

**United States Court of Appeals  
for the Federal Circuit**

---

**SYNOPSISYS, INC.,**  
*Appellant*

v.

**MENTOR GRAPHICS CORPORATION,**  
*Cross-Appellant*

v.

**MICHELLE K. LEE, DIRECTOR, U.S. PATENT AND  
TRADEMARK OFFICE,**  
*Intervenor*

---

2014-1516, 2014-1530

---

Appeals from the United States Patent and Trade-  
mark Office, Patent Trial and Appeal Board in No.  
IPR2012-00042.

---

Decided: February 10, 2016

---

ERIC SHUMSKY, Orrick, Herrington & Sutcliffe LLP,  
Washington, DC, argued for appellant. Also represented  
by JEREMY PETERMAN; INDRA NEEL CHATTERJEE, TRAVIS  
JENSEN, CAM THI PHAN, Menlo Park, CA; GEORGE LASZLO

KANABE, San Francisco, CA; ANDREW D. SILVERMAN, New York, NY; WILLIAM H. WRIGHT, Los Angeles, CA.

MARK E. MILLER, O'Melveny & Myers LLP, San Francisco, CA, argued for cross-appellant. Also represented by GEORGE ALFRED RILEY; CHRISTOPHER LEWIS MCKEE, MICHAEL STEVEN CUVIELLO, BRADLEY CHARLES WRIGHT, Banner & Witcoff, Ltd., Washington, DC; KEVIN F. KING, ROBERT ALLEN LONG, JR., Covington & Burling LLP, Washington, DC.

SCOTT WEIDENFELLER, Office of the Solicitor, United States Patent and Trademark Office, Alexandria, VA, argued for intervenor. Also represented by NATHAN K. KELLEY, JAMIE LYNNE SIMPSON.

JENNIFER LORAIN SWIZE, Jones Day, Washington, DC, for amicus curiae SAS Institute, Inc. Also represented by JOHN S. SIEMAN.

---

Before NEWMAN, DYK, and WALLACH, *Circuit Judges*.

Opinion for the court filed by *Circuit Judge* DYK.

Dissenting opinion filed by *Circuit Judge* NEWMAN.

DYK, *Circuit Judge*.

Synopsys, Inc. (“Synopsys”), the petitioner, appeals a final decision of the Patent Trial and Appeal Board (“Board”) in an inter partes review of claims of U.S. Patent No. 6,240,376 (“the ’376 patent”). Mentor Graphics Corporation (“Mentor”), the patent owner, cross appeals. The Board found that claims 5, 8, and 9 were invalid as anticipated (which Mentor does not challenge on appeal) but declined to find that claims 1 and 28 were anticipated (which Synopsys appeals). We conclude that the Board did not err in its ruling that claims 1 and 28

were not invalid. We also hold that (1) the final order of the Board need not address every claim raised in the petition for review, and (2) the Board did not err in denying Mentor's motion to amend. Accordingly, we affirm.

#### BACKGROUND

The '376 patent claims a method of tracing bugs, *i.e.*, errors in coding, in the design of computer chips. An error in the design of a computer chip, even a minor one, can be extremely problematic and costly for the company that produces the chip. Thus, before a chip is manufactured, the design undergoes significant testing to make sure that the chip performs as intended. The '376 patent relates to a method of testing involving a software or hardware simulation of the chip. The method allows a chip designer to trace errors discovered during testing back to the original source code that a designer uses to program the chip so that these errors can be corrected.

To explain the specifics of this invention, some background information about chip design is necessary. Chip designers write source code to design the basic operation of the circuits that make up a computer chip. For example, a chip designer may indicate that a particular "gate"—or component of the circuit—is supposed to provide a particular output given a particular input. The source code indicates this using general logical statements, such as "if A=0, then B=0, else B=1."<sup>1</sup> *See, e.g.*, '376 patent, fig.4. However, this source code must be "translated" into the actual design of the chip. Special-

---

<sup>1</sup> In this admittedly simple example, if the input A is equal to 0, then the output B would be equal to 0. If the input A is not equal to zero, then the output B would be 1. Depending on the particular input, only one "branch" of this "if-then" statement is executed.

ized software “synthesizes,” *i.e.*, translates, the source code into a “gate-level netlist,” or a basic schematic of the chip. *Id.* at 1:26–36. But the design still may be incomplete, as it may contain redundant circuitry based on a direct translation from the source code. Yet another specialized piece of software is then used to optimize the design, which removes the superfluous components from the circuit and results in a simpler and more efficient circuit without losing any functionality.<sup>2</sup>

When the design process is complete, chip designers use specialized software or hardware to imitate the behavior of the final circuitry to test whether the chip does what it is supposed to do. For example, a designer can simulate the circuit from the original source code. During this test, if there is a problem, the designer can fix it by going back to the code and making modifications. However, it is often difficult to trace back errors to the right place in the source code because high level information in the source code is lost during translation and optimization. The loss of this information makes identifying and correcting errors much more costly and time consuming. The ’376 patent seeks to solve this problem. The invention uses “instrumented signals” to identify the place in the source code where the error resides, thus allowing the designer to go back to the specific part of the source code to correct the error. ’376 patent, col. 2 ll. 40–43.

On September 26, 2012, Synopsys filed a petition for inter partes review of claims 1–15 and claims 20–33 of the ’376 patent, alleging that these claims were anticipated or would have been obvious in light of various prior art references, including U.S. Patent No. 6,132,109 (“Grego-

---

<sup>2</sup> For example, the statement “if A=0, then B=1, else B=1” is redundant and can be replaced with just “B=1.” The optimizer removes these redundancies.

ry”). In its preliminary patent owner response, Mentor contested Synopsys’s invalidity contentions and also argued that Synopsys’s petition was time-barred and moved for discovery relating to the time-bar. Specifically, after filing the petition for inter partes review, Synopsys had acquired an entity who had previously been sued by Mentor for infringement of the ’376 patent more than one year earlier. Mentor argued that the petition for inter partes review was time-barred under 35 U.S.C. § 315(b), which states that “[a]n inter partes review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent.” In the alternative, Mentor argued that the acquired entity, rather than Synopsys, was the appropriate real party in interest to the inter partes review and, in light of the earlier suit, the inter partes review was time barred.

On February 22, 2013, the Board instituted review of claims 1–9, 11, and 28–29 based solely on anticipation by Gregory, finding that the petition “show[ed] that there is a reasonable likelihood that the petition would prevail” in demonstrating unpatentability. 35 U.S.C. § 314(a). The Board denied the petition with respect to claims 10, 12–15, 20–27, and 30–33, finding that there was no reasonable likelihood of invalidity because Synopsys had not shown, for example, how any prior art disclosed “local variable assignment statement[s]” as required by claim 20. J.A. 34–35.

In the decision to institute, the Board also rejected Mentor’s argument that Synopsys’s petition was time-barred by section 315(b) of title 35. The Board found that the § 315(b) bar is measured as of the filing date of the petition, pursuant to its regulation interpreting this section, 37 C.F.R. § 42.101(b), which states that a petition is barred only if “[t]he petition requesting the proceeding

is filed more than one year after the date on which the petitioner . . . is served with a complaint alleging infringement of the patent.” According to the Board, Mentor had not “provide[d] persuasive evidence that Synopsis [sic] and [the newly acquired entity that had been sued by Mentor more than one year earlier] were in privity on the filing date of the petition.” J.A. 16. The Board also found that Synopsis was the appropriate real party in interest. Therefore, the Board found that the petition was not time barred.

After institution, Mentor filed a motion to amend and substitute claims 34–43 for claims 1, 5, 28, 2, 3, 6, 8, 9, 11, and 29, respectively, which was opposed by Synopsis.

After an oral hearing, the Board issued its final written decision on February 19, 2014. *Synopsys Inc. v. Mentor Graphics Corp.*, IPR2012-00042, Paper 60 (PTAB February 19, 2014) (“Bd. Op.”). The Board found claims 5, 8, and 9 anticipated by Gregory. However, the Board also found that claims 1–4, 6, 7, 11, 28, and 29 were not anticipated. In addition, the Board denied Mentor’s motion to substitute claims 35, 40, and 41 for claims 5, 8, and 9. According to the Board, Mentor failed to “demonstrate general patentability over prior art,” including Gregory. *Id.* at 47. “As the moving party,” Mentor bore “the burden to show entitlement to the relief requested,” namely the amendment of claims. *Id.*

Synopsys appeals, arguing that the Board erred in finding claims 1 and 28 not anticipated and by issuing a final decision that did not address the validity of all claims raised in the petition. Mentor cross appeals, challenging the Board’s finding that the petition was not time barred and the Board’s denial of its motion to amend. The PTO has intervened as an interested party to defend its procedures. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A). We review the Board’s factual

findings for substantial evidence and its legal conclusions de novo. *In re Baxter Int'l, Inc.*, 678 F.3d 1357, 1361 (Fed. Cir. 2012).

## DISCUSSION

### I

Synopsys first contends that the final decision of the Board erroneously failed to address every claim raised in the petition for inter partes review. As we have previously explained, inter partes review proceeds in two stages. *See St. Jude Med., Cardiology Div., Inc. v. Volcano Corp.*, 749 F.3d 1373, 1375 (Fed. Cir. 2014). In the first stage, the Board, acting on behalf of the Director, reviews the petition for inter partes review and any patent owner preliminary response to decide whether “there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a); 37 C.F.R. § 42.4(a). The PTO has adopted a regulation allowing the Board to initiate inter partes review “on all or some of the challenged claims.” 37 C.F.R. § 42.108(a). At the second stage, the Board conducts the inter partes review and then issues a final decision with respect to “any patent claim challenged by the petitioner.” 35 U.S.C. § 318(a).<sup>3</sup>

The decision of the Board to institute inter partes review cannot be appealed. 35 U.S.C. § 314(d); *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1273 (Fed. Cir. 2015),

---

<sup>3</sup> Section 318(a) reads as follows:

If an inter partes review is instituted and not dismissed under this chapter, the Patent Trial and Appeal Board shall issue a final written decision with respect to the patentability of any patent claimed challenged by the petitioner and any new claim added under section 316(d).

*cert. granted*, No. 15-446, 2016 WL 205946, at \*1.<sup>4</sup> The PTO argues that the “logical import” of Synopsys’s challenge is a challenge to the decision to institute. Br. of PTO, at 15–16. However, Synopsys does not challenge the decision to institute but rather the scope of the final decision itself. Because Synopsys challenges the final decision, we can hear this appeal. The statute allows “[a] party dissatisfied with the final written decision of the Patent Trial and Appeal Board” to “appeal the decision.” 35 U.S.C. § 319; *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1322 (Fed. Cir. 2015).

On the merits, Synopsys argues that, because § 318(a) directs the Board to issue a final written decision with respect to “any patent claim challenged by the petitioner,” the Board’s final decision must address every claim raised in the petition.<sup>5</sup> However, the statute cannot be read to impose such a requirement. First, the text makes clear that the claims that the Board must address in the final decision are different than the claims raised in the petition. Congress explicitly chose to use a different phrase when describing claims raised in the petition for inter partes review in § 314(a) and claims on which inter partes

---

<sup>4</sup> We note that an issue relating to institution does not become appealable simply because the Board mentions that issue in its final decision. *See Achatos Reference Publ’g, Inc. v. Apple Inc.*, 803 F.3d 652, 658 (Fed. Cir. 2015) (appealability bar applies to institution decisions “even if such assessment is reconsidered during the merits phase of proceedings and restated as part of the Board’s final written decision”).

<sup>5</sup> Presumably, Synopsys’s theory is that even if the Board, in a final decision, found the additional claims not invalid, Synopsys could on appeal challenge the finding of non-invalidity of those claims.



review has been instituted in § 318(a). Section 314(a) specifies that Board may not institute inter partes review unless “the information presented in the petition . . . and any response filed . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the *claims challenged in the petition.*” 35 U.S.C. § 314(a) (emphasis added). However, in describing the final written decision, Congress stated that the Board must issue a final written decision with respect to any “*claim challenged by the petitioner.*” 35 U.S.C. § 318(a) (emphasis added). When Congress chooses to use two different words or phrases, this typically suggests that the two were deemed to have two different meanings. *See, e.g., Bailey v. United States*, 516 U.S. 137, 146 (1995) (distinction between “used” and “intended to be used” creates implication that a related provision’s reliance on “use” alone refers to actual and not intended use”).

In addition, the conditional phrase “[i]f an inter partes review is instituted” in § 318(a) also strongly suggests that the “challenged” claims referenced are the claims for which inter partes review was instituted, not every claim challenged in the petition. Thus, the text of § 318(a) demonstrates that the Board need only issue a final written decision with respect to claims on which inter partes review has been initiated and which are challenged by the petitioner after the institution stage.

Second, the statute would make very little sense if it required the Board to issue final decisions addressing patent claims for which inter partes review had not been initiated, as Synopsys admitted at oral argument. After inter partes review is initiated, the patent owner files a full response to the petition. *See* 35 U.S.C. § 316(a)(8); 37 C.F.R. § 42.120. In addition, both parties may submit information to supplement the record by taking discovery, submitting affidavits, and by submitting expert declarations. *See* 37 C.F.R. §§ 42.123, 42.51, 42.65. Parties may

present their cases to the Board in an oral hearing. 37 C.F.R. § 42.70. All of these various mechanisms allow the Board to issue a final decision based on a full record rather than just on the limited record in the initial petition and the patent owner's preliminary response. *See* 35 U.S.C. § 314(a) (specifying that the decision to institute is made on "information presented in the petition . . . and any [preliminary] response" filed by the patent owner). It would make no sense to interpret § 318 in a way that would require the Board to issue a final determination on validity of patent claims without the benefit of this additional argument and record.

At the same time, the statute is quite clear that the PTO can choose whether to institute inter partes review on a claim-by-claim basis. In deciding when to institute IPR, the statute requires a claim-by-claim inquiry to determine whether "there is a reasonable likelihood that the petitioner would prevail with respect to *at least 1 of the claims challenged in the petition.*" 35 U.S.C. § 314(a) (emphasis added). Unless at least one of the claims satisfies this inquiry, the Board cannot institute. The statute strongly implies that the initiation decision be made on a claim-by-claim basis and that the Board can pick and choose among the claims in the decision to institute. In fact, nothing in § 314 requires institution of inter partes review under any circumstance.

Although we find that the language is clear, if there were any doubt about the Board's authority and the statute were deemed ambiguous, the PTO has promulgated a regulation allowing the Board to institute as to some or all of the claims. The regulation "authorize[s] the review to proceed on all or some of the challenged claims and on all or some of the grounds of unpatentability asserted for each claim." 37 C.F.R. § 42.108. Contrary to Synopsys's argument that this regulation is invalid, the PTO has explicit authority to promulgate regulations

“setting forth the standards for the showing of sufficient grounds to institute” inter partes review. 35 U.S.C. § 316(a)(2). This regulation is plainly an exercise of that authority. Under *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984), this regulation is a reasonable interpretation of the statutory provision governing the institution of inter partes review. See *Cuozzo*, 793 F.3d at 1278. As the PTO noted in adopting the regulation, the claim-by-claim approach “streamline[s] and converge[s] the issues for consideration” and “aids in the efficient operation of the Office and the ability of the Office to complete the [review] within the one-year timeframe.” Changes to Implement Inter Partes Review Proceedings, Post-Grant Review Proceedings, and Transitional Program for Covered Business Method Patents, 77 Fed. Reg. 48703 (Aug. 14, 2012) (Response to Comment 60).

Synopsys also argues that the legislative history and the structure of the AIA support its construction. For this assertion, it points to a few floor statements suggesting that inter partes review “will completely substitute for at least the patents-and-printed publication portion of” infringement litigation. 157 Cong. Rec. S1376 (daily ed. Mar. 8, 2011 (statement of Sen. Kyl); see also 154 Cong. Rec. S9989 (daily ed. Sept. 27, 2008) (statement of Sen. Kyl); 153 Cong. Rec. H10280 (Sept. 7, 2007) (statement of Rep. Jackson-Lee). Floor statements by a few members of the legislative branch cannot supplant the text of the bill as enacted. In addition, Synopsys argues that the Board’s practice of issuing final decisions only addressing some of the claims in the petition is inconsistent with the estoppel provisions of the AIA because final decisions that do not address all of the claims “will have limited estoppel effect” and thus do not “force a party to bring all of its claims in one forum.” Appellant’s Br. 74 (internal quotation marks omitted). The validity of claims for which the Board did

not institute inter partes review can still be litigated in district court. We see no inconsistency in this. Inter partes review cannot replace the district court in all instances, for example, when claims are challenged in district court as invalid based on the on-sale bar, for claiming patent-ineligible subject matter, or on grounds of indefiniteness. See 35 U.S.C. § 311(b) (limiting inter partes review to grounds “that could be raised under section 102 [anticipation] or 103 [obviousness] and only on the basis of prior art consisting of patents or printed publications”).<sup>6</sup>

In summary, we find no statutory requirement that the Board’s final decision address every claim raised in a petition for inter partes review. Section 318(a) only requires the Board to address claims as to which review was granted.

---

<sup>6</sup> Both Synopsys and the PTO argue that the change from the prior reexamination statute supports their respective constructions. The statute stated that if “the Director finds that a substantial new question of patentability affecting a claim of a patent raised” the Director shall order “inter partes reexamination of the patent for resolution of the question.” 35 U.S.C. § 313 (2010). Synopsys argues that because the AIA does not specifically mention “resolution of the question,” institution under the AIA must be broader in scope. The PTO argues that because the previous version *required* institution and the AIA makes institution discretionary, the change supports its view of the AIA which makes discretionary claim-by-claim institution allowable. We find neither of these arguments persuasive.

## II

We now turn to the substance of the Board's anticipation finding with respect to claims 1 and 28. Anticipation is a question of fact. See *In re Graves*, 69 F.3d 1147, 1151 (Fed. Cir. 1995). This court reviews the Board's decision for substantial evidence. *Dickinson v. Zurko*, 527 U.S. 150, 152 (1999); *In re Gartside*, 203 F.3d 1305, 1313 (Fed. Cir. 2000).

Claims 1 and 28 read:

1. A method comprising the steps of:

a) identifying at least one statement within a register transfer level (RTL) synthesizable source code; and

b) synthesizing the source code into a gate-level netlist including at least one instrumentation signal, wherein the instrumentation signal is indicative of an execution status of the at least one statement.

28. A storage medium having stored therein processor executable instructions for generating a gate-level design from a register transfer level (RTL) synthesizable source code, wherein when executed the instructions enable the processor to synthesize the source code into a gate-level netlist including at least one instrumentation signal, wherein the instrumentation signal is indicative of an execution status of at least one synthesizable statement of the code.

'376 patent col. 15 ll. 1–8, col. 17 l. 62–col. 18 l. 7. The Board found that Gregory disclosed everything in these claims except for “instrumentation signals” that are “indicative of an execution status of the at least one

statement.” Bd. Op. at 30. The finding that the prior art disclosed all other aspects of the claims is not challenged on appeal by the patentee. The Board construed “instrumentation signal” to be “an output signal created during synthesis of [] source code by inserting additional code into a program that indicates whether the corresponding [] source code statement is active.” *Id.* at 26–27. The Board construed the term “execution status” to mean “information regarding whether a particular [source code] instruction has been performed.” *Id.* at 27. These constructions are not challenged on appeal by the petitioner.

Rather, the petitioner asserts that Gregory discloses the “execution status” limitation. As discussed above, the ’376 patent is directed to locating errors in the source code. Testing of chips is done by inputting “millions or billions of test vectors” into the chip and comparing the outputs the chip gives with expected results. ’376 patent col. 4 ll. 58–60. As a very simplified example, a designer may ask the chip to compute “1+1.” If the chip outputs 3 instead of the expected result, the designer knows that there is an error in the source code somewhere leading to that inaccurate output. When one of the tests gives an incorrect output, the designer must go back to the source code to find the error that caused this. The difficulty lies in finding the particular statement in the source code that caused the error.

During typical testing of code, programmers have access to a number of tools that help locate errors in source code. For example, programmers are able to set a “break point,” which is a signal that tells the debugging software to temporarily suspend execution of the code. ’376 patent, col. 1 l. 49. In other words, a programmer will artificially stop the execution of the code at a particular point and examine the results of the execution up to that point. Setting a breakpoint allows a programmer to examine only a small subset of the code and thus simplify

the task of finding where in the source code errors arise by narrowing the code tested to only a portion of the entire code. Another traditional debugging method is a visual trace where a programmer can examine exactly which lines of code have been executed during one of the tests. However, “the designer typically cannot set a breakpoint from the source code during gate-level simulation” because the designs after translation “include[] none of the high-level information available in the . . . source code.” ’376 patent, col. 2 ll. 5–6; col. 4 l. 66–66. Thus, traditional debugging tools “such as setting breakpoints or analyzing the source code coverage are not available” when doing “gate-level” testing of the designs of chips. *Id.* at col. 4 l. 67–col. 5 l. 2.

The invention of the ’376 patent uses instrumentation signals to “facilitate source code analysis, breakpoint debugging, and visual tracing of the source code execution path during gate-level simulation.” ’376 patent, col. 2 ll. 52–55. These instrumentation signals are created in the source code as illustrated below:

```

BEGIN
  TRACE1 := '0'; TRACE2 := '0';
  TRACE3 := '0'; TRACE4 := '0';
  TRACE5 := '0'; TRACE6 := '0';
} 620
630 → TRACE1 := '1';           -- INSTRUMENT STATEMENT #1
    IF (RESET)                -- STATEMENT #1
    THEN
632 → TRACE2 := '1';           -- INSTRUMENT STATEMENT #2
        STATUS <= FALSE;      -- STATEMENT #2
    ELSE
634 → TRACE3 := '1';           -- INSTRUMENT STATEMENT #3, #4, #5, #9
        ZEROS := 0;           -- STATEMENT #3
        ONES := 0;            -- STATEMENT #4
        FOR I IN 0 TO 1 LOOP   -- STATEMENT #5
636 → TRACE4 := '1';           -- INSTRUMENT STATEMENT #6
            IF A (I) = '0';    -- STATEMENT #6
            THEN
638 → TRACE5 := '1';           -- INSTRUMENT STATEMENT #7
                ZEROS := ZEROS + 1; -- STATEMENT #7
            ELSE
640 → TRACE6 := '1';           -- INSTRUMENT STATEMENT #8
                ONES := ONES + 1;  -- STATEMENT #8
            END IF;
        END LOOP;

```

'376 patent, excerpts from figs. 6A and 6B.

As seen in the figure, instrumentation logic—the “trace” variables—are interspersed with the logic statements that outline the functions of the chip—the “if,” “then,” and “else” statements. Each line of code is associated with a particular instrumentation variable, which has an initial value of 0 (see 620, which initializes these variables to have a value of 0). When that line of code is executed, the code sets that trace variable to have a value of 1 (see, e.g., 630, 632, etc., which are lines of code changing the value of the variables to 1). So, for example, if the condition in an “if” statement above is true, the “then” part of the code will execute and the “else” part of the code



will not execute. A designer can know this because the “trace” variables associated with the executed lines of code will have a value of 1 whereas the “trace” variables associated with the unexecuted lines of code will still have a value of 0.

This instrumentation logic is preserved during translation, and becomes instrumentation signals in the schematic used for testing (a signal being output is the same as the variable being set to 1). Thus, chip designers can set a breakpoint by telling the testing software to stop when a particular instrumentation signal is output (*i.e.* when a particular line of code is executed) and can visually trace the execution of the code in any given test by looking at a list of outputted instrumentation signals associated with that test.

Gregory also deals with tracing errors in chip design to source code, but uses a different method, as is uncontested. The designer, using the invention described in Gregory, can identify the “source code in the places that the designer wants to be able to debug,” and isolate those particular portions of the chip design for testing. Gregory, col. 8 l. 24. During synthesis of the source code into the schematic of the chip, “the translator . . . adds additional information or components to the initial circuit that indicate that certain components should not be replaced during optimization.” Gregory, col. 8, ll. 27–31. The designer then can test only those portions of the chip and, after errors are discovered, only have a smaller subset of the code to search for errors. Further, because the code in those portions is unoptimized, it corresponds to the source code directly so if an erroneous answer is output, the designer can know exactly which lines of the original source code were executed and can narrow down even further the source of the error.

Synopsys argues that the Board erred in concluding that Gregory does not disclose instrumentation signals that are indicative of the execution status.

First, Synopsys argues that the Board applied the wrong legal standard by requiring explicit disclosure in Gregory of the “execution status” element of claims 1 and 28. According to Synopsys, Gregory implicitly or inherently discloses the “execution status.”

Synopsys relies on one sentence out of the Board decision and takes it out of context. The Board stated: “Gregory does not state explicitly that ‘tempout,’ or any other element, indicates an ‘execution status’ of an HDL instruction.” Bd. Op. at 32. However, the Board then immediately went on to discuss how Gregory does not implicitly disclose the necessary limitation. *See id.* The Board relied on Mentor’s expert testimony that Gregory did not disclose instrumentation signals indicative of execution status. This expert testimony does not rely on explicit disclosures’ being missing from the Gregory reference—rather, it carefully explains how the Gregory reference does not inherently (or even implicitly) disclose the necessary claim limitation. The Board did not require explicit disclosure in Gregory.

Second, Synopsys argues that the Board improperly required it to present expert testimony. For this proposition, it again points to a single sentence in the Board’s opinion where the Board stated, in weighing the quality of evidence presented by Synopsys, “Synopsys, however, does not point to any expert testimony to support these statements.” Bd. Op. at 31. Synopsys argues that because the Board is constituted to evaluate technical arguments about technical materials, expert testimony should not be required.

We have previously found that, in the context of district court litigation, “expert testimony is not required

when the references and the invention are easily understandable.” *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1242 (Fed. Cir. 2010). However, when the technology is complex and “beyond the comprehension of laypersons,” expert testimony is “sometimes essential.” *Centricut, LLC v. Esab Grp., Inc.*, 390 F.3d 1361, 1369 (Fed. Cir. 2004). In the context of inter partes reviews, “Board members, because of expertise, may more often find it easier to understand and soundly explain the teachings and suggestions of prior art without expert assistance,” but “[w]hat the Board can find without an expert depends on the prior art involved in a particular case.” *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1079 (Fed. Cir. 2015). Certainly, “[n]o rule requires a Petition to be accompanied by any declaration, let alone one from an expert guiding the Board as to how it should read prior art.” *Id.* At the same time, the Board is not precluded from finding that the technology in a particular case is sufficiently complex that expert testimony is essential for a petitioner to meet his burden of proving unpatentability. In this particular case, the technology involved is highly complex. The invention of the ’376 patent deals with testing the design of microchips, a process that even Synopsys describes as an “extremely complicated task.” See Appellant’s Br. 6.

But we need not decide whether the Board here correctly required expert testimony. The Board here did not, in fact, require expert testimony. The Board simply noted that Mentor provided expert testimony whereas Synopsys did not, which the Board gave “substantial weight.” Bd. Op. at 31. We see no error in this approach.

Third, Synopsys argues that that the “tempout” signal of Figure 9 in Gregory is an “instrumentation signal” “indicative of an execution status.” Figure 9 “shows a circuit that a translator could produce” from source code modified as described in Gregory. Gregory, col. 12 ll. 62–63. The figure contains an output termed “tempout”

which is created from a designer's addition of lines of code in the source code for the purposes of testing, much like the "trace" variables of the '376 patent. The Board found that "tempout" is an "instrumentation signal," as it, like the instrumentation signals in the '376 patent, is created by adding extra source code solely for testing purposes and unrelated to the underlying functions of the chip. *See* Bd. Op. at 30–32. However, the Board found that this signal was not indicative of an execution status.

Synopsys argues that this finding of the Board is not supported by substantial evidence because a designer can "anaylz[e] the value of 'tempout []' [and can] determine a broad range of information" including whether particular line of source code has been executed. Appellant's Br. 59. Though this "tempout" signal is typically used for a different kind of testing, *see* Gregory col. 13 ll. 16–29, Synopsys argues that a designer might be able to re-trace the logical steps that led to this particular output and thus can glean whether particular lines of code had been executed.

The Board gave "significant weight to the testimony of Mentor Graphics's expert," Bd. Op at 28, who testified "the result of the 'tempout' signal is not indicative of the execution status," *id.* at 31. Specifically, Mentor's expert testified that, in several instances, knowing the temporary output "provides no information as to whether the statement is executed." J.A. 1905. We see no error in the Board's reliance on expert testimony to resolve this factual dispute.

Even if we were to accept Synopsys's assertion that "tempout" "*can* indicate which statement was executed," Appellant's Br. at 59 (emphasis added), a signal that may, under some circumstances, indicate an execution status does not meet the limitation in this case. The point of the invention is to enable designers to more easily debug the

source code based on testing of the optimized circuits. Developers could not do this if the instrumentation signal were indicative of execution status only some of the time. Thus, accordingly, the Board construed “execution status” as “*information* regarding whether a particular [source code] instruction has been performed,” pointing specifically to a passage in the ’376 patent discussing determining “the execution status of every branch” of code. Bd. Op. at 27. In the case of this invention, partially accurate information is tantamount to no information. “The mere fact that a certain thing may result from a given set of circumstances is not sufficient” to show anticipation where the claim, as here, requires more. *See In re Oelrich*, 666 F.2d 578, 581 (C.C.P.A. 1981); *see also MEHL/Biophile Int’l Corp. v. Milgraum*, 192 F.3d 1362, 1365 (Fed. Cir. 1999) (noting that a “possibility” that under certain circumstances a laser designed for tattoo removal may be pointed at hair follicles “does not legally suffice to show anticipation” of a patent involving laser hair removal). The Board’s finding of non-anticipation in this respect is supported by substantial evidence.

Fourth, Synopsys argues that the output of logic gate 232 in Figure 9 (see figure above) meets the “execution status” limitation. As previously discussed, a logic gate is a visual representation of a particular logical statement in the source code and performs an operation based on that logic. Logic gate 232 is an “AND” gate, which means that it outputs a signal only when it receives both inputs. Synopsys argues that if a designer knew the output of this particular gate, the designer would be able to figure out whether the particular line of source code associated with that gate had been executed. The Board rejected the argument as waived because “the argument [was] presented for the first time in Synopsys’s reply and is not responsive to arguments made in Mentor Graphic’s response.” Bd. Op. at 33.

We see no error in the Board’s determination that this argument was not properly raised in the petition for inter partes review. See 37 C.F.R. § 42.23(b). In any case, the Board did not entirely ignore this argument, noting that “Synopsys does not point to any evidence or persuasive argument to explain how [the output of AND gate 232] disclose[s] the claimed instrumentation signal.” Bd. Op. at 33. Substantial evidence supports the conclusion that the output of the “AND” gate is not an instrumented “output signal” as required by the undisputed claim construction of “instrumentation signal.” See Bd. Op. at 26–27 (requiring that an instrumentation signal “at least includes an *output signal* created during synthesis of RTL source code by *inserting additional code into a program that indicates whether the corresponding [] source code statement is active*”) (emphases added).

Lastly, Synopsys argues that the “tempout” signals of Figures 16 and 18 of Gregory disclose instrumentation signals indicative of execution status, and that the Board improperly did not address this argument in its decision.

In general, an agency issuing an order from a formal adjudication must “include a statement of findings and conclusions, and the reasons or basis therefor, on all the material issues of fact, law, or discretion presented on the record.” 5 U.S.C. § 557(c)(3)(A). This means that agencies must articulate “logical and rational” reasons for their decisions. See *Allentown Mack Sales and Serv., Inc. v. NLRB*, 522 U.S. 359, 374 (1998). However, this does not require an agency to address every argument raised by a party or explain every possible reason supporting its conclusion. See, e.g., *Human Dev. Ass’n v. NLRB*, 937 F.2d 657, 669 (D.C. Cir. 1991) (“Although ‘the better practice’ . . . might have been to identify and . . . brush off the argument [that the appellant argued the agency should have addressed], the ruling under review leaves no room for doubt that the” agency decided the issue.); *Am.*

*President Lines v. NLRB*, 340 F.2d 490, 492 (9th Cir. 1965) (finding that, despite not making “separate rulings on each” claim, “[t]he [agency] sufficiently informed petitioner of the disposition of all of its” claims). The agency’s decision must allow effective judicial review, which means that the agency is obligated to “provide an administrative record showing the evidence on which the findings are based, accompanied by the agency’s reasoning in reaching its conclusions.” *In re Sang Su Lee*, 277 F.3d 1338, 1342 (Fed. Cir. 2002); *see also SEC v. Chenery Corp.*, 318 U.S. 80, 94 (1943) (“[T]he orderly functioning of the process of review requires that the grounds upon which the administrative agency acted [are] clearly disclosed and *adequately* sustained) (emphasis added).

In its final decision, the Board addressed why a “tempout” signal is not “indicative of an execution status.” Bd. Op. at 31–32. The Board need not specifically reference Figure 18 in its finding—it only need explain itself sufficiently to allow effective judicial review. And the Board did so here. It specifically stated that it relied on Mentor’s expert witness who gave testimony that the “tempout” signal of Figure 9 was not “indicative of execution status.” *Id.* The “tempout” signal of Figure 18 is the same type of signal as the “tempout” signal in Figure 9 and the arguments for why it discloses (and does not disclose) are, in essence, the same. *Compare* Gregory col. 13 ll. 1–6 *with* col. 14 ll. 27–29. Because the Board addressed whether the “tempout” signal, in general, was indicative of execution status, we find no error in the Board not having specifically referenced Figures 16 or 18 in its decision.

### III

We next address the issues raised by the cross appeal. Mentor does not challenge the substance of the Board’s anticipation finding. Rather, Mentor first argues that the

Board improperly instituted review because Synopsys's petition was time barred under § 315(b). The theory is that Synopsys's acquisition of an entity who had been sued by Mentor alleging infringement of this patent more than one year earlier should bar Synopsys from petitioning for inter partes review or, alternatively, that the acquired entity is the real party in interest, also barring the petition. *See* 35 U.S.C. § 315(b). At oral argument, Mentor conceded that our previous decision *Achates*, 803 F.3d at 658, held that the PTO's decisions concerning the § 315(b) time bar, including determinations of the real party in interest and rulings on discovery related to such determinations, are non-appealable. Mentor agrees that *Achates* precludes review of this issue here. This issue is not appealable pursuant to § 314(d).

Mentor also argues that the Board impermissibly placed the burden of proving patentability of the proposed claims on Mentor when it denied Mentor's contingent motion to substitute claims 35, 40, and 41 for claims 5, 8, and 9. The Board denied the motion to substitute the claims on two grounds. First, the Board found that "Mentor Graphics has not met its burden to show that independent claim 35 or claims 40 and 41, which depend from claim 35, would not have been obvious to a person of ordinary skill in the art based on the disclosure of Gregory." Bd. Op. at 47. The Board, alternatively, found that Mentor had not shown general patentability over the prior art.

We have previously held in *Microsoft Corp. v. Proxyconn, Inc.* that the Board may properly place the burden of proving patentability of substitute claims on the patentee for the prior art of record. 789 F.3d 1292, 1303–08 (Fed. Cir. 2015); *see also Prolitec, Inc. v. ScenAir Techs., Inc.*, 807 F.3d 1353, 1363 (Fed. Cir. 2015) (finding that "the PTO's approach [requiring the patentee to prove patentability over the relevant prior art in the prosecu-



tion history] is a reasonable one at least in a case . . . in which the Board's denial of the motion to amend rested on a merits assessment of the entire record developed on the motion, not just on the initial motion itself"). Mentor argues that *Proxyconn* does not control because the *Proxyconn* opinion did not address whether the patentee ought to bear the burden to distinguish all prior art known to the patent owner and whether this requirement is contrary to 35 U.S.C. § 316(e), which states that in an inter partes review, "the petitioner shall have the burden of proving a proposition of unpatentability."

In the present case, the Board found that Mentor "ha[d] not met its burden to show that independent claim 35 or claims 40 and 41, which depend from claim 35, would not have been obvious to a person of ordinary skill in the art based on the disclosure of Gregory." Bd. Op. at 47. As in *Proxyconn* and *Prolitec*, we see no error in placing the burden of demonstrating patentability of substitute claims on the patentee over Gregory, which was the only piece of prior art for the inter partes review. While the Board also concluded that Mentor had not "demonstrate[d] general patentability over prior art," *id.*, we find that the Board's narrower holding requiring Mentor to prove patentability over Gregory sufficient to sustain the decision.

Section 316(e) does not alter our analysis. That section reads: "In an inter partes review instituted under this chapter, the petitioner shall have the burden of proving a proposition of unpatentability by a preponderance of the evidence." 35 U.S.C. § 316(e). The introductory phrase referring to an "inter partes review instituted under this chapter" makes clear that this provision specifically relates to claims for which inter partes review was initiated, *i.e.*, the original claims of the patent that a party has challenged in a petition for review. Inter partes

review was not initiated for the claims put forward in the motion to amend.

We find that Mentor's arguments here are foreclosed by *Proxyconn* and *Prolitec* and affirm the Board's denial of the motion to amend.<sup>7</sup>

### **AFFIRMED**

#### **COSTS**

Costs to neither party.

---

<sup>7</sup> Mentor also alleges that the Board placed unreasonable procedural constraints in connection with the motion to amend. Mentor's motion was initially denied because the replacement claims were not listed as part of the motion, but were rather included in an appendix which the Board found to be contrary to 37 C.F.R. § 42.121 (previous version) (requiring that a "motion to amend claims must include a claim listing"). The regulation governing motions to amend now allows the claim listing to "be contained in an appendix to the motion." 37 C.F.R. § 42.121 (effective May 19, 2015). The earlier regulation simply stated that a "motion to amend claims must include a claim listing." 37 C.F.R. § 42.121 (effective September 16, 2012 to May 18, 2015). The Board interpreted that regulation as barring placing the claims in an appendix, a permissible interpretation of the Board's own regulation. When an agency interprets its own regulation it is entitled to near-absolute deference unless it "is plainly erroneous or inconsistent with the regulation." *Bowles v. Seminole Rock & Sand Co.*, 325 U.S. 410, 414 (1945). See also *Auer v. Robbins*, 519 U.S. 452, 461–463 (1997).

**United States Court of Appeals  
for the Federal Circuit**

---

**SYNOPSYS, INC.,**  
*Appellant*

v.

**MENTOR GRAPHICS CORPORATION,**  
*Cross-Appellant*

v.

**MICHELLE K. LEE, DIRECTOR, U.S. PATENT AND  
TRADEMARK OFFICE,**  
*Intervenor*

---

2014-1516, 2014-1530

---

Appeals from the United States Patent and Trade-  
mark Office, Patent Trial and Appeal Board in No.  
IPR2012-00042.

---

NEWMAN, *Circuit Judge*, dissenting.

The Leahy-Smith America Invents Act of 2011 chang-  
es the way patent validity disputes are resolved—a  
change at least as significant for this Nation’s patent  
system as the formation of the Federal Circuit in 1982.  
The purpose is as ambitious as it is necessary: to  
strengthen the incentive to industrial and technological

innovation by restructuring the system for reviewing and adjudicating patent validity.

Today's economic reality is based on continuing advances in science and technology. The system of patents is integral to commercial development of new science and technology, and spurs innovators to create new products and methods of economic value. American industry and entrepreneurship use and rely on the patent system; and as patent activity has increased,<sup>1</sup> so have disputes concerning patent rights.<sup>2</sup>

Congress and the public recognized that the traditional adjudicatory structure is imperfectly adapted to resolution of technologically complex patent validity issues, as advancing science, competitive forces, and high stakes meet in the courthouse. It came to be understood that the cost and delay of litigation is a disincentive to commercial activity. When the result is inventions not

---

<sup>1</sup> In 1982 (the year the Federal Circuit came into being), 117,987 patent applications were filed and 63,276 patents were granted; in FY 2015, 617,216 patent applications were filed and 322,448 patents were granted. USPTO, Performance and Accountability Report Fiscal Year 2015, 185–187 *available at* <http://www.uspto.gov/sites/default/files/documents/USPTOFY15PAR.pdf> and U.S. Patent Statistics Chart Calendar Years 1962–2014 *available at* [http://www.uspto.gov/web/offices/ac/ido/oeip/taf/us\\_stat.htm](http://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm).

<sup>2</sup> In FY 1982, 845 patent infringement suits were filed. Admin. Office of U.S. Courts, *U.S. District Courts—Civil Cases Commenced, by Nature of Suit*, tbl.C-2A (Sept. 1985). In FY 2015, 5,686 patent infringement suits were filed. Admin. Office of U.S. Courts, *U.S. District Courts—Civil Cases Commenced, by Nature of Suit*, tbl.C-2A (Sept. 2015).

made and technology not developed, the losers are the public and the Nation's economy.

The Leahy-Smith America Invents Act (AIA) is the product of extensive study by the concerned communities and the Congress. The AIA's purpose is to reinvigorate the foundations of industrial innovation, by providing expeditious and reliable review of patents that had previously been examined and granted. The goal is stability of patent-based property rights, whereby valid patents would be reinforced and invalid patents eliminated, in an economical proceeding conducted by experts in technology and law.

To this end, the AIA established a new adjudicatory body in the Patent and Trademark Office, and vested it with many of the civil litigation powers of the district courts. This new tribunal, named the Patent Trial and Appeal Board (PTAB), would have administrative judges experienced in technology and knowledgeable in the relevant law and policy, and would provide stability, confidence, and reliability to the patent-based foundations of industrial innovation.

The goal is to serve the Nation's traditional innovative spirit and entrepreneurial energy, and thereby to enhance economic growth and industrial strength, while supporting discovery and invention for public benefit. This ambitious project consumed over a decade of evolution, starting with the May 10, 2001 hearing on "Patents: Improving Quality and Curing Defects" before the House Committee on the Judiciary.

The AIA, as enacted, contains balances and compromises, for many interests are affected. I write in dissent because the court's rulings today depart from the text, purpose, and policy of the AIA, and abrogate the careful balance of this new adjudicatory system. The result is that patent validity adjudication is incompletely fulfilling the goals of the AIA.

I list my principal concerns:

1. The court today holds, contrary to the AIA, that the PTAB can “pick and choose” which of the challenged patent claims and issues it will decide in these new proceedings. Maj. Op. at 10. The court endorses such partial decisions by the PTAB, and “see[s] no inconsistency” with leaving some of the challenged claims and issues undecided. Maj. Op. at 12. This absence of finality negates the AIA’s purpose of providing an alternative and efficient forum for resolving patent validity issues.

Instead, the present practice of partial decision by the PTAB leads to duplicative proceedings in the PTAB and the district courts. Since the AIA provides for a different standard of proof than in the district courts, this system of partial decision does not achieve the reliability and expedition for which the AIA was enacted, but instead can produce prolonged uncertainty and multiplied proceedings, at increased rather than reduced cost. In the case at bar, validity of all of the challenged claims was not decided by the PTAB, illustrating this concern.

2. The court also misapplies the AIA provision that the decision whether to “institute” these post-grant proceedings is not appealable. The statute requires the PTO Director first to determine, at an initial “institution” phase, whether it is more-likely-than-not that at least one claim of the challenged patent is invalid. This threshold phase serves the tripartite purpose of screening out harassing and unfounded petitions, accommodating the PTO’s concern about the increased workload, and eliminating the delay and burden of interlocutory appeals.

The non-appealability of the institution determination should not mean that substantive rulings material to the final decision or to the propriety of the entire proceeding are immunized on review of the final decision, if such aspects arose at the institution phase. However, the court holds otherwise, and removes from judicial review any

decision during the institution phase—here the question of whether certain prior patent litigation is a statutory or jurisdictional bar. These issues are raised on this appeal, for the court has converted the threshold phase into a source of unappealable substantive rulings, subverting the purpose of the adjudicatory design.

3. The court also supports the PTO's elimination of the statutory designation of different decision-makers for the institution phase and the trial phase. The AIA assigns the former role to the Director and the latter role to the PTAB. The record shows the concern of practitioners that the institution phase would become a short-cut to final judgment. Whatever the convenience to the PTO, there is no authority to violate the statute.

4. A critical aspect of the AIA—the aspect credited with the large influx<sup>3</sup> of petitions for post-grant proceedings—is the easier standard of patent invalidation that is accorded to these PTAB proceedings. Although patents submitted for PTAB review have all been previously examined and granted and carry the statutory presumption of validity, the AIA assigns the standard of preponderance of the evidence for invalidation, whereas the district courts must apply the standard of clear and convincing evidence for invalidation.

---

<sup>3</sup> From the September 16, 2012 opening date to December 31, 2015, 3,953 petitions for inter partes review were filed. See online at <http://www.uspto.gov/sites/default/files/documents/2015-12-31%20PTAB.pdf>. During the period between September 30, 2012, to September 30, 2015, 17,747 patent infringement complaints were filed in the district courts. See Admin Office of U.S. Courts, note 2, *supra*.

The panel majority also supports the PTO's stingy implementation of the statutory authorization for claim amendment. The opportunity to amend is an important part of the balance struck in the AIA. The easier standards and lighter burdens for invalidation in AIA proceedings, including the PTAB's use of the broadest claim interpretation instead of the correct claim interpretation, up-end the delicate balance crafted by Congress. Amendment issues are present in this case.

The America Invents Act made dramatic changes in the way patent disputes are resolved, in the way complex technologies are integrated into the law, in the way a devoted and expert agency is burdened in service to the Nation. It is our judicial responsibility to assure that the agency and its new tribunal are in compliance with the statute. It is our responsibility to assure that the legislative plan is fulfilled.

### DISCUSSION

The America Invents Act responds to concerns that the time and cost and uncertainty of resolving patent validity challenges are a disincentive to development and commercialization of new science and technology. As stated by Senator Leahy, an architect and principal sponsor of the legislation:

This legislation is not an option but a necessity . . . . I also want to ensure the delicate balance we have struck in the post-grant review process and make certain that the procedure is both efficient and effective at thwarting some strategic behavior in patent litigation and at promoting a healthier body of existing patents.

Introduction of Patent Reform Act of 2006, 152 Cong. Rec. S8830 (Aug. 3, 2006) (statement of Sen. Patrick Leahy, Member, Subcomm. on Intellectual Prop. of the S. Comm. on the Judiciary).



Senator Leahy refers to the “delicate balance” that pervades this statute. The legislative record spans a decade<sup>4</sup> of hearings, reports, bills, and debates, with submissions and testimony by the nation’s inventors, industries, bar associations, academics, the PTO and other government and public interests; and demonstrates the breadth of concerned attention throughout the development of this legislation.

Senator Grassley, a central figure in this effort, described the highlights of the achievement as the final bill neared enactment:

[T]he bill . . . would establish an adversarial inter partes review, with a higher threshold for initiating a proceeding and procedural safeguards to prevent a challenger from using the process to harass patent owners. It also would include a strengthened estoppel standard to prevent petitioners from raising in a subsequent challenge the same patent issues that were raised or reasonably could have been raised in a prior challenge. The bill would significantly reduce the ability to use post-grant procedures for abusive serial challenges to patents. These new procedures would also provide faster, less costly, alternatives to civil litigation.

157 Cong. Rec. S952 (daily ed. Feb. 28, 2011) (statement of Sen. Grassley on S.23). The House Report on the final

---

<sup>4</sup> Starting with a hearing on May 10, 2001, before the House Committee on the Judiciary (*Patents: Improving Quality and Curing Defects*). The first bill that would coalesce into the AIA was introduced on October 8, 2004. 108 H.R. 5299 (Patent Quality Assistance Act of 2004).

bill stated the necessity of assuring that serial and duplicative attacks did not result from the new procedures:

The Committee recognizes the importance of quiet title to patent owners to ensure continued investment resources. While this amendment is intended to remove current disincentives to current administrative processes, the changes made by it are not to be used as tools for harassment or as a means to prevent market entry through repeated litigation and administrative attacks on the validity of a patent. Doing so would frustrate the purpose of the section as providing quick and cost effective alternatives to litigation. Further, such activity would divert resources from the research and development of inventions.

H.R. REP. NO. 112-98, pt. 1, at 48 (2011).

The AIA was signed into law on September 16, 2011, with an effective date of September 16, 2012. The new procedures were promptly invoked. The concerns I outline arose early in implementation of the statute, and continue to this day.

## I

### **PTAB Decision of Only Some of the Challenged Claims Is Contrary To the Statute**

The America Invents Act vests the PTAB with authority to adjudicate post-grant validity under sections 102 (anticipation) and 103 (obviousness), for these are the principal documentary grounds on which validity is challenged in the courts. These grounds are well suited to resolution by the PTAB whose adjudicators are experienced in technology, for the determination is required to be made from the viewpoint of “a person having ordinary skill in the art to which said subject matter pertains,” the words of section 103.

The America Invents Act requires the PTAB to issue a final written decision on the patentability of the challenged claims:

**35 U.S.C. § 318(a).**—FINAL WRITTEN DECISION. If an inter partes review is instituted and not dismissed under this chapter, the Patent Trial and Appeal Board shall issue a final written decision with respect to the patentability of any patent claim challenged by the petitioner and any new claim added under section 316(d).

The court today holds that, despite the statute, “the final order of the Board need not address every claim raised in the petition for review.” Maj. Op. at 3. However, the statute uses the word “shall.” “Shall” is a term of command. *Merck & Co. v. Hi-Tech Pharmacal Co.*, 482 F.3d 1317, 1322 (Fed. Cir. 2007) (“Use of the word ‘shall’ in a statute generally denotes the imperative.”).

A statutory requirement cannot be overridden by agency rule. *See Norwegian Nitrogen Prods. Co. v. United States*, 288 U.S. 294, 315 (1933) (“[A]dministrative practice does not avail to overcome a statute so plain in its commands as to leave nothing for construction.”). However, the PTO proposed an administrative Rule authorizing the PTAB to decide which of the challenged claims and issues it would “proceed on”:

42.108(a). When instituting *inter partes* review, the Board may authorize the review to proceed on all or some of the challenged claims and on all or some of the grounds of unpatentability asserted for each claim.

*Changes to Implement Inter Partes Review Proceedings of the Leahy-Smith America Invents Act*, 77 Fed. Reg. 7041 (proposed Feb. 10, 2012) (recorded at 37 C.F.R. 42.108(a)).

This proposed Rule was widely criticized, as commentators pointed out that the Rule violated the statute and

negated the AIA's purpose of achieving finality of validity review by the PTAB instead of the district court. The Minnesota Intellectual Property Law Association (MIPLA) explained the consequences of the proposed departure from the statute:

[I]n cases where IPR would be granted under the proposed rule for some requested claims and not others, the result is likely to be a serial or parallel process of IPR review of some claims and Federal district court review of the other claims. Congress, however, appears to have intended that IPR be an alternative system in which a litigant can choose to resolve disputed patent validity in either an IPR setting or through the Federal courts, but not both. Hence, the claim-by-claim approach of § 42.108 would not seem to accomplish the result intended by Congress in this regard.

*Comments on Changes to Implement Inter Partes Review Proceedings*, MIPLA 2 at 4 (April 10, 2012) available at [http://www.uspto.gov/sites/default/files/aia\\_implementation/comment-mipla2.pdf](http://www.uspto.gov/sites/default/files/aia_implementation/comment-mipla2.pdf). The MIPLA complained that the proposed partial review raises “fairness and due process” concerns, and is unlikely “to fully achieve the intent of Congress in establishing these proceedings.” *Id.* at 3. The MIPLA urged the PTO to “revert to the language of 35 U.S.C. § 314(a), which contemplates that review will be ordered as to all requested claims.” *Id.* at 5.

IBM's chief patent counsel objected that the Rule is contrary to the AIA, stressing the mandatory words of the statute:

Under provisions of 318(a) final written decisions are required for **all** reviews which are “instituted and not dismissed”. The statute makes no provisions for reviews which are “instituted-in-part” or “dismissed-in-part”. . . . The same provision further provides that the Board “*shall* issue a final

written decision with respect to the patentability of **any patent claim challenged** by the petitioner and any new claim . . .” Thus, any claim challenged in the initial petition in a review that was instituted *must* be decided upon in the final written decision; the statute does not appear to leave discretion to provide a final written decision not addressing any claim that was initially challenged by the petitioner on the basis that the Office determined it to be “not part of the trial”. We do not see how the Office squares its attempt to limit the scope of review with the referenced statutory requirements; in essence, the scoping decision amounts to a premature final decision. We believe the Office should, consistent with the statute, allow all challenged claims to be included in the *inter partes* review when it has found a reasonable likelihood of prevailing with respect to one challenged claim.

*Comments on Changes to Implement Inter Partes Review Proceedings*, IBM 5 at 3 (April 6, 2012) (emphases in original) (parentheticals omitted) *available at* [http://www.uspto.gov/sites/default/files/aia\\_implementation/comment-ibm5.pdf](http://www.uspto.gov/sites/default/files/aia_implementation/comment-ibm5.pdf).

Expressions of concern were also presented by other participants in the process that produced the legislation. *See Comments on Changes to Implement Inter Partes Review Proceedings of the Leahy-Smith America Invents Act*, *available at* <http://www.uspto.gov/patent/laws-and-regulations/america-invents-act-aia/comments-changes-implement-inter-partes-review>.

As the panel majority recognizes, Maj. Op. at 11, the PTO stated that its departure from the statute allows it to “streamline and converge the issues for consideration,” to “aid[] in the efficient operation of the Office and the ability of the Office to complete the [review] within the

one-year timeframe.” *Changes to Implement Inter Partes Review Proceedings, Post-Grant Review Proceedings, and Transitional Program for Covered Business Method Patents*, 77 Fed. Reg. 48703 (Aug. 14, 2012) (Response to Comment 60). Criticism of the practice of partial resolution of the challenged claims continued, and the PTO on Aug. 20, 2015 published the following Comment and Response:

*Comment 12:* Several commenters expressed concern about the Office’s practice of allowing institution based on some, but not all, of the grounds presented in a Petition. Commenters are concerned that because the decision on institution is not appealable, and any ground on a challenged claim that is not instituted is not reflected in the final, appealable decision, a petitioner has no redress for grounds on which the Office chooses not to institute . . . .

*Response:* The Office appreciates the concern expressed by the comments, but must balance these concerns with the workload in AIA proceedings and the statutory time constraints under which AIA review proceedings must be decided. In order to ensure a fair and efficient process to resolve reviews in a timely fashion, the Office uses partial institution as one tool to manage effectively AIA reviews. The Office is cognizant of the ramifications of partial institution where the grounds are in different statutory classes, or when a reference may be overcome by swearing behind it, and strives to strike an appropriate balance between what can be accomplished during the finite time frame for a trial and fairness to the parties in fully vetting patentability issues on challenged claims. The Office will continue to assess whether such balance is appropriately struck.

80 Fed. Reg. 50739 (Aug. 20, 2015).

Agency convenience is not grounds for negation of a statutory obligation. See *Utility Air Regulatory Grp. v. Environmental Protection Agency*, 134 S. Ct. 2427, 2446 (2014) (“[A]n agency may not rewrite clear statutory terms to suit its own sense of how the statute should operate.”). Nonetheless, the PTO continues to adhere to Rule 42.108(a), although it is apparent that the Rule conflicts with the statute, and that “[n]othing in the language of the statute states or suggests that the word ‘shall’ does not mean exactly what it says.” *Gutierrez de Martinez v. Lamagno*, 515 U.S. 417, 434 n. 9 (1995).

The criticized Rule was here applied to the ’376 patent of Mentor Graphics, presented for *inter partes* review by Synopsys’ petition challenging claims 1–15 and 20–33. Review was instituted on claims 1-9, 11, 28, and 29, the selection apparently made by the PTAB. The PTAB conducted a trial, and issued a decision on the selected claims. The PTAB ruled that claims 5, 8, and 9 were unpatentable, and that claims 1–4, 6, 7, 11, 28, and 29 were patentable. The PTAB did not decide the patentability of claims 10, 12-15, 20-27 and 30-33.

Responding to Synopsys’ objection to the incomplete decision, the panel majority states that “the statute is quite clear that the PTO can choose whether to institute inter partes review on a claim-by-claim basis . . . and that the Board can pick and choose among the claims in the decision to institute.” Maj. Op. at 10. The statutory clarity is ephemeral, and authority to “pick and choose among the claims” does not exist. Neither the AIA nor anything in its voluminous history suggests a legislative plan whereby the Board could decide which of the challenged claims would be decided, leaving the other challenged claims untouched.

The design of the AIA is that the major documentary validity challenges, sections 102 and 103, will be subject

to decision by the PTO expert tribunal. As commentators pointed out, if only some of the challenged claims are decided, there is neither complete nor final disposition. Senator Schumer explained this foundation of the legislation:

What the bill does . . . is very simple. It says the Patent Office will make an administrative determination before the years of litigation as to whether this patent is a legitimate patent so as not to allow the kind of abuse we have seen.

157 Cong. Rec. S5437 (statement of Sen. Schumer during Senate consideration of H.R. 1249).

When review is instituted, 35 U.S.C. § 318(a) requires the PTAB to issue a Final Written Decision on all of the claims challenged in the petition. The AIA authorizes the Director to decline to institute any requested review, 35 U.S.C. § 314(d), but the AIA does not authorize or contemplate that the PTO would pick and choose which patent claims it will decide. “Administrative construction of a statute which conflicts with the express meaning of the statutory terms can be viewed as authoritative only if it appears that Congress has in fact accepted that construction, and the burden of proof necessarily is on the proponent of the administrative view.” *Saxbe v. Bustos*, 419 U.S. 65, 84 (1974).

The legislative record emphasizes the purpose of this new PTO tribunal to resolve validity issues, a purpose that collapses if only some of the challenged claims are decided. A Senate Report explained:

[I]f [such] proceedings are to be permitted, they should generally serve as a complete substitute for at least some phase of the litigation.

S. REP. NO. 110-259, at 67 (Additional Views of Senator Specter Joined with Minority Views of Senators Kyl, Grassley, Coburn and Brownback) (2008). This statement



encapsulates the purpose of the legislation, and the record shows that the concerned communities welcomed this new adjudicatory role of the PTO, built on its reputation for excellence.

***Chevron Deference Does Not Apply***

PTO Rule 42.108(a) is “not in accordance with law,” the words of the Administrative Procedure Act, 5 U.S.C. § 706(2)(A). Agency rulemaking authority “does not include a power to revise clear statutory terms,” *Utility Air Regulatory Group*, 134 S. Ct. at 2446:

Under our system of government, Congress makes laws and the President, acting at times through agencies . . . “faithfully execute[s]” them. U.S. Const., Art. II, § 3 . . . . The power of executing the laws necessarily includes both authority and responsibility to resolve some questions left open by Congress that arise during the law’s administration. But it does not include a power to revise clear statutory terms that turn out not to work in practice.

*See also, e.g., Ernst & Ernst v. Hochfelder*, 425 U.S. 185, 213–14 (1976):

The rulemaking power granted to an administrative agency charged with the administration of a federal statute is not the power to make law. Rather, it is the power to adopt regulations to carry into effect the will of Congress as expressed by the statute . . . .

These concepts are the core of the administrative state. “*Chevron* deference” applies to statutory implementation in fidelity to the statute—not statutory departure from the legislative plan.

Nonetheless, the panel majority, invoking *Chevron* deference, holds that the statute “only requires the Board

to address claims as to which review was granted.” Maj. Op. at 12. That is not what the statute says. “[R]easonable statutory interpretation must account for both ‘the specific context in which . . . language is used’ and ‘the broader context of the statute as a whole.’” *Utility Air Regulatory Group*, 134 S. Ct. at 2442 (omission in original). Partial decision negates the purposes of the America Invents Act, and achieves neither expedition nor economy nor finality nor estoppel.

Senator Kyl explained a central purpose of the America Invents Act is “to force a party to bring all of [its] claims in one forum . . . and therefore to eliminate the need to press any claims in other fora.” 154 Cong. Rec. S9989. Senator Kyl stressed that this new system “ideally [will] completely substitute for at least the patents-and-printed-publication portion of the civil litigation.” 157 Cong. Rec. S1376. This goal is thwarted when the PTAB decides validity of some but not all of the claims challenged in the petition.

The justification offered for partial institution or partial decision of an AIA petition is the workload of the PTO. Maj. Op. at 11. *See Patent Reform: The Future of American Innovation: Hearing Before the Senate Comm. on the Judiciary*, 110th Cong. 7 (2007) (statement of Director Jon Dudas) (“[Q]uite frankly, without having the resources available now, we are not certain that we could handle the administration of that many cases.”). This concern received a sympathetic response, and the AIA authorizes the Director to refuse to institute any review petition in its entirety, without excuse and without appeal. Senator Kyl explained that this provision

reflects a legislative judgment that it is better that the Office turn away some petitions that otherwise satisfy the threshold for instituting an *inter partes* or post-grant review than it is to allow the Office to develop a backlog of instituted re-

views that precludes the Office from timely completing proceedings.

157 Cong. Rec. S1377 (daily ed. Mar. 8, 2011) (statement of Sen. Kyl).

The PTO can refuse to institute any post-grant challenge, as the statute provides, 35 U.S.C. § 314(d) (“The determination by the Director whether to institute an inter partes review under this section shall be final and nonappealable.”). However, when a petition is accepted, the PTAB “shall” decide the challenged claims, 35 U.S.C. §318(a). Decision of only some of the challenged claims leaves the undecided claims for district court resolution, as this court recognizes, Maj. Op. at 12. In such event, the AIA purpose of replacing the cost and delay of district court validity proceedings instead dissolves into potentially duplicative proceedings in the PTO and the district court, enlarging rather than reducing cost and delay.

The panel majority states that if there is uncertainty as to this statutory obligation of the PTAB, *Chevron* deference requires support of the PTO position. However, *Chevron* states that: “If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.” *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 842–43 (1984). “*Chevron* allows agencies to choose among competing reasonable interpretations of a statute; it does not license interpretive gerrymanders under which an agency keeps parts of statutory context it likes while throwing away parts it does not.” *Michigan v. Environmental Protection Agency*, 135 S. Ct. 2699, 2708 (2015).

Here there are no “competing reasonable interpretations.” *Id.* The command of section 318(a) is clear; the intent of Congress is plain in the statute. There is no ambiguity, and no silence; *Chevron* provides no support for “pick and choose” authority. The theory that the

PTAB can select what it will decide cannot be found in the legislative record. To the contrary, partial post-grant review eviscerates the purpose of resolving major validity issues in a PTO tribunal instead of in the district court.

The judicial obligation is to assure fidelity to the statute and to the legislative policy, lest we become complicit in frustrating the intent of Congress:

[T]he courts are the final authorities on issues of statutory construction. They must reject administrative constructions of the statute, whether reached by adjudication or by rulemaking, that are inconsistent with the statutory mandate or that frustrate the policy that Congress sought to implement.

*Federal Energy Comm'n v. Democratic Senatorial Campaign Comm.*, 454 U.S. 27, 32 (1981).

***The Legislative Record Cannot Be Discarded***

The panel majority disposes of the legislative record with the remark that “Floor statements by a few members of the legislative branch cannot supplant the text of the bill as enacted.” Maj. Op. at 11. That is not this legislative record.

The record of the AIA starts with a House Judiciary hearing on “Patents: Improving Quality and Curing Defects,” on May 10, 2001, and shows the continuing involvement of both parties and both Houses, filling nine fat volumes in the Federal Circuit library. There are statements by Senators and Representatives, statements for government agencies including the PTO, the Department of Commerce, the International Trade Commission, the Department of Health and Human Services, and the Government Accountability Office. There are written submissions and recorded testimony from large and small industries, from labor unions, from inventors, and from virtually every patent bar association in the nation, as

well as from university scientists, law professors, and others. There is interaction, commentary, debate and compromise. The panel majority's dismissal of this record as "a few floor statements" is not easy to fathom.

We have canvassed the entire record, to "add force and life to the cure and remedy, according to the true intent of the makers of the act." *Heydon's Case*, 76 Eng. Rep. 637, 638 (1584). The record shows bipartisan unanimity on the foundational principle of this legislation; that is, that a tribunal within the PTO would be empowered to conduct post-grant review of major patent validity issues, with the intent to provide an expert adjudicatory alternative to litigation. The commentators' views of details in achieving this goal were not unanimous, and balances, trade-offs, and compromises are embodied in the final statute. The court must give effect to this legislative accomplishment.

Statutes are administered to conform to "the design of the statute as a whole and to its object and policy." *Crandon v. United States*, 494 U.S. 152, 158 (1990). The record shows the participation and collaboration among the legislators as well as the concerned communities. *See* 157 Cong. Rec. S1044 (daily ed. Mar. 1, 2011) (statement of Sen. Leahy):

Mr. President, the Senator [Kyl] has been involved in this right from the beginning. We have worked at having a bill that would be in the best interests of the Senate under both Republicans and Democrats across the political spectrum. We have worked very closely together.

Many Senators and Representatives placed comments in the record. Senator Ted Kaufman, of the Senate Judiciary Committee, described PTO post-grant review as "a viable alternative to litigation."

The good news is that there are several aspects of the reform effort that are relatively uncontroversial. Just about everyone agrees that we need . . . to limit unnecessary litigation costs. So there is much on which we can agree, including . . . improving the Patent Office challenge process as a viable alternative to litigation.

*Patent Reform in the 111th Congress: Legislation and Recent Court Decisions: Hearing Before the Senate Comm. on the Judiciary*, 111th Cong. 205 (2009).

Senator Schumer cited the benefits of this alternative forum for validity determination:

Too many district courts have been content to allow litigation to grind on while a reexamination is being conducted, forcing the parties to fight in two fora at the same time. This is unacceptable, and would be contrary to the fundamental purpose of . . . provid[ing] a cost efficient alternative to litigation.

157 Cong. Rec. S1360-94 (daily ed. Mar. 8, 2011).

Senator Sheldon Whitehouse referred to the cost and delay of litigation:

Similarly, the bill will improve administrative processes so that disputes over patents can be resolved quickly and cheaply without patents being tied up for years in expensive litigation.

157 Cong. Rec. S1052 (daily ed. Mar. 1, 2011).

The intended benefits were also described by Representative Issa, a member of the House Judiciary Committee and its Subcommittee on Courts, the Internet, and Intellectual Property:

[The issue of overzealous litigation is] addressed in part in this bill. The creation of a post grant

review procedure at the Patent Office will help direct some conflicts away from court to an administrative remedy, hopefully saving vast resources in time and money.

153 Cong. Rec. 23927–66, (2007) (House consideration and passage of H.R. 1908).

Representative Berman discussed the value of an agency procedure for assuring that issued patents are valid:

When functioning properly, the patent system encourages and enables inventors to push the boundaries of knowledge and possibility. I support strong, robust protection for quality patents. However, when the system functions improperly, such as allowing an overly broad or obvious patent, the patent system can stifle innovation and harm America's competitiveness in the global economy . . . . This legislation favors no industry, no person, organization or interest group. It seeks to solve problems that we have identified and have been identified for us by outside experts and agencies.

153 Cong. Rec. 23904–11, (2007) (House consideration of H.R. RES. 636 (rule for debate on Patent Reform Act of 2007)).

Senator Leahy, reporting the Administration's support of the proposed legislation, again mentioned the "alternatives to costly and complex litigation" that would be achieved, along with other benefits of the legislation:

The Administration supports Senate passage of S. 23. As a whole, this bill represents a fair, balanced, and necessary effort to improve patent quality, enable greater work sharing between the United States Patent and Trademark Office (USPTO) and other countries, improve service to

patent applicants and the public at the USPTO, and offer productive alternatives to costly and complex litigation.

157 Cong. Rec. S1030 (daily ed. Mar. 1. 2011).

The legislators gave attention to assuring the efficiency and effectiveness of this “second window” of agency action. Senators Specter, Kyl, Grassley, Coburn, and Brownback stated in a Senate Report:

[O]pening up a second window for administrative challenges to a patent only makes sense if defending a patent in such proceedings is not unduly expensive, and if such proceedings substitute for a phase of district-court litigation. . . . The initiation of the proceedings is likely to lead to a stay in the litigation, which likely will remain in place through the appeal of the PTO’s second-window decision . . . . If second window proceedings are to be permitted, they should generally serve as a complete substitute for at least some phase of the litigation.

S. REP. NO. 110-259 at 66 (2008). The Senators stressed that the second window should be a “complete substitute” for the major validity phase—not a partial disposition.

These goals are forsaken if the PTO decides only some of the challenged claims, restoring the costly litigation procedures and delay that the AIA is designed to replace. The intent and purpose of the legislators, embodied in the enacted legislation and replete in its history, cannot be ignored. Amid universal accolades for assignment to the PTO of post-grant review of major issues of validity, the legislators and collaborators never suggested that the PTO could “pick and choose” which of the challenged claims would be decided. This spurious outcome was not contemplated.



Representative Manzullo stressed the legislative purpose that these PTO proceedings would substitute for district court proceedings, not merely provide another forum for non-final validity debate:

It is clearly appropriate to have an administrative process for challenging patent validity, but it should exist within a structure that guarantees a quick – and final – determination. Congress must ensure that the administrative processes provided for in the bill do not become a vehicle for infringers to avoid justice.

*Patent Reform Act of 2009: Hearing Before the House Comm. on the Judiciary*, 111th Cong. 153 (2009).

The panel majority supports PTAB partial decision of some of the challenged claims by suggesting that maybe other validity issues would require district court resolution, beyond the section 102 and 103 issues assigned to the PTAB. Maj. Op. at 12. It is of course possible that claims held valid by the PTAB under sections 102 and 103 would be vulnerable on other grounds. The legislators recognized that not all validity issues are assigned to the PTAB. Senator Kyl explained:

In this bill, however, the issues that can be raised in the second window are so sharply limited that the goal of flushing out all claims is unattainable. Only 102 and 103 arguments based on patents and printed publications can be raised in the second window . . . .

154 Cong. Rec. S9982-93 (daily ed. Sept. 25, 2008) (statement by Sen. Kyl on S. 3600).

The legislators also recognized that sections 102 and 103 are the major grounds of challenge to issued patents, as well as the most demanding of technologic or scientific expertise. The heavy and immediate recourse to the new AIA proceedings attests to the soundness of this principle.

The possibility that other grounds of invalidity might also be present does not justify dilution of the provisions directed to sections 102 and 103.

On this vast legislative record, it is surprising to read the panel majority's dismissal of "floor statements by a few members of the legislative branch." Maj. Op. at 11. To the contrary, the record confirms that throughout the gestation of the America Invents Act, legislators of the House and Senate sought strong and conclusive resolution of the most challenging issues of patent-supported innovation, by providing an effective alternative to district court litigation, whereby the expert agency would reliably and confidently review the validity of granted patents.

Ignoring this purpose, the panel majority holds that "the validity of claims for which the Board did not institute inter partes review can still be litigated in district court." We see no inconsistency in this." Maj. Op. at 11–12. To the contrary—it is inconsistent with the entirety of the America Invents Act.

## II

### **The Stay and Estoppel Provisions Are Also Undermined by Partial Decision of Validity Challenges**

An *amicus curiae* explained the stay and estoppel provisions of the AIA and their role in resolution of patent disputes:

The experienced administrative judges at the PTAB evaluate the patentability of the claims identified by a petitioner. Claims that are cancelled for lack of patentability vanish from the litigation entirely. Claims that undergo review, and survive, will return to the district court with statutory estoppel, which prevents the accused infringer from making the same invalidity arguments before the district court that it made

before the PTA. Thus, whether or not the patent claims are cancelled or survive, the case is simplified for claims addressed in a PTAB trial. It is therefore no surprise that, as Congress envisioned, courts frequently stay litigation pending PTAB review. But when the PTAB decides to review only some of the challenged claims, but not others, it undermines the intended efficiency of these trials and saddles the district courts with larger and redundant workloads.

SAS Institute *amicus* Br. 6 (Oct 10, 2014).

The stay and estoppel provisions become irrelevant if only some of the challenged claims are decided by the PTAB, leaving other claims unresolved. Yet the court today sees “no inconsistency” in leaving some claims undecided, because “the validity of claims for which the Board did not institute inter partes review can still be litigated in district court,” *Maj. Op.* at 11–12. This is an extreme distortion of the statutory purpose.

Senator Grassley discussed the scope of the litigation stay authorization, as the AIA reached enactment in the Senate:

Lengthy and duplicative proceedings are one of the worst evils of other systems of administrative review of patents. . . . Ideally extending could-have-raised estoppel to privies will help ensure that if an inter partes review is instituted while litigation is pending, that review will completely substitute for at least the patents-and-printed-publications portion of the civil litigation.

157 Cong. Rec. S1360–94 (daily ed. Mar. 8, 2011).

On the foundational principle that the PTAB proceeding is designed as an alternative to district court litigation, there was extensive commentary from the innovation communities. An example is a letter from the

Consortium of Higher Education Institutions, supporting the proposed new system because it would—

reduce patent litigation costs by establishing the new post-grant procedure noted above, and by significantly improving the current inter partes review procedure, which will provide a lower-cost alternative to civil litigation to challenge a patent throughout its lifetime, while significantly reducing the capacity to mount harassing serial challenges . . .

157 Cong. Rec. S1178 (daily ed. Mar. 3, 2011). The PTO Director, testifying for the administration, also supported estoppel, stating that—

the estoppel needs to be quite strong that says on the second window any issue that you raised or could have raised...you can bring up no place else. That second window, from the administration's position is intended to allow nothing—a complete alternative to litigation.

*Patent Reform: The Future of American Innovation: Hearing Before the Senate Comm. on the Judiciary*, 110th Cong. 13 (2007) (statement of Director Jon Dudas).

The court's ruling today inhibits the America Invents Act from achieving its purposes. It is reported that some district courts are declining to stay parallel litigation. *E.g. Invensys Sys. v. Emerson Elec. Co.*, No. 6:12-cv-00799, 2014 U.S. Dist. LEXIS 128454, at \*10 (E.D. Tex. July 25, 2014) (district court denying stay where PTAB instituted partial review because “any simplification is likely to be minimal”); *U.S. Nutraceuticals LLC v. Cyanotech Corp.*, No. 5:12-cv-366-Oc-10PRL, 2013 U.S. Dist. LEXIS 163057, at \*8 (M.D. Fla. Oct. 15, 2013) (recommending denial of stay pending inter partes review because “the USPTO may authorize the review to proceed on only ‘some of the challenged claims’ or on only ‘some of the

grounds of unpatentability asserted for each claim.’ 37 C.F.R. § 42.108(a). It is entirely possible, perhaps even likely, that this case will proceed on numerous claims regardless of the outcome of the USPTO proceeding”); *Xilinx, Inc. v. Invention Inv. Fund I LP*, Nos. 5:11-cv-00671-EJD, 5:11-cv-04407-EJD, 2012 WL 6003311, at \*4 (N.D. Cal. Nov. 30, 2012) (“the court will have to resolve all claims in dispute as to [claims not currently undergoing inter partes reexamination]. That being the case, waiting for the outcome of reexamination does nothing for that portion of the litigation.”).

Similarly for the estoppel provision, it too is undermined by partial decision, for estoppel is effective only when validity is resolved by the PTAB. This provision is important to the AIA structure, as explained by Representative Jackson-Lee, for the purpose of “prohibiting a party from reasserting claims in court that it raised in post-grant review.” 153 Cong. Rec. H10,280 (daily ed. Sept. 7, 2007). This view was urged by the PTO as important to the new proceeding:

We would favor providing for a second-window review to have a different estoppel effect than a first-window review . . . A second-window review, however, will serve as a substitute for court litigation and, as such, should bind not only the patentee but also the challenger as a decision on the merits in litigation would.

*Patent Reform: The Future of American Innovation: Hearing Before the Senate Comm. on the Judiciary* 110th Cong. 136–137 (2007) (statement of Director Jon Dudas). This position was reiterated by Director Kappos:

If I can say that in my own words also, that I believe there are significant advantages for patentees who successfully go through the post-grant system—in this case inter partes review—because of those estoppel provisions. Those estoppel pro-

visions mean that your patent is largely unchallengeable by the same party.

*America Invents Act: Hearing on H.R. 1249 Before the House Comm. on the Judiciary*, 112th Cong. 52–53 (2011) (statement of Director David Kappos).

Instead of vigorously implementing the AIA as it was enacted, the panel majority’s rulings today waffle toward the inefficiencies, conflicts, and uncertainties that the America Invents Act was designed to resolve.

### III

#### **Rulings at “Institution” Do Not Restrict All Appellate Review**

The “institution” phase of the AIA is a threshold proceeding whose primary purpose is to screen out unsupported attacks on validity. As Senator Grassley explained, there is a “higher threshold” for commencing a PTAB proceeding as compared with the filing of a complaint in district court, by requiring a showing that at least one patent claim is more likely than not invalid. This is a safeguard against harassment, tactical delay, and like abuses. This purpose pervades the legislative record, e.g., 157 Cong. Rec. S952 (statement of Sen. Grassley) (describing the AIA’s “procedural safeguards to prevent a challenger from using the process to harass patent owners.”).

The “institution” decision is, by statute, not appealable. However, information presented and rulings made at this threshold are not immunized from judicial review, when material to the final decision on validity. The court today holds otherwise, stating that “an issue relating to institution does not become appealable simply because the Board mentions that issue in its final decision.” Maj. Op. at 8 n.4. The court cites *Achates Reference Publishing, Inc. v. Apple Inc.*, 803 F.3d 652 (Fed. Cir. 2015), for its statement that the “appealability bar applies to insti-

tution decisions ‘even if such assessment is reconsidered during the merits phase of proceedings and restated as part of the Board’s final written decision.’” Maj. Op. at 8 n.4 (quoting *Achates*, 803 F.3d at 658).

Precedent does not require this extended application of *Achates*. In *Versata Dev. Group, Inc. v. SAP Am., Inc.*, 793 F.3d 1306 (Fed. Cir. 2015), the court held that when information at the threshold phase is material to the PTAB final decision, this court on appeal is not precluded from reviewing such information. The court stated:

Congress explained the anomalous nature of a bar to judicial review of final agency action: “Very rarely do statutes withhold judicial review. It has never been the policy of Congress to prevent the administration of its own statutes from being judicially confined to the scope of authority granted or to the objectives specified. Its policy could not be otherwise, for in such a case statutes would in effect be blank checks drawn to the credit of some administrative officer or board.”

*Id.* at 1319 (quoting S. Rep. No. 79-752, at 26 (1945)). As stated in *Social Security Board v. Nierotko*:

Administrative determinations must have a basis in law and must be within the granted authority . . . . An agency may not finally decide the limits of its statutory power. That is a judicial function.

327 U.S. 358, 369 (1946). These principles are a foundation of the Administrative Procedure Act.

On this appeal, a ruling that the court insulates from review relates to the one-year bar. The America Invents Act requires that a petition must be filed within one year after the start of any district court litigation on the same patent:

**35 U.S.C. §315(b) PATENT OWNER'S ACTION.**—An inter partes review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent. . . .

Although this issue is presented on this appeal, the panel majority refuses to consider it because it was decided at the “institution” phase. The question is whether a predecessor to Synopsys, in litigation with Mentor Graphics more than a year earlier, raised the one-year bar. The PTAB held that there was no bar. PTAB Op. 14–17. The court today holds that “the PTO’s decisions concerning the §315(b) time bar, including determinations of the real party in interest and rulings on discovery related to such determinations, are non-appealable,” even after the PTAB’s final written decision. Maj. Op. at 24.

It is unlikely that such issues material to statutory compliance—issues of privity, standing, and jurisdiction—were intended to be excluded from appellate review. Such a departure from the judicial obligation cannot be presumed. *See Crowell v. Benson*, 285 U.S. 22, 54-55 (1932):

A different question is presented where the determinations of fact are fundamental or ‘jurisdictional,’ in the sense that their existence is a condition precedent to the operation of the statutory scheme. These fundamental requirements are . . . indispensable to the application of the statute . . . because the Congress has so provided explicitly.

The Court in *Crowell* notes that: “In relation to administrative agencies, the question in a given case is whether it falls within the scope of the authority validly conferred.” *Id.* at 54 n.17.



Whether or not the one-year bar here is deemed jurisdictional, it is an essential part of the AIA structure. The correctness of its treatment is subject to the traditional judicial review of agency determinations; the question is not insulated from appeal simply because it was decided at the start of the post-grant proceeding. The Court guides in *Bowen v. Michigan Academy of Family Physicians* that preclusion of judicial review is viewed strictly:

We begin with the strong presumption that Congress intends judicial review of administrative action. From the beginning “our cases [have established] that judicial review of a final agency action by an aggrieved person will not be cut off unless there is persuasive reason to believe that such was the purpose of Congress.” *Abbott Laboratories v. Gardner*, 387 U.S. 136, 140 (1967).

476 U.S. 667, 670 (1986) (alteration in original). The appellate court must ensure that an agency’s action is not “so extreme as to amount to an abdication of its statutory responsibilities.” *Heckler v. Chaney*, 470 U.S. 821, 833 n.4 (1985). When an agency “exercise[s] its power in some manner. The action at least can be reviewed to determine whether the agency exceeded its statutory powers.” *Id.* at 832.

In sum, “Congress rarely intends to prevent courts from enforcing its directives to federal agencies;” there is “a strong presumption favoring judicial review of administrative action.” *Mach Mining, LLC v. EEOC*, 135 S. Ct. 1645, 1651 (2015) (quoting *Bowen*, 476 U.S. at 670). My colleagues’ position that no ruling during institution can receive appellate review, even when material to the final decision, cannot be correct.

#### IV

##### **The AIA Assigns the Decision to “Institute” to the Director, and Assigns the Trial and Final Decision to the PTAB**

By statute, the “institution” decision is made by the Director, not by the judges of the Patent Trial and Appeal Board. The legislative record shows that these functions were deliberately separated. Senator Kyl explained the purpose of avoiding self-review:

Obviously, subsection (a) alone would not be enough to test the view that PTO has reached an incorrect conclusion on an important legal question because subsection (a) requires the petitioner to persuade PTO that a claim appears to be unpatentable, and PTO is unlikely to be so persuaded if it has already decided the underlying legal question in favor of patentability.

154 Cong. Rec. S9982–93 (Sept. 27, 2008). The separation of these roles helps to ensure that the decision of the PTAB is not a rubber stamp of the institution decision, nor a shortcut on “an important legal question.” The PTO’s practice of assigning the institution decision to the PTAB is contrary to the statute, and commentators have objected, stating that:

Currently the same APJs consider an incomplete and preliminary record to decide that the claims being challenged in a petition are likely unpatentable. Those same APJs are then required to make the Final Written Decision—in essence, they are put in the position of defending their prior decision to institute the trial. This creates an actual or perceived bias against the patent owner.

AIPLA Comments on PTAB Trial Proceedings, at 20 (Oct. 16, 2014), available at [http://www.uspto.gov/ip/boards/bpai/aipla\\_20141016.pdf](http://www.uspto.gov/ip/boards/bpai/aipla_20141016.pdf). See also *Ethicon Endo-Surgery*,

*Inc. v. Covidien LP*, No. 2014-1771 (Fed. Cir. Jan. 13, 2016) (Newman, J., dissenting).

This further contravention of the statute is not supportable.

## V

### **The AIA Must Be Applied as a Balanced Whole**

The record shows extensive policy balances in the AIA as eventually enacted. Today's concerns focus primarily on procedures adopted after enactment of the statute, such as post-grant use of the "broadest" claim construction; a topic under review elsewhere.<sup>5</sup> And I have previously pointed to issues arising from conflicting final decisions in the PTAB and the district court, see *Fresenius USA, Inc. v. Baxter International, Inc.*, 721 F.3d 1330, 1347 (Fed. Cir. 2013) (Newman, J., dissenting).

In addition, the statutory provision for amending claims for post-grant review has been misapplied. Although the AIA authorizes claim amendment, PTO statistics demonstrate the PTAB's practice of denying almost all motions to amend, as referenced in *Cuozzo*, 793 F.3d at 1288 n.1 (Newman, J., dissenting). Updated statistics show little change, see Daniel F. Klodowski and David Seastrunk, *Claim and Case Disposition*, AIA BLOG, <http://www.aiablog.com/claim-and-case-disposition/> (visited Feb. 5, 2016) (Reporting IPR Substitute Claim Disposition as of Jan. 1, 2016: 446 (94.49%) substitute claims denied, 26 (5.51%) substitute claims granted.)

It devolves upon the court to assure fulfillment of the policy embodied in the statute, with appreciation of the

---

<sup>5</sup> *In re Cuozzo Speed Technologies, LLC*, 778 F.3d 1271 (Fed. Cir. 2015), cert. granted Jan. 15, 2016.

statutory balance and the interrelation of provisions. The availability of amendment in IPR proceedings, as compared with district courts, balances the lighter standard of invalidation for IPR proceedings. A witness stated, in response to questions by Senators Grassley, Coburn, Specter and Kyl:

[U]nnecessarily restricting the patentee’s ability to amend its claims (in contrast with the flexible *inter partes* reexamination process) . . . encourage[s] outright invalidation of a patent that may simply require an adjustment in scope.

*Patent Reform: the Future of American Innovation: Hearing Before Senate Comm. on the Judiciary*, 110th Cong. 45 (Responses of Bruce Bernstein, Chief Intellectual Property and Licensing Officer, InterDigital Communications Corp.).

The amendment opportunity was emphasized. *See id.* at 90 (Post-Hearing question of Sen. Kyl to Mary Doyle) (“24. Under the post-grant review procedure proposed in S. 1145, a patentee may amend its claims only once as a matter of right, and may further amend only for good cause shown.”). Thus the statute provides:

**§ 316(d) AMENDMENT OF THE PATENT.—**

(1) In general.—During an inter partes review instituted under this chapter, ***the patent owner may file 1 motion to amend the patent in 1 or more of the following ways:***

(A) Cancel any challenged patent claim.

(B) For each challenged claim, propose a reasonable number of substitute claims.

(2) Additional motions.—

Additional motions to amend may be permitted upon the joint request of the petitioner and the patent owner to materially advance the settlement of a proceeding

under section 317, or as permitted by regulations prescribed by the Director.

(3) Scope of claims.—

An amendment under this subsection may not enlarge the scope of the claims of the patent or introduce new matter.

(emphasis added). In the context of the statement of Senator Kyl that the legislation provides for one amendment “as a matter of right,” the reported implementation is indeed questionable.

The record demonstrates that the statute was well understood as creating a fresh balance, whereby patents could be challenged in opposition-like proceedings, whether or not there was a “case or controversy” as required by Article III. Congress lowered the evidentiary standard of invalidity applied by the courts to granted patents, and authorized limited amendment, thereby allowing correction of flaws in the prior grant. This statute requires implementation in accordance with the legislative purpose.

## VI

### **This New Proceeding Is of Power and Promise**

The power and promise of the America Invents Act, and the aspirations held by Congress and the Nation, recognize American innovation and the capability of invention to serve the public and the economy. For so large a change in national practice, adjustment is not surprising. The glitches I have pointed out are readily remediable, and appear to flow from construing isolated statutory provisions. See *Davis v. Mich. Dep’t of Treasury*, 489 U.S. 803, 809 (1989) (“[S]tatutory language cannot be construed in a vacuum. It is a fundamental canon of statutory construction that the words of a statute must be read in their context with a view to their place in the

overall statutory scheme.”). Each provision contributes to the balance established in the statute, as Congressman Berman explained:

Like all compromises, not everyone received everything they wanted, which is honestly just as it should be. This legislation favors no industry, no person, organization or interest group. It seeks to solve problems that we have identified and have been identified for us by outside experts and agencies.

153 Cong. Rec. 23904–11 (2007) (Rule for debate on Patent Reform Act of 2007). Senator Leahy also commented on concerns that were balanced:

The array of voices heard in this debate represent virtually all sectors of our economy, all interests in the patent system. They have not been uniform, but they know the legislative process is one of compromise and accommodation where possible, and it has been that way during the 6 years we have been at work on this bill.

157 Cong. Rec. S1349 (daily ed. Mar. 8, 2011).

Congress aspired to revitalize the Nation’s patent system, in an era of innovation beyond imagination. I respectfully dissent from the departures from the legislative plan.