

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

IPR2025-00717
Patent No. 10,926,218

PETITIONERS' BRIEF OPPOSING
PATENT OWNER'S BRIEF REGARDING DISCRETIONARY DENIAL

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PETITIONERS' UPDATED EXHIBIT LIST

(Adding Exhibits 1113-1137)

Exhibit	Description of Exhibits
1001	U.S. Patent No. 10,926,218 to Olson et al. (filed July 11, 2019) (“’218 Patent” or “Challenged Patent”)
1002	Declaration of Dr. Stephen Niksa in Support of Petition for <i>Inter Partes</i> Review of U.S. Patent No. 10,926,218 (“’218 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	RESERVED
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 95 TH ANNUAL CONFERENCE (Baltimore, MD: June 23-27, 2002) (“Starns”)

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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	RESERVED
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. (issued Apr. 7, 2009) (“Lissianski”)
1015	U.S. Patent Publication No. 2011/0030592 to Baldrey (filed Feb. 10, 2011) (“Baldrey”)

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1016	U.S. Patent Pub. No. 2014/0255279 to Olson et al. (published Sept. 11, 2014) (“Olson-279”)
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	Excerpts of File History of U.S. Patent Application No. 15/951,970, which ultimately issued as U.S. Patent No. 10,933,370 (“’370 Patent File History”)
1024	RESERVED

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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	RESERVED
1033	U.S. Patent No. 8,512,655

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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,” <i>DOE/NETL Hg R&D Program Review</i> (April 2003) (“Feeley”)
1040	Oxtoby et al., <i>PRINCIPLES OF MODERN CHEMISTRY</i> , 4 th ed (Saunders College Publishing: 1999) (“Oxtoby”)
1041	N.N. Greenwood and A. Earnshaw, <i>CHEMISTRY OF THE ELEMENTS</i> , 2nd ed. (Butterworth-Heinemann: 1997) (“Greenwood”)
1042	B.R. Puri, <i>Surface Complexes on Carbons</i> , in <i>CHEMISTRY AND PHYSICS OF CARBON 191</i> (Philip L. Walker, ed.) (Marcel Dekker: 1970) (“Puri”)

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1043	Frank E. Huggins et al., “XAFS Examination of Mercury Sorption on Three Activated Carbons,” <i>Energy & Fuels</i> 1999(13), p. 114-121 (1999) (“ XAFS ”)
1044	S. Niksa et al., <i>Predicting Complete Hg Speciation Along Coal-Fired Utility Exhaust Systems</i> , MEGA SYMPOSIUM, Paper # 45 (Washington, DC: Aug. 2004) (“ Hg Speciation ”)
1045	D.L. Laudal et al., <i>Evaluation of Mercury Speciation at Power Plants Using SCR and SNCR NOx Control Technologies</i> , 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. <i>Journal of the Air & Waste Management Association</i> , 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.doe.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

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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”)
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

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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,” AWWMA 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”)
1061	EUEC 2005 home page, available at https://web.archive.org/web/20050303090129/http://www.euec.com/

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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	Redline Comparison, showing changes from ’163 Application (as published at 2006/0048646) to ’970 Application (as published at 2018/0229182)
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	U.S. Patent No. 10,933,370
1067	U.S. Patent No. 10,589,225
1068	RESERVED
1069	U.S. Patent Pub. No. 2018/0229182 to Olson et al. (published Aug. 16, 2018) (“ Published ’970 Application ”)
1070	Roop Chand Bansal, et al., ACTIVE CARBON (Marcel Dekker:1988). (“ Bansal ”)
1071	<i>Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.</i> , No. 1:19-cv-01334-CJB, Dkt. No. 440 (D. Del. June 24, 2022) (“ Dkt No. 440 ”)

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1072	<i>Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.</i> , 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 95 th 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 95 th 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 95 th 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 95 th 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 95 th Annual Conference & Exhibition (Baltimore, Maryland: June 23-27, 2002) (“ AWMA CD Photo ”)

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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

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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 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)
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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 <i>Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.</i> , No. 1:19-cv-01334-CJB
1093	Deposition Transcript of Phillip O’Keefe Vol. 1 (Mar. 2, 2023), taken in <i>Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.</i> , No. 1:19-cv-01334-CJB.
1094	Deposition Transcript of Phillip O’Keefe Vol. 2 (Mar. 3, 2023), taken in <i>Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.</i> , No. 1:19-cv-01334-CJB.
1095	Deposition Transcript of Edwin Olson (Aug. 26, 2022) (excerpted), taken in <i>Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.</i> , No. 1:19-cv-01334-CJB.
1096	Deposition Transcript of Michael Holmes (Aug. 24, 2022) (excerpted), taken in <i>Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.</i> , No. 1:19-cv-01334-CJB.

Exhibit	Description of Exhibits
1097	Deposition Transcript of John Pavlish (Aug. 25, 2022) (excerpted), taken in <i>Midwest Energy Emissions Corp., et al. v. Arthur J. Gallagher & Co., et al.</i> , 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	RESERVED
1101	RESERVED
1102	RESERVED
1103	RESERVED
1104	<i>IN RE: MIDWEST ENERGY EMISSIONS CORP. PATENT LITIGATION</i> , No. 4:24-md-03132-SHL-WPK, Dkt. No. 60 (S.D. Iowa Mar. 7, 2025) (“ Dkt No. 60 ”)
1105	<i>NRG Energy, Inc. et al. v. Midwest Energy Emissions Corp.</i> , IPR2020-00926, Paper 13 (P.T.A.B. Sep. 4, 2020)
1106	Clarion Energy Content Directors, “A Variety of Hg Capture Solutions Are Available” (June 1, 2009), available at https://www.power-eng.com/environmental-emissions/a-variety-of-

Exhibit	Description of Exhibits
	hg-capture-solutions-are-available/ (“Variety of Hg Capture Solutions”)
1107	Modern Power Systems, “Full scale tests show KNXTM is effective for mercury control” (October 1, 2009), available at https://www.modernpowersystems.com/analysis/full-scale-tests-show-knxtm-is-effective-for-mercury-control/ (“KNXTM is effective”)
1108	File History of U.S. Patent Application No. 16/509,071, which ultimately issued as U.S. Patent No. 10,926,218 (“ 218 Patent File History ”)
1109	U.S. Patent Pub. No. 2019/0336913 to Olson et al. (published Nov. 7, 2019) (“ Published ’071 Application ”)
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

Exhibit	Description of Exhibits
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., 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%20coal%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)
1123	Piatz v. State Farm Mut. Auto. Ins. Co., 3:21-CV-00007 (S.D. Iowa) (Judge Locher) (Docket Sheet and ECF 8)

Exhibit	Description of Exhibits
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)
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)

Exhibit	Description of Exhibits
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)
1137	<i>IN RE: MIDWEST ENERGY EMISSIONS CORP. PATENT LITIGATION</i> , No. 4:24-md-03132-SHL-WPK, Dkt. No. 182 (S.D. Iowa Mar. 7, 2025) (notice of withdrawal of motion for preliminary injunction)

Patent Owner filed nearly identical briefs for IPR2025-00717 and IPR2025-00718. Other than Sections II.A.3, II.B, and IV, Petitioners' Opposition briefs are identical between IPR2025-00717 and IPR2025-00718.

I. INTRODUCTION

The Director has already rejected Patent Owner's request for discretionary denial in ten different proceedings for related patents, referring each of those parallel proceedings to the Board panel. *Berkshire Hathaway Energy Co. v. Birchtech Corp.*, IPR2025-00274, Paper 23 (P.T.A.B. July 2, 2025);¹ *Berkshire Hathaway Energy Co. v. Birchtech Corp.*, IPR2025-00422, Paper 21 (P.T.A.B. July 17, 2025);² *PacifiCorp v. Birchtech Corp.*, IPR2025-00424, Paper 18 (P.T.A.B. July 24, 2025).³ In those ten proceedings, Patent Owner advanced the same arguments it now repeats here. The petitions in the July 2 Decision challenged the '114 and '517 Patents. Subsequently, the Director recognized that other petitions for related patents "present the same discretionary considerations as those presented in" the earlier

¹ The Director filed similar papers in IPR2025-00278, IPR2025-00280, and IPR2025-00281.

² The Director filed a similar paper in IPR2025-00423.

³ The Director filed similar papers in IPR2025-00425, IPR2025-00687, and IPR2025-00688.

petitions. IPR2025-00422, Paper 21 at 2; IPR2025-00424, Paper 18 at 2. The '114, '517, '430, '370, and '225 Patents at issue in the Director's prior decisions are all from the same family as the '218 Patent and involve claims that Patent Owner admits are substantively similar. The Director's referrals of those ten 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 for the '218 Patent. *See Advanced Micro Devices, Inc. v. Concurrent Ventures, LLC*, IPR2025-00478, Paper 10 at 3 (P.T.A.B. July 31, 2025) (Director denying PO's motion for discretionary denial because “the parallel district court proceeding between Petitioner and Patent Owner involves other patents that have been referred to the Board”).

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. In 2020, the Board previously instituted review in four proceedings against patents from the same family as the '218 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 results should follow here.

Institution is particularly appropriate for the '218 Patent to correct multiple misrepresentations. PO suggests that the '218 Patent was not ultimately brought to trial in Delaware because of “a court order requiring reduction of asserted claims for trial,” Paper 16 at 3 n.3, but the '218 Patent was never even asserted in Delaware. PO contends that similar invalidity challenges were adjudicated at trial, but there were no invalidity challenges at trial. Misrepresentations secured allowance of the '218 Patent—the applicant amended the claims to distinguish prior art by reciting the 1:100 to 30:100 “weight ratio” limitation, but just two months earlier, applicant told the PTAB in another proceeding that this ratio was entitled to “no patentable weight” due to its obviousness. The petition should be referred to the merits panel to address these misrepresentations.

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

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 '218 Patent, and as Patent Owner admits, have “claims [that] cover subject matter similar to the challenged claims of the '218 Patent.” IPR2025-00717, Paper 16 at 3 n.3; IPR2025-00718, Paper 15 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. A few weeks later, the Director again referred two more petitions (IPR2025-00422 and -00423) to the Board because they “present the same discretionary considerations.” IPR2025-00422, Paper 21 at 2. Like the petitions on the other five patents referred to the Board, the ’218 Patent is part of the same family asserted across multiple consolidated cases in the MDL Court in Iowa. The ’218 Patent is a child to the ’225, ’370, ’430, and ’517 Patents, and is a counterpart to the ’114 Patent. EX1004. The Director has already declined to exercise discretion to deny institution, and the same result is warranted here for the ’218 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.” IPR2025-00274, Paper 23 at 2-3. 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.”

Id.

The settled expectations factor is even stronger for declining to exercise discretion for the '218 Patent. The '114 Patent issued in 2019, and the '430 and '517 Patents issued in 2020, but the '218 Patent did not issue until 2021. EX1004. There are no settled expectations of Patent Owner, because the '218 Patent has “not been in force for a significant period of time.” *Phison Electronics. Corp. v. Verbain, LLC*, IPR2025-00213, Paper 15 at 3 (P.T.A.B. July 10, 2025) (patent issued 2021); *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). And unlike the '114 and '517 Patents, Patent Owner chose to not even assert the '218 Patent in Delaware. EX2023. Thus, Patent Owner has no “settled” expectations regarding the '218 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 IPR2025-00717 and IPR2025-00718 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 The '147 Patent is an ancestor patent to the '218 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 '218 Patent.” *See* EX1004, family tree; IPR2025-00717, Paper 16 at 3 n.3 (PO discretionary denial brief); IPR2025-00718, Paper 15 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 2020 petitions was because Patent Owner settled shortly after institution in exchange

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 IPR2025-00717 and IPR2025-00718 use completely separate, non-overlapping prior art based on PO's asserted priority date for the '218 Patent. *See* Paper 2 (explanation regarding the necessity of multiple petitions).

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 '218 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 IPR2025-00717 and -00718 are due November 9, 2026, and the “trial ready” date in the MDL Court⁵ 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 2. As discussed below, any “actual trial” date is many months after final written decisions. And even in cases where an actual trial date was six months before the final written decision, the Director still declined to exercise discretion when the Board had previously determined for a “related” patent that “the challenged claims were not entitled to the priority date of [a] provisional application.” *Padagis US LLC v. Neurelis, Inc.*, IPR2025-00464, Paper 12 at 2 (P.T.A.B. July 16, 2025). Here, a central issue for the '218 Patent is whether its claims can achieve priority to the Provisional (EX1020) filed in 2004.

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”).

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.

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 Delaware. IPR2025-00717, Paper 16 at 1; IPR2025-00718, Paper 15 at 1. The ’218 Patent was not even asserted in the Delaware Litigation. For the patents actually asserted, the defendants 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.” IPR2025-00717, Paper 16 at 3; IPR2025-00718, Paper 15 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) in which it sought earlier conception/RTP and effective filing dates. The Board *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 Board’s prior institution decisions, the Petitions in IPR2025-00717 and IPR2025-00717 should be instituted.

C. The Board Should Address Patent Owner’s Misstatements During Prosecution That Caused the Claims to be Allowed

Though Patent Owner does not argue for Section 325(d) denial for IPR2025-00718, Petitioners call the Director’s attention to the prosecution history and Patent Owner’s misstatements that caused the ’218 Patent to be improperly issued. *See Tessell, Inc. v. Nutanix, Inc.*, IPR2025-00322, Paper 14 at (P.T.A.B. June 12, 2025) (“Office may consider unfair dealings as a factor when determining whether to exercise discretion”). During prosecution of the ’218 Patent in November 2020, the claims were amended to distinguish prior art by reciting a “weight ratio” of various halogen species to sorbent “from 1:100 to 30:100.” IPR2025-00717, Paper 1 at 12-

14; IPR2025-00718, Paper 1 at 16; EX1108 at 171-198. But just two months earlier, in September 2020, PO argued to the PTAB in IPR2020-00926 (parent to '218) that the 1-30 ratio should be given “no patentable weight” in support of an earlier invention date:

Petitioners’ expert testified—and ME2C does not dispute—that the 1%-30% range limitation is not entitled to any patentable weight. See Ex. 1003 at ¶ 369 (“Through routine process optimization and routine experimentation, a POSITA would have adjusted the rate of addition of the promoter and/or the rate of addition of the sorbent material to achieve a range from about 1 g to about 30 g of promoter per 100 grams of the sorbent material . . . The range presented nothing more than optimization of result-effective variables that would have been obvious to a POSITA.”).

EX1105 (IPR2020-00926, Paper 13) at 34-35. The Examiner was not provided with this information and ultimately allowed the claims based on the 1-30% ratio. EX1108 at 111; *see Belcher Pharms., LLC v. Hospira, Inc.*, 11 F.4th 1345 (Fed. Cir. 2021) (“alleged critical improvement over the prior art was therefore already within the public domain, just not before the examiner”). Patent Owner’s failure to provide this critical admission to the Examiner favors institution, because Patent Owner deprived the Examiner of information highly relevant to the patentability of the claims. It favors institution when, as here, “the patent examiner did not apply any art or reference during prosecution, despite the existence of PTAB proceedings of related patents that could impact the challenged claims.” *Alliance Laundry Sys., Inc. v. PayRange LLC*, PGR2025-00027, Paper 9 at 2 (July 17, 2025). Here too, the

Examiner erred by allowing the claims despite Patent Owner's admissions for parent patents (albeit hidden from the Examiner) that the added limitation should be given no patentable weight.

Patent Owner failed to provide the Examiner with the IPR materials from the parent '147 Patent in IPR2020-00926, and then took diametrically opposite views as to the novelty of the 1:100-30:100 weight ratio. This conflict between Patent Owner's statements to the Board and its statements to the Examiner warrants review by the Board:

[T]he challenged patent's prosecution history indicates that the patent examiner did not reference the related PTAB proceedings that could have impacted the claims, which is particularly important here in view of the material amendments the applicant made to the claims made immediately prior to allowance.

RØDE Microphones, LLC v. Zaxxcom, Inc., IPR2025-00557, Paper 11 at 2 (P.T.A.B. July 17, 2025); *see also Microsoft Corp. v. Partec Cluster Competence Center GmbH*, IPR2025-00318, Paper 9 at 3 (June 12, 2025) ("appropriate use of Office resources to review the potential error").

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 Subject Matter 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 '218 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* at 1-10.

1. **The PTAB Opined on the Patentability of the Subject Matter of the '218 Patent Claims in IPR2020-00832 and IPR2020-00834**

The IPR proceedings against the '114 Patent are highly relevant to these proceedings against the '218 Patent, because the '218 Patent is a counterpart to the '114 Patent, and because the claims recite similar subject matter. *See ARM Ltd. v. Daedalus Prime LLC*, IPR2025-00207, Paper 14 at 2-3 (Aug. 6, 2025) (Director vacating decision denying institution because “the Board already has determined that ‘substantially identical claims’ in a related patent to the challenged patent are unpatentable based on one of the prior art references asserted in this proceeding”).

First, in this proceeding, Patent Owner has asserted 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 '218 Patent.

IPR2025-00717, Paper 16 at 3 n.3; IPR2025-00718, Paper 15 at 3 n.3.

Second, in seeking consolidation, Patent Owner has admitted that all of the patents it asserts against Petitioners (including the '218 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, Patent Owner cites back to its '114 Patent claim charts for numerous limitations. *See* EX1114 at 36-43. The Board found in its previous institution decisions in IPR2020-00832 and IPR2020-00834 that the '114 Patent claims were likely invalid, and it should do so again for the '218 Patent.

2. The PTAB Previously Instituted on Similar Prior Art

In 2020, the Board instituted *inter partes* review of the '114 Patent (counterpart) and '147 Patent (parent) on several references that are also raised in IPR2020-00717 and -00718. For example, the petition in IPR2020-00926 ('147 Patent) used Lissianski in an obviousness grounds, which is used as EX1014 in IPR2025-00717 ('218 Patent). The Board found that the petitioners in 2020 presented "arguments and evidence are sufficient to show that each limitation of claim 17 of the '[147] patent is taught or suggested by the combination of . . . Lissianski" with other references. IPR2020-00926, Paper 19 at 60. The petition in IPR2020-00832 ('114 Patent) used an obviousness combination of Sjostrom and Olson-646, which are used as EX1010 and EX1012 in IPR2025-00718 ('218 Patent). *See* IPR2020-00832, Paper 17 at 5.

**3. The PTAB Previously Rejected Patent Owner's
Attempt to Seek an Earlier Conception and Reduction
to Practice Date**

Patent Owner does not argue in its discretionary brief that any claim limitations are missing from any of the grounds in IPR2025-00717. Nor does Patent Owner argue a lack of motivation to combine for any of the grounds in IPR2025-00717. Rather, Patent Owner argues that: (i) Downs-Boiler⁶ and Lissianski are not prior art on account of Patent Owner's purported reduction to practice date; and (ii) the Board previously rejected a different set of grounds using a different Vosteen reference in combination with different prior art. IPR2025-00717, Paper 16 at 6. These arguments are either without merit or irrelevant to the grounds raised in the Petition.

**a. The Board Previously Rejected Patent
Owner's Prior Invention Arguments, and
They Fare No Better Now**

The Board previously rejected Patent Owner's conception and reduction to practice arguments. The Board recognized that Patent Owner must provide evidence "disclos[ing] every feature of the subject matter challenged," which it did not provide. IPR2020-00834, Paper 18 at 33 (emphasis added); *see also* IPR2020-

⁶ Downs-Boiler is not used in any grounds of IPR2025-00217. Patent Owner's arguments on Downs-Boiler are likely an inadvertent relic from prior briefs.

00926, Paper 19 at 33 (similarly faulting Patent Owner for failing to submit sufficient evidence reduction to practice evidence). Five years later, Patent Owner has still not provided the Board with that required evidence.⁷ Without the detailed breakdown of how Patent Owner allegedly reduced every claim limitation of its invention to practice on a limitation-by-limitation basis, the Board has no reason to reach a different result than it did in IPR2020-00834 and in IPR2020-00926.⁸ If the

⁷ Patent Owner states that it “marshalled the evidence of prior reduction to practice presented at trial in Delaware.” IPR2025-00717, Paper 16 at 6. This is all *ipse dixit*, as Patent Owner has not provided the Director in its discretionary denial brief with any charts explaining the evidence that each claim limitation was conceived or reduced to practice by the inventors before the asserted prior art. It is also notable that the ’218 Patent was not asserted in the Delaware Litigation. IPR2025-00717, Paper 16 at 3 n.3.

⁸ In addition, Grounds 1 and 2 of the IPR2025-00717 Petition rely on prior art that either pre-dates Patent Owner’s earliest possible conception and reduction to practice date (e.g., Vosteen589 filed July 24, 2002; EX1005), or qualifies as prior art under 35 U.S.C. § 102(b) (pre-AIA) and thus cannot be sworn behind (e.g., Starns and Mass-EPA; EX1008-EX1009).

'147 Patent at issue in IPR2020-00926 could not obtain priority back to 2004, then neither can its child '218 Patent.

**b. The References Expressly Disclose
Activated-Carbon Injection**

In IPR2020-00834, the Board held that although a *different* Vosteen reference than the one used in IPR2025-00717 disclosed use of activated-carbon sorbent, it did not necessarily disclose that the sorbent was “injected”: “Petitioner has not demonstrated a reasonable likelihood that Vosteen discloses the injection of sorbent material comprising activated carbon into a mercury-containing gas, as the challenged claims require.” IPR2020-00834, Paper 18 at 18. The IPR2020-00834 Petition did not present a combination of Vosteen with another reference that discloses *injection* of activated carbon.

The Petition in IPR2025-00717 is different and stronger than the IPR2020-00834 petition, as the current Petition relies on an earlier Vosteen reference (referred to in the Petition as Vosteen589, EX1005)⁹ and combines it with Starns (EX1008) in Ground 1 and with Mass-EPA (EX1009) in Ground 2. IPR2025-00717, Paper 1

⁹ The “Vosteen” in IPR2020-00834 was U.S. Patent No. 6,878,358 (filed in that proceeding as EX1008), with priority to May 6, 2003. IPR2025-00717 uses Vosteen589 (EX1005), which is U.S. Patent Publication 2004/0013589, filed July 24, 2002.

at 10-11. Each of Starns and Mass-EPA expressly recites “injection” of activated carbon into mercury-containing gas. For example, Starns describes the hardware and control processes for “injecting activated carbon ahead of particle control devices (PCD) to remove mercury.” EX1008 at 2 (emphasis added). Mass-EPA describes activated carbon as “the most extensively studied sorbent for mercury adsorption” (EX1009, 32) and expressly discloses “activated carbon injection” in numerous places. *See generally* EX1009 at 31-56 (emphasis added). The “sorbent particles ... contact the Hg in the flue gas.” EX1009 at 21. In its discretionary denial brief, Patent Owner has not disputed the disclosure of these combinations or the motivations to combine them.

4. 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.” IPR2025-00717, Paper 16 at 5; IPR2025-00718, Paper 15 at 5. This is misleading for several reasons.

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 ’218 Patent in the Delaware Litigation. *See* EX2023.

As such, the Delaware Court did not *adjudicate* the validity or patentability of any claims from the ’218 Patent or of similar claims from other patents. Instead, the Delaware defendants chose not to even present an invalidity defense, and the ’218 Patent was not part of that case. The only tribunal to consider validity of the subject matter of the ’218 Patent was the Board in IPR2020-00832 and IPR2020-00834 (when it considered the counterpart with similar subject matter) 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

Petitioner agrees with Patent Owner that this factor is neutral regarding IPR2025-00717.

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's only argument for this factor is, "Petitioners' challenges are particularly weak as they rely on theories that failed before the Board and/or at trial in Delaware." IPR2025-00717, Paper 16 at 7; IPR2025-00718, Paper 15 at 7. Notably, Patent Owner does not contend that a single claim limitation is missing from any of the invalidity grounds. As discussed regarding Factor 1, the '218 Patent was never asserted in Delaware, and the Board instituted on all four of the petitions filed in 2020 against family patents of the '218 Patent.

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.” IPR2025-00717, Paper 16 at 7; IPR2025-00718, Paper 15 at 8. For IPR2025-00717, Dr. Niksa’s testimony is relevant to proving that Starns (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 IPR2025-00718, 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. IPR2020-00832, Paper 17 at 36; IPR2020-00928, Paper 17 at 47-48. 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.

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 416-460, 574-81. 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 '430 Patent issued in 2020, and the Director held that it “present[s] the same discretionary considerations.” IPR2025-00422, Paper 21 at 2. The '218 Patent issued even later, in February 2021. *See* EX1001, EX1004 (family tree). Accordingly, there is even less of a “settled” expectation by Patent Owner for the '218 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 ’218 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). Patent Owner asserts that it has “been involved in litigation of patents related to the ’218 Patent from after the time it issued until the present” against other defendants. IPR2025-00717, Paper 16 at 7-8; IPR2025-00718; Paper 15 at 8. This is inapposite. First, Patent Owner did not even assert the ’218 Patent in the Delaware Litigation. *See, e.g.,* EX1136 (not asserting ’218 Patent). Second, Patent Owner waited until July 18, 2024, to sue the current Petitioners on the ’218 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 ’218 Patent on account of PO “choosing to stagger the filing of its infringement suits” on different patents. *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 ’218 Patent. The Board has previously instituted two IPRs on the ’114 Patent (counterpart) and two

IPRs on the '147 Patent (parent), including holding that the '147 Patent cannot achieve priority back to 2004. 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.” IPR2020-00928, Paper 17 at 32. Thus, Patent Owner cannot reasonably expect that the '218 Patent, which is a child to the '147 Patent, can trace priority before 2009.¹⁰

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 '218 Patent are not patentable.

¹⁰ In actuality, the priority date for the '218 Patent is much later on account of even more material added to the specification after 2009.

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

Patent Owner has now stated in four briefs that this factor “supports discretionary denial” because “this patent has been involved in five years of litigation that is now nearing completion.” IPR2025-00687, Paper 14 at 14-15 (’370 Patent); (emphasis added) IPR2025-00688, Paper 14 at 14 (’370 Patent); IPR2025-00717, Paper 16 at 8 (’218 Patent); IPR2025-00718, Paper 15 at 9 (’218 Patent). This is false for multiple reasons. First, the ’370 Patent issued in March 2021, and the ’218 Patent issued in February 2021; the patents have not even been in existence for five years. Second, neither the ’370 Patent nor the ’218 Patent were ever asserted in the Delaware Litigation. EX2023.

When considering the actual facts, 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* IPR2025-00717, Paper 16 at 2 (“Patent Owner supplies products

and services used to comply with mercury capture regulations applicable to coal-fired power plants.”); IPR2025-00718, Paper 15 at 2 (same). Finally, Executive Order No. 14261 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 ’218 Patent were likely unpatentable. More recently, the Director declined to exercise discretion and referred ten petitions on family members of the ’218 Patent to the Board for review on the merits. *See, e.g.*, IPR2025-00274, Paper 23; IPR2025-00422, Paper 21; IPR2025-00424, Paper 18. Petitioners request that the two petitions on the ’218 Patent (IPR2025-00717 and IPR2025-00718) 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 ’218 Patent and five other patents. To streamline the proceedings and utilize the Board’s resources in a more efficient matter, the two Petitions against the ’218 Patent (IPR2025-00717 and IPR2025-00718) collectively include:

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

The above parties joined efforts and filed two Petitions for IPR against the '218 Patent, asserting a limited set of prior-art references (instead of each party individually filing separate Petitions). *See* Paper 2 (explanation of multiple 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), IPR2025-00424 ('225 Patent), IPR2025-00687 ('370 Patent), and IPR2025-00717 ('218 Patent) all use Vosteen589 as a primary reference and Starns and Mass-EPA as secondary references. As another example, IPR2025-00278 ('114 Patent), IPR2025-00281 ('517 Patent), IPR2025-00423 ('430 Patent), IPR2025-00425 ('225 Patent), IPR2025-00688 ('370 Patent), and IPR2025-00718 ('218 Patent) all use Sjostrom as a primary reference and Olson-646 as a secondary reference.

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 Electronics. 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 over a month after filing this petition to even move for a stay” and complains about the investment by the MDL Court. IPR2025-00717, Paper 16 at 11; IPR2025-00718, Paper 15 at 11. 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 twelve 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 four proceedings, spanning two of the family patents: “No trial date is scheduled.” IPR2025-00274, Paper 23 at 2. The Director then applied the “same discretionary considerations” to reach the same result in six more proceedings, for a total of ten proceedings. IPR2025-00422, Paper 21 at 2; IPR2025-00424, Paper 18 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 IPR2025-00717 and -00718 Proceedings will issue by November 9, 2026.¹¹ This is around the time of the MDL “trial ready” on October 12, 2026.

¹¹ The two Petitions were filed on April 8, 2025, but received a notice of filing date over 30 days later on May 9, 2025. Chief Administrative Patent Judge Boalick

EX2006 at 3.¹² Importantly, as the Director already held: “No trial date is scheduled.” IPR2025-00274, Paper 23 at 2.

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

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. IPR2025-00717, Paper 16 at 11; IPR2025-00717, Paper 15 at 12. *There is no trial date.* One of the five Petitioners—WEC—is not a defendant in any litigation brought by Patent Owner and thus does not (and will never) have a trial date. Other Petitioners, such as PacifiCorp, may be “transferred to various other District Courts for trial in those districts.” IPR2025-00717, Paper 16 at 11; IPR2025-00718, Paper 15 at 12. More specifically, the MDL Court will transfer them back to their home forums of the

has, since then, issued a memo requiring an IPR petition to provided “a Notice of Filing Date Accorded issued no later than 14 days from the petition filing date, absent good cause” *See* Chief APJ Boalick Memo (July 18, 2025), available at:

https://www.uspto.gov/sites/default/files/documents/nofda_memo_20250718.pdf

¹² 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.

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, “*No trial date is scheduled*. 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 (emphasis added, citations omitted).

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

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).¹³

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, <i>Deere & Co. et. al v. Kinze Mfg., Inc. et. al</i> , 4:20-CV-00389 (S.D. Iowa) (Docket Sheet)	8/7/2023 (ECF 73)	10/16/2023	71 days
EX1123, <i>Piatz v. State Farm Mut. Auto. Ins. Co.</i> , 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

¹³ 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, <i>Probasco et al v. MFA Inc.</i> , 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, <i>Shin v. Winnebago Indus., Inc. et. al</i> , 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 filed against Patent Owner’s six patents.¹⁴ *Amazon.com, Inc., et. al v. NL Giken Inc.*, IPR2025-00250, Paper

¹⁴ 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)

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 decisions to decline to exercise discretion in IPR2025-00274, -00278, -00280, -00281, -00422, -00423, -0424, -00425, -00687, and -00688 are 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

(initially setting trial as August 19, 2019, which was reset multiple times, eventually for May 1, 2023).

(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.”¹⁵ 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 on a different patent, the ’517 Patent. *See* IPR2025-00717, Paper 16 at 11-12; IPR2025-00718, Paper 15 at 12-13. Briefing was never completed on the motion, no hearing date had been scheduled and, more

¹⁵ 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.

recently, Patent Owner *withdrew the motion*. See EX1129 (Order re: Petitioners' Deadline to File Surreply) at 2; EX1137 (withdrawing preliminary injunction motion).

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 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. An 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 motion, 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 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. Petitioners filed a total of twelve petitions covering all six patents asserted by Patent Owner. *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 were filed *before* receiving Patent Owner’s infringement contentions, the remaining two Petitions (IPR2025-00717 and IPR2025-00718) 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. The District Court Will Not Address All Claims at Issue in the Petitions

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 twelve petitions. Non-asserted claims for the '218 Patent are also challenged, as IPR2025-00717 and IPR2025-00718 challenge claims 9, 11, 13, and 17 of the '218 Patent. None of these additional claims is 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 '218 Patent.

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." IPR2025-00717, Paper 16 at 13; IPR2025-00718, Paper 15 at 14. 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. THE DIRECTOR SHOULD NOT DENY INSTITUTION UNDER SECTION 325(D)

Starns and Mass-EPA, collectively used in *all but one* of the Petition’s grounds, were never considered by the Examiner. Nor are they trivial to the grounds or cumulative of art considered. These uncontested facts alone should end the Section 325(d) inquiry, as *Advanced Bionics* step 1 is not met. *See Microsoft Corp. v. Partec Cluster*, IPR2025-00318, Paper 9 at 2-3 (P.T.A.B. June 12, 2025) (“Office

erred ... by overlooking the teachings of” uncited prior art alone and in combination with cited prior art).

PO argues that the Petition “fails to identify any material error made by the Office for Vosteen or Lissianski” (IPR2025-00717, Paper 16 at 16), faulting Petitioners for not applying *Ecto World* before it existed. However, the Board already identified material errors in Vosteen and Lissianski when it previously granted institution of related patents. For example, the Board rejected Patent Owner’s 325(d) argument over Lissianski when instituting a petition on the ’147 Patent, a parent to the ’218 Patent. *See* IPR2020-00926, Paper 19 at 21-22. The Board also rejected Patent Owner’s 325(d) argument over the related Vosteen reference, when it “determine[ed] that *the Examiner erred* in not considering Vosteen in a manner potentially material to the patentability of the challenged claims.” IPR2020-00834, Paper 18 at 41. For example, the Examiner “failed to fully consider the aspects of Vosteen not related to ‘monitoring the mercury content,’ such as the amended claims requiring that ‘coal must comprise particular bromine-containing species.’” *Id.* at 40-41. It is not surprising the Office overlooked the teachings of Lissianski and Vosteen, buried among “the sixteen columns’ worth of cited references on the face of the ’114 patent.” IPR2020-00834, Paper 18 at 40; *see Ecto World, LLC v. Rai Strategic Holdings, Inc.*, IPR2024-01280, Paper 13 at 7

(P.T.A.B. May 19, 2025) (“Board should consider the volume of the references submitted to the Office”). The ’218 Patent contains almost four additional columns.

V. CONCLUSION

Petitioners respectfully request that IPR of the ’218 Patent be instituted and that the Challenged Claims be cancelled as unpatentable.

Respectfully submitted,

Aug. 11, 2025

Date

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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 10,272 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.

Aug. 11, 2025
Date

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ATTORNEYS FOR PETITIONERS

CERTIFICATE OF SERVICE

Pursuant to 37 CFR § 42.6(e)(4), the undersigned certifies that on August 11, 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

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