UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT TRIAL AND APPEAL BOARD

PacifiCorp,
Interstate Power & Light Company,
MidAmerican Energy Company,
WEC Energy Group, Inc., and
Wisconsin Power & Light Company

Petitioners

v.

Birchtech Corp.

Patent Owner

IPR2025-00425
Patent No. 10,598,225

PETITIONERS' BRIEF OPPOSING

PATENT OWNER'S BRIEF REGARDING DISCRETIONARY DENIAL

TABLE OF CONTENTS

I. INTRODUCTION 1

A. The Director Already Rejected Patent Owner's Arguments for Discretionary Denial.....2

B. Previous Panels Also Instituted IPRs on PO's Patents 4

II. THE INTERIM GUIDANCE FACTORS DO NOT SUPPORT DISCRETIONARY DENIAL 8

A. Factor 1: The PTAB Has Already Opined on the Validity or Patentability of the Challenged Claims; the District Court Has Not 8

1. The PTAB Opined on the Patentability of the Subject Matter of the '225 Patent Claims in IPR2020-00832 and IPR2020-008349

2. The PTAB Previously Rejected Patent Owner's Attempts to Seek an Earlier Priority Date 14

3. The District of Delaware Did Not Determine Validity 19

B. Factor 2: Whether There Have Been Changes in the Law or New Judicial Precedent Issued Since Issuance of the Claims that May Affect Patentability.....20

C. Factor 3: The Strength of the Unpatentability Challenge 21

1. Talen Is Not an RPI or Privy to This Petition or PacifiCorp 23

2. Chem-Mod and its Affiliates Are Not RPIs or Privies 29

D. Factor 4: The Extent of the Petition's Reliance on Expert Testimony 37

E. Factor 5: Settled Expectation of the Parties, Such as the Length of Time the Claims Have Been in Force 40

F. Factor 6: Compelling Economic, Public Health, or National Security Interests.....42

G. Factor 7: Any Other Considerations Bearing on the Director's Discretion 44

1. Consistency Among Office Proceedings 44

2. Combined Petitioners with Minimal Grounds 45

3. Common Grounds Across Multiple Patents.....46

III. THE *FINTIV* FACTORS DO NOT SUPPORT DISCRETIONARY DENIAL.....47

A. Factor 1: Whether the Court Granted a Stay or Evidence Exists that One May Be Granted if a Proceeding Is Instituted 47

B. Factor 2: Proximity of the Court's Trial Date to the Board's Projected Statutory Deadline for a Final Written Decision 48

1. There is No Trial Date for any Non-Iowa Petitioner 50

2. There is Also No Trial Date for any Iowa Petitioner 51

C. Factor 3: Investment in the Parallel Proceeding by the Court and the Parties 55

1. The District Court's Involvement Has Been Limited to Procedural Issues 55

2. The District Court Proceeding Remains in Its Early Phases 58

D. Factor 4: Overlap Between Issues Raised in the Petition and in the Parallel Proceeding 61

1. Petitioners Filed a Broad "Sotera Plus" Stipulation 61

2. The District Court Will Not Address All Claims at Issue in the Petitions 62

E. Factor 5: Whether the Petitioner and the Defendant in the Parallel Proceeding Are the Same Party 63

F. Factor 6: Other Circumstances That Impact the Board's Exercise of Discretion, Including the Merits 64

IV. CONCLUSION 64

CERTIFICATE OF COMPLIANCE 65

CERTIFICATE OF SERVICE 66

TABLE OF AUTHORITIES

Page(s)

Cases

Amazon.com, Inc., et. al v. NL Giken Inc.,
IPR2025-00250, Paper 14 (P.T.A.B. May 16, 2025) 54

Apple Inc. v. Fintiv, Inc.,
IPR2020-00019, Paper 15, 2020 WL 2126495 (P.T.A.B. March 20, 2020) 55

Applications in Internet Time, LLC v. RPX Corp.,
897 F.3d 1336 (Fed. Cir. 2018) 26

Arista Networks, Inc. v. Orckit Corp.,
IPR2024-01239, Paper 7 (P.T.A.B. Mar. 12, 2025) 41

ASSA ABLOY AB v. CPC Patent Techs. Pty, Ltd.,
IPR2022-01006, Paper 64, 2024 WL 3799645 (P.T.A.B. Aug. 13, 2024) 36, 37

ASSA ABLOY AB v. CPC Patent Techs. Pty, Ltd,
IPR2022-01094, Paper 19 (P.T.A.B. Feb. 2, 2023).....25, 27, 34

AT&T Servs. Inc. v. Asus Tech. Licensing Inc.,
IPR2024-00992, Paper 14, 2024 WL 5126018 (P.T.A.B. Dec. 16, 2024) 55, 56

Beckman Coulter, Inc. v. Sirigen II Ltd.,
IPR2022-01207, Paper 12 (P.T.A.B. Jan. 6, 2023) 54

Berkshire Hathaway Energy Co. v. Birchtech Corp.,
IPR2025-00274, Paper 23 (P.T.A.B. July 2, 2025) .....*passim*

Bio-Rad Labs., Inc. v. Cal. Inst. of Tech.,
IPR2024-01451, Paper 11 (P.T.A.B. Mar. 27, 2025) 54

Cambridge Indus. USA, Inc. v. Applied Optoelectronics, Inc.,
IPR2025-00434, Paper 11 (P.T.A.B. June 26, 2025) 4, 38, 40

Cisco Systems, Inc. v. Croga Innovations LTD.,
IPR2024-01283, Paper 8 (P.T.A.B. Feb. 13, 2025).....52

Deere & Co. et. al v. Kinze Mfg., Inc. et. al,
4:20-CV-00389 (S.D. Iowa) 52

Dish Network LLC v. Broadband iTV, Inc.,
IPR2020-01359, Paper 15 (P.T.A.B. Feb. 12, 2021).....60

G.W. Lisk Company, Inc. v. Gits Manufacturing Company,
4:17-cv-00273 (S.D. Iowa) 53

GD Energy Prods., LLC v. Kerr Mach. Co.,
PGR2025-00031, Paper 11 (P.T.A.B. June 25, 2025).....37

Google LLC v. DDC Tech., LLC,
IPR2023-00708, Paper 41 (public version of Paper 29) (P.T.A.B.
Oct. 25, 2023) 27, 29, 30, 35

GoPro, Inc. v. Contour IP Holding LLC,
908 F.3d 690 (Fed. Cir. 2018) 38

JP Morgan Chase & Co., & JP Morgan Chase Bank, N.A., v. Maxim Integrated Prods., Inc.,
CBM2014-00179, 2015 WL 780869 (P.T.A.B. Feb. 20, 2015).....30

Koninklijke Philips N.V. v. Google LLC,
948 F.3d 1330 (Fed. Cir. 2020) 39

Luminex Int'l Co. v. Signify Holdings B.V.,
IPR2024-00101, Paper 20 (P.T.A.B. Nov. 21, 2024).....*passim*

Mercedes-Benz Group AG v. Phelan Group LLC,
IPR2025-00413, Paper 13 (P.T.A.B. June 25, 2025) 8, 44

In re Midwest Energy Emissions Corp. Pat. Litig.,
No. 4:24-md-3132 (S.D. Iowa).....*passim*

Monolithic Power Sys., Inc. v. Greenthread, LLC,
IPR2024-00552, Paper 26 (P.T.A.B. Oct. 11, 2024).....28

NRG Energy, Inc. v. Midwest Energy Emissions Corp.,
IPR2020-00832, Paper 17, 2020 WL 6277239 (P.T.A.B. Oct. 26, 2020) .....*passim*

NRG Energy, Inc. v. Midwest Energy Emissions Corp.,
IPR2020-00834, Paper 18, 2020 WL 6277747 (P.T.A.B. Oct. 26, 2020) .....*passim*

NRG Energy, Inc. v. Midwest Energy Emissions Corp.,
IPR2020-00926, Paper 19, 2020 WL 7061347 (P.T.A.B. Dec. 2, 2020) .....*passim*

NRG Energy, Inc. v. Midwest Energy Emissions Corp.,
IPR2020-00928, Paper 17, 2020 WL 7074473 (P.T.A.B. Dec. 2, 2020) .....*passim*

Nuhn Industries Ltd v. Bazooka Farmstar LLC,
3:22-cv-00015 (S.D. Iowa) 53

PEAG LLC. v. Varta Microbattery GMBH,
IPR2020-01213, Paper 8, 2021 WL 54768 (P.T.A.B. Jan. 6, 2021) 60

Piatz v. State Farm Mut. Auto. Ins. Co.,
3:21-CV-00007 (S.D. Iowa) 52

Posco Co. v. Arcelormittal,
IPR2025-00370, Paper 10 (P.T.A.B. June 25, 2025) 3, 8, 44, 63, 64

Probasco et al v. MFA Inc.,
4:22-CV-00117 (S.D. Iowa) 53

Samsung Electrons. Co. v. Mullen Indus. LLC,
IPR2025-00021, Paper 14, 2025 WL 965629 (P.T.A.B. May 14, 2025) 47, 48

Savant Techs. LLC v. Feit Elec. Co.,
IPR2024-01357, Paper 17 (P.T.A.B. Mar. 5, 2025) 54

Savant Techs. LLC v. Feit Elec. Co.,
IPR2025-00260, Paper 16 (P.T.A.B. June 12, 2025) 60

SharkNinja Operating LLC v. iRobot Corp.,
IPR2020-00734, Paper 11 (P.T.A.B. Oct. 6, 2020) 24

Shin v. Winnebago Indus., Inc. et. al,
3:23-CV-00077 (S.D. Iowa) 53

Sotera Wireless, Inc. v. Masimo Corp.,
IPR2020-01019, Paper 12, 2020 WL 7049372 (P.T.A.B. Dec. 1, 2020) 59, 61, 62

Taylor v. Sturgell,
553 U.S. 880 (2008).....28

Tesla v. Intellectual Ventures,
IPR2025-00217, Paper 10 (P.T.A.B. June 13, 2025) 5, 8, 44

Tesla, Inc. v. U.S.A.,
IPR2025-00341, Papers 10 and 12 (P.T.A.B. June 13, 2025).....6, 62

Thryv, Inc. v. Click-To-Call Techs., LP,
590 U.S. 45 (2020).....2

Twitch Interactive, Inc. v. Razdog Holdings LLC,
IPR2025-00307, Paper 18 (P.T.A.B. May 16, 2025) 54, 55

WesternGeco LLC v. Ion Geophysical Corp.,
889 F.3d 1308 (Fed. Cir. 2018) 29, 34

Xerox Corp. v. Bytemark, Inc.,
IPR2022-00624, Paper 9, 2022 WL 3648989 (P.T.A.B. Aug. 24, 2022) 37

Statutes

35 U.S.C. § 102(b) 38

35 U.S.C. § 299.....58

35 U.S.C. § 315(b) 25

Other Authorities

37 C.F.R. § 42.65(a).....37

Executive Order No. 14261 44

H.R. Rep. No. 112-98 (2011).....2

PETITIONERS' UPDATED EXHIBIT LIST

(Adding Exhibits 1113-1136)

Exhibit	Description of Exhibits
1001	U.S. Patent No. 10,589,225 to Olson et al. (filed May 14, 2015) **("'225 Patent" or "Challenged Patent")**
1002	Declaration of Dr. Stephen Niksa in Support of Petition for *Inter Partes* Review of U.S. Patent No. 10,589,225 **("'225 Niksa Decl.")**
1003	Curriculum Vitae of Dr. Stephen Niksa
1004	Family Tree of ME2C Patents
1005	U.S. Patent Publication No. 2004/0013589 to Vosteen et al. (filed July 24, 2002) **("Vosteen589")**
1006	U.S. Patent Pub. No. 2008/0107579 to Downs et al. (published May 8, 2008) **("Downs-Boiler")**
1007	U.S. Patent Prov. App. No. 60/555,353 (filed Mar. 22, 2004) **("Downs-Boiler-Provisional")**
1008	Travis Starns, "Full-Scale Test of Mercury Control with Sorbent Injection and an ESP at Wisconsin Electric's Pleasant Prairie Power Plant," Session AE1-C, Paper No. 43249, AIR & WASTE MANAGEMENT'S ASSOCIATION'S 95TH ANNUAL CONFERENCE (Baltimore, MD: June 23-27, 2002) **("Starns")**

Exhibit	Description of Exhibits
1009	Massachusetts Dep. of Environmental Protection, Bureau of Waste Prevention, "Evaluation of the Technological and Economic Feasibility of Controlling and Eliminating Mercury Emissions from the Combustion of Solid Fossil Fuel" (Dec. 2002) **("Mass-EPA")**, available at https://web.archive.org/web/20030411074158/http:/www.state.ma.us/dep/bwp/daqc/files/mercfeas.pdf and at https://www.mass.gov/doc/evaluation-of-technological-economic-feasibility-of-controlling-eliminating-mercury-emissions/download
1010	Sharon Sjostrom, "Full Scale Evaluations of Mercury Control Technologies with PRB Coals," Track A, Session A3 (Mercury – Control), Presentation A3b, EUEC: 8TH ELECTRIC UTILITIES ENVIRONMENTAL CONFERENCE (Tucson, Arizona: January 25, 2005) **("Sjostrom")**
1011	Craig Eckberg et al., "Mercury Control Evaluation of Halogen Injection into a Texas Lignite-Fired Boiler," Track A, Session A3 (Mercury – Control), Presentation A3c, EUEC: 8TH ELECTRIC UTILITIES ENVIRONMENTAL CONFERENCE (Tucson, Arizona: January 25, 2005) **("Eckberg")**
1012	U.S. Patent Pub. No. 2006/0048646 to Olson et al. (published Mar. 9, 2006) **("Olson-646")**
1013	U.S. Patent No. 6,953,494 to Nelson (filed May 6, 2003) **("Nelson")**
1014	U.S. Patent No. 7,514,052 to Lissianski et al. (filed Apr. 7, 2009) **("Lissianski")**

Exhibit	Description of Exhibits
1015	RESERVED
1016	RESERVED
1017	RESERVED
1018	U.S. Patent No. 8,652,235 to Olson et al. (issued February 18, 2014) **("Olson-235")**
1019	File History of U.S. Patent Application No. 15/974,343, which ultimately issued as U.S. Patent No. 10,668,430 **("'430 Patent File History")**.
1020	File History of U.S. Patent Prov. App. No. 60/605,640 **("Provisional")**
1021	File History of U.S. Patent Application No. 11/209,163, which ultimately issued as U.S. Patent No. 7,435,286 **("'163 Application File History")**
1022	File History of U.S. Patent Application No. 12/201,595, which ultimately published as 2009/0062119 and was abandoned **("'595 Application File History")**
1023	RESERVED
1024	File History of U.S. Patent Application No. 15/997,091, which ultimately issued as U.S. Patent No. 10,596,517 **("'517 Patent File History")**.

Exhibit	Description of Exhibits
1025	File History of U.S. Patent Application No. 12/419,219, which ultimately issued as U.S. Patent No. 8,168,147 **("'147 Patent File History").**
1026	File History of U.S. Patent Application No. 15/978,760 (issued as U.S. Patent No. 10,343,114) **("'114 Patent File History")**
1027	Babcock & Wilcox, STEAM: ITS GENERATION AND USE, 40th ed. (The Babcock & Wilcox Company: 1992) **("B&W: Steam")**
1028	J. Bustard, S. Sjostrom, et al., "Full Scale Evaluation of Sorbent Injection for Mercury Control on Coal-Fired Power Plants," International Conference on Air Quality III, Paper No. A5-4 (Sept. 9-12, 2002: Arlington, VA) **("Bustard")**
1029	U.S. Patent No. 1,984,164 to Stock et al. (issued Dec. 11, 1934) **("Stock")**
1030	Electric Utilities Environment Conference 2005 Handout **("EUEC Handout")**
1031	Scan of jacket/cover of CD mailed to conference attendees from EUEC: 8th Electric Utilities Environmental Conference (Tucson, Arizona: January 23-26, 2005) **("EUEC CD Scan")**
1032	Redline comparison between U.S. Patent Pub. No. 2008/0107579 (Downs-Boiler, EX1006) and U.S. Patent Prov. Appl. No. 60/555,353 (Downs-Boiler-Provisional, EX1007), using Downs-Boiler-Provisional as the original version **("Downs-Boiler-Redline")**

Exhibit	Description of Exhibits
1033	U.S. Patent No. 8,512,655
1034	U.S. Patent No. 8,821,819
1035	U.S. Patent No. 9,757,689
1036	CRC Handbook of Chemistry and Physics, 86th Ed.; Lide, D.R., ed. **("CRC Press: March 2005")**
1037	Paul Chu, "Power Plant Evaluation of the Effect of SCR Technology on Mercury," Paper No. 106, COMBINED POWER PLANT AIR POLLUTANT CONTROL MEGA SYMPOSIUM (MEGA) (Washington, DC: May 19-22, 2003) **("Power Plant Evaluation")**
1038	Evan J. Granite et al., "Sorbents for Mercury Removal from Flue Gas," DOE/FETC/TR–98-01, U.S. Department of Energy (Jan. 1998) **("Granite")**
1039	Thomas J. Feeley, et al., "A Review of DOE/NETL's Mercury Control Technology R&D Program for Coal-Fired Power Plants," *DOE/NETL Hg R&D Program Review* (April 2003) **("Feeley")**
1040	Oxtoby et al., PRINCIPLES OF MODERN CHEMISTRY, 4th ed. (Saunders College Publishing: 1999) **("Oxtoby")**
1041	N.N. Greenwood and A. Earnshaw, CHEMISTRY OF THE ELEMENTS, 2nd ed. (Butterworth-Heinemann: 1997) **("Greenwood")**

Exhibit	Description of Exhibits
1042	B.R. Puri, *Surface Complexes on Carbons*, *in* CHEMISTRY AND PHYSICS OF CARBON 191 (Philip L. Walker, ed.) (Marcel Dekker: 1970) **("Puri")**
1043	Frank E. Huggins et al., "XAFS Examination of Mercury Sorption on Three Activated Carbons," *Energy & Fuels* 1999(13), p. 114-121 (1999) **("XAFS")**
1044	S. Niksa et al., *Predicting Complete Hg Speciation Along Coal-Fired Utility Exhaust Systems*, MEGA SYMPOSIUM, Paper # 45 (Washington, DC: Aug. 2004) **("Hg Speciation")**
1045	D.L. Laudal et al., *Evaluation of Mercury Speciation at Power Plants Using SCR and SNCR NOx Control Technologies*, Paper No. A5-01, INT'L CONF. ON AIR QUALITY III (Arlington, VA: Sept. 9-12, 2002) **("Laudal")**
1046	U.S. Patent No. 4,196,173 to DeJong **("DeJong")**
1047	U.S. Patent No. 5,695,726 to Lerner **("Lerner")**
1048	Carey, T. R., Jr., O. W. H., Richardson, C. F., Chang, R., & Meserole, F. B. (1998). Factors Affecting Mercury Control in Utility Flue Gas Using Activated Carbon. *Journal of the Air & Waste Management Association*, 48(12), 1166–1174. https://doi.org/10.1080/10473289.1998.10463753 **("Carey")**
1049	NETL - Mercury Emissions Control, February, 2003, available at https://web.archive.org/web/20030315093905fw_/http://www.netl.do

Exhibit	Description of Exhibits
	e.gov/coalpower/environment/mercury/control-tech/inactive.html **("U.S. DOE, Completed Mercury Projects, February, 2003")**
1050	Proposed National Emission Standards for Hazardous Air Pollutants; and, in the Alternative, Proposed Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units, 69 Fed. Reg. 4652-4752 [Volume 69, No. 20] (Jan. 30, 2004) **("EPA-Proposal")**
1051	U.S. EPA, "Study of Hazardous Air Pollutant Emissions from Electric Utility Steam Generation Units -- Final Report to Congress," (Vol. 1 1998), available at https://www3.epa.gov/ttn/utox/eurtc1.pdf (**"U.S. EPA – Vol. 1 1998"**)
1052	U.S. EPA, "Mercury Study Report to Congress Volume 1: Executive Summary," EPA-452/R-97-003 (Dec. 1997), available at https://www.epa.gov/sites/production/files/2015-09/documents/volume1.pdf (**"U.S. EPA – Exec. Summary Vol. 1 Dec. 1997"**)
1053	U.S. EPA, AP-42: External Combustion Sources, Chapter 1: Fifth Edition, Volume I (Sep. 1998), available at https://www3.epa.gov/ttn/chief/ap42/ch01/index.html (last visited Nov. 20, 2024) **("Chapter 1 of AP-42")**
1054	U.S. DOE, Mercury Emissions Control - Regulatory Drivers (Jan. 24, 2003), available at https://web.archive.org/web/20030416142937/http:/www.netl.doe.gov/coalpower/environment/mercury/regs.html **("Mercury Emissions Control")**

Exhibit	Description of Exhibits
1055	Clean Air Mercury Rule: Basic Information, available at https://web.archive.org/web/20050920005951/http:/www.epa.gov/mercuryrule/basic.htm **("Clean Air Mercury Rule")**
1056	EPA Newsroom, "EPA Announces First-Ever Rule to Reduce Mercury Emissions from Power Plants" (Mar. 15, 2005), available at https://archive.epa.gov/epapages/newsroom_archive/newsreleases/91ab7266e65751b985256fc50067d9b0.html **("3/15/2005 EPA Press Release")**
1057	EPA Newsroom, "Public Comment Period Begins for Proposed Power Plant Regulations" (Jan. 29, 2004), available at https://archive.epa.gov/epapages/newsroom_archive/newsreleases/4daf1d46e8dd755c85257036005511f9.html **("1/29/2004 EPA Press Release")**
1058	EPA Newsroom, "EPA Supplements Proposal to Reduce Power Plant Mercury Emissions," (Feb. 24, 2004), available at https://archive.epa.gov/epapages/newsroom_archive/newsreleases/5810096dabfc9eba85256e440078905f.html **("2/24/2004 EPA Press Release")**
1059	Sharon Sjostrom et al., "Field Studies of Mercury Control Using Injected Sorbents," AWMA ANNUAL MEETING, Session Ae-1b (2002) **("Field Studies of Mercury Control")**
1060	EPA, "Mercury Study Report to Congress Volume VIII: An Evaluation of Mercury Control Technologies and Costs," EPA Report No. EPA-452/R-97-010 (Dec. 1997), available at https://www3.epa.gov/airtoxics/112nmerc/volume8.pdf **("EPA 1997 Mercury Study Report Vol. VIII")**

Exhibit	Description of Exhibits
1061	EUEC 2005 home page, available at https://web.archive.org/web/20050303090129/http:/www.euec.com/
1062	Charlene R. Crocker et al., "Mercury Control with the Advanced Hybrid Particulate Collector Technical Progress Report," U.S. DOE-NETL (Nov. 2003) **("Crocker")**
1063	RESERVED
1064	Redline Comparison, showing changes from '558 Application (as published at 2015/0246315) to '970 Application (as published at 2018/0229182)
1065	U.S. Patent No. 8,168,147
1066	RESERVED
1067	RESERVED
1068	File History of U.S. Patent Application No. 14/712,558, which ultimately issued as U.S. Patent No. 10,589,225 **("'225 Patent File History")**
1069	RESERVED
1070	Roop Chand Bansal, et al., ACTIVE CARBON (Marcel Dekker: 1988). **("Bansal")**

Exhibit	Description of Exhibits
1071	*Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.*, No. 1:19-cv-01334-CJB, Dkt. No. 440 (D. Del. June 24, 2022). **("Dkt No. 440")**
1072	*Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.*, No. 1:19-cv-01334-CJB, Dkt. No. 447 (D. Del. July 12, 2022). **("Dkt No. 447")**
1073	Welcome Page of CD mailed to conference attendees of the 2002 Air & Waste Management's Association's 95th Annual Conference & Exhibition (Baltimore, Maryland: June 23-27, 2002) **("AWMA CD Scan")**
1074	Main Menu of CD mailed to conference attendees of the 2002 Air & Waste Management's Association's 95th Annual Conference & Exhibition (Baltimore, Maryland: June 23-27, 2002) **("AWMA CD Scan, Main Menu")**
1075	Author Index of CD mailed to conference attendees of the 2002 Air & Waste Management's Association's 95th Annual Conference & Exhibition (Baltimore, Maryland: June 23-27, 2002) **("AWMA CD Scan, Author Index")**
1076	Papers by Session of CD mailed to conference attendees of the 2002 Air & Waste Management's Association's 95th Annual Conference & Exhibition (Baltimore, Maryland: June 23-27, 2002) **("AWMA CD Scan, Papers by Session")**
1077	Scan of jacket/cover of CD mailed to conference attendees of the 2002 Air & Waste Management's Association's 95th Annual

Exhibit	Description of Exhibits
	Conference & Exhibition (Baltimore, Maryland: June 23-27, 2002) **("AWMA CD Photo")**
1078	AWMA Website (Internet Archive), available at https://web.archive.org/web/20020613041559/http://www.awma.org/about/overview.htm (AWMA Overview)
1079	AWMA Website (Internet Archive), available at https://web.archive.org/web/20020527005933/http://www.awma.org/ (AWMA Homepage, advertising AWMA 2002 Conference)
1080	AWMA Website (Internet Archive), available at https://web.archive.org/web/20020604012426/http://www.awma.org:80/about/ (AWMA About Page)
1081	AWMA Website (Internet Archive), available at https://web.archive.org/web/20020601173851/http://www.awma.org/ACE2002/tech-program/MondayPM.asp#AE-1c (AWMA Technical Program Schedule for June 24, 2002 for Session AE-1C)
1082	AWMA Website (Internet Archive), available at https://web.archive.org/web/20020616091740/http://www.awma.org/ACE2002/exhibition/list.asp (AWMA 2002 Conference list of exhibitors)
1083	AWMA Website (Internet Archive), available at https://web.archive.org/web/20020601121532/http://www.awma.org/ACE2002/top10list.asp (AWMA 2002 Conference Top Ten Reasons)
1084	AWMA Website (Internet Archive), available at https://web.archive.org/web/20020610093515/http://www.awma.org/

Exhibit	Description of Exhibits
	ACE2002/welcome.asp (AWMA 95th Annual Conference and Exhibition Welcome Page)
1085	AWMA Website (Internet Archive), available at https://web.archive.org/web/20020806044928/http://www.awma.org:80/pubs/bookstore/ItemInfo.asp?OrderCode_s=VIP-110-CD (AWMA Bookstore Page, Order form for 2002 AWMA Conference CD)
1086	AWMA Website (Internet Archive), available at https://web.archive.org/web/20020806041256/http://www.awma.org:80/pubs/bookstore/ (AWMA Bookstore Homepage)
1087	State of Massachusetts Mass-EPA (Internet Archive) (dated Jan. 6, 2003), available at https://web.archive.org/web/20030106044457/http://www.state.ma.us/dep/bwp/about.htm (describing mission of Mass Department of Environmental Protection, Bureau of Waste Prevention)
1088	State of Massachusetts Mass-EPA (Internet Archive) (dated Dec. 21, 2002), available at https://web.archive.org/web/20021221040816/http://www.state.ma.us/dep/bwp/bwpprogs.htm (describing the divisions and programs of the Mass Bureau of Waste Prevention)
1089	State of Massachusetts Mass-EPA (Internet Archive) (dated Jan. 6, 2003), available at https://web.archive.org/web/20030106024342/http://www.state.ma.us/dep/bwp/bwppubs.htm (describing the publications by program of the Mass Bureau of Waste Prevention)
1090	State of Massachusetts Mass-EPA (Internet Archive) (dated Dec. 20, 2002), available at

Exhibit	Description of Exhibits
	https://web.archive.org/web/20021220143210/http://www.state.ma.us/dep/bwp/daqc/daqcpubs.htm#ecp (describing the Air Program Planning Unit Publications of the Mass Bureau of Waste Prevention)
1091	Internet Archive Standard Affidavit, explaining how to interpret hyperlinks, available at https://archive.org/legal/affidavit.php
1092	Expert Report of Philip J. O'Keefe, PE Regarding Infringement (Oct. 25, 2022) (excerpted), submitted by Patent Owner in *Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.*, No. 1:19-cv-01334-CJB.
1093	Deposition Transcript of Phillip O'Keefe Vol. 1 (Mar. 2, 2023), taken in *Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.*, No. 1:19-cv-01334-CJB.
1094	Deposition Transcript of Phillip O'Keefe Vol. 2 (Mar. 3, 2023), taken in *Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.*, No. 1:19-cv-01334-CJB.
1095	Deposition Transcript of Edwin Olson (Aug. 26, 2022) (excerpted), taken in *Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.*, No. 1:19-cv-01334-CJB.
1096	Deposition Transcript of Michael Holmes (Aug. 24, 2022) (excerpted), taken in *Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.*, No. 1:19-cv-01334-CJB.

Exhibit	Description of Exhibits
1097	Deposition Transcript of John Pavlish (Aug. 25, 2022) (excerpted), taken in *Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.*, No. 1:19-cv-01334-CJB.
1098	Affidavit of Tanya Zeif, Custodian of Records for Internet Archive (1/10/2025), sponsoring Exhibits 1078-1086
1099	Affidavit of Tanya Zeif, Custodian of Records for Internet Archive (1/13/2025), sponsoring Exhibits 1009, 1061, 1087-1090
1100	NAS-NRC COMMITTEE ON CHEMISTRY OF COAL, CHEMISTRY OF COAL UTILIZATION: SECOND SUPPLEMENTARY VOLUME (Martin A. Elliott ed., 1981) (excerpted) **("Coal Chemistry")**
1101	*Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.*, No. 1:19-cv-01334-CJB, Dkt. No. 444-1 (D. Del. Mar. 31, 2023) (excerpted) **("Markman Hr'g. Tr.")**
1102	Redline Comparison, showing changes from '595 Application (as published at 2009/0062119) to '558 Application (as published at 2015/0246315)
1103	U.S. Patent Pub. No. 2015/0246315 to Olson et al. (published Sep. 3, 2015) **("Published '558 Application")**
1104	RESERVED
1105	RESERVED

Exhibit	Description of Exhibits
1106	RESERVED
1107	RESERVED
1108	RESERVED
1109	RESERVED
1110	Petitioner PacifiCorp's Stipulation Regarding District Court Proceedings
1111	Petitioner MEC's Stipulation Regarding District Court Proceedings
1112	Petitioners WPL and IPL's Stipulation Regarding District Court Proceedings
1113	Puget Sound Energy, Colstrip Facts, available at: https://www.colstripfacts.com/faqs#:~:text=Talen%20Energy%20owns%2030%25%20interest,operator%20of%20all%20four%20plants.&text=PacifiCorp%20owns%20a%2010%25%20interest%20in%20units%203%20%26%204
1114	Plaintiff's Initial Infringement Contentions (March 18, 2025) served in In re: Midwest Energy Emissions Corp. Patent Litig., No. 4:24-md-03132-SHL-WPK (S.D. Iowa) and filed publicly at ECF 106-3
1115	Exhibit A to Plaintiff's Initial Infringement Contentions (March 18, 2025) served in In re: Midwest Energy Emissions Corp. Patent Litig.,

Exhibit	Description of Exhibits
	No. 4:24-md-03132-SHL-WPK (S.D. Iowa) and filed publicly at ECF 106-3
1116	Coal Explained: Use of Coal, U.S. Energy Information Administration (last updated Sept. 14, 2023), available at: https://www.eia.gov/energyexplained/coal/use-of-coal.php#:~:text=In%202022%2C%20coal20coal%20accounted%20for,19.5%25%20of%20U.S
1117	What EPA is Doing to Reduce Mercury Pollution, and Exposures to Mercury, U.S. Env't Protection Agency (last updated July 11, 2024), available at https://www.epa.gov/mercury/what-epa-doing-reduce-mercurypollution-and-exposures-mercury
1118	Birchtech, Technology Overview, available at https://www.birchtech.com/tech-overview
1119	Exec. Order No. 14261, 90 Fed. Reg. 15517 (April 8, 2025)
1120	Patent Owner's Response to Petitioners' Motion to Stay Pending Inter Partes Review In re: Midwest Energy Emissions Corp. Patent Litig., No. 4:24-md-03132-SHL-WPK, ECF 128 (S.D. Iowa)
1121	Docket Navigator, Time to Trial in the Southern District of Iowa, https://search.docketnavigator.com/patent/binder/0/0 (last accessed June 2, 2025)
1122	Deere & Co. et. al v. Kinze Mfg., Inc. et. al, 4:20-CV-00389 (S.D. Iowa) (Docket Sheet)

Exhibit	Description of Exhibits
1123	Piatz v. State Farm Mut. Auto. Ins. Co., 3:21-CV-00007 (S.D. Iowa) (Judge Locher) (Docket Sheet and ECF 8)
1124	Probasco et al v. MFA Inc., 4:22-CV-00117 (S.D. Iowa) (Judge Locher) (Docket Sheet and ECF 7, 9)
1125	Shin v. Winnebago Indus., Inc. et. al, 3:23-CV-00077 (S.D. Iowa) (Judge Locher) (Docket Sheet)
1126	Nuhn Industries Ltd v. Bazooka Farmstar LLC, 3:22-cv-00015 (S.D. Iowa) (Docket Sheet and ECF 286)
1127	G.W. Lisk Company, Inc. v. Gits Manufacturing Company, 4:17-cv-00273 (S.D. Iowa) (Docket Sheet)
1128	In re: Midwest Energy Emissions Corp. Patent Litig., No. 4:24-md-03132-SHL-WPK, ECF 131 (S.D. Iowa May 22, 2025) (Order Denying Without Prejudice Pre-Institution Stay)
1129	In re: Midwest Energy Emissions Corp. Patent Litig., No. 4:24-md-03132-SHL-WPK, ECF 111 (S.D. Iowa Apr. 18, 2025) (Order re: Petitioners' Deadline to File Surreply)
1130	In re: Midwest Energy Emissions Corp. Patent Litig., No. 4:24-md-03132-SHL-WPK, ECF 19 (S.D. Iowa Jan 10, 2025) (Order on Motions to Dismiss and Motion to Sever)
1131	In re: Midwest Energy Emissions Corp. Patent Litig., No. 4:24-md-03132-SHL-WPK, ECF 1 (S.D. Iowa December 17, 2024) (MDL Transfer Order)

Exhibit	Description of Exhibits
1132	In re: Midwest Energy Emissions Corp. Patent Litig., No. 4:24-md-03132-SHL-WPK, ECF 129 (S.D. Iowa May 21, 2025) (Petitioners' Reply Brief In Support of Motion to Stay Pending Inter Partes Review)
1133	Email from Justin Nemunaitis to Joe Jacobi (Jan. 16, 2024, 11:01 AM)
1134	In re Midwest Energy Emissions Corp. Patent Litig., MDL No. 3132 ECF 35 (J.P.M.L. Nov. 14, 2024) (Patent Owner's Reply Brief in Support of Consolidation)
1135	Midwest Energy Emissions Corp. v. Arthur J. Gallagher & Co., No. 19-1334-RGACJB ECF 1 (D. Del. July 17, 2019) (Complaint for Patent Infringement)
1136	Midwest Energy Emissions Corp. v. Arthur J. Gallagher & Co., No. 19-1334-RGACJB ECF 130 (D. Del. July 15, 2020) (First Amended Complaint for Patent Infringement)

I. INTRODUCTION

The Director of the PTAB has already rejected Patent Owner's request for discretionary denial in four parallel proceedings on related patents—IPR2025-00274, -00278, -00280, and -00281—where Patent Owner advanced the same arguments it now repeats here.[1, 2] *Berkshire Hathaway Energy Co. v. Birchtech Corp.*, IPR2025-00274, Paper 23 (P.T.A.B. July 2, 2025).[3] Those petitions challenged the '114 and '517 Patents, which are from the same family as the '225 Patent and involve claims that Patent Owner admits are substantively similar. The Director's referral of those petitions to the Board confirms that the PTAB's efficient system for adjudicating patentability—especially in the face of burdensome district court litigation—remains both necessary and appropriate.

---

[1] Patent Owner filed nearly identical briefs for IPR2025-00424 and IPR2025-00425. Other than Sections II.A.2 and II.B (which have unique facts) in this brief, the remaining sections are identical in Petitioners' Brief Opposing Patent Owner's Brief Regarding Discretionary Denial in IPR2025-00424.

[2] Petitioner is responding to a redacted brief, because Patent Owner did not file or serve the full version of its brief.

[3] The Director filed similar papers in IPR2025-00278, IPR2025-00280, and IPR2025-00281 on July 2, 2025.

That outcome is consistent with the statutory purpose of inter partes review: to "weed out bad patent claims efficiently." *Thryv, Inc. v. Click-To-Call Techs., LP*, 590 U.S. 45, 54 (2020). Congress created the IPR process to address the growing concern that "questionable patents [were] too easily obtained and [were] too difficult to challenge" in district court. H.R. Rep. No. 112-98, at 39 (2011). It did so by establishing an "efficient system" to evaluate the validity of patents that may have issued improperly, without forcing parties to endure protracted and costly litigation. The Board previously instituted review in four proceedings against patents from the same family as the '225 Patent (IPR2020-00832, -00834, -00926, and -00928), and more recently, the Director declined to exercise discretion where the same record was at issue. The same result should follow here.

A. <u>The Director Already Rejected Patent Owner's Arguments for Discretionary Denial</u>

On July 2, 2025, the Director rejected Patent Owner's request for discretionary denial in four parallel proceedings, two involving the '114 Patent and two involving the '517 Patent. Both patents are from the same family as the '225 Patent, and as Patent Owner admits, have "claims [that] cover subject matter similar to the challenged claims of the '225 Patent." IPR2025-00424, Paper 14 at 3 n.3; IPR2025-00425, Paper 14 at 3 n.3. The Director referred those four petitions (IPR2025-00274, -00278, -00280, and -00281) to the Board, noting that "[b]ecause the litigation between the parties would proceed to several district court trials in

different jurisdictions," it would be more "efficient" for the PTAB to resolve the invalidity dispute. IPR2025-00274, Paper 23 at 2-3. Like the '114 and '517 Patents, the '225 Patent is part of the same family asserted across multiple consolidated cases in the MDL Court in Iowa. The '225 Patent is a parent to the '517 Patent, and the '225 Patent is a counterpart to the '114 Patent. EX1004. The three patents all have similar claim language, structure, and asserted subject matter. The Director has already declined to exercise discretion to deny institution, and the same result is warranted here for the '225 Patent. *See Posco Co. v. Arcelormittal*, IPR2025-00370, Paper 10 at 3 (P.T.A.B. June 25, 2025) (Director seeking "to provide consistency and predictability to the public" among members of a patent family).

In addition to the efficiency because of the multi-district litigation, the Director concluded that "[n]o trial date is scheduled," particularly since MDL proceedings would require "trial dates in the home forums." Also, "the parties have made relatively little investment into the multi-district litigation," the "Petitioners were diligent in filing the Petitions," and "Patent Owner has not developed strong settled expectations that favor discretionary denial." IPR2025-00274, Paper 23 at 2-3. The same is true for the '225 Patent.

The settled expectations factor is similarly strong for declining to exercise discretion for the '225 Patent. The '225 Patent issued in March 2020, which is the same month as the '517 Patent, and after the '114 Patent issued in 2019. EX1004.

As with the ’114 and ’517 Patents, there are no settled expectations of Patent Owner, because the ’225 Patent has “not been in force for a significant period of time.” *See Cambridge Indus. USA, Inc. v. Applied Optoelectronics, Inc.*, IPR2025-00434, Paper 11 at 2 (P.T.A.B. June 26, 2025) (no settled expectations for patent issued in 2020). Thus, Patent Owner has no “settled” expectations regarding the ’225 Patent.

Petitioners submit that the Director should again deny Patent Owner’s request for discretionary denial.

B. Previous Panels Also Instituted IPRs on PO’s Patents

Substantively, the IPR2025-00424 and IPR2025-00425 Petitions are strong. The Board previously instituted ***four IPRs*** on related patents: two petitions on U.S. Patent No. 10,343,114 (’114 Patent) (IPR2020-00832, -00834) and two petitions on U.S. Patent No. 8,168,147 (’147 Patent) (IPR2020-00926, -928).[4] *See* IPR2025-

[4] IPR2020-00832 and IPR2020-00928 challenged the respective patents based on intervening prior art, dated *after* PO’s asserted priority date of 2004 but before the actual filing date. IPR2020-00834 and IPR2020-00926 challenged the respective patents based on a different set of prior art, dated *before* PO’s asserted priority date. Likewise, the petitions in IPR2025-00424 and IPR2025-00425 use completely separate, non-overlapping prior art based on PO’s asserted priority date for the ’225 Patent. *See* Paper 2 (explanation regarding the necessity of multiple petitions).

00424 Paper 1, Petition at 4-6. The ’147 Patent is an ancestor patent that shares a specification with the ’225 Patent. EX1004. The ’114 Patent is a counterpart patent that, as Patent Owner admits, has claims that “cover subject matter similar to the challenged claims of the ’225 Patent.” *See* EX1004, family tree; IPR2025-00424, Paper 14 at 3 n.3 (PO discretionary denial brief); IPR2025-00425, Paper 14 at 3 n.3. Recent decisions from the Director have confirmed that this fact pattern “counsels against discretionary denial.” *See, e.g., Tesla v. Intellectual Ventures*, IPR2025-00217, Paper 10 at 2 (P.T.A.B. June 13, 2025) (“Board previously determined there was a reasonable likelihood that similar claims of an ancestor patent were unpatentable”).

The only reason the Board did not proceed to final written decisions on the earlier petitions was because Patent Owner settled shortly after institution in exchange for voluntary termination of the proceedings. Four years later, Patent Owner initiated a new round of lawsuits by suing Petitioners. Petitioners have rightfully challenged the patentability of the ’225 Patent, and for one—WEC, who is not party to any district court litigation—this is their only opportunity to do so.

Procedurally, the current petitions should be instituted. The final written decisions in both IPR2025-00424 and -00425 are due October 15, 2026, and the

"trial ready" date in the MDL Court[5] is October 12, 2026. The final written decision is thus due around the same time as the "trial ready" date, but as the Director recognized, this is not an actual trial date: "No trial date is scheduled." IPR2025-00274, Paper 23 at 3. As discussed below, any "actual trial" date is many months later.

Though the final written decisions are due long before any "actual" trial, Petitioners took steps to further minimize duplication between the Board and the MDL Court by issuing "*Sotera* Plus" stipulations in advance of Patent Owner's discretionary denial brief. Such a "broad stipulation … counsel[s] against discretionary denial." *Tesla, Inc. v. U.S.A.*, IPR2025-00341, Paper 12 at 2 (P.T.A.B. June 13, 2025); *compare* EX1110-EX1112 (stipulations) *with Tesla*, IPR2025-00341, Paper 10 at 10-11 (language of stipulation). In addition to the standard *Sotera* stipulation, Petitioners further stipulated that any prior art included in the grounds of the Petition will not be seen again in district court, including in combination with system art. The contours of this stipulation are further discussed below and in Exhibits 1110-1112, but in summary, the stipulation ensures there will not be any overlap between the work conducted by the Board and by the MDL Court.

[5] *In re Midwest Energy Emissions Corp. Pat. Litig.*, No. 4:24-md-3132 (S.D. Iowa) (consolidating cases from Iowa, Arizona, and Missouri) (hereinafter "MDL Court").

Patent Owner manufactures arguments for discretionary denial by misrepresenting the facts of prior proceedings. For example, Patent Owner argues that it "obtained a jury verdict of infringement, and secured a JMOL of no invalidity" in the Delaware Litigation. IPR2025-00424, Paper 14 at 1-2; IPR2025-00424, Paper 14 at 1-2. This is misleading, because the '225 Patent was not asserted at the jury trial. IPR2025-00424, Paper 14 at 3 n.3; IPR2025-00425, Paper 14 at 3 n.3. And, for the patents that were actually asserted, the defendants in that case (none of whom are Petitioners) chose to not present an invalidity expert or challenge validity at trial: to quote Patent Owner, "not a word" on invalidity was presented to the jury. EX2004 at 1194:11-1195:8; *see also* EX2004 at 117:2-4, 921:12-17, 1194:11-1120:8, 1135:13-16, 1139:11-1141:5. In addition, Patent Owner states that "the Board dismissed the 2020 IPRs before Patent Owner filed its Patent Owner Responses." IPR2025-00424, Paper 14 at 3; IPR2025-00425, Paper 14 at 3. However, Patent Owner fails to mention that it filed POPRs in IPR2020-00832 (Paper 9), IPR2020-00834 (Paper 10), IPR2020-00926 (Paper 13), and IPR2020-00928 (Paper 12), and the PTAB *rejected* Patent Owner's arguments and *instituted* an IPR trial.

When considering the actual timing of the MDL Court versus these IPR proceedings, and the strength of the Petitions in view of the PTAB's prior institution decisions, the Petitions in IPR2025-00424 and IPR2025-00425 should be instituted.

II. THE INTERIM GUIDANCE FACTORS DO NOT SUPPORT DISCRETIONARY DENIAL

In March 26, 2025, the United States Patent and Trademark Office (USPTO) issued a memorandum on interim processes for PTAB workload management, which introduced several factors that the Director will consider in determining whether to discretionarily deny an IPR petition. None of these factors favors denying institution.

A. **Factor 1: The PTAB Has Already Opined on the Validity or Patentability of the Challenged Claims; the District Court Has Not**

The first factor considered is whether the PTAB or another forum has already adjudicated the validity or patentability of the challenged patent claims. This factor strongly supports institution, as discussed above, and "counsels against discretionary denial." *Tesla*, IPR2025-00217, Paper 10 at 2; *see Posco*, IPR2025-00370, Paper 10 at 3; *Mercedes-Benz Group AG v. Phelan Group LLC*, IPR2025-00413, Paper 13 at 2 (P.T.A.B. June 25, 2025).

The '225 Patent should never have issued, and the Board previously instituted two IPRs on the counterpart '114 Patent because it found the claims likely unpatentable. *See NRG Energy, Inc. v. Midwest Energy Emissions Corp.*, IPR2020-00832, Paper 17 (Institution Decision) (P.T.A.B. Oct. 26, 2020); *NRG Energy, Inc. v. Midwest Energy Emissions Corp.*, IPR2020-00834, Paper 18 (Institution Decision) (P.T.A.B. Oct. 26, 2020). The only reason the Board did not issue final

written determinations was due to Patent Owner's settlement with the 2020 petitioners shortly after institution, and the proceedings were voluntarily terminated. *See* EX1026, 1-10.

1. The PTAB Opined on the Patentability of the Subject Matter of the '225 Patent Claims in IPR2020-00832 and IPR2020-00834

The IPR proceedings against the '114 Patent are highly relevant to these proceedings against the '225 Patent, because the '225 Patent is a counterpart to the '114 Patent, and because the claims are substantively the same between the two patents.

First, in this proceeding, Patent Owner has admitted the claims are substantively the same:

> Pursuant to a court order requiring reduction of asserted claims for trial, and to ensure an efficient trial presentation, ME2C elected to proceed to trial on claims 25 and 26 of the '114 Patent and claims 1 and 2 of the '517 Patent. These claims cover subject matter similar to the challenged claims of the '225 Patent.

IPR2025-00424, Paper 14 at 3 n.3; IPR2025-00425, Paper 14 at 3 n.3.

Second, in seeking consolidation, Patent Owner has admitted that all of the patents it asserts against Petitioners (including the '225 Patent) "are from the same patent family and cover similar subject matter." EX1134 (Patent Owner's Reply Brief in Support of MDL Consolidation). According to Patent Owner "[t]his is not a case where ME2C is asserting a group of patents that each covers a different feature

of a product, or entirely disparate products. All of ME2C's asserted patents cover a process of capturing mercury using halogen additives and activated carbon sorbents." *Id.*

Third, in its infringement contentions served in the MDL Court on March 18, 2025 (***two weeks after*** the IPR2025-00424 and IPR2025-00425 petitions were filed), Patent Owner cites back to its '114 Patent claim charts for all but one dependent claim. Exemplary screenshots are below:

'225 Initial Claim Chart

No.	'225 Claim Element	Accused Conduct
1a	A method for treating a mercury-containing gas, the method comprising:	See '114 1a.
1b	combusting a mixture comprising coal, pyrolysis char, and an additive comprising HBr, a bromide compound, or a combination thereof, to form the mercury-containing, gas; and	See '114 1b, 1c. In addition, combusted coal forms pyrolysis char.
1c	adding a particulate sorbent material comprising activated carbon into the mercury-containing gas.	See '114 1d
2	The method of claim 1, wherein the pyrolysis char is a promoted pyrolysis char.	The Accused Coal Plants combust promoted pyrolysis char. The pyrolysis char forms in the presence of bromine that has been added to the coal. Thus, it is promoted pyrolysis char. See, e.g., '114 patent Fig. 2.
5	The method of claim 1, further comprising using a particle separation device to remove mercury from the flue gas and comprising collecting greater than 70 wt % of the mercury in the mercury-containing gas to produce a cleaned gas.	See '114 claim 2
6a	The method of claim 5, further comprising:	See '114 1g
6b	measuring the mercury content of the mercury-containing gas; and	See '114 1g

No.	'225 Claim Element	Accused Conduct
6c	modifying, in response to the measured mercury content:	See '114 1h
6d	an injection rate of injecting the sorbent into the mercury-containing gas,	See '114 1h
6e	an amount of the additive in the mixture, or	See '114 1h
6f	a combination thereof.	See '114 1h
8	The method of claim 1, wherein the sorbent material is chosen from powdered activated carbon, granular activated carbon, carbon black, carbon fiber, aerogel carbon, pyrolysis char, and combinations thereof.	See '114 claim 12
9	The method of claim 1, further comprising adding an alkaline component to the mercury-containing gas, the alkaline component chosen from alkali elements, alkaline earth elements, alkali salts, alkaline earth salts, and combinations thereof.	Various Defendants have added S-Sorb, which includes alkaline, to the coal provided to the Accused Coal Plants. The Accused Coal Plants then inject the S-Sorb with the coal into the combustion chamber, thus adding it to the mercury-containing gas. See Attachment A.
14a	A method for treating a mercury-containing gas, the method comprising:	See 1a
14b	combusting coal in a combustor comprising pyrolysis char and an additive comprising HBr, a bromide compound, or a combination thereof, to form the mercury-containing gas; and	See 1b

No.	'225 Claim Element	Accused Conduct
14c	adding a particulate sorbent material comprising activated carbon into the mercury-containing gas.	See 1c
15	The method of claim 14, wherein the pyrolysis char is a promoted pyrolysis char.	See 2
17a	A method for treating a mercury-containing gas, the method comprising:	See 1a
17b	combusting a mixture comprising coal, pyrolysis char, and an additive comprising HBr, a bromide compound, or a combination thereof, to form the mercury-containing gas; and	See 1b
17c	adding a sorbent material comprising activated carbon into the mercury-containing gas.	See 1c
18a	The method of claim 1, further comprising	See 6a
18b	modifying, in response to a measured mercury content,	See 6c
18c	an injection rate of injecting the sorbent into the mercury-containing gas,	See 6d
18d	an amount of the additive in the mixture, or	See 6e
18e	a combination thereof.	See 6f

No.	'225 Claim Element	Accused Conduct
20	The method of claim 1, wherein the coal is combusted in a combustion chamber at a coal-combustion facility, wherein the HBr, bromide compound, or combination thereof, is added to the coal before the coal enters the combustion chamber, wherein the addition of the HBr, bromide compound, or combination thereof, to the coal is performed at the coal-combustion facility.	See '114 1c, 6
23	The method of claim 1, wherein the sorbent is free of contact with a halogen or halide promoter prior to the addition of the sorbent to the mercury-containing gas.	See '114 claim 13
25	The method of claim 1, wherein the coal comprises subbituminous coal.	According to public EIA data, the Accused Coal Plants combust or have combusted subbituminous coal. *See, e.g.*, ME2C_SDIA-00019455.
27	The method of claim 1, wherein the mixture is combusted in a combustion chamber of a coal-combustion facility upstream of a scrubber, a particulate control system, or a combination thereof, wherein the particulate sorbent is added to the mercury-containing gas before the mercury-containing gas encounters the scrubber, the particulate control system, or the combination thereof.	See '114 claim 18.
28	The method of claim 26, wherein the particulate control system comprises an electrostatic precipitator, a baghouse, a fabric filter, or a combination thereof.	See '114 claim 18.

EX1114 (Initial Infringement contentions).

Fourth, a comparison of the claims themselves reveals that they are substantively identical. For example, claim 25 of the '114 Patent contains *every* element found in claim 1 of the '225 Patent, as shown by the chart below comparing the two claims (color-coded to assist the Director in identifying similar/identical elements):

’225 Patent, claim 1	’114 Patent, claim 25
1. A method for treating a mercury-containing gas, the method comprising:	25. A method of separating mercury from a mercury-containing gas, the method comprising:
combusting a mixture comprising coal, pyrolysis char[6], and an additive comprising HBr, a bromide compound, or a combination thereof, to form the mercury-containing, gas; and	combusting coal in a combustion chamber, to provide the mercury-containing gas, wherein the coal comprises added Br_2, HBr, a bromide compound, or a combination thereof, added to the coal upstream of the combustion chamber, or the combustion chamber comprises added Br_2, HBr, a bromide compound, or a combination thereof, or a combination thereof,
adding a particulate sorbent material comprising activated carbon into the mercury-containing gas.	injecting a sorbent material comprising activated carbon into the mercury-containing gas downstream of the combustion chamber; contacting mercury in the mercury-containing gas with the sorbent, to form a mercury/sorbent composition; and separating the mercury/sorbent composition from the mercury-containing gas, to form a cleaned gas.

[6] As noted by Patent Owner and its expert, the “pyrolysis char” element is inherently met by the combustion of coal as “combusted coal forms pyrolysis char.” EX1114 at 16; EX1094 at 233:33-235:9; EX1092 at 163 (’225 Patent claim 1(b)).

This comparison shows the similarity between the claims of the ’225 Patent and the ’114 Patent, which the Board found in its institution decisions to be obvious in IPR2020-00832 and anticipated and obvious in IPR2020-00834. The Board should do so again for the ’225 Patent.

2. The PTAB Previously Rejected Patent Owner’s Attempts to Seek an Earlier Priority Date

In the prior IPR proceedings, Patent Owner sought to pre-date Sjostrom and Eckberg (publicly accessible February 2005) and Olson-646 (published March 2006). These references are also used as Exhibits 1010-1012 in IPR2025-00425. For the ’114 Patent, the Board found there was a “reasonable likelihood that one or more of the applications in the priority chain for the ’114 patent lacks written description support for the challenged claims,” and that “Patent Owner, on this record, has not presented persuasive arguments or evidence that the ’114 patent is entitled to a priority date earlier than the May 14, 2018 filing date of the ’760 application.” IPR2020-00832, Paper 17 at 31. The Board came to a similar conclusion regarding the parent ’147 Patent, holding that claims 18-19 were not “entitled to a priority date earlier than April 6, 2009.” IPR2020-00928, Paper 17 at 32. If the ’147 Patent does not have priority before 2009, its child patent (the ’225 Patent) does not either, and Sjostrom, Olson-646, and Eckberg (each from 2005-2006) are prior art.

a. Patent Owner Did Not (and Still Does Not) Dispute the Merits of the Obviousness Combinations

In IPR2020-00832, the Board found that the combinations of Sjostrom/Eckberg and Sjostrom/Olson-646 disclosed all the claim limitations of the challenged claims of the ’114 Patent. In its discretionary denial brief, Patent Owner again does not dispute the merits of the obviousness combinations—including what they disclose and motivations to combine. The Petition in IPR2025-00425 raises the same prior art as in IPR2020-00832, plus a new anticipation reference, Olson-235 (EX1018).

b. Patent Owner Rehashes Its Priority Date Argument, which the Board Rejected

Patent Owner now argues the Board previously got it wrong on the priority date analysis, citing to M.P.E.P. 608.01(p) and *Maquet Cardiovascular LLC v. Abiomed, Inc.*, 627 F. Supp. 3d 72, 78-84 (D. Mass Sept. 12, 2022). IPR2025-00425, Paper 14 at 6-7. Patent Owner is wrong, and the Board previously was correct in its priority-date analysis. As Petitioners explained in detail in the Petition, but Patent Owner does not address, M.P.E.P. 608.01(p) and *Maquet* bolster the Board’s previous analysis for the related patents. *See* IPR2025-00425, Paper 1 at 37-41.

i. The Incorporation Statement Is Not Clear

In IPR2020-00832 and IPR2020-00928, the Board held that the Provisional could not be incorporated by reference into parents of the ’114 Patent (counterpart

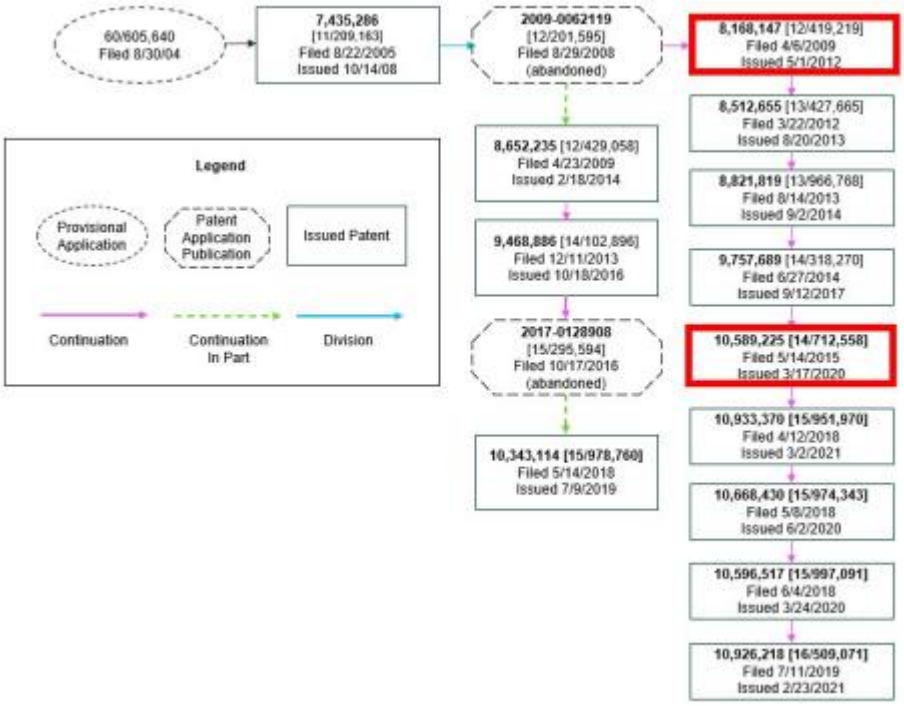
of ’225 Patent) and ’147 Patent (parent to ’225 Patent), respectively, because the incorporation statement was not clear. Parent applications state the Provisional is only incorporated by reference “to the extent appropriate.” IPR2025-00688, Paper 1 at 26-27 (emphasis added). The Board previously held, “It is unclear to us what the term ‘to the extent appropriate’ means in this context.” IPR2020-00832, Paper 17 at 30; IPR2020-00928, Paper 17 at 32; *see Zenon Env’t., Inc. v. U.S. Filter Corp.*, 506 F.3d 1370, 1379 (Fed. Cir. 2007) (“The plain language expressly limits the incorporation to only relevant disclosures of the patents, indicating that the disclosures are not being incorporated in their entirety.”).

ii. The Provisional Is “Essential” Material that Cannot Be Incorporated by Reference

The Board held that the ’114 Patent and ’147 Patent could not achieve priority to 2004 for the additional reason that the Provisional was “essential” material, and essential material may not be incorporated by reference from an unpublished patent application under 37 C.F.R. § 1.57. IPR2020-00832, Paper 17 at 29-30; IPR2020-00928, Paper 17 at 23-24; *see* IPR2025-00688, Paper 1 at 27-33. Patent Owner does not address IPR2020-00928, but argues that the Board was wrong in IPR2020-00832, because the Board did not consider a district court case: *Maquet*. IPR2025-00425, Paper 14 at 6-7. Under *Maquet*, courts analyze whether the unpublished application is essential to provide written-description support for claims of

intervening applications. *See Maquet Cardiovascular LLC v. Abiomed, Inc.*, 627 F. Supp. 3d 72, 81-82 (D. Mass. 2022).

Petitioners addressed *Maquet* in the Petition, and Patent Owner ignores the analysis in its discretionary denial brief. *See* IPR2025-00425, Paper 1 at 37-40. As the Petition explained, the ’225 Patent claims priority to U.S. Patent 8,168,147 (’147 Patent).



EX1004 (annotated). Claims 18-19 of the ’147 Patent collectively require “injecting separately” a sorbent material and bromine promoter into the mercury-containing gas. But the Board found this limitation missing from the ’147 Patent specification. IPR2025-00425, Paper 1 at 38-40; *see* IPR2020-00928, Paper 17 at 20-21. Any

support for the ’147 Patent claims (i.e., the parent of the ’225 Patent) comes from the Provisional, making it “essential material” to that patent.

M.P.E.P. 608.01 does not save PO’s claim to priority. IPR2025-00425, Paper 1 at 40-41. Because a provisional is unpublished and cannot be incorporated by reference under 37 C.F.R. §1.57(d), an applicant can add omitted material from a provisional, only if: “The application must be amended to include the inadvertently omitted portion of the specification or drawing(s) … in no case later than the close of prosecution” of the child application. 37 C.F.R. §1.57(b) (quoted in M.P.E.P. 608.01(p)(I)). Patent Owner never amended the specification of the ’225 Patent to physically incorporate the Provisional, and certainly did not do so before the preceding applications (’270, ’768, ’665, ’219, ’595, and ’163 Applications) were abandoned or issued. *See* 37 C.F.R. § 1.57(b) (requiring specification to be “amended to include the inadvertently omitted portion of the [Provisional before] the close of prosecution”); *see* M.P.E.P. 217(III) (Example 3) (when application #2 and application #3 in priority chain omit material from application #1, the omitted material cannot be added in application #3 after close of prosecution of application #2).

Even if the Provisional could be legally considered (it cannot), it is also missing limitations. The Provisional fails to disclose applying an additive to coal,

let alone the broad class of bromide compounds. IPR2025-00425, Paper 1 at 23, 41-44.

3. The District of Delaware Did Not Determine Validity

Incredibly, Patent Owner states that the "asserted invalidity theories have already been considered by the Delaware trial court" and that "the grounds previously instituted by the Board were presented more fully at trial in the Delaware Litigation." IPR2025-00424, Paper 14 at 5-7; IPR2025-00425, Paper 14 at 5-7. This is misleading and flat wrong.

First, the Delaware Court granted Patent Owner's JMOL on invalidity because the defendants in the Delaware Litigation chose not to present any evidence of invalidity. Defendants' invalidity expert did not even testify at trial. *See* EX2004 at 921:12-17. As ME2C previously informed the Court and jury, the defendants had stated "in their opening" that the "patents are invalid," but then at trial, "[y]ou didn't hear one word about it from the defense. Not one. You didn't hear his expert, this Dr. Niksa. Not a word." EX2004 at 1194:11-1195:8. Because the Delaware defendants did not even present an invalidity case at all—"not a word" on invalidity—the court granted JMOL on the issue. EX2004 at 117:2-4, 1119:24-1120:8, 1135:13-16, 1139:11-1141:5.

Second, Patent Owner did not even assert the ’225 Patent at the trial in Delaware. *See* IPR2025-00424, Paper 14 at 3 n.3; IPR2025-00425, Paper 14 at 3 n.3.

As such, the Delaware Court did not *adjudicate* the validity or patentability of any claims from the ’225 Patent or of similar claims from other patents. Instead, the Delaware defendants chose not to even present an invalidity defense, and the ’225 Patent was dropped before trial. The only tribunal to consider validity of the subject matter of the ’225 Patent was the Board in IPR2020-00832 and IPR2020-00834 (when it considered the counterpart with substantively identical claims) and in IPR2020-00926 and IPR2020-00928 (when it rejected Patent Owner’s conception/RTP evidence and priority date arguments). In each instance, the Board found a reasonable likelihood the claims were unpatentable.

B. Factor 2: Whether There Have Been Changes in the Law or New Judicial Precedent Issued Since Issuance of the Claims that May Affect Patentability

This factor supports declining to exercise discretion. After the IPR2020-00832 and IPR2020-00928 institution decisions, the Delaware court agreed that the incorporation language was unclear for U.S. Patent No. 10,589,225. “[W]ith respect to the ’225, ’430 and ’517 Patents, the intervening patents to which they claim priority state that priority is claimed to the ’640 Provisional ‘to the extent appropriate.’” *Midwest Energy Emissions Corp. & Mes Inc. v. Arthur J. Gallagher*,

No. CV 19-1334-CJB, 2023 WL 7411160, at *3 (D. Del. Nov. 3, 2023). This "does not tell us what is incorporated (or to what 'extent'), or where that material is found in the '640 Provisional." *Id.*

C. Factor 3: The Strength of the Unpatentability Challenge

The unpatentability challenge is strong, and this supports the Board declining to exercise its discretion. Patent Owner does not contend that a single claim limitation is missing from any of the invalidity grounds. Nor does Patent Owner contend that there is a lack of motivation to combine. Rather, Patent Owner attacks the strength of the Petitions in three ways: (1) arguing that the Board was wrong when it instituted IPR against the '114 Patent in IPR2020-00832 and IPR2020-00834; (2) arguing that the District of Delaware more fully considered the issue, despite those defendants never even presenting an invalidity defense and the '225 Patent not being asserted at trial; and (3) arguing that the Petitions are time-barred, even though none of the Petitioners were sued by ME2C more than a year before the Petitions were filed.

As described below, the PTAB correctly instituted trial in IPR2020-00832 and IPR2020-00834, and the trial in the District of Delaware did not address validity of any patent, let alone the '225 Patent. Petitioners also note that Patent Owner's mention of RPI issues in its discretionary denial brief is not relevant to a discretionary denial determination, as it has nothing to do with the "strength of the

unpatentability challenge." Nevertheless, because Patent Owner brings up the issue, Petitioners respond out of an abundance of caution.[7] In summary, however, Petitioners note that none of the Petitioners were parties in the Delaware case, and Petitioner WEC is not even a party in ***any*** case brought by ME2C.

It is unclear whether Patent Owner is asserting that a third party should have been named as an RPI, a privy, or both. The third parties Patent Owner identifies are: Talen; Chem-Mod; Louisa Refined Coal LLC; and Portage Fuels Company. As demonstrated below, none of these third parties are directing, controlling, funding, or otherwise involved in the IPR2025-00424 or IPR2025-00425 Petitions, so they were thus correctly not named as RPIs or as privies. *See Luminex Int'l Co. v. Signify Holdings B.V.*, IPR2024-00101, Paper 20 at 9, 23 (P.T.A.B. Nov. 21, 2024) (Director overturning Board's denial of institution and considering for purposes of RPI and privity whether an "unnamed party is controlling, funding, or directing an IPR proceeding").

[7] Petitioners also note that Patent Owner argued for discretionary denial, on account of RPI/privity, in the IPR2025-00274, -00278, -00280, and -00281 proceedings. The Director declined to exercise discretion and referred the proceedings to the Board.

1. Talen Is Not an RPI or Privy to This Petition or PacifiCorp

Patent Owner argues that "Talen specifically identified PacifiCorp as a real party in interest in its 2020 IPR … [because] PacifiCorp is a co-owner of at least one of the Talen power plants accused of infringement in Patent Owner ME2C's Delaware action." IPR2025-00424, Paper 14 at 9-10; IPR2025-00425, Paper 14 at 9. As discussed below, this is not correct. And although Patent Owner has not asserted that Talen is a privy to the present petition, to the extent that is what Patent Owner implies without support, that is also incorrect.

a. PacifiCorp Was Not a Real Party in Interest for Talen in the IPR2020-00832 and IPR2020-00834 Petitions.

Talen did not name PacifiCorp "as a real party in interest in [Talen's] 2020 IPR," as Patent Owner contends. IPR2025-00424, Paper 14 at 10; IPR2025-00425, Paper 14 at 9. Rather, Talen identified two groups of companies. Talen identified a group of "real-parties-in-interest" that included entities that were parties to a lawsuit and accused of infringing the counterpart '114 Patent. IPR2020-00832, Paper 3 (Petition) at 1-2. Talen and the other petitioners from the Delaware Litigation then named a second group of companies, "out of an abundance of caution," that included over 100 entities as "potential real parties-in-interest." IPR2020-00832, Paper 3 at 2-3. This included vendors, suppliers, and co-owners of the accused power plants. The 2020 petitioners then explained that none of these 100+ "companies have agreed

to be listed as a real party-in-interest for this Petition." *Id.* Importantly, they further explained: "None of these companies or any unnamed entity is funding, controlling, or directing, or otherwise has an opportunity to control or direct this Petition or proceeding." *Id.* One of those 100+ entities was PacifiCorp.

At the time of the petitions in 2020, the PTAB had not yet made precedential its *SharkNinja* decision which held that failing to name an RPI was "not jurisdictional" and that an unnamed RPI can be added later. Thus, an exhaustive, overinclusive list of such secondary companies would have made sense at the time of the earlier petitions. *See SharkNinja Operating LLC v. iRobot Corp.*, IPR2020-00734, Paper 11, at 18-20 (P.T.A.B. Oct. 6, 2020) (designated precedential on Dec. 4, 2020) (clarifying that the "lengthy exercise" of determining RPIs "is unnecessary for the purposes of rendering a decision on institution of trial").

After Patent Owner complained about the voluminous identification of "potential" RPIs, the Board explained that the over-inclusive identification of parties "does not appear problematic":

> To the extent Petitioner has identified an entity as both a real parties-in-interest and as a potential real parties-in-interest, we interpret that to mean that party is identified as a real party-in-interest. Petitioner's reasons for identifying numerous potential real parties-in-interest reasons appear plausible: Petitioner identifies these parties "out of an abundance of caution" because "they are vendors and suppliers" in the related litigation but have not "agreed to be listed as a real party-in-interest" in this Petition. Pet. 1–6. This provides the Board and Patent Owner notice that other potential entities may be indirectly involved, but also provides reasons for not committing those parties to the real

party-in-interest category.

NRG, IPR2020-00832, Paper 17, 2020 WL 6277239, at *4; *NRG*, IPR2020-00834, Paper 18, 2020 WL 6277747, at *5; *see ASSA ABLOY AB v. CPC Patent Techs. Pty, Ltd*, IPR2022-01094, Paper 19 at 13-14 (P.T.A.B. Feb. 2, 2023) (granting institution of IPR) ("Theoretical, hypothetical, or speculative assertions about effective control, unsupported by evidence, are neither probative nor persuasive" of RPI status.). However, there were no arguments by the parties or findings by the Board that PacifiCorp or any parties listed as "potential RPIs" were, in fact, actual RPIs.

In any event, the proper perspective for determining RPI or privity status is not whether PacifiCorp had any role in Talen's IPR2020-00832 and IPR2020-00834 Petitions (it did not), but instead whether Talen had any role in PacifiCorp's IPR2025-00424 and IPR2025-00425 Petitions. Section 315(b) asks whether "the petition requesting the proceeding" (i.e., IPR2025-00424 and -00425) was filed "more than 1 year after the date on which <u>the petitioner</u>, real party in interest, or privy of the <u>petitioner</u>" was served with a complaint. The "petitioner" is not Talen, Chem-Mod, or Chem-Mod's affiliates. Rather, the petitioner is MidAmerican, IPL, etc. Thus, the only relevant inquiry is whether any Talen, Chem-Mod, or any unnamed party is an RPI to the current petition. As discussed below, Talen, Chem-Mod, Chem-Mod's affiliates, have no interest in the current proceedings and are not RPIs. PO does not even argue that these entities are RPIs to the current petitions.

b. Talen Is Not a Real Party in Interest or Privy to PacifiCorp for the IPR2025-00424 and IPR2025-00425 Petitions

As stated in the Petition, "Other than Petitioners and the above-identified real-parties-in-interest, no other person or entity is funding this petition, advising on strategy for this petition, or exercising any control over Petitioners' decision to file the petition (or the arguments included therein)." IPR2025-00424, Paper 1 at 2; IPR2025-00425, Paper 1 at 2. This includes Talen. Talen is not an RPI or privy to the current Petitions, because as Patent Owner admits, "Talen defended against Patent Owner's infringement claims <u>and obtained a license</u>." IPR2025-00424, Paper 14 at 4; IPR2025-00425, Paper 14 at 4. Accordingly, Talen would have no interest or need to contribute, direct, or control the IPR2025-00424 and IPR2025-00425 Petitions. As such, Talen is not an RPI to PacifiCorp:

> The point is not to probe [Petitioner's] interest (it does not need any); rather, it is to probe the extent to which [the unnamed party] has an interest in and will benefit from [Petitioner's] actions, and inquire whether Petitioner can be said to be representing that interest after examining its relationship with [unnamed party].

See Applications in Internet Time, LLC v. RPX Corp., 897 F.3d 1336, 1353 (Fed. Cir. 2018). As Talen is licensed to Patent Owner's portfolio, by Patent Owner's own admission, Talen has no interest in the proceedings, and PacifiCorp is not representing Talen's non-existent interest in the proceeding.

There can be no reasonable argument by Patent Owner that "Petitioner filed this IPR as a representative or at the behest" of Talen. *See Luminex*, IPR2024-00101, Paper 20 at 13; *see also id.* at 8-9, 20 (viewing the "behest" standard as central to RPI and privity). Patent Owner chose to sue Talen, fully license its patent portfolio to Talen, and then (over four years later) sue PacifiCorp. Patent Owner can hardly complain about PacifiCorp defending itself now. *See ASSA ABLOY*, IPR2022-01094, Paper 19 at 33 ("Patent Owner ignores the practical consequences of its own actions that precipitated the current situation.").

The PTAB has found in other cases that a third-party with no dog in the fight need not be named as an RPI or privy:

> [T]here is essentially no evidence that Mattel is an RPI or privy of Petitioner. There is no evidence that Mattel exercised any control over Petitioner's decision to file the Petition (or over the arguments included therein), and there is no indication that Mattel had any authority to do so. The record does not suggest that Mattel provided any funding for this inter partes review. Nothing in the record suggests that Petitioner is an agent of Mattel or acting as its proxy to challenge the '184 patent. There is also no evidence that Mattel desires review of the patent, or that the Petition was filed at Mattel's behest. <u>In fact, the record is to the contrary—it appears that Mattel has no interest in obtaining a judgement of unpatentability</u>.

See Google LLC v. DDC Tech., LLC, IPR2023-00708, Paper 41 (public version of Paper 29) at 27 (P.T.A.B. Oct. 25, 2023). Here too, Talen has no interest in obtaining a judgment of unpatentability.

c. Talen and PacifiCorp Are Not Privies of One Another

Patent Owner does not argue that Talen or PacifiCorp are in privity with one another, nor can it. PacifiCorp did not have any ability to participate in the Delaware Litigation when Patent Owner sued Talen (and the '225 Patent was not even asserted at trial). *See Taylor v. Sturgell*, 553 U.S. 880, 892 (2008) ("A person who was not a party to a suit generally has not had a 'full and fair opportunity to litigate' the claims and issues in that suit.").[8] Nor can it be said that Petitioner "is simply serving as a proxy to allow another party [i.e., Talen] to litigate the patent validity question that the other party raised in an earlier filed litigation." *Monolithic Power Sys., Inc. v. Greenthread, LLC*, IPR2024-00552, Paper 26 at 14 (P.T.A.B. Oct. 11, 2024). Talen is licensed under the '225 Patent and has no need to participate (and has not participated) in challenging the validity of the '225 Patent.

The mere fact that Talen and PacifiCorp co-own a single power plant (among the many other co-owners) is not sufficient. *See* EX1113 (https://www.colstripfacts.com/) (explaining that "PacifiCorp owns a 10% interest in units 3 & 4"). "The mere existence of some relationship between a petitioner and another entity is not sufficient—that relationship must be related to the lawsuit and

[8] Patent Owner does not address any of the six factors set forth in *Taylor* for determining privity. *See Luminex*, IPR2024-00101, Paper 20 at 21.

be sufficiently close that it can be fairly said the petitioner had a full and fair opportunity to litigate the validity of the patent in that lawsuit." *See Google*, IPR2023-00708, Paper 41 at 23; *see also WesternGeco LLC v. Ion Geophysical Corp.*, 889 F.3d 1308, 1319 (Fed. Cir. 2018) ("general rule against nonparty preclusion"). Petitioner PacifiCorp has produced to Patent Owner the agreements between Talen and PacifiCorp, and there are no indemnity provisions or obligations between PacifiCorp and Talen requiring one party to defend another party.

2. Chem-Mod and its Affiliates Are Not RPIs or Privies

As is discussed in detail below, Patent Owner has presented no evidence of a real party-in-interest or privity relationship between any of the present Petitioners and Chem-Mod (or its affiliates). Chem-Mod and its affiliates, Louisa Refined Coal and Portage Fuels, are not parties in the MDL Court and have not stepped in to defend MidAmerican, WPL, or any other of the current Petitioners against Patent Owner's claims or to indemnify Petitioners in the pending litigation. Chem-Mod and its affiliates are entirely separate entities from Petitioners; they had no participation, control, or funding of the pending IPR Petitions; and they have no interest in the outcome of these proceedings.

Furthermore, Patent Owner concedes that any claims against Chem-Mod and its affiliates on the patent portfolio were previously settled. EX2004 at 26:5-25, 391:19-392:13 (discussing Chem-Mod license). Thus, there is no potential benefit

to Chem-Mod or its affiliates flowing from the pending IPR proceedings. *See JP Morgan Chase & Co., & JP Morgan Chase Bank, N.A., v. Maxim Integrated Prods., Inc.*, CBM2014-00179, 2015 WL 780869, at *7 (P.T.A.B. Feb. 20, 2015) (rejecting patent-owner's real-party-in-interest argument with respect to an entity whose claims had been settled, as that entity "no longer 'desires review'" of the patent); *see Google*, IPR2023-00708, Paper 41 at 27 (finding no evidence a third party was an RPI or privy of Petitioners based on lack of participation in the IPR and because the third party "has no interest in obtaining a judgment of unpatentability").

This is not a case in which MidAmerican, WPL, or any other Petitioner is seeking a second bite at the apple; the present Petitioners have not had any prior opportunity to challenge the asserted patents in any forum.

a. Chem-Mod Is Not an RPI or Privy with Any Petitioner

Patent Owner alleges "MidAmerican and WPL own power plants that were at issue in the Delaware Litigation, and they contend that the 'Chem-Mod-affiliated Defendants' defended against Patent Owner's infringement claims and obtained a license on their behalf, at least for some periods of time." IPR2025-00424, Paper 14 at 4; IPR2025-00425, Paper 14 at 4; EX2009 at 91; EX2010 at 107. MidAmerican and WPL were not parties in the Delaware Litigation. Moreover, MidAmerican and WPL have <u>never</u> contended that "Chem-Mod

affiliated Defendants" (to the extent that has a meaning) "defended" and "obtained a license" on their behalf.[9] Rather, MidAmerican and WPL have argued that Patent Owner cannot pursue infringement claims against refined coal that Patent Owner licensed, including licensed coal that was sold to them. To be clear: MidAmerican and WPL were never involved in defending the Delaware Litigation and had no involvement in negotiating any refined-coal suppliers' settlement agreements. As Patent Owner is aware, Chem-Mod did not provide MidAmerican or WPL with refined coal, MidAmerican and WPL had no relevant contracts with Chem-Mod, and Chem-Mod never agreed to indemnify

[9] Notably, neither Exhibit 2009 at 91 nor Exhibit 2010 at 107 mentions Chem-Mod or its "affiliates," *despite Patent Owner's representation that they do*. *Compare* IPR2025-00424, Paper 14 at 4, 12-13 *with* EX2009 at 91 ("ME2C's claims as to MidAmerican are barred by a covenant not to sue. ME2C entered into a license and covenant not to sue that retroactively and prospectively authorized MidAmerican to practice the asserted claims of the patents-in-suit by covenanting not to sue MidAmerican for any alleged infringement of any claim of any patent-in-suit."); *see also* EX2010 at 107 (no reference to Chem-Mod or its affiliates).

MidAmerican or WPL (let alone indemnify MidAmerican or WPL for any patent infringement).[10]

Patent Owner has misrepresented what the Board previously stated regarding RPIs to the prior IPRs. Specifically, Patent Owner *falsely* stated that "the Board specifically ruled that Chem-Mod was a real party in interest" (IPR2025-00424, Paper 14 at 3, n. 2; IPR2025-00425, Paper 14 at 3, n. 2) and that "NRG identified Chem-Mod as a real party in interest, and the Board agreed with NRG" (IPR2025-00424, Paper 14 at 13, n. 6; IPR2025-00425, Paper 14 at 12, n. 6). As discussed above, the Board did no such thing. The Board never opined that *any* party was an RPI—it merely found that the over-inclusive identification of parties as actual RPIs or "potential" RPIs in the prior petitions was "not problematic." The Board should disregard Patent Owner's false argument regarding MidAmerican's and WPL's "relationship" with Chem-Mod, as well as Patent

[10] Patent Owner sent MidAmerican a third-party subpoena in the Delaware Litigation, and MidAmerican provided Patent Owner with MidAmerican's refined coal supply agreements, which show Patent Owner's statements to the Board regarding MidAmerican's alleged contractual relationship with Chem-Mod *are false*. WPL produced similar documents in response to a third-party subpoena from Patent Owner in the Delaware Litigation.

Owner's misstatements about what happened in the prior IPRs, and find that Chem-Mod is neither an RPI nor a privy to for purposes of the present petition.

b. The Alleged Louisa Refined Coal Relationship with MidAmerican Does Not Create an RPI or Privy

While MidAmerican previously received refined coal from Louisa Refined Coal LLC—ceasing on or about January 2022 (two years before the Petition was filed)—pursuant to a non-exclusive supply agreement, Louisa Refined Coal LLC is not an RPI or privy of MidAmerican, and MidAmerican did not have the opportunity to litigate in, let alone exercise control over, the prior Delaware case. Unsurprisingly, Patent Owner makes no meaningful attempt to show otherwise.

As Patent Owner knows (because it already has MidAmerican's supply agreement with Louisa Refined Coal),[11] Louisa Refined Coal has a general indemnity provision with MidAmerican that ***does not*** indicate Louisa Refined Coal is a privy or RPI. The question of whether "a standard, non-exclusive, manufacturer-customer indemnification agreement relating to patent infringement can be sufficient to support a finding of real party in interest and

[11] MidAmerican produced all of its refined coal agreements to Patent Owner in the Delaware Litigation pursuant to a third-party subpoena.

trigger the one-year time bar" has already been answered: "without more, it cannot." *Luminex*, IPR2024-00101, Paper 20 at 11 (Director review supplemental opinion, overturning Board's denial of institution). The supply agreement that Patent Owner was previously provided does not even relate to patent infringement (which itself would not be sufficient to create an RPI issue), as it contains only a general indemnity provision for ***negligent acts or omissions or willful misconduct.*** Patent infringement is a strict liability offense, not one of negligence or willful misconduct.

Other courts have likewise concluded that indemnity clauses like MidAmerican has with Louisa Refined Coal LLC—vague, and unrelated to patent infringement—do not establish privity. *See WesternGeco*, 889 F.3d at 1321-22 ("We agree with the Board that such a circumscribed indemnity provision does not amount to a sufficiently-close relationship to warrant finding ION and PGS in privity."). Indeed, even indemnity agreements relating to patent infringement are not, in themselves, enough to establish privity. *See ASSA ABLOY*, IPR2022-01094, Paper 19 at 34 (finding no privity where option to indemnify was not exercised).[12] Regardless, as noted above, MidAmerican did

[12] MidAmerican also had no relationship with Portage Fuels Company, which Patent Owner does not appear to allege as to MidAmerican.

not participate in the Delaware Litigation, beyond its response to a third-party subpoena, and Louisa Refined Coal has no ability to participate here.

Rather than argue MidAmerican's relationship and contract with Louisa Refined Coal makes it an RPI and leads to privity, Patent Owner makes several unsupported leaps. Absent legal or factual support, Patent Owner argues that *Louisa Refined Coal's relationship with Chem-Mod* causes it to be an RPI, and causes MidAmerican to be in privity with Chem-Mod, because Chem-Mod has had indemnity provisions in *other* contracts. Chem-Mod's irrelevant indemnity provision with a third-party that is not a Petitioner does not lead to MidAmerican being in privity with Chem-Mod. Patent Owner has access to MidAmerican's *actual* basic indemnity provision with a former[13] refined coal supplier, yet Patent Owner asks the Board to infer (based on irrelevant third-party activity) that very different indemnity provisions exists. IPR2025-00424, Paper 14 at 12-13; IPR2025-00425, Paper 14 at 11-13. There is no privity or an RPI based on so tenuous a relationship. *See Google*, IPR2023-00708, Paper 41 at 23 ("The mere existence of some relationship between a petitioner and another entity is not sufficient—that relationship must be related to the lawsuit and be sufficiently

[13] Patent Owner is also aware these relationships ended in early 2022, long before MidAmerican was ever sued for patent infringement.

close that it can be fairly said the petitioner had a full and fair opportunity to litigate the validity of the patent in that lawsuit."). The Board should disregard Patent Owner's request to speculate, and instead find that Louisa Refined Coal is neither a privy nor RPI to MidAmerican.

c. The Alleged Portage Fuels Relationship with WPL Does Not Create an RPI or Privy

Patent Owner asserts that "WPL purchased refined coal from Chem-Mod LLC sub-licensee Portage Fuels Company, LLC," and thus argues that "Chem-Mod and its affiliates are real parties in interest."[14] IPR2025-00424, Paper 14 at 11-13; IPR2025-00425, Paper 14 at 11-12. Not so. While WPL and Portage Fuels entered into a Refined Coal Supply Agreement in connection with the Columbia Energy Center in 2016 (the "Portage Agreement"), that agreement ended in December of 2021, at which time the Columbia plant stopped using refined coal. Columbia switched to a different process after the agreement ended in 2021. And while the Portage Agreement contained a general indemnification provision relating to the use of seller's products, "the Board has held repeatedly that an indemnification agreement, without something more, was insufficient to establish a RPI relationship." *ASSA ABLOY AB v. CPC Patent Techs. Pty, Ltd.*, IPR2022-01006,

[14] WPL had no relationship with Louisa Refined Coal, which Patent Owner does not appear to allege as to WPL.

Paper 64, 2024 WL 3799645, at *17 (P.T.A.B. Aug. 13, 2024); *see also Luminex*, IPR2024-00101, Paper 20 at 11 (stating that even an "indemnification agreement relating to patent infringement" is not sufficient, "without more," to support an RPI finding).

D. Factor 4: The Extent of the Petition's Reliance on Expert Testimony

Petitioners submitted an expert declaration from Dr. Stephen Niksa, a highly accomplished expert in the field of mercury remediation, whom even the named inventor and declarant from Patent Owner admits is "knowledgeable in the field." EX1097 (Pavlish Dep. Tr.) at 253:21-254:17. There is no defect in his declaration, and not even Patent Owner suggests otherwise. Rather, Patent Owner uses Factor 4 as a Catch-22. Had Petitioners used an expert that provided mere *ipse dixit*, Patent Owner would have complained. *See Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9, 2022 WL 3648989, at *6 (P.T.A.B. Aug. 24, 2022) (faulting expert that did "not cite to any additional supporting evidence or provide any technical reasoning to support his statement"). Instead, Petitioners used an expert that provided detailed bases (including nearly 1,100 footnotes with citations) for all of his opinions across the two Petitions, and Patent Owner now complains that Dr. Niksa was too thorough in his analysis. Dr. Niksa's testimony "is merely complying with regulations requiring disclosure of 'underlying facts or data,'" such as 37 C.F.R. § 42.65(a). *See GD Energy Prods., LLC v. Kerr Mach. Co.*, PGR2025-00031, Paper 11 at 2

(P.T.A.B. June 25, 2025). The Petitions cite to the prior art references themselves for disclosure of the claim limitations, and they then cite to the Niksa declaration as mere corroborative support. "Patent Owner does not identify any portions of the expert testimony that suggest Petitioner is using its expert to fill gaps in the prior art." *Cambridge*, IPR2025-00434, Paper 11 at 2.

Patent Owner complains that Dr. Niksa "includes factual testimony about attendance at conferences." IPR2025-00424, Paper 14 at 13-14 (citing IPR2020-00424, Paper 1 (Pet.) at 20); IPR2025-00425, Paper 14 at 13 (citing IPR2020-00425, Paper 1 (Pet.) at 45-47). Dr. Niksa's testimony is relevant to proving up that the Starns reference (EX1008) was publicly accessible prior art under 35 U.S.C. § 102(b), in that Dr. Niksa attended the conference where Starns was presented and received a CD of the conference proceedings. *See GoPro, Inc. v. Contour IP Holding LLC*, 908 F.3d 690, 693 (Fed. Cir. 2018) (printed publication qualifies as prior art "so long as the relevant public has a means of accessing [it]"). Dr. Niksa provides similar testimony for IPR2025-00425, describing how he personally attended the conference where Sjostrom (EX1010) and Eckberg (EX1011) were presented and then received a copy of a CD. The Board previously relied on such testimony to qualify Sjostrom and Eckberg as prior art. *NRG*, IPR2020-00832, 2020 WL 6277239, at *13-*14; *NRG*, IPR2020-00928, Paper 17, 2020 WL 7074473, at *18 (finding that "Petitioner has met its burden of showing that Sjostrom qualifies

as printed publications"). Had Petitioners not provided corroborating evidence, Patent Owner would have argued that Starns, Sjostrom, and Eckberg do not qualify as prior art because they were not publicly accessible.

Patent Owner then complains that Dr. Niksa provides "obviousness justifications," including what practices were "routinely used in the power-generation industry." IPR2025-00424, Paper 14 at 13; IPR2025-00425, Paper 14 at 13. But this is what an expert is supposed to do. For example, the inquiry into whether the "differences between the invention and the prior art would have rendered the invention obvious to a [POSITA] necessarily depends on such artisan's knowledge," including "assessment of the background knowledge possessed" by a POSITA. *Koninklijke Philips N.V. v. Google LLC*, 948 F.3d 1330, 1337 (Fed. Cir. 2020) (internal citations omitted). Had Dr. Niksa not provided "obviousness justifications," Patent Owner would have argued that Petitioner failed to demonstrate a motivation to combine references. In its discretionary denial brief, Patent Owner does not (and cannot) attack motivations to combine precisely due to the thoroughness of Dr. Niksa's opinions.

Petitioners also note that Patent Owner dressed up its employees as experts and then provided its own technical declarations in order to get the patent claims past the examiner. EX1019 at 422-37 (Declaration of John Pavlish and Nicholas Lentz); *id.* at 416-21, 438-49, 450-60, 574-81 (Declarations of John Pavlish). Patent

Owner should not be heard to complain when an independent expert provides his own opinions as to why the claims should not have been allowed.

E. **Factor 5: Settled Expectation of the Parties, Such as the Length of Time the Claims Have Been in Force**

The Director already held that this factor counsels against discretionary denial. The counterpart ’114 and ’517 Patents “issued in 2019 and 2020, such that Patent Owner has not developed strong settled expectations that favor discretionary denial.” IPR2025-00274, Paper 23 at 3. The ’225 Patent issued even later, on March 17, 2020. *See* EX1001, EX1004 (family tree). Accordingly, there is even less of a “settled” expectation by Patent Owner for the ’225 Patent. *See also Cambridge*, IPR2025-00434, Paper 11 at 2 (Director finding that patents issued in 2019 and 2020 “have not been in force for a significant period of time,” such that “Patent Owner has not developed strong settled expectations”).

In contrast to the relatively recent issue date of the ’225 Patent, Petitioners’ power plants have been in operation for decades, and ME2C accuses processes in use since at least 2014. *See* EX1115 (Exhibit A to Patent Owner’s Infringement Contentions) at 13 (accusing PacifiCorp of infringement dating back to 2013 for the Dave Johnston Power Plant). While Patent Owner asserts that it has “been litigating infringement of patents related to the ’225 Patent for almost five years” against other defendants (IPR2025-00424, Paper 14 at 1; IPR2025-00425, Paper 14 at 1), this is inapposite. First, Patent Owner did not even include the ’225 Patent in its initial

Complaint in Delaware; rather, the ’225 Patent was included in Patent Owner’s First Amended Complaint. *See, e.g.*, EX1136 at 47-51. Second, the Patent Owner dropped the ’225 Patent from trial in Delaware. *See* IPR2025-00424, Paper 14 at 3 n.3; IPR2025-00425, Paper 14 at 3 n.3. Third, Patent Owner waited until July 18, 2024, to sue the current Petitioners on the ’225 Patent. EX2007 (Complaint filed against Petitioners). It would not be “fair to Petitioner[s] to deny Petitioner[s] the opportunity to challenge the validity” of the ’225 Patent on account of PO “choosing to stagger the filing of its infringement suits.” *Arista Networks, Inc. v. Orckit Corp.*, IPR2024-01239, Paper 7 at 3-4 (P.T.A.B. Mar. 12, 2025).

There is no settled expectation of validity with respect to the ’225 Patent. The Board has previously instituted two IPRs on the ’114 Patent, with substantively identical claims, explicitly stating that Petitioners had shown a “reasonable likelihood of prevailing with respect to at least one claim of the ’114 patent.” *NRG*, IPR2020-00832, Paper 17, 2020 WL 6277239 at *1; *NRG*, IPR2020-00834, Paper 18, 2020 WL 6277747, at *1.

The Board also instituted *inter partes* review on the ’147 Patent, which is a parent of the ’225 Patent. *NRG*, IPR2020-00928, Paper 17, 2020 WL 7074473, at *13. Specifically, the Board found that “one or more of the applications in the priority chain for the ’147 patent lack written description support for challenged claims 18 and 19” and accordingly that “Patent Owner, on this record, has not

presented persuasive arguments or evidence that claims 18 and 19 of the '147 patent are entitled to a priority date earlier than April 6, 2009." *Id.* Thus, Patent Owner cannot reasonably expect that the '225 Patent, which is a child to the '147 Patent, can trace priority before 2009.[15]

To avoid final written decisions, Patent Owner entered into settlement agreements with the petitioners of the IPR2020-00832, IPR2020-00834, IPR2020-00926, and IPR2020-00928 proceedings, dismissing its District Court litigation against those parties with prejudice. For example, PO settled with Talen for $200,000 and NRG for $600,000. EX2004 at 391:3-15. The institution decisions, followed by swift settlement following institution, leads the public to one conclusion: the claims of the '225 Patent (which are substantively identical to the '114 Patent claims) are not patentable or else the Patent Owner would have defended the patents on the merits.

F. Factor 6: Compelling Economic, Public Health, or National Security Interests

Patent Owner suggests that the factor "supports discretionary denial" because "this patent has been involved in five years of litigation that is now nearing completion." IPR2025-00424, Paper 14 at 14-15; IPR2025-00425, Paper 14 at 14.

[15] In actuality, the priority date for the '225 Patent is much later on account of even more material added to the claims after 2009.

This is another false statement, as the ’225 Patent was dropped from the Delaware Litigation prior to trial. IPR2025-00424, Paper 14 at 3 n.3; IPR2025-00425, Paper 14 at 3 n.3. Also, Patent Owner’s complaints regarding the prior litigation fall flat, particularly given that Patent Owner waited until July 2024 to sue Petitioners for conduct that it claims started in 2013–2014. *See* EX1115 (Exhibit A to Patent Owner’s Infringement Contentions) at 13 (accusing PacifiCorp of infringement dating back to 2013 for the Dave Johnston Power Plant).

Rather, this factor weighs against discretionary denial because the generation and provision of energy with mercury mitigated is in the public’s interest. Specifically, coal fired power plants, which Petitioners operate, play a large role in generating electricity in the United States. *See* EX1116 (“In 2022, coal accounted for about 19.5% of U.S. electricity generation.”). Similarly, reducing mercury emissions from coal-fired power plants is in the public interest, as the release of mercury into the air is harmful to public health. *See* EX1117. Furthermore, Patent Owner is a vendor of commodity chemicals and does not compete with Petitioners. *See* EX1118 (https://www.birchtech.com/tech-overview); *see also* IPR2025-00424, Paper 14 at 2 (“Patent Owner supplies products and services used to comply with mercury capture regulations applicable to coal-fired power plants.”); IPR2025-00425, Paper 14 at 2 (same). Finally, Executive Order No. 14241 issued on April 8, 2025, emphasizing the need to “increase domestic energy production, including

coal." *See* EX1119 (Exec. Order No. 14261). The executive order further notes that supporting the American "coal industry … increase[s] our energy supply, lower[s] electricity costs, stabilize[s] our grid, create[s] high-paying jobs, support[s] burgeoning industries, and assist[s] our allies." *Id.* The safe use of coal as a domestic power source is in the public interest.

G. Factor 7: Any Other Considerations Bearing on the Director's Discretion

Additional considerations support instituting the petitions. In addition to all other factors being neutral or weighing against exercising discretion, Petitioners ask the Board to consider the following additional considerations.

1. Consistency Among Office Proceedings

Across several decisions, the Director has discussed the importance of consistency at the Office. For example, the Director has explained that prior decisions from the Board finding claims unpatentable "tips the balance against discretionary denial," and that it "is an appropriate use of Office resources to provide consistency and predictability to the public." *Posco*, IPR2025-00370, Paper 10 at 3 (Director discussing previous final written decision); *see Mercedes-Benz*, IPR2025-00413, Paper 13 at 2 (Director declining to exercise discretion when "claims of a related patent were recently found unpatentable" in an *ex parte* reexam); *Tesla*, IPR2025-00217, Paper 10 at 2 ("Board previously determined there was a reasonable likelihood that similar claims of an ancestor patent were unpatentable"). Here, the

Board issued four institution decisions (IPR2020-00832, -00834, -00926, -00928), determining that claims from family members of the ’225 Patent were likely unpatentable. More recently, the Director declined to exercise discretion and referred four petitions on family members of the ’225 Patent to the Board for review on the merits. *See, e.g.*, IPR2025-00274, Paper 23. Petitioners request that the two petitions on the ’225 Patent (IPR2025-00424 and -00425) likewise be referred to the Board for review on the merits.

2. Combined Petitioners with Minimal Grounds

Patent Owner filed suit in the Southern District of Iowa against multiple defendants alleging infringement of the ’225 Patent and five other patents. To streamline the proceedings and utilize the Board’s resources in a more efficient matter, the two Petitions collectively include:

- Five Petitioners (several of the original Iowa Defendants, plus another party); and
- Four primary references and four secondary references.

The above parties joined efforts and filed two Petitions for IPR against the ’225 Patent, asserting a limited set of prior-art references (instead of each party individually filing separate Petitions). As such, this is not a case of a single petitioner filing multiple IPR Petitions.

3. Common Grounds Across Multiple Patents

To further streamline efforts by the Board, Petitioners sought to use common grounds across the patents. For example, IPR2025-00274 ('114 Patent), IPR2025-00280 ('517 Patent), IPR2025-00422 ('430 Patent), and IPR2025-00424 ('225 Patent) all use the same two primary references (Vosteen589 and Downs-Boiler) and the same two secondary references (Starns and Mass-EPA). As another example, IPR2025-00278 ('114 Patent), IPR2025-00281 ('517 Patent), IPR2025-00423 ('430 Patent), and IPR2025-00425 ('225 Patent) all use the same two primary references (Sjostrom and Olson-235) and the same two secondary references (Eckberg and Olson-646).[16]

[16] The remaining four Petitions: IPR2025-00687, IPR2025-00688 ('370 Patent) IPR2025-000717 and IPR2025-00718 ('218 Patent) also rely on references asserted in the Petitions for the '114, '517, '430, and '225 Patents. However, because the claims of the '370 and '218 Patents involve iodine-related halogens instead of bromine-related halogens, Petitioners added references (e.g., Lissianski (EX1014) and Baldrey (EX1015)) that disclose the use of iodine-related halogens.

III. THE *FINTIV* FACTORS DO NOT SUPPORT DISCRETIONARY DENIAL

A. Factor 1: Whether the Court Granted a Stay or Evidence Exists that One May Be Granted if a Proceeding Is Instituted

This factor is neutral. Whether or not the MDL Court will grant a stay post-institution is purely speculative. *See Samsung Electrons. Co. v. Mullen Indus. LLC*, IPR2025-00021, Paper 14, 2025 WL 965629, at *3 (P.T.A.B. May 14, 2025) ("declin[ing] to speculate whether the district court will grant a stay").

Patent Owner is arguing out of both sides of its mouth. To the Board, Patent Owner argues that Petitioners waited too long to move for a stay, but to the MDL Court, Patent Owner argues that Petitioners did not wait long enough. This is yet another example of Patent Owner creating an unfair Catch-22 for Petitioners. To the Board, Patent Owner states: "Petitioners waited almost two months after filing this petition to even move for a stay" and complains about the investment by the MDL Court. IPR2025-00424, Paper 14 at 16; IPR2025-00425, Paper 14 at 16. Yet to the MDL Court, Patent Owner argues that a motion to stay is premature: "none of Defendants' petitions have been instituted by the … PTAB." EX1120 (Patent Owner's Response to Petitioners' Motion to Stay Pending *Inter Partes* Review) at 1. In actuality, Petitioners waited until they had filed the last of the Petitions (IPR2025-00717 and IPR2025-00718) on April 8, 2025, and then met and conferred with Patent Owner and moved for a stay approximately three weeks later.

The MDL Court denied the motion to stay as premature, but importantly, stated that the denial was without prejudice, and the motion can be re-filed after institution. *See* EX1128 (Order Denying Without Prejudice Pre-Institution Stay) at 5-6 (noting that the motion was denied "without prejudice" and "offer[ed] no view on how it would evaluate a motion to stay if the PTAB grants inter partes review"); *see also Samsung*, IPR2025-00021, Paper 14, 2025 WL 965629 at *4 (noting that petitioners were diligent in filing eleven petitions for IPR and finding factor 1 is "neutral" including due to the fact that the denial of a motion to stay was without prejudice to refiling "following the PTAB's institution decision on the last of the pending IPRs"). Petitioners intend to re-file their motion to stay upon institution.

B. Factor 2: Proximity of the Court's Trial Date to the Board's Projected Statutory Deadline for a Final Written Decision

The Director already determined not to exercise discretion based on this factor on proceedings for the family patents: "No trial date is scheduled." IPR2025-00274, Paper 23 at 2.

Even assuming the latest possible Final Written Decision statutory deadline (i.e., assuming the Board does not institute early), the final written decision in the IPR2025-00424 and -00425 Proceedings will issue by October

15, 2026,[17] but the MDL "trial ready" date is not until October 12, 2026. EX2006 at 3; IPR2025-00424, Paper 14 at 17-18; IPR2025-00425, Paper 14 at 17. The final written decision is thus due almost simultaneous with the "trial ready" date, which is not even an "actual trial" date.[18] Even the District Court's current *trial-ready date* does not support discretionary denial for the -00424 and -00425 Petitions.

Patent Owner does not argue that trial in the MDL Court will occur before the final written decision in these proceedings (the '225 Patent). Instead, Patent Owner argues that proceedings for "the other patents-in-suit" were more "recently filed," and that those should somehow be considered against the *Fintiv* factors on the '225 Patent. *See* IPR2025-00424, Paper 14 at 17-18; IPR2025-00425, Paper 14 at 17.[19] Patent Owner is wrong on the facts. The final written

---

[17] The two Petitions were filed on March 4, 2025, but received a notice of filing date 42 days later, on April 15, 2025.

[18] To the extent the Board institutes early on any of the proceedings, the final written decision date would be even further in advance of trial.

[19] Almost as an afterthought, Patent Owner points to "IPR2025-01117 and IPR2025-01118 of related patents" that was filed on June 6, 2025. *See* IPR2025-00424 at 18. These were filed more than three months after IPR2025-00424 and

decision is due on September 7, 2026 for IPR2025-00274 and -00278 (U.S. Patent No. 10,343,114) and for IPR2025-00280 and -00281 (U.S. Patent No. 10,596,517). The final written decision is due on October 9, 2026 for IPR2025-00422 and IPR2025-00423 (U.S. Patent No. 10,668,430). Thus, for six of the twelve total Petitions filed by Petitioners, the final written decision will issue before the "trial ready" date. For the '225 Patent, final written decision is due around the time of the October 12, 2026 "trial ready" date.[20] As discussed below, the "actual trial" date will be months later.

1. <u>There is No Trial Date for any Non-Iowa Petitioner</u>

The time span between the final written decisions and actual trial in the MDL Court is even greater, because as PO appears to acknowledge, the Court has only set a "trial ready" date. IPR2025-00424, Paper 14 at 17-18; IPR2025-00425, Paper 14 at 17. ***There is no trial date.*** One of the five Petitioners—

IPR2025-00425; Petitioners had no involvement whatsoever in these filings, and Patent Owner does not contend otherwise.

[20] Final written decisions are due: October 15, 2026 for IPR2025-00424, -00425, -00687, and -00688 (US 10,589,225 and 10,933,370) and November 9, 2026 for IPR2025-00717 and -718 (US 10,926,218). These are all before any "actual trial" date.

WEC—is not a defendant in any litigation brought by Patent Owner and thus does not (and will never) have a trial date. For two more of the Petitioners—WPL and PacifiCorp—pursuant to MDL procedures the MDL Court will transfer them back to their home forums of the District of Wyoming and Western District of Wisconsin, respectively, sometime after the trial ready date. EX1130 (Order on Motions to Dismiss and Motion to Sever). The home forums will then first handle scheduling any trial at some indeterminate point in the future. As the Director previously determined, "The court administering the multi-district litigation anticipates the case being 'trial ready' by October 2026, meaning that trial dates in the home forums would need to be scheduled after that time." IPR2025-00274, Paper 23 at 2.

2. <u>There is Also No Trial Date for any Iowa Petitioner</u>

The only Petitioners still in the Southern District of Iowa are MidAmerican and IPL. But even for those Petitioners, there is no trial date, and any speculative trial date(s) would be months after the current trial ready date—again, long after any final written decision (FWD) for all twelve of the Petitions.

First, the Southern District of Iowa is not a common forum for patent litigation, and for the four patent cases that have gone to trial in this District since 2011, the average and median months from filing of the case to the

beginning of trial are 34 months and 31 months, respectively. EX1122 (Docket Navigator S.D. Iowa Statistics).[21]

Second, the docket sheets of other cases in the Southern District of Iowa demonstrate that an "actual trial" date is set many months after the "trial ready" date:

Case Citation	**Trial "Ready"**	**Trial Date**	**Time Difference**
EX1122, *Deere & Co. et. al v. Kinze Mfg., Inc. et. al*, 4:20-CV-00389 (S.D. Iowa) (Docket Sheet)	8/7/2023 (ECF 73)	10/16/2023	71 days
EX1123, *Piatz v. State Farm Mut. Auto. Ins. Co.*, 3:21-CV-00007 (S.D. Iowa) (Judge Locher) (Docket Sheet and ECF 8)	3/1/2022 (ECF 8, proposed)	9/26/2022 (Docket Sheet, 7/26/2022)	206 days

[21] Applying S.D. Iowa's average time to trial in patent case of nearly 3 years here, all FWD dates would be well within that timeframe (beating the average time to trial in S.D. Iowa by over 6 months). Even in such scenarios in which the median time-to-trial indicates that the likely trial date "is reasonably proximate to the projected statutory deadline for a final written decision," Factor 2 weighs in favor of the Board "not exercising [its] delegated discretion to deny institution." *Cisco Systems, Inc. v. Croga Innovations LTD.*, IPR2024-01283, Paper 8 at 44 (P.T.A.B. Feb. 13, 2025).

Case Citation	Trial "Ready"	Trial Date	Time Difference
EX1124, *Probasco et al v. MFA Inc.*, 4:22-CV-00117 (S.D. Iowa) (Judge Locher) (Docket Sheet and ECF 7, 9)	6/26/2023 (ECF 7, proposed)	10/10/2023 (Docket Sheet, ECF 23)	106 days
EX1125, *Shin v. Winnebago Indus., Inc. et. al*, 3:23-CV-00077 (S.D. Iowa) (Judge Locher) (Docket Sheet)	7/30/2025 (Docket Sheet, ECF 18)	9/22/2025 (Docket Sheet, ECF 18)	54 days

Applied here, any speculative trial date would occur between mid to late 2027—long after a FWD for all twelve Petitions.[22] *Amazon.com, Inc., et. al v.*

[22] The docket sheets of these cases from Judge Locher (the Judge in the MDL Court) and other cases in the Southern District of Iowa demonstrate why a "trial ready" date is not an "actual trial" date. *See* EX1126, Docket, *Nuhn Industries Ltd v. Bazooka Farmstar LLC*, and ECF 286, 3:22-cv-00015 (S.D. Iowa) (in a patent case pending since March 17, 2022, the Court waiting until March 27, 2025 to set a trial date, with the trial currently set to begin on October 2, 2026); EX1127, Docket, *G.W. Lisk Company, Inc. v. Gits Manufacturing Company*, 4:17-cv-00273 (S.D. Iowa) (initially setting trial as August 19, 2019, which was reset multiple times, eventually for May 1, 2023).

NL Giken Inc., IPR2025-00250, Paper 14, at 2 (P.T.A.B. May 16, 2025) (the Director denying request for discretionary denial after noting that "time-to-trial statistics suggest trial would not begin" until months after a FWD regardless of a scheduled trial date 8 days before an expected FWD). At this point, no Petitioner has a trial date, and the date of any actual trial is purely speculative.

The Director's decision to decline to exercise discretion to deny in IPR2025-00274, -00278, -00280, and -00281, is consistent with other cases finding that when any actual trial date is purely speculative, Factor 2 weighs strongly against discretionary denial. *See, e.g.*, *Beckman Coulter, Inc. v. Sirigen II Ltd.*, IPR2022-01207, Paper 12 at 18 (P.T.A.B. Jan. 6, 2023) (weighing factor 2 "strongly against discretionary denial of institution" because "no trial date is set" and PO's trial date expectation "is purely speculative"); *see Bio-Rad Labs., Inc. v. Cal. Inst. of Tech.*, IPR2024-01451, Paper 11 at 9 (P.T.A.B. Mar. 27, 2025) (weighing factor 2 against denial where the district court case had no scheduled trial date, and Petitioner's median time-to-trial statistics forecast the trial trailed the FWD by nearly 19 months); *Savant Techs. LLC v. FEIT Elec. Co.*, IPR2024-01357, Paper 17 at 9-12, 15 (P.T.A.B. Mar. 5, 2025) (weighing factor 2 against denial in the absence of scheduled trial dates in two parallel forums with statistics indicating trial likely to trail the Board's FWD significantly); *Twitch Interactive, Inc. v. Razdog Holdings LLC*, IPR2025-

00307, Paper 18 at 2-3 (P.T.A.B. May 16, 2025) (Director denying request for discretionary denial after finding no currently scheduled trial date and speculative trial dates after any FWD).

C. Factor 3: Investment in the Parallel Proceeding by the Court and the Parties

This factor counsels against discretionary denial. As the Director held for the related IPR proceedings, "the parties have made relatively little investment into the multi-district litigation." IPR2025-00274, Paper 23 at 2-3.

Investment in parallel proceedings is determined at the time of the institution decision and not final written decision. *See Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15, 2020 WL 2126495, at *4 (P.T.A.B. March 20, 2020) (designated precedential May 5, 2020) ("The Board also has considered the amount and type of work already completed in the parallel litigation by the court and the parties at the time of the institution decision"). Factor 3 weighs against discretionary denial because the MDL Court has not conducted significant substantive analysis of the Asserted Patents and the MDL case is in its early stages.

1. The District Court's Involvement Has Been Limited to Procedural Issues

There is a difference between substantive work, i.e. work "related to the patent at issue in the petition," and other procedural work. *See AT&T Servs. Inc. v. Asus Tech. Licensing Inc.*, IPR2024-00992, Paper 14, 2024 WL 5126018, at *5 (P.T.A.B.

Dec. 16, 2024) (Factor 3 weighs "against discretionary denial" where "the parties … engaged in some preliminary work in the parallel district court proceedings," but "the court ha[d] not issued any substantive orders"). Here, the District Court "litigation has revolved largely around procedural issues like venue and personal jurisdiction."[23] EX1128 (Order Denying Without Prejudice Pre-Institution Stay) at 5.

Even so, the only motion Patent Owner addresses is Patent Owner's own motion for a preliminary injunction. *See* IPR2025-00424, Paper 14 at 18; IPR2025-00425, Paper 14 at 17-18. Briefing is still not complete on the motion, and no hearing date has been scheduled. *See* EX1129 (Order re: Petitioners' Deadline to File Surreply) at 2.

The District Court has been unable to invest significant time and effort in the substantive patent issues before the MDL Court because Patent Owner has demonstrated a pattern of missteps in its preparation and filing of the case. Two

[23] While the District Court has grappled with the substantive issue of "the viability of [Patent Owner's] infringement claims against parent entities … [t]hese issues are separate and apart from the questions of patent validity that the PTAB will address if it institutes *inter partes* review." EX1128 (Order Denying Without Prejudice Pre-Institution Stay) at 5.

defendants were dismissed for failure to state a claim. EX1130 (Order on Motions to Dismiss and Motion to Sever). Patent Owner attempted to impute patent infringement liability onto certain direct and indirect parent corporations of certain Petitioners where the parent corporation did not operate any power plants, a theory that was rejected by the District Court. *See* EX1130 (Order on Motions to Dismiss and Motion to Sever) at 25-26 (noting that a recitation of "only formulaic legal conclusions about [a parent corporation] having an agency relationship or being in a 'joint enterprise' with the entities who own the facilities where the allegedly infringing activity occurs. … is not enough to state a viable claim when the remaining allegations show nothing more than a typical relationship between related corporate entities.").

Patent Owner's repeated mistakes continued when other defendants were dismissed for lack of personal jurisdiction. Patent Owner sued a subset of Petitioners in the Southern District of Iowa despite those entities having no contacts in that forum. *See generally* EX1128 (discussing Patent Owner's failure to properly allege personal jurisdiction with respect to several Petitioners). The District Court transferred the cases against Petitioners PacifiCorp and WPL to other district courts, which have personal jurisdiction over each respective defendant. *Id.* at 17-19. Litigation against that subset of Petitioners is only pending in Iowa for pre-trial purposes pursuant to an MDL consolidation order. EX1131 (MDL Transfer Order).

Patent Owner compounded its pleading blunders by improperly joining multiple parties in violation of 35 U.S.C. § 299. While the Court ultimately found that improper joinder was a moot issue after it transferred the cases, "the Court would have had little difficulty concluding that severance of some claims and Defendants was appropriate under the case as originally pled." *See* EX1130 (Order on Motions to Dismiss and Motion to Sever) at 32.

Thus, the MDL case is in its early phases, and Factor 3 supports declining to exercise discretion. The MDL court has not conducted any substantive work in the case. It has instead conducted procedural work due to Patent Owner's failure to plead its case, including: dismissing two defendants for failure to state a claim; dismissing and transferring two defendants for lack of personal jurisdiction; and agreeing that the defendants were improperly joined.

2. **The District Court Proceeding Remains in Its Early Phases**

Ultimately, the District Court litigation "is at a relatively early stage". EX1128 (Order Denying Without Prejudice Pre-Institution Stay) at 6. A simple evaluation of the parties' discovery progress, the case schedule, and the Petitioners' diligence in filing their Petitions tip the scales against discretionary denial.

a. The District Court Case is Early in Fact Discovery

Fact discovery remains open until January 30, 2026. *See* EX2006 (Case Management Order) at 3. Of the documents produced by Patent Owner, the majority of those documents are merely reproductions of documents previously produced in the Delaware Litigation. *See* EX1132 (Petitioners' Reply Brief In Support of Motion to Stay Pending *Inter Partes* Review). Apart from a single abbreviated deposition taken in connection with the preliminary injunction, no party has filed a notice of deposition yet. Moreover, the pleadings in the District Court case remain open. *See* EX1128 (Order Denying Without Prejudice Pre-Institution Stay) at 6 (discussing Patent Owner's pending Motion to dismiss Petitioners' counterclaims). All in all, the parties remain in the early phases of fact discovery and there has been little substantive investment by the District Court at this juncture.

b. Claim Construction Has Not Begun

As for claim construction, the parties have not begun the briefing process. *See* EX2006 (Case Management Order) at 2-3. Currently, the *Markman* hearing will not occur until December 15, 2025. *Id.* *Fintiv* Factor 3 counsels against discretionary denial because a case pre-*Markman* indicates "relatively limited investment in the parallel proceeding." *See Sotera Wireless, Inc. v. Masimo Corporation*, IPR2020-01019, Paper 12 , 2020 WL 7049372, at *6-*7 (P.T.A.B. Dec. 1, 2020) (designated "precedential" Dec. 17, 2020) (finding that where no *Markman* briefing had been

conducted, fact discovery was ongoing, and no expert reports had been served, the district court had made "relatively limited investment in the parallel proceeding").

c. Petitioners Exercised Diligence in Filing Their Petitions

As the Director held for the related IPR proceedings in IPR2025-00274, -00278, -00280, and -00281, "Petitioners were diligent in filing the Petitions." IPR2025-00274, Paper 23 at 2-3. "Petitioner's diligence in filing the Petition also weighs in favor of not exercising discretion to deny institution." *PEAG LLC. v. Varta Microbattery GMBH*, IPR2020-01213, Paper 8, 2021 WL 54768, at *7 (P.T.A.B. Jan. 6, 2021); *see also Dish Network LLC v. Broadband iTV, Inc.*, IPR2020-01359, Paper 15, at 19 (P.T.A.B. Feb. 12, 2021) (noting that "Petitioner's diligence in filing its Petition also weighs against exercising our discretion to deny institution" even where the Petition was filed *after* infringement contentions were served); *Savant Techs. LLC v. Feit Elec. Co.*, IPR2025-00260, Paper 16 at 2-3 (P.T.A.B. June 12, 2025) (declining to exercise discretion when petitioners filed a follow-up petition "less than three months" *after* PO asserted claims in district court).

Here, Petitioners were even more diligent than in the above-cited cases. In addition to filing the Petitions for IPR2025-00274 and -00278 (for the '114 Patent), IPR2025-00280 and -00281 (for the '517 Patent), and IPR2025-00424 and -00425 (for the '225 Patent), Petitioners filed six other petitions against the three other

patents asserted in the MDL Court (for twelve total petitions). Petitioners worked diligently to file the twelve Petitions against all six asserted patents. *See Sotera*, IPR2020-01019, Paper 12 at 16-17 (though petitions were filed two weeks before the statutory deadline, petitioners' efforts were "reasonable … in view of the large number of patents and claims challenged in this and Petitioner's other related petitions"). Here, ten of the Petitions (including for the '225 Patent) were filed ***before*** receiving Patent Owner's infringement contentions, the remaining two Petitions were filed twenty-one days (sixteen business days) after receiving the contentions, and all twelve petitions were filed many months before the statutory deadline.

D. Factor 4: Overlap Between Issues Raised in the Petition and in the Parallel Proceeding

This factor counsels against discretionary denial for two reasons: the broad stipulation offered by petitioners, and the non-overlapping claims.

1. Petitioners Filed a Broad "Sotera Plus" Stipulation

Petitioners have filed a "*Sotera* Plus" stipulation going beyond the standard *Sotera* language, which would necessarily narrow the issues presented at the District Court. Each of the Petitioners in the MDL Court agreed that if the Board institutes review on any petition, the "Petitioner will forgo invalidity in district court based on 'any ground that the petitioner raised or reasonably could have raised during that inter partes review.'" *E.g.*, EX1110 at 2 (quoting *Sotera*, IPR2020-01019, Paper 12

at 18-19); *see also* EX1111-EX1112 (stipulations from other petitioners). Going further, each Petitioner also agreed that "if the PTAB institutes an inter partes review on a particular petition, then Petitioner[s] … will not use the specific references appearing in the grounds in Appendix A for that petition in any obviousness combination, including in combination with system art." *Id.* at 3.

Petitioners' stipulations ensure that *inter partes* review is a "'true alternative' to the District Court Proceedings … because Petitioner … agrees: not to pursue any grounds after institution in the District Court Proceedings that are within the scope of the statutory estoppel … and also not to pursue any prior-art reference against a specific Asserted Patent if the PTAB is already addressing that reference against the specific Asserted Patent." EX1110-EX1112. This "broad stipulation … counsel[s] against discretionary denial." *Tesla*, IPR2025-00341, Paper 12 at 2; *see also* IPR2025-00341, Paper 10 at 10-11 (stipulation includes "any ground based on a combination of system prior art and the references asserted as part of a ground raised" in the petition). Thus, instituting *inter partes* review does not risk duplicative litigation in the District Court with respect to the Petitioners.

2. <u>The District Court Will Not Address All Claims at Issue in the Petitions</u>

There is a non-overlap in claims between the PTAB Petitions and District Court litigations. ME2C's infringement contentions identify 116 patent claims across those six patents asserted in the District Court. EX1114 (Infringement

Contentions). Every single one of those claims is challenged in the petitions. Non-asserted claims for the ’225 Patent are also challenged, including as follows: IPR2025-00424 also challenges claims 7, 10-13, 19, 22, 24, 26 and 29 and IPR2025-00425 challenges claims 7, 10-13, 19, 22, 24, 26, and 29. None of these additional claims are asserted in District Court. EX1114 (Infringement Contentions). Thus, in exercising its discretion to institute review of Patent Owner’s claims, the Board has the ability to resolve the patentability of additional claims of the ’225 Patent, which Patent Owner has wielded against numerous entities.

E. Factor 5: Whether the Petitioner and the Defendant in the Parallel Proceeding Are the Same Party

Factor 5 counsels against the Board exercising its discretion to deny institution, because one of the Petitioners—WEC—is not a defendant in district court. Patent Owner speculates that “WEC is named as a petitioner because it is a co-owner of power plants accused in the MDL proceeding.” IPR2025-00424, Paper 14 at 19; IPR2025-00425, Paper 14 at 19. Patent Owner ignores that it wrote to a WEC-owned entity (Wisconsin Public Service Corporation (“WPSC”)), discussing its prior infringement lawsuits and offering to “license” its patents to WPSC. EX1133. Under threat of being sued by Patent Owner, WEC challenged the patents in these IPR proceedings.

Because WEC (and also WPSC) is not a defendant in any district court proceeding, Factor 5 counsels against exercising discretion to deny. *See Posco*,

IPR2025-00370, Paper 10 at 3 (among the considerations that "counsel against discretionary denial" include the fact that "Petitioner is not a party in the" parallel litigation).

F. Factor 6: Other Circumstances That Impact the Board's Exercise of Discretion, Including the Merits

Overall, all of the *Fintiv* factors support the Board declining to exercise its discretion to deny institution, and all weigh towards institution. Additional circumstances impacting the Director's exercise of discretion are set forth above in Factor 7 for the of the Interim Guidance Factors.

IV. CONCLUSION

Petitioners respectfully request that IPR of the '225 Patent be instituted and that the Challenged Claims be cancelled as unpatentable.

Respectfully submitted,

July 15, 2025
Date

/s/ David J. Tobin

David J. Tobin (Reg. No. 60,776)
McDermott Will & Emery LLP
2501 North Harwood Street, Suite 1900
Dallas, TX 75201
Tel: (214) 210-2793
Email: dtobin@mwe.com

ATTORNEYS FOR PETITIONERS

CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. §42.24(d), the undersigned certifies that the foregoing Petition, exclusive of the exempted portions as provided in 37 C.F.R. §42.24(a), contains 13,623 words which is no more than 14,000 words and therefore complies with the type-volume limitations of 37 C.F.R. §42.24(a). The word count was calculated by starting with Microsoft Word's total document word count and subtracting the words for the Cover Page, Table of Contents, Table of Authorities, Table of Exhibits, Certificate of Compliance, and Certificate of Service.

July 15, 2025
Date

/s/ David J. Tobin

David J. Tobin (Reg. No. 60,776)
McDermott Will & Emery LLP
2501 North Harwood Street, Suite 1900
Dallas, TX 75201
Tel: (214) 210-2793
Email: dtobin@mwe.com

ATTORNEYS FOR PETITIONERS

CERTIFICATE OF SERVICE

Pursuant to 37 CFR § 42.6(e)(4), the undersigned certifies that on July 15, 2025, a complete copy of the foregoing Petitioner's Brief Opposing Patent Owner's Brief Regarding Discretionary Denial was served on Lead and Back-up Counsel for Petitioner at the service address provided in Patent Owner's Mandatory Notices:

hhamad@caldwellcc.com
jnemunaitis@caldwellcc.com
rcochrane@caldwellcc.com
midwest@caldwellcc.com

July 15, 2025
Date

/s/ David J. Tobin

David J. Tobin (Reg. No. 60,776)
McDermott Will & Emery LLP
2501 North Harwood Street, Suite 1900
Dallas, TX 75201
Tel: (214) 210-2793
Email: dtobin@mwe.com

ATTORNEYS FOR PETITIONERS