

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PACIFICORP,
Petitioner,

v.

BIRCHTECH CORP.,
Patent Owner.

IPR2025-00718
Patent 10,926,218 B2

Before KRISTINA M. KALAN, ZHENYU YANG, and
DAVID COTTA, *Administrative Patent Judges*.

YANG, *Administrative Patent Judge*.

DECISION

Denying Institution of *Inter Partes* Review on Remand
35 U.S.C. § 314

I. INTRODUCTION

A. *Procedural Background*

PacifiCorp (“Petitioner”)¹ filed a Petition, seeking *inter partes* review of claims 1–4 and 6–26 of U.S. Patent No. 10, 926,218 B2 (Ex. 1001, “the ’218 patent”). Paper 1 (“Pet.”). Petitioner also filed a concurrent petition, seeking *inter partes* review of the same claims challenged in this proceeding. *See* IPR2025-00717, Paper 1.

On March 26, 2025, the Acting Director issued a Memorandum on Interim Processes for PTAB Workload Management (“Bifurcating Memo”).² The Acting Director stated that:

decisions on whether to institute an IPR or PGR will be bifurcated between (i) discretionary considerations and (ii) merits and other non-discretionary statutory considerations. Under this interim procedure, the Director, in consultation with at least three PTAB judges, will determine whether discretionary denial of institution is appropriate. If it is appropriate, the Director will issue a decision denying institution. If it is not appropriate, the Director will issue a decision regarding that determination and refer the petition to a three-member panel of the PTAB assigned according to Standard Operating Procedure (SOP) 1 (Rev. 16). The three-member panel will then handle the case in the normal

¹ The Petition was filed by PacifiCorp, Interstate Power & Light Company (“IPL”), MidAmerican Energy Company (“MidAmerican”), WEC Energy Group, Inc. (“WEC”), and Wisconsin Power & Light Company (“WPL”). *See* Paper 1. IPL, WPL, WEC, and MidAmerican subsequently settled their dispute with Patent Owner, and have been terminated from this proceeding. Papers 25, 30, 33. Accordingly, “Petitioner” as used herein refers only to the remaining Petitioner, namely, PacifiCorp.

² *Available at* <https://uspto.gov/sites/default/files/documents/InterimProcesses-PTABWorkloadMgmt-20250326.pdf>.

course including by issuing a decision on institution addressing the merits and other non-discretionary statutory considerations.

Bifurcating Memo 1.

Pursuant to the Bifurcating Memo, Patent Owner Birchtech Corp. (“Patent Owner”)³ filed a Brief regarding Discretionary Denial. Paper 15. On August 22, 2025, the Acting Director determined that discretionary denial was not appropriate and referred the Petition to the Board. Paper 23. The Acting Director instructed the Board to “issu[e] a decision on institution addressing the merits and other non-discretionary considerations.” *Id.* at 2.

Patent Owner filed a Preliminary Response addressing the merits (Paper 16, “Prelim. Resp.”), Petitioner filed a Reply to the Preliminary Response (Paper 24, “Reply”), and Patent Owner filed a Sur-reply to Petitioner’s Reply (Paper 26, “Sur-reply”).

On November 4, 2025, we instituted *inter partes* review of all challenged claims based on all the grounds raised in the Petition. Paper 34 (“DI”). In the DI, we noted that “Petitioner filed an explanation regarding the necessity of multiple petitions,” and in the Preliminary Response, “Patent Owner d[id] not challenge that multiple petitions are necessary”. *Id.* at 3 n.3. We also explained that “whether to deny institution because a petitioner filed multiple petitions is best raised and resolved through the process involving a bifurcated procedure for considering discretionary issues.” *Id.* (citing Bifurcating Memo).

On November 18, 2025, Patent Owner filed a Request for Director Review. Paper 36. Patent Owner did not identify any matter misapprehended

³ Birchtech Corp. was formerly known as Midwest Energy Emissions Corp. (“ME2C”) (Paper 9, 2),

or overlooked by the panel in the DI. *See generally id.* Instead, Patent Owner requested “Director Review of the Director’s August 22, 2025 Decision Referring the Petition to the Board (‘Referral Decision’).” *Id.* at 1. According to Patent Owner, “institution of this IPR should be discretionarily denied.” *Id.* at 5.

The Director granted Director Review, finding that the panel “abused its discretion in granting institution of two petitions that each challenge the same claims” of the ’218 patent. Paper 38 (“Remand Order”), 2. The Director vacated the DI and remanded the case to the Board “to determine which of the two petitions” to institute. *Id.* at 4.

In a concurrently issued decision, we institute trial in IPR2025-00717. *See* IPR2025-00717, Paper 41. Thus, pursuant to the Director’s instruction in the Remand Order, we deny institution of *inter partes* review of the challenged claims based on the grounds raised in this Petition.

B. Real Parties in Interest

The Petition identifies Berkshire, IPL, MidAmerican, PacifiCorp, WEC, and WPL, as well as Alliant Energy Corporation, Alliant Energy Corporate Services, Inc., MidAmerican Funding, LLC, MHC Inc., PPW Holdings LLC, Madison Gas and Electric Company, and Wisconsin Public Service Corporation as real parties in interest. Pet. 1–2.

Patent Owner identifies “MES, Inc.” as the real party in interest. Paper 9, 2.

C. Related Matters

Petitioner concurrently filed IPR2025-00717, seeking *inter partes* review of the same claims challenged in this proceeding. Pet. 2–3. In a concurrently issued decision, we institute trial in that case. *See* IPR2025-00717, Paper 41.

The parties identify the following matters as related to this proceeding:

Midwest Energy Emissions Corp. et al. v. Arthur J. Gallagher & Co. et al., No. 1:19-cv-01334 (D. Del.) (“the Delaware Action”);

Midwest Energy Emissions Corp. v. Tucson Electric Power Co. et al., No. 3:24-cv-08145 (D. Ariz.);

Midwest Energy Emissions Corp. v. Berkshire Hathaway Energy Co. et al., No. 4:24-cv-00248 (S.D. Iowa);

Midwest Energy Emissions Corp. v. Ameren Corporation et al., No. 4:24-cv-00980 (E.D. Mo.);

In re Midwest Energy Emissions Corp. Patent Litigation, No. 4:24-md-3132 (S.D. Iowa) (consolidating the Iowa, Arizona, and Missouri cases);

Midwest Energy Emissions Corp. v. Berkshire Hathaway Energy Company et al., No. 2:25-cv-00015 (D. Wy.);

Midwest Energy Emissions Corp. v. Wisconsin Power and Light Company, No. 3:25-cv-00026 (W.D. Wis.);

Midwest Energy Emissions Corp. v. MidAmerican Energy Company et al., Case No. 4:24-cv-00243 (S.D. Iowa);

Birchtech Corp. f/k/a Midwest Energy Emissions Corp. v. Evergy, Inc. et al., Case No. 4:25-cv-00050 (W.D. Mo.);

Midwest Energy Emissions Corp. v. Evergy, Inc. et al., Case No. 4:25-cv-00046 (S.D. Iowa); and

Birchtech Corp. f/k/a Midwest Energy Emissions Corp. v. Evergy, Inc. et al., Case No. 5:25-cv-04033 (D. Kan.).

Pet. 5–6; Paper 9, 2–3.

Petitioner previously filed several petitions for *inter partes* review, challenging other patents owned by Patent Owner. Pet. 3–4. Petitioner also brings to our attention several *inter partes* review proceedings, with petitions filed by other entities. *Id.* at 4–5.

D. The '218 Patent

The '218 patent “relates to methods and materials for the removal of pollutants from flue gas or product gas from a gasification system. In particular, mercury is removed from gas streams generated during the burning or gasification of fossil fuels by highly reactive regenerable sorbents.” Ex. 1001, 1:46–50.

The '218 patent states that:

[t]he combustion and gasification of fossil fuel such as coal generates flue gas that contains mercury and other trace elements that originate from the fuel. The release of the mercury (and other pollutants) to the environment must be controlled by use of sorbents, scrubbers, filters, precipitators, and other removal technologies.

Id. at 1:54–59.

The '218 patent acknowledges that “[s]everal types of mercury control methods for flue gas have been investigated, including injection of fine sorbent particles into a flue gas duct and passing the flue gas through a sorbent bed.” *Id.* at 2:10–13. According to the '218 patent, however, because sorbents in the existing carbon injection systems are initially unreactive, they “must be used in large amounts, at high sorbent-to-mercury ratios, to effectively capture the mercury.” *Id.* at 2:31–37. Thus, “there remains a need for more economical and effective mercury removal technology.” *Id.* at 2:43–44.

The '218 patent describes a halogen/halide promoted activated carbon sorbent that is highly effective for the removal of mercury from flue gas streams. *Id.* at 2:56–58. According to the '218 patent, “[t]he sorbent comprises a new halide-modified carbon form containing a reactive compound produced by the reaction of bromine (or halide or other halogen) with the carbon.” *Id.* at 2:58–61.

The '218 patent states that “[o]ptional secondary components and alkali may be added to further increase reactivity and mercury capacity,” and discloses that “the optional secondary component is selected from the group consisting of Group V halides, Group VI halides, HI, HBr, HCl, and combinations thereof.” *Id.* at 2:61–63, 3:40–43.

The '218 patent provides a promoted carbon sorbent “comprising a base activated carbon that has reacted with a promoter selected from the group consisting of halides, halogens, and combinations thereof.” *Id.* at 3:3–6.

The '218 patent states that its invention “provides for cost-effective removal of pollutants including mercury, using sorbent enhancement additives and/or highly reactive sorbents, with contact times of seconds (or less), and that may be regenerated and reused.” *Id.* at 2:44–48.

E. Illustrative Claim

Independent claim 1 is illustrative of the claimed subject matter and is reproduced below.

1. A method of separating mercury from a mercury-containing gas, the method comprising:

combusting coal in a combustion chamber, to provide the mercury-containing gas, wherein

the coal comprises added HI, an iodide salt, or a combination thereof, added to the coal before the coal enters the combustion chamber, or

the combustion chamber comprises added HI, an iodide salt, or a combination thereof, or

a combination thereof;

injecting a sorbent comprising activated carbon into the mercury-containing gas downstream of the combustion chamber,

wherein a weight ratio of the HI, iodide salt, or the combination thereof added to the coal, added to the combustion chamber, or a combination thereof, to an amount of the sorbent injected into the mercury-containing gas is from about 1:100 to about 30:100;

contacting mercury in the mercury-containing gas with the sorbent; and

separating the sorbent contacted with the mercury from the mercury-containing gas.

Ex. 1001, 35:61–36:14.

F. Asserted Challenges to Patentability

Petitioner asserts the following challenges to patentability:

Claims Challenged	35 U.S.C. §	Reference
1–4, 6–9, 13–17, 20–25	102	Baldrey ⁴
1–4, 6–26	103	Baldrey, Olson-235 ⁵

⁴ US 2011/0030592 A1, published Feb. 10, 2011, Ex. 1015 (“Baldrey”).

⁵ US 8,652,235 B2, issued Feb. 18, 2014, Ex. 1018 (“Olson-235”).

Claims Challenged	35 U.S.C. §	Reference
1–4, 6–26	103	Baldrey, Olson-646 ⁶
1–4, 6–26	103	Sjostrom, ⁷ Olson-235
1–4, 6–26	103	Sjostrom, Olson-646
1–4, 6–26	103	Sjostrom, Olson-235, Olson-279 ⁸
1–4, 6–26	103	Sjostrom, Olson-646, Olson-279

In support of the unpatentability challenges, Petitioner relies on the Declaration of Stephen Niksa, Ph.D. (Ex. 1002).

II. ANALYSIS

Petitioner concurrently filed a petition in IPR2025-00717, seeking *inter partes* review of the same claims challenged in this proceeding. IPR2025-00717, Paper 1. Petitioner filed an Explanation regarding the necessity of multiple petitions. Paper 2. Petitioner provides a table summarizing the material differences between the petitions in IPR2025-00717 (“Vosteen589/Lissianski Petition”) and IPR2025-00718 (“Sjostrom/Baldrey Petition”).” *Id.* at 3. The table is reproduced below:

⁶ US 2006/0048646 A1, published Mar. 9, 2006, Ex. 1012 (“Olson-646”).

⁷ Sjostrom, Sharon, *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), Ex. 1010 (“Sjostrom”).

⁸ US 2014/0255279 A1, published Sept. 11, 2014, Ex. 1016 (“Olson-279”).

Rank	First: IPR2025-00717	Second: IPR2025-00718
Petitions	Vosteen589 / Lissianski Petition	Sjostrom / Baldrey Petition
Assumed Priority Date for '218 Patent	August 30, 2004 (based on filing U.S. Prov. App. No. 60/605,640)	No earlier than April 12, 2018 (based on filing of U.S. Patent App. 15/951,970, a parent to the '218 Patent)
Prior-Art References and Asserted Priority Dates	Vosteen589: EX1005 Pre-AIA: §102(e) (filed 7/24/2002) Lissianski: EX1014 Pre-AIA: §102(e) (Priority 1/6/2004) Starns: EX1008 Pre-AIA: §102(a), 102(b) (published by Aug. 2002) Mass-EPA: EX1009 Pre-AIA: §§102(a)-(b) (published by Jan. 2003)	Baldrey: EX1015 Pre-AIA: §§102(a), 102(b), 102(e) Post-AIA: §102(a)(1) (published 2/10/2011) Sjostrom: EX1010 Pre-AIA: §§102(a)-(b) Post-AIA: §102(a)(1) (published by Feb. 2005) Olson-646: EX1012 Pre-AIA: §§102(a)-(b) Post-AIA: §102(a)(1) (published 3/9/2006) Olson-235: EX1018 Post-AIA: §102(a)(1) (published 2/18/2014)
Rank	First: IPR2025-00717	Second: IPR2025-00718
Petitions	Vosteen589 / Lissianski Petition	Sjostrom / Baldrey Petition
		Olson-279: EX1016 Post-AIA: §102(a)(1) (published 9/11/2014)

Id. at 3–4.

Petitioner explains that

Petitioners include two Petitions asserting different priority dates: the Vosteen589/Lissianski Petition assumes the '218 Patent claims are entitled priority to the filing of the earliest provisional application (August 30, 2004), while the Sjostrom/Baldrey Petition asserts that priority should be no earlier than the actual filing date of the '970 Application

(April 12, 2018), because the claims do not have support in earlier-filed applications.

Id. at 4.

Petitioner points out that November 2019 Patent Trial and Appeal Board Trial Practice Guide (“TPG”)⁹ specifically states that “when there is a dispute about priority date requiring arguments under multiple prior art references,” more than one petition may be necessary. *Id.* (quoting TPG 59). According to Petitioner, “[t]o limit the issues for the Board, the Vosteen589/Lissianski Petition includes only two primary references and two secondary references,” and the “Sjostrom/Baldrey Petition includes only two primary references and three secondary references.” *Id.* Petitioner argues that “[g]iven the strength of the prior-art references on the merits and noncumulative nature of the references, both petitions should be instituted.” *Id.* at 3.

Institution of an *inter partes* review is discretionary. *See Cuozzo Speed Techs., LLC v. Lee*, 579 U.S. 261, 273 (2016) (explaining that because 35 U.S.C. § 314 includes no mandate to institute review, “the agency’s decision to deny a petition is a matter committed to the Patent Office’s discretion”). In the Remand Order, the Director found that Petitioner presented “thirteen total grounds challenging the claims of the ’218 patent.” Remand Order 3. According to the Director, “[g]iven that Petitioner[] had ample room in each petition to present multiple grounds challenging the claims of [the ’218] patent, this was not a ‘rare’ circumstance that justified

⁹ Available at <https://www.uspto.gov/sites/default/files/documents/tpgnov.pdf>.

the filing of multiple petitions against [the '218] patent.” *Id.* The Director instructed us “to determine which of the two petitions” to institute.¹⁰ *Id.* at 4.

In its Explanation regarding the necessity of multiple petitions, Petitioner requests that, “if the Board uses its discretion to institute the Petitions, the Board consider the merits of IPR2025-00[71]7 (“Vosteen589/Lissianski Petition”) before IPR2025-00[71]8 (“Sjostrom/Baldrey Petition”).” Paper 2, 3. Because we institute trial in IPR2025-00717 (*see* IPR2025-00717, Paper 41), under the Director’s instruction in the Remand Order, and based on Petitioner’s ranking of the petitions of IPR2025-00717 and IPR2025-00718, we deny institution in this case.

III. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is denied, and no *inter partes* review is instituted.

¹⁰ A Board panel generally does not have the authority to discretionarily deny an IPR petition. *See* Bifurcating Memo 1 (“Under this interim procedure, the Director, in consultation with at least three PTAB judges, will determine whether discretionary denial of institution is appropriate.”). Nonetheless, in the Remand Order, the Director explicitly instructed “the Board panel to determine which of the two petitions challenging . . . [the] ’218 patents to institute.” Remand Order 4. We interpret the Remand Order as stating that the Director has determined that only one petition challenging the ’218 patent should have been instituted, and as delegating the discretionary authority to the panel to determine which of the two petitions to institute for each patent.

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