

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

In the Matter of

Kuiper Systems LLC

Application for Minor Amendment of
Pending Modification of the Kuiper System
(Call Sign S3051)

SAT-AMD-_____

SAT-MOD-20210806-00095

APPLICATION FOR MINOR AMENDMENT OF PENDING MODIFICATION

Kuiper Systems LLC, a wholly owned subsidiary of Amazon.com Services LLC (collectively “Amazon”), pursuant to Sections 1.3 and 25.116 of the rules of the Federal Communications Commission (“FCC” or “Commission”),¹ hereby amends the above-captioned application (the “Application”) to include a request for a partial waiver of Section 25.146(c) of the FCC’s rules. Specifically, to the extent necessary, Amazon requests partial waiver of Section 25.146(c) to permit operations of its non-geostationary orbit (“NGSO”) fixed-satellite service (“FSS”) constellation prior to receiving the International Telecommunication Union (“ITU”) finding required by this rule and the associated condition in Amazon’s license.² Grant of this waiver is not only consistent with Commission precedent, but would also further the public interest by allowing Amazon to expeditiously deploy and provide next-generation connectivity to

¹ 47 C.F.R. §§ 1.3, 25.116.

² 47 C.F.R. § 25.146(c). *See also Kuiper Systems LLC Request for Modification of the Authorization for the Kuiper NGSO Satellite System*, Order and Authorization, DA 23-114, ¶ 44 (2023) (“2023 Kuiper Authorization”).

customers around the world, including in unserved and underserved areas.³

I. INTRODUCTION

Fast and reliable broadband connectivity is increasingly essential for learning, employment, entrepreneurship, communication, and economic growth, and Amazon is committed to ensuring that businesses and consumers have access to affordable and reliable internet both domestically and abroad. In July 2020, the Commission authorized Amazon to launch and operate an NGSO FSS constellation that will provide high-speed broadband services to consumers globally (the “Kuiper System”).⁴ In doing so, the Commission conditioned the grant of Amazon’s license on compliance with the EPFD limits established by the ITU and codified in Article 22 of the ITU Radio Regulations (“ITU RR 22”), as required by Section 25.146(c) of its rules.⁵ Under these rules, an NGSO FSS operator must receive a “favorable” or “qualified favorable” finding from the ITU regarding compliance with EPFD limits prior to initiating service.⁶

The Commission further specified that, to satisfy Section 25.146(c), Amazon must obtain an ITU finding that explicitly indicates that the joint effect of Amazon’s ITU filings was considered.⁷ The Commission has not imposed this “joint effect” requirement on previous,

³ All other information provided in the Application, including the information contained in the Engineering Statement and Schedule S, remains unchanged and is hereby incorporated by reference.

⁴ See *Kuiper Systems LLC, Application for Authority to Deploy and Operate a Ka-band Non-Geostationary Satellite Orbit System*, Order and Authorization, 35 FCC Rcd 8324 (2020) (“2020 Kuiper Authorization”). The Commission subsequently granted Amazon’s requested modification of this license with renumbered but largely identical conditions. *2023 Kuiper Authorization*. Unless otherwise noted, Amazon herein refers to the conditions listed in the later *2023 Kuiper Authorization*.

⁵ *2023 Kuiper Authorization*, ¶ 44; see also *2020 Kuiper Authorization*, ¶ 60.

⁶ 47 C.F.R. § 25.146(c).

⁷ *2023 Kuiper Authorization*, ¶ 44; see also *2020 Kuiper Authorization*, ¶ 26 (“We find that the EPFD analysis provided in Kuiper’s application and associated filings is sufficient to justify authorization in many of Kuiper’s proposed frequency bands as conditioned. As noted in the

similarly situated operators. Furthermore, months after grant of Amazon’s license, the Commission expressly rejected arguments to impose the same condition on another operator.⁸ For these and other reasons, Amazon filed a modification application to remove the “joint effect” condition from its license.⁹ That application remains pending. Subsequently, the Commission again addressed the issue of Section 25.146(c) and the necessity of a “joint effect” requirement in its partial authorization of SpaceX’s second-generation NGSO FSS system.¹⁰ There, the Commission imposed a “joint effect” requirement, but granted SpaceX a partial waiver to allow SpaceX to commence operations prior to receiving the ITU findings required by Section 25.146(c) and SpaceX’s associated license condition.¹¹ Finding that risk to SpaceX’s deployment schedule, among other factors, demonstrated “good cause” for a partial waiver, the Commission permitted SpaceX to proceed at its “own risk” on a non-interference basis prior to the ITU issuing its EPFD

section on FSS operations in the Ka-band, and as we have done in connection with other NGSO FSS systems, we condition this authorization on Kuiper receiving a favorable or ‘qualified favorable’ rating of its EPFD demonstration by the ITU prior to initiation of service. Additionally, Kuiper must communicate the ITU finding to the Commission and, in case of an unfavorable finding, adjust its operation to satisfy the ITU requirements. . . . [W]e condition this grant on Kuiper meeting the single entry EPFD limits in Article 22 for its complete system and require that the ITU finding to be submitted to the Commission explicitly indicate that the joint effect of Kuiper’s ITU filings associated with its constellation was taken into account when verifying compliance with the applicable EPFD limits.”).

⁸ *Space Exploration Holdings, LLC, Request for Modification of the Authorization for the SpaceX NGSO Satellite System*, Order and Authorization and Order on Reconsideration, 36 FCC Rcd 7995, ¶ 33 (2021).

⁹ Kuiper Systems LLC, Application for Modification of Authorization for the Kuiper System, Call Sign S3051, IBFS File No. SAT-MOD-20210806-00095 (filed Aug. 6, 2021).

¹⁰ See *Space Exploration Holdings, LLC, Request for Orbital Deployment and Operating Authority for the SpaceX Gen2 NGSO Satellite System*, Call Sign S3069, Order and Authorization, IBFS File Nos. SAT-LOA-20200526-00055, SAT-AMD-20210818-00105, FCC 22-91 (rel. Dec. 1, 2022) (“*SpaceX Gen 2 Authorization*”).

¹¹ See *id.* ¶¶ 31, 40, 141 (granting partial waiver of Section 25.146(c) to allow deployment prior to obtaining a favorable or “qualified favorable” ITU finding and requiring such finding to consider the joint effect of all ITU filings for ITU EPFD compliance).

findings.¹²

In light of this precedent and the approaching launch of Amazon's first production satellites,¹³ Amazon now asks the Commission to take the same approach here and grant it the same partial waiver. Amazon has worked diligently to obtain the ITU findings required by Section 25.146(c) of the Commission's rules.¹⁴ Even so, the uncertainty and delay of the ITU process, particularly with respect to the "joint effect" condition, threaten to impede Amazon from timely deploying its innovative service to customers in the U.S. and abroad.

¹² See *id.* ¶¶ 38, 40.

¹³ *Here's your first look at Project Kuiper's low-cost customer terminals*, About Amazon, <https://www.aboutamazon.com/news/innovation-at-amazon/heres-your-first-look-at-project-kuipers-low-cost-customer-terminals> (Mar. 14, 2023) ("Project Kuiper expects to launch the first production satellites in the first half of 2024 and plans to give its earliest customers access to the service beginning later that year.").

¹⁴ Amazon has already received favorable findings from the ITU with respect to all of its ITU filings submitted by the United States. See *Description of EPFD Validation and Results of Examination: NGSO-8A*, Int'l Telecommunication Union (Jan. 11, 2022), available at https://www.itu.int/en/ITU-R/space/epfdData/319520413_USASAT-NGSO-8A_Results_Summary.pdf; *Description of EPFD Validation and Results of Examination: NGSO-8B*, Int'l Telecommunication Union (Jan. 11, 2022), available at https://www.itu.int/en/ITU-R/space/epfdData/319520415_USASAT-NGSO-8B_Results_Summary.pdf; *Description of EPFD Validation and Results of Examination: NGSO-8C*, Int'l Telecommunication Union (Jan. 11, 2022), available at https://www.itu.int/en/ITU-R/space/epfdData/319520414_USASAT-NGSO-8C_Results_Summary.pdf. See also *Description of EPFD Validation and Results of Examination: NGSO 8A*, Int'l Telecommunication Union (Jan. 10, 2023), available at www.itu.int/en/ITU-R/space/epfdData/319520442_USASAT-NGSO-8A_Results_Summary.pdf (reissuing the corrected favorable EPFD determination for the 17.8-18.6 GHz band of NGSO-8A because of an incorrectly attributed PFD-mask in the original examination); *Description of EPFD Validation and Results of Examination: NGSO 8B*, Int'l Telecommunication Union (Jan. 10, 2023), available at https://www.itu.int/en/ITU-R/space/epfdData/319520443_USASAT-NGSO-8B_Results_Summary.pdf (reissuing the corrected ITU finding for NGSO-8B); *Description of EPFD Validation and Results of Examination: NGSO 8C*, Int'l Telecommunication Union (Jan. 10, 2023), available at https://www.itu.int/en/ITU-R/space/epfdData/319520444_USASAT-NGSO-8C_Results_Summary.pdf (reissuing the corrected ITU finding for NGSO-8C).

II. REQUEST FOR PARTIAL WAIVER OF SECTION 25.146(c)

Amazon requests that the Commission grant a partial waiver of Section 25.146(c) and allow Amazon to commence operations at its own risk on a non-interference basis prior to receiving a “favorable” or “qualified favorable” ITU finding considering the joint effect of Amazon’s ITU filings. During this period of non-interference, at-risk operation, Amazon will take all reasonable steps to eliminate any harmful interference experienced by geostationary orbit (“GSO”) systems in frequency bands subject to ITU EPFD limits.

Under Section 1.3, the Commission has authority to waive its rules “for good cause shown.”¹⁵ Good cause exists if “special circumstances warrant a deviation from the general rule and such deviation will serve the public interest” better than adherence to the general rule.¹⁶ In determining whether waiver is appropriate, the Commission should “take into account considerations of hardship, equity, or more effective implementation of overall policy.”¹⁷ As shown below, there is good cause for the requested waiver.

Grant of this request for partial waiver of Section 25.146(c) is in the public interest because it will enable faster deployment of the Kuiper System, thereby accelerating Amazon’s efforts to close the digital divide in the United States and globally through the delivery of low-latency, high-speed broadband connectivity.¹⁸ Although Amazon has already received “favorable” EPFD

¹⁵ 47 C.F.R. § 1.3; *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969).

¹⁶ *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

¹⁷ *WAIT Radio*, 418 F.2d at 1159.

¹⁸ *See, e.g.*, Application of Kuiper Systems LLC for Authority to Launch and Operate a Non-Geostationary Satellite Orbit System in Ka-band Frequencies, Legal Narrative, IBFS File No. SAT-LOA-20190704-00057 at 6-8 (filed Jul. 4, 2019) (describing Amazon’s goals to bring broadband connectivity to rural and underserved areas of the United States). Waiver would likewise promote Amazon’s efforts to bring connectivity to enterprise customers, enabling growth in local economies, improving access to government services, and supporting public safety and disaster relief communications.

findings from the ITU for all three of the filings submitted by the United States, the ITU does not currently have a process for assessing the “joint effect” of multiple ITU filings, nor is it subject to a timeframe to complete such an assessment.¹⁹ Amazon could therefore be waiting months, if not years, to commence operations. Waiving Section 25.146(c) as requested herein would facilitate Amazon’s planned rapid deployment schedule for the Kuiper System and allow Amazon to deliver the benefits of the Kuiper System without undue delay.

Waiver is also appropriate in this case because grant would not undermine the purpose of the rule, which is to facilitate spectrum sharing between NGSO and GSO systems, to “harmonize [the Commission’s] rules with international regulations,” and to “provide greater certainty for NGSO FSS operators.”²⁰ Amazon has submitted its complete EPFD filings to the ITU and the ITU has issued favorable findings on EPFD limit compliance for all three Kuiper System filings submitted by the United States.²¹ Furthermore, other NGSO and GSO system operators can review these filings to facilitate coordination and obtain greater certainty regarding Amazon’s constellation so as (for example) to better design their own.

In addition, if the instant request is granted, Amazon certifies that it will act in accordance with the operating limitations set out in the license grants of similarly situated applicants.²² In doing so, Amazon accepts that it must (1) commence operations at its own risk; (2) adjust

¹⁹ See *2020 Kuiper Authorization*, ¶ 26.

²⁰ *Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters*, Report and Order and Notice of Proposed Rulemaking, 32 FCC Rcd 7809, ¶ 35 (2017).

²¹ See n.14, *supra*. The ITU has not issued any findings regarding the “joint effect” of Amazon’s filings. See *2020 Kuiper Authorization*, ¶ 26. The “joint effect” requirement is not found in any FCC rule.

²² See, e.g., *SpaceX Gen 2 Authorization*, ¶¶ 39-40, 141 (describing additional steps that SpaceX must take to avoid causing harmful interference while its ITU EPFD filings are being reviewed).

operations if it does not receive a favorable joint effect determination from the ITU; and (3) operate on a non-interference basis until the Commission has been notified of the ITU joint effect findings.²³ Should any interference occur during this period, Amazon will take all reasonable steps to eliminate such interference.

Finally, grant of this waiver is supported on equity grounds and would be consistent with administrative principles of reasoned decision-making.²⁴ The Administrative Procedure Act (“APA”) requires that an agency decision be both reasonable and reasonably explained.²⁵ An agency’s “reasoned analysis” must “justify the disparate treatment of regulated parties that seem similarly situated, and its reasoning cannot be internally inconsistent.”²⁶ Amazon, like SpaceX, has received FCC authorization to operate a large NGSO FSS constellation consisting of thousands of satellites. Amazon is now poised to begin deploying that system, and shares many of SpaceX’s concerns about undue delay. The Commission has not identified differences between SpaceX and Amazon that would justify disparate treatment here, nor have commenters suggested that such

²³ See *id.*, ¶¶ 34, 40 (describing the operational constraints with which SpaceX must comply until the final ITU findings are issued).

²⁴ 5 U.S.C. § 706(2)(A).

²⁵ See *id.* (providing that a reviewing court shall “hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law”).

²⁶ *ANR Storage Co. v. FERC*, 904 F.3d 1020, 1024 (D.C. Cir. 2018) (internal citations and quotations omitted). See also *Melody Music, Inc. v. FCC*, 345 F.2d 730 (D.C. Cir. 1965) (“[T]he Commission’s refusal at least to explain its different treatment of appellant and NBC was error. . . . [I]t must explain its reasons and do more than enumerate factual differences, if any, between appellant and the other cases; it must explain the relevance of those differences to the purposes of the Federal Communications Act.”).

differences exist.²⁷ Granting the requested waiver would therefore be consistent with the APA.²⁸

III. CONCLUSION

For the reasons set forth above, Amazon respectfully requests that the Commission expeditiously grant the Application, as amended hereby.

/s/ Catherine Kuersten

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²⁷ To the contrary, Hughes emphasized that the concerns raised by GSO operators about SpaceX's Starlink constellation are identical to those raised regarding the Kuiper System. *See* Petition for Reconsideration of Hughes Network Systems, LLC, IBFS File No. SAT-MOD-20200417-00037, at 4 (filed May 27, 2021) ("Notably, the concerns on the record regarding the potential misuse of multiple ITU filings are the same concerns that the Commission addressed just last year when it imposed specific license conditions on [Amazon's] NGSO satellite system."). Similarly, in the SpaceX Gen 2 proceeding, GSO operators requested that the Commission dismiss SpaceX's EPFD compliance certification because it did not take into account the joint effect of its filings even though the Commission imposed joint effect requirements in the *2020 Kuiper System Authorization*. *See* Letter from GSO Operators, to Marlene H. Dortch, Secretary, Federal Communications Commission, IBFS File Nos. SAT-LOA-20200526-00055, SAT-AMD-20210818-00105, at 1 (Oct. 14, 2022).

²⁸ *See, e.g., W. Deptford Energy, LLC v. FERC*, 766 F.3d 10, 20 (D.C. Cir. 2014) ("It is textbook administrative law that an agency must provide[] a reasoned explanation for departing from precedent or treating similar situations differently, and Commission cases are no exception[.]") (citations and quotation marks omitted, alteration in original); *LeMoyne-Owen College v. NLRB*, 357 F.3d 55, 60-61 (D.C. Cir. 2004) (Roberts, J.) ("An agency is by no means required to distinguish every precedent cited to it by an aggrieved party. But where, as here, a party makes a significant showing that analogous cases have been decided differently, the agency must do more than simply ignore that argument.") (citations omitted).