicable to Ultra-Wideband Devices*, Order, 32 FCC Rcd 1511 (2017)

<sup>14/</sup> *See* Comments of Nikola Labs at 2.

wireless power transfer at a distance. Grant of Auspion's waiver should not undermine the ability of others to obtain case-by-case review for eligible devices, but will instead serve as a stepping-stone towards providing more regulatory structure for the entire industry. Nikola Labs objection is therefore misplaced.

Nikola Labs additionally asserts that Auspion does not require and should not be granted a waiver because the Auspion system can be evaluated through the Commission's Pre-Approval Guidance ("PAG") procedures.<sup>15/</sup> The PAG process is an oversight procedure in place for Telecommunication Certification Bodies ("TCBs") to obtain testing and other procedural guidance from the Commission staff on certain types of devices, including concurrence as to whether equipment complies with the Commission's rules.<sup>16/</sup> PAG does not provide that the Commission and TCBs allow equipment authorization for devices that cannot be authorized under the rules.<sup>17/</sup> PAG cannot be used to bypass regulatory requirements that otherwise would be required. Here, given the uncertainty in the definition of "locally," a waiver or clarification is required.

Similarly, Nikola Labs expresses concern that grant of this waiver with any of the conditions requested by Auspion would constrain other parties in getting to market.<sup>18/</sup> The legal standard for waivers is well settled: waivers are agency actions of individualized cases rather than general applicability,<sup>19/</sup> and conditions applied to one party need not be applicable to

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<sup>15/</sup> Comments of Nikola Labs at 3-4.

<sup>16/</sup> 47 C.F.R. § 2.964; *Amendment of Parts 0, 1, 2 and 15 of the Commission's Rules*, Notice of Proposed Rulemaking, 28 FCC Rcd 1606, 1616 (2013).

<sup>17/</sup> *Id.*

<sup>18/</sup> Comments of Nikola Labs at 6-7 and 8 (objecting to any conditions imposed on Auspion's waiver).

<sup>19/</sup> *See WAIT Radio* at 1157.

another. There is no reason to deny Auspion's requested relief because it seeks to go to market under a defined set of conditions valid only to itself.

As noted above, there are two ways forward for the Commission: a clarification of the Part 18 definition of "locally" to allow for WIPOD systems such as Auspion's, or a waiver of that requirement as described by Auspion. Auspion's proposal for a waiver should be granted even if the Commission decides that an interpretation to allow for wireless power transfer at a distance generally is not justified at this time. It is well-established that "[t]he agency's discretion to proceed in difficult areas through general rules is intimately linked to the existence of a safety valve procedure for consideration of an application for exemption based on special circumstances."<sup>20/</sup> Absent a rule interpretation, a waiver is required to bring Auspion's system to market and, as explained in the Waiver Request, is in the public interest to grant this one.

Finally, while two informal comments raise several other points,<sup>21/</sup> the Commission need not address those issues to resolve Auspion's Waiver Request. The waiver is unrelated to issues raised such as 5G siting and the Commission's resolution of interference complaints filed by other parties, for example.

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<sup>20/</sup>

*Id.*

<sup>21/</sup>

Comment of Steve Noll and Comment of Gerald Bosak.

## CONCLUSION

With the record now complete, the Commission has what it needs to bring this matter to a close. For the foregoing reasons, Auspion respectfully requests that the Commission waive Sections 2.1 and 18.107(c) of its rules so that it may market its non-consumer WIPOD system.

Respectfully submitted,

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May 10, 2019

CERTIFICATE OF SERVICE

I, Laura Stefani, hereby certify that on May 10, 2019, a copy of the foregoing Reply Comments of Auspion Inc. was served by U.S. Mail on the following:

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