

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TOPSOE, INC.,
Petitioner

v.

CASALE,
Patent Owner

IPR2025-01454
U.S. Patent No. 11,286,168

**PETITIONER'S OPPOSITION TO PATENT OWNER'S MOTION TO
VACATE AND TERMINATE PROCEEDINGS**

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TABLE OF EXHIBITS SUBMITTED WITH PETITIONER'S OPPOSITION

Exhibit	Description
1046	Process Flow Diagram for QAFCO ammonia synthesis plant, Qatar, Sept. 24, 2007, produced as Topsoe_0029861 pursuant to Protective Order Dkt. 208 in <i>Topsoe, Inc. v. Casale SA</i> , No. 3:24-cv-00033 (S.D. Tex.) (filed under seal)
1047	Engineering Agreement between Snamprogetti S.P.A. and Haldor Topsøe A/S for QAFCO ammonia synthesis plant, Qatar, Mar. 8, 2007, produced as Topsoe_0029879 pursuant to Protective Order Dkt. 208 in <i>Topsoe, Inc. v. Casale SA</i> , No. 3:24-cv-00033 (S.D. Tex.) (filed under seal)
1048	Process Flow Diagram for Tata Babrala ammonia synthesis plant, India, Oct. 7, 2010, produced as Topsoe_0029994 pursuant to Protective Order Dkt. 208 in <i>Topsoe, Inc. v. Casale SA</i> , No. 3:24-cv-00033 (S.D. Tex.) (filed under seal)
1049	Engineering Agreement between Snamprogetti S.P.A. and Haldor Topsøe A/S, Sept. 26, 1989, produced as Topsoe_0030024 pursuant to Protective Order Dkt. 208 in <i>Topsoe, Inc. v. Casale SA</i> , No. 3:24-cv-00033 (S.D. Tex.) (filed under seal)
1050	Job Closing Report, Tata Babrala Fertilizer Expansion Project, July 17, 2011, produced as Topsoe_0029982 pursuant to Protective Order Dkt. 208 in <i>Topsoe, Inc. v. Casale SA</i> , No. 3:24-cv-00033 (S.D. Tex.) (filed under seal)
1051	Process Flow Diagram for IFFCO Aonla-1 ammonia synthesis plant, India, Aug. 4, 1987, produced as Topsoe_0018096 pursuant to Protective Order Dkt. 208 in <i>Topsoe, Inc. v. Casale SA</i> , No. 3:24-cv-00033 (S.D. Tex.) (filed under seal)
1052	Acceptance Certificate for QAFCO ammonia synthesis plant, Qatar, Sept. 19, 2014, produced as Topsoe_0029869 pursuant to Protective Order Dkt. 208 in <i>Topsoe, Inc. v. Casale SA</i> , No. 3:24-cv-00033 (S.D. Tex.) (filed under seal)

Exhibit	Description
1053	Process Flow Diagram for QAFCO ammonia synthesis plant, Qatar, Sept. 24, 2007, produced as Topsoe_0029861 pursuant to Protective Order Dkt. 208 in <i>Topsoe, Inc. v. Casale SA</i> , No. 3:24-cv-00033 (S.D. Tex.) (redacted public version of EX1046)
1054	Engineering Agreement between Snamprogetti S.P.A. and Haldor Topsøe A/S for QAFCO ammonia synthesis plant, Qatar, Mar. 8, 2007, produced as Topsoe_0029879 pursuant to Protective Order Dkt. 208 in <i>Topsoe, Inc. v. Casale SA</i> , No. 3:24-cv-00033 (S.D. Tex.) (redacted public version of EX1047)
1055	Process Flow Diagram for Tata Babrala ammonia synthesis plant, India, Oct. 7, 2010, produced as Topsoe_0029994 pursuant to Protective Order Dkt. 208 in <i>Topsoe, Inc. v. Casale SA</i> , No. 3:24-cv-00033 (S.D. Tex.) (redacted public version of EX1048)
1056	Engineering Agreement between Snamprogetti S.P.A. and Haldor Topsøe A/S, Sept. 26, 1989, produced as Topsoe_0030024 pursuant to Protective Order Dkt. 208 in <i>Topsoe, Inc. v. Casale SA</i> , No. 3:24-cv-00033 (S.D. Tex.) (redacted public version of EX1049)
1057	Job Closing Report, Tata Babrala Fertilizer Expansion Project, July 17, 2011, produced as Topsoe_0029982 pursuant to Protective Order Dkt. 208 in <i>Topsoe, Inc. v. Casale SA</i> , No. 3:24-cv-00033 (S.D. Tex.) (redacted public version of EX1050)
1058	Process Flow Diagram for IFFCO Aonla-1 ammonia synthesis plant, India, Aug. 4, 1987, produced as Topsoe_0018096 pursuant to Protective Order Dkt. 208 in <i>Topsoe, Inc. v. Casale SA</i> , No. 3:24-cv-00033 (S.D. Tex.) (redacted public version of EX1051)
1059	Acceptance Certificate for QAFCO ammonia synthesis plant, Qatar, Sept. 19, 2014, produced as Topsoe_0029869 pursuant to Protective Order Dkt. 208 in <i>Topsoe, Inc. v. Casale SA</i> , No. 3:24-cv-00033 (S.D. Tex.) (redacted public version of EX1052)

I. Introduction

Patent Owner Casale SA's motion rests on a threshold premise that is wrong: that a conditional reservation sentence, triggered only "if the IPR is de-instituted," triggers itself to be an affirmative, present pursuit of those IPR grounds in district court. It is not. *AMD* draws the line that matters here: a petitioner violates a *Sotera* stipulation when it affirmatively pursues the same IPR art and arguments in district court—not when it includes precautionary, conditional language in contentions that otherwise identify only non-IPR grounds as operative. Petitioner Topsoe Inc.'s contentions acknowledge the *Sotera* stipulation and expressly state that "Topsoe does not rely on any invalidity grounds in these invalidity contentions that could have been raised in the IPR." EX2016 at 3-4.

The only operative district court grounds are IFFCO Aonla-1, QAFCO, and Tata Babrala—three ammonia synthesis plants asserted as known or used by others and/or on sale before the priority date, supported by confidential process flow diagrams, design documents, and plant-specific engineering evidence. EX2016 at 6-10, 14-28, 42-68, 70-90. Under *Ingenico*, these plant-system grounds could not have been raised in any IPR because they are not patents or printed publications. The secondary publications cited in the contentions do not change that analysis; they are used only in combination with the plant systems, not as standalone IPR-eligible

grounds. Patent Owner’s “label swap” theory fails because the record shows actual plant-system evidence—not printed publications masquerading as system art.

Nor does a conditional reservation sentence justify the extraordinary remedy Casale seeks. Unlike in *AMD*, where the petitioner served contentions expressly incorporating IPR grounds as operative district court grounds and attempted a post-hoc cure only after being accused of a violation, Petitioner’s original contentions here identified plant-system grounds as the only operative grounds and included the reservation language from the outset. Petitioner confirms that the petition grounds from IPR2025-01454 and IPR2025-01455 are not operative district court invalidity grounds. If the Board believes any wording is ambiguous, the proper remedy is clarification—which Petitioner has provided—not vacatur and termination of an instituted IPR that presents patentability issues the Board has already found warrant review.

II. Background

The chronology confirms Petitioner’s good faith. Patent Owner threatened Petitioner and Petitioner’s customers with the ’168 Patent. In response, in January 2024, Petitioner filed an action asserting unfair competition claims and seeking a declaration that the ’168 Patent was unenforceable for inequitable conduct. Patent Owner argued to the district court that there was no subject matter jurisdiction, i.e., no case or controversy, and that Casale “has never actually enforced or threatened to

enforce its patent against Topsoe.” *Topsoe, Inc. v. Casale SA*, 3:24-cv-33, Dkt. 107 at 6. While Patent Owner was maintaining there was no infringement dispute, Petitioner filed this IPR. Paper 3.

Patent Owner then sought discretionary denial, including by accusing Petitioner of “sandbagging” and arguing that parallel litigation considerations favored denial. Paper 6 at 1. Petitioner responded that there was no co-pending invalidity case and provided a *Sotera* stipulation: “if this IPR is instituted, Topsoe will not pursue in any district court litigation or ITC proceeding any invalidity grounds that was raised or reasonably could have been raised in this IPR.” Paper 9 at 12-13 & n.3. That representation was accurate when made because the district court case then concerned Petitioner’s unfair-competition and inequitable-conduct claims and Casale’s jurisdictional challenge—not a pending invalidity merits case.

The posture in the district court changed only after Petitioner’s discretionary denial opposition. On December 9, 2025, Patent Owner filed an answer, counterclaims, and a third-party complaint against Topsoe A/S, thereby creating the infringement dispute that gave rise to the district court invalidity contentions. EX2013 at 22. At a January 9, 2026, discovery hearing, the court directed the parties to submit a proposed agreed amended docket control order, and the parties did so on January 16. EX2013 at 23; EX2015 at 1. The resulting schedule required preliminary invalidity contentions by April 8. EX2015 at 3.

Petitioner served invalidity contentions consistent with that schedule. The contentions identify three, and only three, operative obviousness grounds: “§ 103 – IFFCO ammonia plant alone or in view of Jensen, Christensen, Gauthier, Price, Lindell, and/or Nielsen 2007”; “§ 103 – QAFCO ammonia plant alone or in view of Jensen, Christensen, Gauthier, Price, Lindell, and/or Nielsen 2007”; and “§ 103 – Tata Babrala ammonia plant alone or in view of Jensen, Christensen, Gauthier, Price, Lindell, and/or Nielsen 2007.” EX2016 at 9. Each ground is an ammonia plant system as the primary prior art. None is an IPR petition ground; none is a ground that could ever be asserted in an IPR.

III. Argument

A. Patent Owner Has Not Shown a Present *Sotera* Violation Because No IPR Ground Is Operative in District Court.

Patent Owner’s motion depends on a threshold premise that is wrong: that a conditional reservation sentence, triggered only “if the IPR is de-instituted,” is self-triggering to be an affirmative, present pursuit of IPR grounds in the district court. It is not. Petitioner’s contentions acknowledge the *Sotera* stipulation and state the operative point directly: “Topsoe does not rely on any invalidity grounds in these invalidity contentions that could have been raised in the IPR.” EX2016 at 3-4. The only obviousness grounds actually asserted are ammonia plant systems that were known or used by others or on sale, alone or in combination with secondary

references. Those are the only grounds that Petitioner is pursuing in district court; the conditional sentence does not become operative unless the IPR is de-instituted. That condition has not occurred.

Patent Owner's principal authority, *AMD*, involved materially different facts than those presented here. In *AMD*, the Director found that the petitioner's invalidity contentions "asserted that the challenged patents are invalid based on the same prior art and arguments raised in these IPRs" and "expressly incorporated by reference each IPR Petition." *AMD*, Paper 32 at 2. The Director emphasized that the petitioner "expressly incorporated the same art and same arguments from its Petitions into its invalidity contentions after these IPRs were instituted." *Id.* at 5.

That is not this case. Here, Petitioner's operative district court grounds are not the same art and same arguments from the IPR petition. They are IFFCO, QAFCO, and Tata Babrala plant-system grounds, each with plant-specific evidence and each outside the scope of IPR. EX2016 at 9, 14, 42, 70. The secondary references do not change the basis of those grounds. *See, e.g., Ingenico Inc. v. IOENGINE, LLC*, 136 F.4th 1354, 1366-67 (Fed. Cir. 2025) (affirming invalidity based on combination of printed publications and other documents as a ground of on sale or known or used by others and not precluded by IPR estoppel); *cf. Qualcomm Inc. v. Apple Inc.*, 24 F.4th 1367, 1364 (Fed. Cir. 2022) (holding that "an IPR ground asserting

unpatentability can ‘only’ include prior art consisting of patents or printed publications” (cleaned up)).

AMD is also distinguishable on timing and conduct. There, the petitioner served invalidity contentions that expressly included the IPR petition grounds as operative district court grounds and listed the very same prior art as anticipation references and obviousness combinations. *AMD*, EX3103 at 7, 10-12, 22-24, 58, 60, 69-70, 77, 78. Only after the patent owner sought termination did the petitioner attempt to amend its contentions and add “so long as these respective IPRs remain instituted” conditional language. *AMD*, EX1053 at 1. The Director focused on *AMD*’s original operative incorporation, finding it amounted to “pursuing” the IPR grounds. *AMD*, Paper 32, at 4-5.

Here, by contrast, Petitioner’s original contentions identified only plant-system grounds as operative and included the conditional reservation language from the outset. Petitioner did not incorporate the IPR petition grounds as operative district court grounds and then attempt to walk that back under pressure; the contentions have always been consistent with the *Sotera* stipulation, stating that “Topsoe does not rely on any invalidity grounds in these invalidity contentions that could have been raised in the IPR.” EX2016 at 3-4. The reservation language was a precautionary measure addressing the emerging phenomenon of de-institution—not a post-hoc attempt to cure an existing violation. That distinction is dispositive: *AMD*

stands for the proposition that a petitioner cannot retroactively cure a violation, not that precautionary reservation language in otherwise-compliant contentions constitutes a violation in the first instance.

AMD thus draws the line that matters here: a petitioner violates a *Sotera* stipulation when it affirmatively pursues the same IPR art and arguments in district court—not when it includes precautionary conditional language in contentions that otherwise identify only non-IPR grounds as operative. Petitioner’s contentions fall on the compliant side of that line because the only operative district court grounds are plant-system grounds that this Board could not adjudicate in IPR. Indeed, *AMD* recognizes that sometimes parties may “legitimately dispute whether a petitioner’s asserted invalidity contentions in district court violate a *Sotera*–style stipulation.” *AMD*, Paper 32 at 5. The record confirms that Petitioner has complied with its *Sotera* stipulation, but even if this were a legitimate dispute over Petitioner’s contentions, that would not warrant termination.

Patent Owner bears the burden to show that Petitioner is affirmatively pursuing a district court ground that Petitioner raised or reasonably could have raised in this IPR. Paper 38 at 2-3. It has not done so. The petition is based on patents and printed publications—2007 IFA, Rytter, Fjellhaug, Licht, Price, and Ji. Paper 3. The operative district court contentions, by contrast, identify three industrial ammonia plant systems as primary references—IFFCO Aonla-1, QAFCO, and Tata Babrala—

each asserted as known or used by others and/or on sale before the priority date. EX2016 at 9. Because each ground's basis includes a plant system, the ground could not have been raised in an IPR, even with secondary publications in combination. *Ingenico*, 136 F.4th at 1366-67. The following table summarizes the operative system-art grounds:

System Art	Operative District Court Ground	How Plant Evidence Is Used
IFFCO Aonla-1	IFFCO Aonla-1 ammonia plant, India, alone or in view of Jensen, Christensen, Gauthier, Price, Lindell, and/or Nielsen 2007. EX2016 at 9, 14	The IFFCO plant supplies plant-process evidence, including ammonia production from natural gas, shift/CO ₂ -removal treatment, and the split of CO ₂ -depleted syngas into fuel and process streams. EX2016 at 14-28
QAFCO	QAFCO ammonia plant, Qatar, alone or in view of Jensen, Christensen, Gauthier, Price, Lindell, and/or Nielsen 2007. EX2016 at 9, 42.	The QAFCO evidence includes plant flow diagrams and performance-guarantee/test-run evidence for a licensed ammonia plant, and the chart uses the plant's CO ₂ -depleted syngas/fuel-stream configuration as part of the obviousness theory. EX2016 at 42-68; TOPSOE_0029869
Tata Babrala	Tata Babrala ammonia plant, Uttar Pradesh, India, alone or in view of Jensen, Christensen, Gauthier, Price, Lindell, and/or Nielsen 2007. EX2016 at 9, 70.	The Tata Babrala evidence includes licensed-plant and expansion project materials, process flow diagrams, and plant-specific evidence for the ammonia synthesis process and CO ₂ -depleted syngas fuel-fraction theory. EX2016 at 70–90.

The table above confirms what the contentions expressly state: Petitioner is affirmatively pursuing only plant-system grounds in district court. Unlike the petitioner in *AMD*, which served contentions expressly incorporating IPR grounds as affirmative, operative district court grounds, Petitioner here has not charted, served, or pursued any IPR ground in district court. EX2016 at 9. The sentence Patent Owner quotes—“if the IPR is de-instituted”—is expressly conditional. A condition that has not occurred cannot convert precautionary language into an affirmative and operative district court invalidity ground. Petitioner confirms that, while this IPR remains instituted, the petition grounds in IPR2025-01454 and IPR2025-01455 are not operative district court invalidity grounds.

This distinction—between Petitioner’s operative plant-system grounds and the IPR petition’s printed-publication grounds—matters because the *Sotera* stipulation is directed to grounds “raised or reasonably could have been raised” in this IPR. Paper 9 at 13. A ground requiring proof of a working or licensed ammonia plant—including plant-specific operation and configuration evidence—could not have been adjudicated in IPR. There is accordingly no practical duplication: the IPR will adjudicate printed-publication challenges; the district court, if necessary, will adjudicate plant-system art grounds that the Board could not decide. Maintaining that division honors, rather than undermines, *Sotera*.

This conclusion is not altered by the fact that the contentions identify secondary patents and publications. Those materials are cited only in combination with plant-system primary references; the contentions do not identify a standalone ground consisting solely of petition references or other IPR-eligible printed publications. EX2016 at 6-10. Patent Owner therefore has not shown any present district court ground that was raised or reasonably could have been raised in this IPR, and its motion fails at the threshold.

The Board should decide this motion on that record. Patent Owner's speculation about what might occur after a hypothetical future vacatur does not establish a present violation. If the Director later de-institutes without a final written decision, that action would be within the Director's institution discretion and not subject to appellate review—as if the IPR were never instituted. *In re Motorola Sol'ns, Inc.*, 159 F.4th 30, 33 (Fed. Cir. 2025); *see also Medtronic, Inc. v. Robert Bosch Healthcare Sys., Inc.*, 839 F.3d 1382, 1383 (Fed. Cir. 2016); *Ethanol Boosting Sys., LLC v. Ford Motor Co.*, 162 F.4th 1151, 1157-58 (Fed. Cir. 2025). Petitioner's reservation language does no more than acknowledge that legal reality. In *In re Motorola Solutions, Inc.*, the Acting Director argued that even though an IPR had been instituted, the later decision to de-institute should be treated the same as any institution decision and not subject to appellate review. *See In re Motorola Sol'ns, Inc.*, Case No. 25-134, Dkt. 28 at 33-34 & n.6 (Fed. Cir. 2025) (Brief of Acting

Director). The Acting Director also recognized that “the *Sotera* stipulations that Motorola filed were conditioned on institution of its petitions for IPR. Because the USPTO ultimately did not institute IPR, Motorola has waived no unpatentability defenses in the district court” *Id.* Thus, the Acting Director’s position before the Federal Circuit in *Motorola* was that the legal effect of de-institution, even after institution, is that an IPR did not institute. *See id.*

B. The District Court Grounds Are Non-IPR System Art Under *Ingenico*.

The reason there is no *Sotera* violation is not merely that Petitioner used different labels; it is that the grounds Petitioner is affirmatively pursuing in district court are independent grounds that could not have been raised in any IPR. The *Ingenico* analysis confirms this.

1. Each ground’s basis is system art, not a patent or publication.

The Federal Circuit held that “ground” is not the same thing as the prior art asserted during IPR; IPR estoppel applies only to assertions that a claimed invention was patented or described in a printed publication, or would have been obvious only on the basis of patents or printed publications. *Ingenico*, 136 F.4th at 1365-67. The court further held that a petitioner may rely on patents and printed publications as evidence supporting a ground that could not have been raised in IPR, including known-use, on-sale, or public-use grounds. *Id.*

Petitioner's plant-system grounds fall within that holding. IFFCO Aonla-1 is asserted as a licensed Petitioner-designed ammonia synthesis plant operating since the 1980s, with process drawings bearing 1985 dates. EX2016 at 14. QAFCO is asserted as a licensed Petitioner-designed ammonia synthesis plant operating around 2014, supported by performance-guarantee evidence. EX2016 at 42. Tata Babrala is asserted as a licensed Petitioner-designed ammonia synthesis plant operating around 1994 and expanded around 2010-2011. EX2016 at 70.

The plant evidence is also limitation-specific. For each plant, the contentions chart the ammonia synthesis process, CO₂ separation, and the CO₂-depleted syngas stream split into fuel and process streams—all based on plant design documents, process flow diagrams, and operating evidence. EX2016 at 14-28 (IFFCO), 42-68 (QAFCO), 70-90 (Tata Babrala). For QAFCO, Petitioner also identified test-run and performance-guarantee evidence. EX1052. These are plant-process facts, not printed publication theories; the secondary publications are used only in combination with the plant systems.

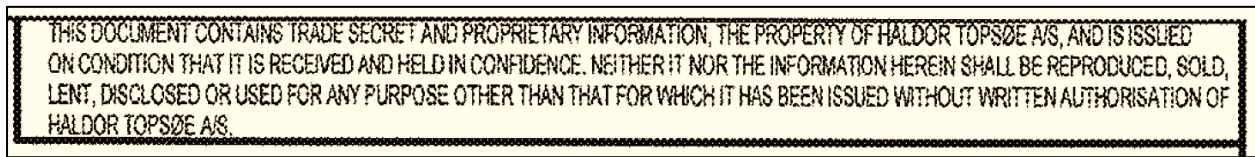
Courts applying *Ingenico* confirm this distinction between a ground's basis and the evidence supporting it. In *IPA Technologies Inc. v. Microsoft Corp.*, 2024 WL 1797394, at *6-7 (D. Del. Apr. 25, 2024), the court rejected the attempt to equate prior art systems with the documents used to prove them and held that invalidity theories combining a system with a patent or printed publication could not have been

raised during IPR. In *Globus Medical Inc. v. Life Spine Inc.*, 2025 WL 2879184, at *3-4 (D. Del. July 15, 2025), the court held IPR estoppel did not apply where the ground's basis included non-publication prior art. And in *Contour IP Holding LLC v. GoPro, Inc.*, 2025 WL 1918840, at *4-5 (N.D. Cal. July 11, 2025), the court reconsidered a prior estoppel ruling in light of *Ingenico* and allowed reliance on physical product prior art even where related printed publications existed. A challenger may rely on documents to prove how a system operated without those documents becoming the ground itself.

That principle applies with particular force to industrial ammonia plants, whose configuration and operation are necessarily proven through engineering documents, process flow diagrams, and operating records. A challenger need not inspect or test a physical device to rely on it as device art. *IOENGINE, LLC v. PayPal Holdings, Inc.*, 607 F. Supp. 3d 464, 512 (D. Del. 2022). That the systems are evidenced by written materials does not convert them into IPR-eligible grounds.

2. *The documents evidencing the plant systems are not printed publications.*

The confidential nature of the plant documents confirms that they are not IPR-eligible printed publication grounds. The QAFCO technical drawings are all marked with a native (non-litigation) trade secret or other confidentiality designations, *i.e.*:



EX1046. The QAFCO engineering agreement restricted disclosure and required confidentiality commitments; the design-basis document states that information may not be conveyed to third parties without written authorization. EX1047 at 7, 26. The Tata Babrala documents have similar restrictions:



EX1048; *see also* EX1049 at 8 (confidentiality provision in engineering agreement used in contentions); EX1050 at 1 (job closing agreement for 2011 expansion with confidentiality legend). The IFFCO Aonla-1 documents also have an original confidentiality legend, though repeated copying since 1982 has made the legend illegible in the produced documents. *See, e.g.*, EX1051 at 3.

Patent Owner knows this standard. In this very IPR, it argued extensively that EX1007, the 2007 IFA reference, was not a printed publication because it was not publicly accessible, invoking the “touchstone” of public accessibility. Paper 8 at 14-21. Yet Patent Owner’s motion does not apply that same standard to Petitioner’s confidential plant documents. Patent Owner cannot have it both ways: if public

accessibility is the touchstone (as it previously argued), then confidential plant documents are not printed publications.

Because the plant documents were subject to confidentiality restrictions and were never publicly accessible, they are not printed publications under any applicable test—and could not have formed the basis of an IPR ground. The secondary patents and publications cited in the contentions likewise do not transform the grounds. A ground whose basis includes non-IPR system art is not a ground that could not have been brought in an IPR. *Ingenico*, 136 F.4th at 1366-67. Petitioner’s contentions use Jensen, Christensen, Gauthier, Price, Lindell, and Nielsen 2007 only in combination with the IFFCO, QAFCO, or Tata Babrala plant systems. EX2016 at 9, 14, 42, 70.

C. Patent Owner’s Label-Swap Theory Fails.

Patent Owner’s “label swap” accusation fails because it never identifies a printed publication ground masquerading as system art. The record shows the opposite—plant-specific process diagrams, licensed-plant evidence, operating/test-run evidence, and confidentiality-restricted engineering materials proving how actual ammonia plants were configured and operated. Petitioner does not dispute that a party may not evade estoppel by merely relabeling a printed-publication ground as system art. *See California Institute of Technology v. Broadcom Ltd.*, 2019 WL

8192255, at *7-8 (C.D. Cal. Aug. 9, 2019); *XI Discovery, Inc. v. Microsoft Corp.*, Case No. 8:23-cv-02415 (C.D. Cal. Sept. 16, 2025); Paper 39 at 9, 11.

Even if *Caltech* was not overruled by *Ingenico*, the court declined to adopt a “superior and separate reference” standard or any other higher standard that would require certain claim limitations be independently satisfied by the non-IPR art. 2019 WL 8192255, at *8.

The facts here are the opposite of a label swap. The plant systems provide substantive, limitation-specific evidence: the ammonia synthesis process, CO₂-removal treatment, and CO₂-depleted syngas split/fuel-fraction features are mapped to plant process flow diagrams and plant operation evidence. EX2016 at 14-28, 42-68, 70-90. The secondary publications are not substitutes for the plant systems; they are used only in combination with the plant systems to address specific claim limitations that may require additional technical context.

Patent Owner’s own characterization confirms the distinction. It argues the plant systems are “unrelated” to the secondary publications. Paper 39 at 9. But if unrelated, they cannot be mere label swaps. Either the plant systems supply substantive prior art limitations—making them bona fide system-art grounds outside IPR—or they do not, in which case Patent Owner should have no difficulty showing the district court grounds are IPR grounds in disguise. Patent Owner has made no such showing.

Indeed, the record confirms the plant systems rely on confidential technical information, licensed plant designs, plant-specific process diagrams, and operating/test-run evidence. EX2016 at 6-10; EX1047 at 7, 26; EX1052. This is the hallmark of non-IPR prior art: proprietary information that was never publicly accessible and could not have supported an IPR petition.

Patent Owner's reliance on *MacNeil* is also misplaced. Paper 39 at 9. In *MacNeil Auto. Prods. v. Yita, LLC*, 2025 WL 4704115, at *3 (W.D. Wash. Aug. 20, 2025), the court distinguished *Contour IP* because the defendants did not proffer the product as evidence that the claimed invention was known or used by others, on sale, or in public use; instead, they argued that a POSITA could have modified the product through routine optimization. Here, Petitioner expressly asserts that each ammonia plant was known or used by others and/or on sale. EX2016 at 14, 42, 70. That is precisely the type of system-art assertion that *Ingenico* and *Contour IP* protect from IPR estoppel.

Patent Owner's theory would improperly bar every system art combination whenever the system is proven through documents or combined with a secondary patent or publication. That is not *Sotera*, and it is not *Ingenico*. The relevant question is whether the asserted district-court ground could have been raised in IPR. A ground whose basis is operating ammonia plant system art—supported by confidential engineering documents, process flow diagrams, and test-run evidence—could not

have been raised in IPR. Effectively, what Patent Owner seeks is a Catch 22—the system grounds can neither be raised in the IPR nor in the litigation. This is incorrect.

D. Patent Owner's Remaining Authorities Do Not Support Termination.

Patent Owner invokes several additional authorities, but none supports termination. Each is factually distinguishable or procedurally inapposite, and none addresses the situation here: operative district court grounds that are non-IPR system art, and reservation language that is precautionary and conditional rather than an affirmative, operative incorporation of IPR grounds.

Magnolia does not help Patent Owner. There, the Director denied institution where the petitioner sought an IPR review under the AIA after a district court loss and after its expert was precluded, making the petition appear to be a second bite at the apple rather than an alternative to litigation. *Magnolia Med. Techs., Inc. v. Kurin, Inc.*, IPR2026-00097, Paper 17 at 9-10 (Director May 14, 2026). Here, Petitioner is not using IPR to relitigate a district court invalidity loss. The instituted IPR proceeds on petitioned printed-publication grounds, and the district court addresses separate plant-system grounds if necessary.

ASUSTeK is only an order initiating sua sponte Director Review and authorizing briefing based on allegations that petitioners raised the same invalidity theories in an ITC investigation. It did not adjudicate a *Sotera* violation, did not

address plant-system art, and did not hold that district-court-only system-art combinations violate a *Sotera* stipulation. *ASUSTeK Comput. Inc. v. Nokia Techs. Oy*, IPR2025-01153, Paper 27 at 2-3 (Director May 27, 2026).

Prior Board decisions confirm that disputes about the scope of *Sotera* stipulations have often been addressed in district court. *Samsung Elecs. Co. v. Netlist, Inc.*, IPR2022-00639, Paper 26 at 2 (PTAB Jan. 18, 2023); *Lightspeed Commerce Inc. v. CloudfChange, LLC*, IPR2022-00779, Paper 28 at 3 (PTAB July 25, 2023); *Apple Inc. v. Maxell, Ltd.*, IPR2020-00204, Paper 21 at 10 (PTAB Dec. 15, 2020). The default should not be termination where there is a legitimate dispute or an ambiguity that can be clarified.

The Board need not resolve any abstract question about the full effect of a *Sotera* stipulation after a hypothetical future vacatur. The dispositive point is narrower: no IPR petition ground is operative in district court, and the operative plant-system grounds could not have been raised in IPR.

E. Termination Is Disproportionate; Clarification or Amendment Is an Appropriate Alternative Remedy.

Even if the Board concludes that Petitioner's district-court contentions could have been clearer, vacatur and termination would be disproportionate. The appropriate remedy for any perceived ambiguity is clarification—which Petitioner

has provided here—not termination of an instituted IPR that presents patentability issues the Board has already found warrant review.

Terminating a meritorious, instituted review would not advance efficiency, fairness, or patent quality where any legitimate dispute can be cured by clarification. Patent Owner's requested remedy would deprive the Board of the opportunity to resolve substantial patentability questions based on grounds properly before it, even though Patent Owner has not shown any current violation of the stipulation.

IV. Conclusion and Requested Relief

Petitioner's invalidity contentions acknowledge and are consistent with its *Sotera* stipulation. Every asserted obviousness ground is based on an ammonia synthesis plant that was known or used by others or on sale—grounds that could not have been brought in an IPR. Petitioner's acknowledgement that an IPR may be de-instituted does not change the stipulation's terms or mean that Petitioner has pursued IPR-eligible grounds in the district court.

For the foregoing reasons, Petitioner respectfully requests that the Board deny Patent Owner's Motion to Vacate and Terminate Proceedings and move forward with this IPR.

Respectfully submitted,

/ Jeffrey A. Andrews /

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), I certify that on June 15, 2026, a true and correct copy of the foregoing Petitioner's Opposition to Patent Owner's Motion to Vacate and Terminate Proceedings was served by electronic mail on Patent Owner's lead and backup counsel at the following email addresses:

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Date: June 15, 2026

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