UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT TRIAL AND APPEAL BOARD

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

Petitioners

v.

Birchtech Corp.

Patent Owner

IPR2025-00274
Patent No. 10,343,114

PETITIONERS' SUR-REPLY BRIEF IN SUPPORT OF OPPOSING PATENT OWNER'S BRIEF REGARDING DISCRETIONARY DENIAL

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PETITIONERS' EXHIBIT LIST

Exhibit	Description of Exhibit
1001	U.S. Patent No. 10,343,114 to Olson et al. (filed May 14, 2018) **("'114 Patent" or "Challenged Patent")**
1002	Declaration of Dr. Stephen Niksa in Support of Petition for *Inter Partes* Review of U.S. Patent No. 10,343,114 **("'114 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")**
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

Exhibit	Description of Exhibit
	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")**
1015	RESERVED
1016	RESERVED
1017	RESERVED
1018	U.S. Patent No. 8,652,235 to Olson et al. (issued February 18, 2014) **("Olson-235")**

Exhibit	Description of Exhibit
1019	U.S. Patent No. 9,468,886 to Olson et al. (issued from application no. 14/102,896) **("'886 Patent").** The file history for 14/102,896 is at Exhibit 1024.
1020	File History of U.S. Patent Prov. App. No. 60/605640 **("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. 12/429,058, which ultimately issued as U.S. Patent No. 8,652,235 **("'058 Application File History")**. The excerpts are of the application as filed on April 23, 2009.
1024	File History of U.S. Patent Application No. 14/102,896, which ultimately issued as U.S. Patent No. 9,468,886 **("'896 Application File History")**.
1025	Excerpts of File History of U.S. Patent Application No. 15/295,594, which ultimately published as 2017-0128908 and was abandoned **("'594 Application File History").** The excerpts are of the application as filed on October 17, 2016.
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,"

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	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")**
1033	RESERVED
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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")**

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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")**
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")**

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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 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")**
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")**

Exhibit	Description of Exhibit
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")**
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	Redline Comparison, showing changes to the specification in Patent Owner's first continuation-in-part filing: from 11/209,163 ('163

Exhibit	Description of Exhibit
	Application, as published at 2006/0048646) to 15/978,760 ('760 Application, as published at 2018/0257031)
1064	Redline Comparison, showing changes from 12/201,595 ('595 Application, as published at 2009/0062119) to 12/429,058 ('058 Application, as published at 2009/0297413)
1065	Redline Comparison, showing changes from 12/429,058 ('058 Application, as published at 2009/0297413) to 15/295,594 ('594 Application, as published at 2017/0128908)
1066	Redline Comparison, showing changes from 12/201,595 ('595 Application, as published at 2009/0062119) to 15/978,760 ('760 Application, as published at 2018/0257031)
1067	RESERVED
1068	Redline Comparison, showing changes to the specification in Patent Owner's second continuation-in-part filing: from 15/295,594 ('594 Application, as published at 2017/0128908) to 15/978,760 ('760 Application, as published at 2018/0257031)
1069	Redline Comparison, showing changes from 12/429,058 ('058 Application, as published at 2009/0297413) to 15/978,760 ('760 Application, as published at 2018/0257031)
1070	Roop Chand Bansal, et al., Active Carbon (Marcel Dekker:1988). **("Bansal")**
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")**

Exhibit	Description of Exhibit
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 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)

Exhibit	Description of Exhibit
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 Monday 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/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/

Exhibit	Description of Exhibit
	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 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 (Aug. 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 (excerpted)
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.

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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.
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	RESERVED
1101	RESERVED
1102	RESERVED
1103	RESERVED
1104	RESERVED
1105	RESERVED
1106	RESERVED
1107	RESERVED
1108	RESERVED
1109	RESERVED
1110	Petitioner PacifiCorp's Stipulation Regarding District Court Proceedings

Exhibit	Description of Exhibit
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.*, 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)

Exhibit	Description of Exhibit
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)
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)

Exhibit	Description of Exhibit
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)

The purpose of IPRs is to "weed out bad patent claims efficiently." *Thryv, Inc. v. Click-To-Call Techs., LP*, 590 U.S. 45, 54 (2020). Such is the case here. There was "material error by the Office" in granting the '114 Patent, so "it is an appropriate use of Office resources to review the potential error." *Microsoft Corp. v. Partec Cluster*, IPR2025-00318, Paper 9 at 3 (P.T.A.B. June 12, 2025).

The Board previously identified material error when it instituted ***two proceedings*** for ***the '114 Patent***: IPR2020-00832 (Paper 17) and IPR2020-00834 (Paper 18) (each Oct. 26, 2020). This "counsels against discretionary denial." *Tesla, Inc. v. Intellectual Ventures II LLC*, 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"). To avoid final written decisions, PO settled with the 2020 petitioners, waited over three years, and then sued Petitioners in Iowa. It would not be "fair to Petitioner[s] to deny Petitioner[s] the opportunity to challenge the validity" of the 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).

I. THERE IS NO UNNAMED RPI OR PRIVY

PO has not asserted, or supported with evidence, that any "unnamed party is controlling, funding, or directing an IPR proceeding." *See Luminex Int'l Co. v. Signify Holdings B.V.*, IPR2024-00101, Paper 20 at 9, 23 (P.T.A.B. Nov. 21,

2024). "Theoretical, hypothetical, or speculative assertions about effective control, unsupported by evidence, are neither probative nor persuasive" of RPI. *ASSA ABLOY AB v. CPC Patent Techs. Pty*, IPR2022-01094, Paper 19 at 13-14 (P.T.A.B. Feb. 2, 2023). PO ignores these two cases. Its RPI/privity claims should be rejected.

A. Licensees to the '114 Patent are not RPIs or privies

As Petitioners explained based on PO's admissions, Talen, Chem-Mod, and Chem-Mod's affiliates are all licensed to the '114 Patent. Paper 18 at 12-21. Thus, there is no reason any of them "desires review of the patent, or that the Petition was filed at [their] behest." *Google LLC v. DDC Tech., LLC*, IPR2023-00708, Paper 41 (public version of Paper 29) at 27 (P.T.A.B. Oct. 25, 2023); *see Luminex*, IPR2024-00101, Paper 20 at 8-9, 20 ("behest" standard is central to RPI and privity); *Applications in Internet Time, LLC v. RPX Corp.*, 897 F.3d 1336, 1353 (Fed. Cir. 2018) ("point is not to probe [Petitioners'] interest" but instead "to probe the extent to which [the unnamed party] has an interest in and will benefit from [Petitioners'] actions"). In its reply brief, PO ignored this argument and Petitioners' cited cases.

B. Generic indemnity provisions do not create RPI or privity

PO cites to *Greenthread* and argues that "sales agreements that included indemnity provisions … can create privity." Paper 20 at 2. In *Greenthread*, the Director did not rule on the ultimate issue of privity. Rather, the Director held that "the Board abused its discretion in denying the discovery motions" and remanded

for PO to take discovery, submit its arguments, and then "put the issue into dispute." *Semiconductor Components Indus., LLC v. Greenthread, LLC*, IPR2023-01242, Paper 94 at 2-3 (P.T.A.B. Apr. 24, 2025). Here, Petitioners *agreed* to PO's discovery requests before institution, and PO has failed to put the issue into dispute.

The crux of PO's argument is that agreements with Chem-Mod and its affiliates (Louisa, Portage, and Arbor Fuels) "contain indemnity provisions." Paper 20 at 3. But an "indemnity provision does not amount to a sufficiently-close relationship to warrant finding [of] privity." *WesternGeco LLC v. Ion Geophysical Corp.*, 889 F.3d 1308, 1321-22 (Fed. Cir. 2018). The indemnity provisions cannot, "without more, … support a finding of real party in interest." *Luminex*, IPR2024-00101, Paper 20 at 11. PO has not identified that "something more," nor has it discussed *WesternGeco* or *Luminex*. PO also did not address that these agreements all expired in 2021; that the Chem-Mod entities have no current relationship with Petitioners; and that Petitioners had no involvement in the 2020 IPRs or Delaware litigation, other than WPL and MidAmerican receiving subpoenas.

The relationship between Arbor Fuels and a subsidiary of Petitioner WEC is even more tenuous (PO incorrectly names WPSC as parent of WEC). The same is true of BHE regarding its subsidiaries' licenses with Chem-Mod affiliates. Paper 20 at 3; *see Semiconductor Component Indus., LLC v. Greenthread*, IPR2024-00266, Papers 21 and 23 at 30 (P.T.A.B. Aug. 4, 2024) ("no authority" to apply "Section

315(b) to a party that may be a real party in interest to a conjectured privy of a petitioner"); *see Syngenta Crop Prot. AG v. FMC Corp.*, PGR2020-00028, Paper 8 at 15 (P.T.A.B. Sept. 15, 2020) ("status as a corporate parent is insufficient").

II. THE BOARD SHOULD NOT DENY 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*, IPR2025-00318, Paper 9 at 2-3 ("Office erred … by overlooking the teachings of" uncited prior art alone and in combination with cited prior art).

And although PO argues that the Petition "fails to identify any material error made by the Office for Vosteen and Downs-Boiler" (Paper 20 at 5)—faulting Petitioners for not applying *Ecto World* before it existed—the Board already identified the material errors when it previously granted institution of the '114 Patent Claims. In doing so, it found a reasonable likelihood that Downs-Boiler anticipated and rendered obvious the '114 Patent claims. IPR2020-00834, Paper 18 at 22, 24. Likewise, while a related Vosteen was discussed as a secondary reference during examination (Vosteen589 of the Petition was not), the Board "determine[ed] that ***the Examiner erred*** in not considering Vosteen in a manner potentially material to the patentability of the challenged claims." *Id.* 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 Downs-Boiler and Vosteen, buried among "the sixteen columns' worth of cited references on the face of the '114 patent." *Id.* 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").

III. DIRECTOR DECISIONS AFTER THE OPPOSITION BRIEF

Several relevant Director decisions issued after Petitioners' Opposition Brief. First, 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). Petitioners submitted a broad "Sotera Plus" stipulation. EX1110-EX1112; s*ee Tesla*, IPR2025-00341, Paper 10 at 10-11 (language of stipulation). Second, the Director found diligence in filing a petition "less than three months" *after* a patent owner identified the asserted claims. *Savant Techs. LLC v. Feit Elec. Co.*, IPR2025-00260, Paper 16 at 2-3 (P.T.A.B. June 12, 2025). Here, Petitioners filed the petition three months *before* receiving infringement contentions. *See* EX1114-EX1115. As a result, the Petition challenges unasserted claims 8-9, 13-14, 17, 19, and 21-22 of the '114 Patent. These new decisions bolster why discretionary denial is unwarranted here.

Respectfully submitted,

June 26, 2025 — *Date*

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR § 42.6(e)(4), the undersigned certifies that on June 26, 2025, a complete copy of the foregoing Petitioners' Sur-Reply Brief in Support of 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:

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June 26, 2025 — *Date*

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