

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAFE ARC TECH., LLC,
Petitioners,

v.

AL-AZEM,
Patent Owner.

Case IPR2025-01214
U.S. Patent No. 9,545,775

**PETITIONER'S OPPOSITION TO PATENT OWNER'S
REQUEST FOR DISCRETIONARY DENIAL
AND *SOTERA* STIPULATION**

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PETITIONER’S EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 9,545,775 (“the ’775 patent”)
1002	File History of U.S. Patent No. 9,545,775
1003	Expert Declaration of Dr. David Brookstein, Sc.D.
1004	U.S. Patent Application Publication No. 2008/0282652 (“Wardlaw”)
1005	U.S. Patent No. 5,713,089 (“Ferrante”)
1006	U.S. Patent No. 3,715,843 (“Ballinger”)
1007	U.S. Patent No. 3,009,235 (“De Mestral”)
1008	Transcript of Motion to Stay Hearing, U.S. District Court, August 19, 2025
1009	Docket Sheet in <i>Al-Azem v. Safe Arc Technology LLC</i> , Case No. 6:25-cv-00417-RRS-DJA (W.D. La.), accessed October 15, 2025
1010	Joint Status Report and Proposed Schedule Filed in <i>Al-Azem v. Safe Arc Technology LLC</i> , Case No. 6:25-cv-00417-RRS-DJA (W.D. La. Sept. 24, 2025)

Safe Arc Technology, LLC ("Petitioner") opposes Patent Owner's Request for Discretionary Denial ("Request") of the Petition challenging U.S. Patent No. 9,545,775 ("the '775 patent"), and respectfully submits that the Director should refer this case to the merits panel for consideration of Petitioner's Grounds of challenge.

I. INTRODUCTION

Discretionary denial is not warranted for multiple reasons here. Petitioner Safe Arc Technology, LLC is a small, United States-based business that provides high-paying, skilled jobs and opportunities to the people of Lafayette, Louisiana. Unlike an international technology conglomerate with a history of repeated and successive *inter partes* filings, Petitioner filed this single request for *inter partes* review to avail itself of an efficient forum that can resolve its recent dispute with Patent Owner in a much more cost-effective way than District Court litigation. Further, Petitioner filed this single request only after it became apparent that the parties could not resolve their disputes privately, and shortly after Patent Owner filed its District Court complaint.

The District Court litigation is in its infancy, with no Rule 16 scheduling conference even scheduled yet, and no trial date on the calendar. Further, pursuant to a stay motion that has already been briefed to the Court and considered via oral hearing, the District Court Judge stated on the record that "the Court is probably

inclined to grant the stay once PTAB review has been granted.” Ex. 1008, 23:1-2.

Thus, should the merits panel decide to institution the Petition, this case poses little to no risk of parallel proceedings.

Additionally, this IPR proceeding will allow the Board to correct an Office error that occurred during examination. The '775 patent purports to cover a way of connecting together, using Velcro® (*i.e.*, hook-and-loop) strips, modular panels made of heat-resistant material to construct a pressurized habitat for hot work such as welding. The Wardlaw reference, which was before the Examiner during prosecution of the '775 patent, also discloses modular panels made of heat-resistant material that are connected together using Velcro® to construct a pressurized habitat for hot work. While Wardlaw disclosed the use of Velcro® connections for its modular panels, Wardlaw did not specifically describe how to arrange the Velcro® connections. In essence, the '775 patent does nothing more than add well-known Velcro® connection details to Wardlaw's modular panels. Despite the close proximity of Wardlaw and the '775 patent's then-pending claims, the Examiner failed to recognize this proximity and failed to issue any rejections based on the Wardlaw reference. This correction of an Office error surpasses any reasonable settled expectations that Patent Owner may have held in the validity of the '775 patent.

Patent Owner's request for discretionary denial presents litigation themes designed to cast Petitioner as the villain in this dispute, but Patent Owner fails to take responsibility for Patent Owner's repeated inaction, including its eleven-year delay in investigating the alleged claims of infringement in the first place. Patent Owner also admits that the technology in the '775 patent is not "rocket science" and that the '775 patent has limited economic impact, but incorrectly contends that "robust discovery" is necessary in District Court to address the limited validity issues at play. To the contrary, the PTAB is fully armed with the tools necessary to manage any discovery requests that might arise in this proceeding. Finally, while Patent Owner somehow believes that the number of times Petitioner cites to its expert declaration is an indicator of an improper and meritless petition, that assertion is wrong. In any event, Patent Owner's focus on this complaint is its dependent claims 6 and 7, and even if Patent Owner thinks it will ultimately be victorious on two dependent claims, that does not justify discretionary denial of the Petition.

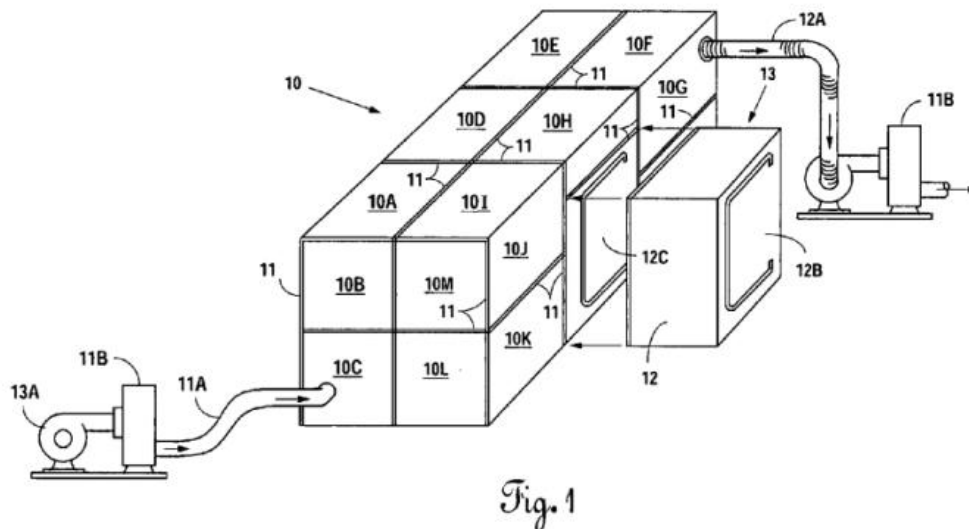
Considered in full, the factors at play in this proceeding do not warrant discretionary denial. For reasons discussed in this Opposition, Petitioner respectfully requests that the Petition be referred to the merits panel for substantive consideration of the asserted Grounds.

II. THE '775 PATENT PURPORTS TO HAVE INVENTED A NEW WAY TO IMPLEMENT VELCRO CONNECTIONS IN EXISTING WELDING HABITATS

The '775 patent is directed to a modular habitat to enclose and isolate hot work, such as welding or grinding, which may send off sparks or hot welding slag. As disclosed in the '775 patent, the modular habitat is designed to be fabricated onsite in the field—such as in an offshore platform or environment—using multiple heat-resistant panels, engaged together via hook-and-loop fasteners such as Velcro®. While Velcro® is not air-tight, Velcro® connections on the edges of the modular panels provide sufficient air resistance to maintain a pressure differential between the interior and exterior of the enclosure.

Thus far, Patent Owner's disclosure is duplicative of Wardlaw. Specifically, Wardlaw also discloses a pressurized habitat for hot work formed of modular panels made of heat-resistant material and connected together via Velcro® connections. Wardlaw, Ex. 1004, [0026]; Fig. 1. As depicted in Wardlaw Fig. 1 and disclosed, the unit 10 is “composed of a series of separate module or inflatable members, 10A-10M, which are secured one to another prior to inflation by means of companion VELCRO strips 11 secured around the outer edges [of] each inflatable member.” Wardlaw, [0026]. Additionally, “[t]he modular inflation members 10A-M are preferable made of material that is comparatively light in weight as well as fire resistant or fire retardant, in order to assure that high

temperature sparks are retained within the interior of the unit 10 and do not penetrate through the fabric, forming holes.”). Wardlaw, [0028]. Wardlaw's unit 10 is reproduced below.



The specification of the '775 patent applies two concepts to a pressurized habitat as disclosed in Wardlaw: (1) the use of male and female hook-and-loop (i.e., Velcro®) connectors alternating around the four edges of a modular panel, and (2) use of fasteners with hooks (or loops) on both upper and lower portions on the male connector, and corresponding clamping portions with upper and lower loops (or hooks) on the female connector to form a hook-and-loop clamp connection.

Each of these elements was in the prior art, however. Modular pressurized welding habitats with Velcro® (*i.e.*, hook-and-loop) connectors, such as Wardlaw's habitat, were well known before the earliest possible priority date of the

'775 patent, and it was nothing more than a design choice to determine how to arrange well-known hook-and-loop connectors to connect the panels together. Those obvious implementation details presented in the '775 patent were not inventive, as clamp-style Velcro® connectors were well-known in the art, as was the use of alternating male and female connectors around a heat-resistant panel to connect it to other panels to form a modular structure.

No patent should have issued for such a routine combination of known and analogous Velcro® connection details to a welding habit disclosed previously by Wardlaw.

III. DISCRETIONARY DENIAL IS NOT WARRANTED HERE

A. The Trial Court Judge Has Already Stated He Will Likely Stay the Case if the IPR is Instituted

*Fintiv*¹ factor 1 strongly weighs in favor of institution. Within days after this IPR Petition was filed, Petitioner moved to stay the District Court case. While the stay was denied by the Judge upon conclusion of a hearing held regarding the motion on August 19, 2025, the main reason for the Judge's decision to deny the stay motion was that the IPR had not yet been instituted. The Judge specifically noted upon conclusion of the hearing that he will likely stay the case if the IPR is instituted. Ex. 1008, 23:1-2 ("the Court is probably inclined to grant the stay once

¹ *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 5-6 (PTAB Mar. 20, 2020)

PTAB review has been granted.”). This factor weighs heavily against discretionary denial because there is no risk of parallel proceedings in the event of institution.

B. Petitioner's *Sotera* Stipulation

To further mitigate any duplication concerns, if this IPR is instituted, Petitioner will not pursue in District Court litigation the grounds asserted in this proceeding, or any other ground that was raised or could have been reasonably raised in an IPR. *See Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020) (precedential); *BMW of No. Am., LLC v. Northstar Systems LLC*, IPR2023-01017, Paper 12 at 10 (PTAB Dec. 8, 2023).

C. The District Court Case is in its Infancy

Fintiv factors 2-4 also weigh strongly in favor of institution. The District Court case was filed on April 2, 2025, and the parties are still waiting for a Rule 16 initial scheduling conference. Ex. 1009 (Docket Sheet accessed on October 15, 2025). No trial date has been set. Further, no protective order has been entered yet, and while the parties have proposed a schedule for the District Court case, that schedule has also not been entered by the District Court Judge. *Id.*; Ex. 1010, 2-5 (setting forth the current protective order disputes for the Court's consideration); Ex. 1010, 8 (presenting a proposed schedule for the litigation). Indeed, by the parties' agreement, the schedule that was jointly proposed by the parties does not

begin in earnest until the end of January, 2026, after the institution decision will have issued in this IPR. Ex. 1010, 8. This is important to the discretionary denial analysis because even Patent Owner is hesitant to proceed in the litigation until the parties know whether the IPR Petition will be instituted.

Relative to *Fintiv* factors 2-4, the parallel litigation is in its infancy, and its early status does not weigh in favor of discretionary denial.

D. Patent Owner's Claims of Settled Expectations are Overshadowed by the Office's Mistake in Examination

While Patent Owner touts settled expectations as a basis for discretionary denial (*see* Request, 10-12), Patent Owner is wrong. The Director has noted that persuasive evidence of an Office error material to the patentability of the challenged claims can warrant referral rather than discretionary denial. *See Samsung Electronics Co., Ltd. v. Wilus Inst. of Stds. and Tech. Inc.*, IPR2025-00935, Paper 12 (PTAB Sept. 26, 2025). Here, the Examiner possessed a reference—Wardlaw—that disclosed a modular welding habit made of individual panels having Velcro® strips to connect the panels together. The only aspect missing from Wardlaw was the details of the arrangement of those Velcro® strips on the welding habit panels. The particular arrangement of the Velcro® strips as claimed in the '775 patent involves the use of alternating male-and-female connections that was not novel, easily found in the prior art, and readily

combinable with Wardlaw to supplement the details of Wardlaw's Velcro® connections on the panel edges.

Wardlaw, which was cited in an information disclosure statement (Ex. 1002, 114), was never discussed by the Examiner or used in a rejection. MPEP § 609 (“Consideration by the examiner of the information submitted in an IDS means nothing more than considering the documents in the same manner as other documents in Office search files are considered by the examiner while conducting a search of the prior art in a proper field of search.”). Even though Wardlaw was made known to the Examiner, the Examiner did not issue any prior art rejections based on Wardlaw. The Examiner therefore seems to have misunderstood the close proximity of Wardlaw's Velcro®-style welding habitat to the invention claimed in the '775 patent. Like the challenged claims, Wardlaw is directed to a pressurized modular welding habitat with panels connected together via Velcro®, and differs from the challenged claims only in that Wardlaw does not provide the details of how its Velcro® connectors are arranged.

No reasonable Examiner could have found that Wardlaw does not teach a pressurized modular welding habitat with hook and loop (i.e., Velcro®) panel connections such as that recited in the challenged claims. *See, e.g.*, claims 1 and 5 (directed to an “enclosure”); claim 4 (reciting that the panels are formed “at least partially of a heat resistant material.”). By allowing the claims of the '775 patent

over Wardlaw, the Examiner materially erred by overlooking Wardlaw's teachings, and erred in a manner that was material to the patentability of challenged claims.²

Under these circumstances, the opportunity for the Office to correct the Examination error outweighs any settled expectations of validity that Patent Owner possesses in the '775 patent.

IV. PATENT OWNER'S COMPLAINTS IN ITS REQUEST DO NOT WEIGH IN FAVOR OF DISCRETIONARY DENIAL

A. Patent Owner's Factual Allegations Do Not Warrant Denial

Patent Owner's Request for Discretionary Denial alleges that Petitioner withheld critical discovery in District Court that Patent Owner needed as part of its request for discretionary denial. *See* Request, 3-5. This complaint fails.

First, Patent Owner's complaint illustrates Patent Owner's attempt to use District Court discovery to sidestep the PTAB's own discovery procedures. Now, Patent Owner cannot attempt to leverage its own inaction in this proceeding into an adverse inference that somehow compels discretionary denial. Further, that Patent Owner sought confidential discovery from Petitioner even before a protective order was entered in District Court suggests that Patent Owner went through the

² Contrary to Patent Owner's assertion, Petitioner is not "belittling" the Examiner (*see* Request, 14), but instead (correctly) noting that Wardlaw is highly relevant to patentability of the '775 patent claims, and should have been addressed during examination.

discovery exercise in District Court to manufacture a complaint it could raise before the Board.

Second, Patent Owner’s complaint is overshadowed by the fact that Patent Owner publicly disclosed its invention in May 2011 and then sat on its hands in protecting its own patent rights. Patent Owner’s story is that in 2011, Petitioner—via an employee—learned of Patent Owner’s hot work welding habitat “[s]hortly after” formation of PetrohHab “in April 2011.” *See* Ex2005, ¶14. Patent Owner then contends that Petitioner copied Patent Owner’s habitat, continuing to monetize it for eleven (11) years before Patent Owner ever took due diligence steps to investigate Petitioner’s products. Ex. 2001, 3-4 (Amended Complaint, ¶17) (alleging that Patent Owner did not learn of Petitioner’s products until 2022).

But Patent Owner also admits that the inventor publicly anticipated “showing [his] invention” during a conference running from May 2-5, 2011. Ex. 2005, ¶5. This admission completely upends Patent Owner’s litigation themes and suggestions of improper conduct since Patent Owner itself admits it publicly disclosed the subject of the ’775 patent as of May 2-5, 2011.

Further, Patent Owner’s admissions raise more questions than answers about what Patent Owner was doing between 2011 and 2022, when Patent Owner contends it learned of Safe Arc and Safe Arc’s product. To the Board, Patent Owner admits to conducting a “2017 Comparison of PetroHab PWE’s to those of

the competition.” Ex. 2005, ¶10 (citing Ex. 2011). Given that Patent Owner was evaluating industry competition in 2017, Patent Owner provides no reason for failing to raise any legitimate patent complaints to Safe Arc sooner.

Thus, this extensive delay in Patent Owner enforcing its patent rights does not support allegations of settled expectations going back to the issue date of Jan. 17, 2017. Rather, it strongly suggests that Patent Owner saw little value in the Velcro® connection arrangements it allegedly added to the state of the industry.

B. Patent Owner Had No Settled Expectations of Validity

Relatedly, Patent Owner also alleges that it has invested time and money into development of its products and business going back to 2011. *See* Request, 5-7. But Patent Owner cannot reasonably claim that it had any settled expectations or reasonable reliance that those investments were protected by a patent that had not yet issued. *See* Request, 5-6 (“At all times prior to the issuance of the ‘775 Patent, PetroHab’s investment in its business and its products was based on its expectation that it would obtain patent protection for its novel PWE design.”).

Further, Patent Owner cites to no support or authority that investing in products covered by even a newly-granted patent somehow creates settled expectations in a patent’s validity. Despite Patent Owner’s claim that the ‘775 patent has not previously been subject to a validity challenge (Request, 10-12), Patent Owner identifies no prior licensing activity for the ‘775, and no prior

instance of the '775 patent's validity being tested and confirmed. To Petitioner's knowledge, this case is the first instance of the '775 patent being asserted by Patent Owner, and this is the first IPR filed against the '775 patent. Under these circumstances, and given the close proximity of Wardlaw, no reasonable expectations of validity exist.

C. The PTAB is the Best Forum to Address The '775 Patent's Validity

Patent Owner claims that the District Court is the best forum to resolve the validity dispute because complete consideration of secondary considerations will require "robust discovery for which the parallel litigation is better suited." *See* Request, 12. This is wrong. The PTAB is designed to be a more efficient forum than District Court for resolving validity disputes, and the patentability of Patent Owner Velcro® arrangement on Wardlaw's welding habit panels does not warrant robust discovery. *See* Request, 13 (admitting that "the technology of the '775 Patent ... [does] not involve rocket science.").

Further, although Patent Owner seems intent on avoiding PTAB discovery procedures, in the event that Patent Owner wishes to request discovery into evidence related to secondary considerations of non-obviousness in this forum, the PTAB is fully armed with the mechanisms and procedures to consider those requests in a manner proportional to the needs of the case. Indeed, Patent Owner undercuts its own stated need for robust discovery when it acknowledges that the

'775 patent "is likely of limited significance to the broader US economy"

Request, 13.

D. The Petition Does Not Improperly Rely on Expert Testimony

Finally, Patent Owner faults the Petition for its citations to the expert declaration of Dr. Brookstein in its Grounds. *See* Request, 17-19. But Patent Owner's complaints are misguided. The Board's Patent Trial Practice Guide indeed warns against using expert testimony to fill in missing claim elements in lieu of patents or printed publications. *See* Consolidated Trial Practice Guide November 2019, 36 ("expert testimony may explain 'patents and printed publications,' but is not a substitute for disclosure in a prior art reference itself.") (available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>). But the raw number of expert declaration citations is irrelevant as to whether the Petition runs afoul of the Guide's prohibition.

Patent Owner's commentary regarding dependent claims 6 and 7 also does not compel denial. These claims are directed to the scenario where two strips of Velcro® are not in perfect alignment when connected in the field. While Petitioner was thorough in its challenges and submitted Dr. Brookstein's expert discussion of how Velcro®, by nature, does not require perfect alignment to engage oppose strips, this testimony did not represent an improper use of expert testimony where prior art disclosures were needed. Petitioner's prior art illustrates two strips of

Velcro® that do not need to be in perfect alignment, and Dr. Brookstein explains what is illustrated in that prior art. This is not a situation where the merits challenges are founded on expert testimony instead of prior art consisting of patents and publications. The Petition and its citations to expert testimony do not run afoul of the Guide and do not warrant discretionary denial.

Further, Patent Owner's backstop position in this section of the Request appears to be that at least dependent claims 6 and 7 could survive in a final written decision. Patent Owner therefore argues that "because Petitioner will have to invalidate all 12 claims, including dependent claims 6 and 7, and because Petitioner's obviousness case against claims 6 and 7 is improperly based on expert testimony alone, institution of the IPR should be denied to conserve the PTAB's resources for the types of challenges the IPR procedure was designed to serve, which is not this dispute." Request, 19. In essence, Patent Owner argues that if any claim could survive final written decision, the Petition should be denied. But this argument turns 35 U.S.C. § 314(a) on its head. Under that statute, which states that institution is warranted if "there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a). Discretionary denial is not warranted simply because Patent Owner thinks one or two dependent claims should survive the challenges.

V. CONCLUSION

For the reasons presented above, Petitioner opposes Patent Owner's request for discretionary denial and respectfully submits that the Director should refer this case to the merits panel for substantive consideration of Petitioner's Grounds of challenge.

Dated: October 16, 2025

/Wayne M. Helge/

Wayne M. Helge, Reg. No. 56,905

James T. Wilson, Reg. No. 41,439

BUNSOW DE MORY LLP

277 S. Washington St., Suite 210 #1088

Alexandria, VA 22314

T: (571) 208-0186

Email: whelge@bdiplaw.com

Email : jwilson@bdiplaw.com

Lead Counsel for Safe Arc Technology,
LLC

CERTIFICATE OF SERVICE

The undersigned certifies that a true and correct copy of the foregoing document was served via email on this date, by consent, to Patent Owner by serving the correspondence email addresses of record as follows:

Robert J McAughan Jr. (Reg. No. 35,599)
bmcaughan@md-iplaw.com
Albert B Deaver Jr. (Reg No. 34,318)
adeaver@md-iplaw.com

Dated: October 16, 2025

/Wayne M. Helge/
Wayne M. Helge (Reg. No. 56,905)
BUNSOW DE MORY LLP
277 S. Washington St., Suite 210, #1088
Alexandria, VA 22314
Email: whelge@bdiplaw.com
Telephone: 571-208-0186

Lead Counsel for Safe Arc Technology,
LLC