UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SOLUS ADVANCED MATERIALS CO., LTD.,
Petitioner

v.

SK NEXILIS CO., LTD.,
Patent Owner

Case IPR2024-01463
U.S. Patent No. 11,591,706

PATENT OWNER'S SUR-REPLY IN SUPPORT OF PATENT OWNER'S PRELIMINARY RESPONSE

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Patent Trial and Appeal Board
U.S. Patent and Trademark Office
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I. THE FINTIV FACTORS FAVOR DENIAL.....1

PATENT OWNER'S EXHIBIT LIST

Exhibit No.	Description
2001	Defendants' Motion to Stay, *SK nexilis Co., Ltd. v. Solus Advanced Materials Co., Ltd. et al.*, No. 2:23-cv-00539 (E.D. Tex. Oct. 24, 2024)
2002	Plaintiff's Opposition to Defendants' Motion to Stay, *SK nexilis Co., Ltd. v. Solus Advanced Materials Co., Ltd. et al.*, No. 2:23-cv-00539 (E.D. Tex. Nov. 7, 2024)
2003	Defendants' Reply in Support of Motion to Stay, *SK nexilis Co., Ltd. v. Solus Advanced Materials Co., Ltd. et al.*, No. 2:23-cv-00539 (E.D. Tex. Nov. 14, 2024)
2004	Plaintiff's Sur-Reply in Opposition to Defendants' Motion to Stay, *SK nexilis Co., Ltd. v. Solus Advanced Materials Co., Ltd. et al.*, No. 2:23-cv-00539 (E.D. Tex. Nov. 21, 2024)
2005	Amended Docket Control Order, *SK nexilis Co., Ltd. v. Solus Advanced Materials Co., Ltd. et al.*, No. 2:23-cv-00539 (E.D. Tex. Jan. 2, 2025)
2006	Federal Court Management Statistics (Sept. 30, 2024)
2007	Complaint, *SK nexilis Co., Ltd. v. Solus Advanced Materials Co., Ltd. et al.*, No. 2:23-cv-00539 (E.D. Tex. Nov. 21, 2023)
2008	Results charted from DocketNavigator.com, run on January 5, 2025, for Success of Motion to Transfer Venue for Convenience Decided by Judge Rodney Gilstrap
2009	Order Granting Service Waiver, *SK nexilis Co., Ltd. v. Solus Advanced Materials Co., Ltd. et al.*, No. 2:23-cv-00539 (E.D. Tex. Feb. 23, 2024)
2010	Defendants' P.R. 3-3 Invalidity Contentions, *SK nexilis Co., Ltd. v. Solus Advanced Materials Co., Ltd. et al.*, No. 2:23-cv-00539 (E.D. Tex. Aug. 23, 2024) (including Apps. A1-A3, A10, A11, A19)

Exhibit No.	Description
2011	Appendix B – Secondary References Chart
2012	Overview of Korean Pat. Appl. Publ. No. KR20170000761A to Kim *et al.*, accessed January 28, 2025 at: https://worldwide.espacenet.com/patent/search/family/057585269/publication/KR20170000761A?q=pn%3DKR20170000761A
2013	Overview of U.S. Pat. No. 9,209,485 to Cheng *et al.*, accessed January 27, 2025 at: https://worldwide.espacenet.com/patent/search/family/052390762/publication/US9209485B2?q=pn%3DUS9209485B2
2014	Overview of U.S. Pat. No. 5,834,140 to Wolski *et al.*, accessed January 28, 2025 at: https://worldwide.espacenet.com/patent/search/family/026446848/publication/US5834140A?q=pn%20%3D%20%225834140%22
2015	Overview of U.S. Pat. No. 9,457,541 to Kim *et al.*, accessed January 28, 2025 at: https://worldwide.espacenet.com/patent/search/family/045467234/publication/US9457541B2?q=pn%20%3D%20%229457541%22
2016	Overview of U.S. Pat. Appl. Publ. No. 2016/0260981 to Lee *et al.*, accessed January 28, 2025 at: https://worldwide.espacenet.com/patent/search/family/051997203/publication/US2016260981A1?q=pn%20%3D%20%222016260981%22
2017	Overview of WIPO Publ. No. WO 2014/115681 to Shinozaki *et al.*, accessed January 28, 2025 at: https://worldwide.espacenet.com/patent/search/family/051227472/publication/WO2014115681A1?q=pn%20%3D%20%222014115681%22
2018	Overview of U.S. Pat. Appl. Publ. No. 2013/0108922 to Shinozaki *et al.*, accessed January 28, 2025 at: https://worldwide.espacenet.com/patent/search/family/045402087/publication/US2013108922A1?q=pn%20%3D%20%222013108922%22

Exhibit No.	Description
2019	Overview of U.S. Pat. Appl. Publ. No. 2015/0267313 to Chou *et al.*, accessed January 28, 2025 at: https://worldwide.espacenet.com/patent/search/family/053437025/publication/US2015267313A1?q=pn%20any%20%222015267313%22

Petitioner requested authorization to file a reply to Patent Owner's Preliminary Response "to address [discretionary denial] developments that have occurred after petition filing. For instance, Patent Owner's *Fintiv* analysis cites to various decisions that came out after petition filing . . . ." EX1048, 2. Petitioner does no such thing. Rather, Petitioner primarily makes technical arguments, attempts to fill gaps in its Petition, and seeks to triage misleading statements. The Board should not entertain such gamesmanship and should disregard Petitioner's Reply.

Nonetheless, even if the Board considers the totality of the Petitioner's Reply, the new arguments do nothing to save its delayed and doomed Petition. The Board should deny institution of the Petition.

I. THE *FINTIV* FACTORS FAVOR DENIAL

Factor 1 is neutral: Parties agree factor 1 is neutral. POPR, 9-10; Reply, 1.

Factor 2 strongly favors denial: POPR, 10-12. The scheduled trial date remains nearly six months before the projected FWD deadline of April 29, 2026. Petitioner argues the updated median time-to-trial (23.0 months) shows "the potential for conflict between the district court case and the instant IPR proceeding is minimal." Reply, 1. But the updated estimated trial date would still be mid-October 2025, which is *still before* the November 3, 2025 scheduled trial date. EX2005, 1.

Factor 3 favors denial: POPR, 13-14. The '706 patent was asserted in the *original complaint* filed ten months before the Petition. POPR, 14; EX2007. Petitioner ignores this fact, obfuscating its lack of diligence in filing the Petition. Reply, 1 (arguing "the instant Petition was filed within four months of PO's amended complaint of May 15, 2024.").

Factor 4 favors institution: In view of Petitioner's *Sotera* stipulation, factor 4 favors institution. However, the Office's *Fintiv* Guidance has been rescinded. Under current Office policy, where, as here, the other *Fintiv* factors favor denial, Petitioner's *Sotera* stipulation does not outweigh these other factors. *See, e.g.*, *Cisco Sys., Inc. v. Estech Sys., Inc.*, IPR2021-00333, Paper 12 at 12-13 (P.T.A.B. July 7, 2021) (denying institution even with *Sotera* stipulation; distinguishing *Sotera*, noting that in *Sotera* the trial date factor was neutral and the investment factor weighed against denial).

Factor 5 favors denial: Petitioner contends factor 5 is neutral. Reply, 2. But Board precedent makes clear that when the parties are the same, factor 5 favors denial. *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 19 (P.T.A.B. Dec. 1, 2020).

Factor 6 favors denial: Petitioner's extensive discussion of the merits in factor 6 is improper. *See Sotera*, IPR2020-01019, Paper 12 at 20 n.13 (not considering the parties' merits arguments included in their discussions of Factor 6).

Even if Petitioner's grounds did meet the higher "compelling merits standard" (they do not), the *Fintiv* Guidance Memo has been rescinded. Thus, the merits are simply one factor for consideration in determining whether to exercise discretion.

But as discussed in the POPR, Petitioner's asserted grounds fall well short of meeting even the reasonable likelihood standard necessary for institution. Petitioner also fails to substantiate compelling merits in its Reply. Instead, Petitioner mostly parrots language from the Petition. Petitioner does nothing to cure the deficiencies in the Petition and does not substantiate compelling reasons for institution.

First, Petitioner argues that paragraphs 80-81 and 181 of Dr. Randall's Declaration "include comparisons across multiple separate examples" that support a reasonable expectation of success in combining surface characteristics cherry-picked from three different references. Reply, 3. Patent Owner disagrees. Paragraph 80 discusses TC(220) values disclosed by Cheng. Separately, paragraph 81 discusses Rz and Ra values disclosed by Wolski. Also separately, paragraph 181 discusses TC(220) values disclosed by Chou. None of these paragraphs discuss any relationship or comparison of the surface characteristics, nor do these paragraphs explain why the surface characteristics would be compatible. At best, Petitioner's arguments rest on the proposition that, because each reference discloses electroplating copper foils, there would have been a reasonable

expectation of success in combining the references. This does not substantiate a compelling obviousness challenge.

Petitioner also alludes to various technical discussions provided in Dr. Randall's Declaration on page 5 of the Reply. Similar to paragraphs 80-81 and 181, these additional parts of Dr. Randall's Declaration do not substantiate a reasonable expectation of success. Rather, they discuss various concepts in isolation of one another.

Second, Petitioner argues that relying on the '706 patent for support in combining the cited references to establish obviousness is permissible in light of the *In re Epstein* decision. Reply, 3-4. Not true. *Epstein* considers whether or not a reference enables a feature for which it has been cited. *See In re Epstein*, 32 F.3d 1559, 1568 (Fed. Cir. 1994) (explaining that "appellant makes no attempt to address why the [prior art] description would have been non-enabling of the features for which it has been cited.") The *Epstein* decision does not support the proposition that a patent's disclosure somehow affects the standard for establishing motivation to combine and/or reasonable expectation of success, let alone redeem Petitioner's failure to demonstrate a reasonable expectation of success.

Third, Petitioner argues that Patent Owner incorrectly cites to the ASME B46.1 standard when discussing the peak density (PD) limitation. Reply, 4. Petitioner asserts that Patent Owner should have discussed PD in the context of JIS

B 0601 (2001), which is the standard Dobashi uses, and states that there is no reason to think the two different standards would use the same terminology. Reply, 4. This misses the mark. The '706 patent describes PD under the ASME B46.1 standard, not the JIS B 0601 standard. EX1001, 8:36-43; POPR, 6. It is thus axiomatic that, to determine whether a reference discloses the PD limitation, one should consider the ASME B46.1 standard, not some other standard. Indeed, the JIS B 0601 (2001) standard does not even define a property that is remotely close to PD. Petitioner's argument is thus a self-defeating one: if Dobashi's disclosures were assessed only in the context of the JIS B 0601 standard, Dobashi would be even more unlikely to disclose PD.

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing **PATENT OWNER'S SUR-REPLY IN SUPPORT OF PATENT OWNER'S PRELIMINARY RESPONSE** was served electronically via e-mail on March 10, 2025, in its entirety on the following counsel of record for Petitioner:

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