# UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ZETEC, INC., Petitioner,

v.

WESTINGHOUSE ELECTRIC COMPANY, LLC, Patent Owner.

> Case IPR2014-00384 Patent 6,823,269 B2

Before LINDA E. HORNER, SCOTT R. BOALICK, *Vice Chief Administrative Patent Judges*, KEVIN F. TURNER, BARBARA A. BENOIT, and NEIL T. POWELL, *Administrative Patent Judges*.

BENOIT, Administrative Patent Judge.

DECISION Denying Institution of *Inter Partes* Review 37 C.F.R. § 42.108

#### INTRODUCTION

Zetec, Inc. ("Petitioner") filed an amended Petition (Paper 5, "Pet.") requesting an *inter partes* review of claims 1-18 (the "challenged claims") of U.S. Patent No. 6,823,269 B2 (Exhibit 1001, "the '269 patent"). Patent Owner, Westinghouse Electric Company, filed a Preliminary Response. Paper 8 ("Prelim. Resp."). For the reasons that follow, we deny institution of an *inter partes* review.

#### **Related Matters**

Petitioner represents that the '269 patent was asserted in Westinghouse Electric Company LLC v. Zetec, Inc., Case No. 2:13-cv-01124 (W.D. Pa.). Pet. 1; see also Paper 6 (Patent Owner's Mandatory Notice).

#### The '269 Patent

The '269 patent issued November 23, 2004, from an application filed April 12, 2002, and relates to methods of synthesizing nondestructive examination data to be used for training data analysts and/or testing inspective techniques. Ex. 1001, Abstract, 4:40-44 (claim 1), 5:28-30 (claim 11), 6:10-12 (claim 14). The '269 patent explains that nondestructive examination of components is important particularly in the periodic inspection of certain tubing in a pressurized water nuclear reactor steam supply system. *Id.* at 1:11-16. More specifically, inspection of the tubing "is essential to assure that radioactive coolant from the reactor does not contaminate" other parts of the system. *Id.* at 1:16-22.

To inspect the tubing, a probe is inserted into one of the hundreds of tubes to be inspected in a nuclear reactor, and signals from the probe then are analyzed to identify flaws in the tube. *Id.* at 1:32-44. If flaws are

detected, then the "tubing is plugged and thus taken out of service to reduce the likelihood of failure during the forthcoming reactor operating cycle." *Id.* at 1:43-47. According to the '269 patent, "a great deal of experience" is needed to interpret the signal data and identify the existence, type, and extent of any flaws that may be present in the tubing. *Id.* at 1:40-44. Also, obtaining signal data representative of various kinds of flaws, for use in training data analysts and testing inspection techniques, is extremely difficult and expensive. *Id.* at 1:49-58.

A purpose of the invention of the '269 patent is to provide signal data representative of various flaws and "suitable for training and qualifying analysts, and testing inspection techniques." *Id.* at 1:59-62. To do so, the '269 patent describes techniques "for the injection of electronic nondestructive examination signals either from field data or data obtained from specimens, into a data stream to produce a data set that is the combination of the two data sets, i.e., the basic data stream plus the injected signal." *Id.* at 2:50-54.

#### Illustrative Claims

The '269 patent includes independent claims 1, 11, and 14, which are reproduced below and are illustrative of the claimed subject matter:

1. A method of synthesizing nondestructive examination data to be used for training data analysts and/or testing inspection techniques comprising the steps of:

generating data collected at a field site of a component from non-destructive examination of the component, which data collected at the field site includes noise;

creating a specimen that simulates the component undergoing non-destructive examination with a selected flaw;

generating nondestructive examination data at a laboratory site, remote from the field site, from the specimen of the component undergoing non-destructive examination; and

combining at least some of the nondestructive examination data collected at the field site with at least some of the nondestructive examination data collected at the laboratory site to establish a combined data train that reflects the nondestructive examination response to the selected flaw in a background representative of data collected at the field site.

Ex. 1001, 4:42-61. Independent claim 11 includes the limitations recited by claim 1 and additionally recites:

separately calibrating the data collected at the field site and the data collected at the laboratory site so that the data collected at the field site and the data collected at the laboratory site have the same relative signal strengths corresponding to a first flaw, wherein the calibration is achieved by the steps of operating a first detector used at the field site to nondestructively test a first flaw and provide a first output indicative thereof and adjusting the first output received from the first detector in response to the first flaw by a first calibration factor to modify the first output to exhibit a first characteristic; and

operating a second detector used at the laboratory site to non-destructively test a second flaw which is substantially identical to the first flaw and provide a second output indicative thereof and adjusting the second output by a second calibration factor to modify the second output to exhibit the first characteristic.

Id. at 5:28-58. Independent claim 14 includes the limitations recited by claim 1 and additionally recites:

separately calibrating the data collected at the field site and the data collected at the laboratory site so that the data collected at the field site and the data collected at the laboratory site have the same relative signal strengths corresponding to a first flaw;

> and storing the data collected at the field site along with a first calibration factor obtained from the step of calibrating the data collected at the field site and storing data collected at the laboratory site along with a second calibration factor obtained from the step of calibrating the data collected at the laboratory site.

*Id.* at 6:10-39.

#### LEGAL STANDARDS

The standard for instituting an *inter partes* review is set forth in 35

U.S.C. § 314(a), which provides as follows:

THRESHOLD.—The Director may not authorize an inter partes review to be instituted unless the Director determines that the information presented in the petition filed under section 311 and any response filed under section 313 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). The standard for institution is written in permissive terms—identifying when the United States Patent and Trademark Office ("the Office") is authorized to institute an *inter partes* review. Thus, Congress has given the Office discretion whether to institute a review or not institute a review.

Congress has mandated that the Office must make a determination whether to institute an *inter partes* review within three months after receiving a Preliminary Response to the Petition (or, if no Preliminary Response is filed, three months after the last date on which such response may be filed) and, if instituted, the Office must issue a final written determination in an *inter partes* review not more than one year after institution, absent a showing of good cause or other circumstances not applicable here. 35 U.S.C. §§ 314(b), 316(a)(11).

To be considered, a petition for *inter partes* review must identify, "in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim." 35 U.S.C. § 312(a)(3). The Board's rules further specify that a petition must include "[a] full statement of the reasons for the relief requested, including a detailed explanation of the significance of the evidence" and "where each element of [each challenged] claim is found in the prior art patents or printed publications relied upon [and] the relevance of the evidence to the challenge raised." 37 C.F.R. §§ 42.22(a)(2), 42.104(b)(4), (5). These rules were promulgated taking into consideration, among other things, "the efficient administration of the Office, and the ability of the Office to timely complete proceedings." 35 U.S.C. § 316(b).

# THE PETITION AND THE PRELIMINARY RESPONSE Claim Construction in the Petition

Petitioner filed a Petition (Paper 2) that did not include any express claim construction for individual claim terms. The Board found that Petition defective for not identifying "[h]ow the challenged claim is to be construed," and required correction. Paper 4 at 2 (quoting 37 C.F.R. § 42.104(b)(3)). The Board also noted "[i]n most cases, claim construction is an important step in the determination of whether the challenged claims are unpatentable over the cited prior art." *Id*.

In response, Petitioner filed an amended Petition that proposed constructions for six claim terms "based on their ordinary meaning in view of the full disclosure of the '269 Patent." Pet. 7-8. Petitioner's proposed constructions, however, do not cite any portion of the specification of the

<sup>'269</sup> patent or provide any other evidence as to why the proffered constructions reflect each term's ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

### Numerous Asserted Grounds in the Petition

The Petition lists, in a summary table, 68 grounds of unpatentability that rely on one or more of fourteen references, including Sullivan,<sup>1</sup> Begley,<sup>2</sup> Hölzl,<sup>3</sup> Junker,<sup>4</sup> Eberhard,<sup>5</sup> Hedengren,<sup>6</sup> Sapia,<sup>7</sup> Winslow,<sup>8</sup> and Holt.<sup>9</sup> Pet. 2-7. Many of the 68 listed grounds, however, represent groups of multiple grounds. For example, the Petition includes a ground asserting claim 1 would have been obvious "over Hedengren et al. in view of Hölzl, Junker et al., Begley et al., or Sullivan" (Pet. 4), which, in essence, is four grounds: Hedengren and Hölzl; Hedengren and Junker; Hedengren and Begley; and

- <sup>5</sup> U.S. Patent No. 4,920,491, issued Apr. 24, 1990 (Ex. 1007) ("Eberhard").
- <sup>6</sup> U.S. Patent No. 5,371,462, issued Dec. 6, 1994 (Ex. 1009) ("Hedengren").

<sup>&</sup>lt;sup>1</sup> S.P. SULLIVAN, *Guidelines for Qualifying Eddy Current Technology for CANDU Steam Tube Inspection*, CANDU Owners Group COG-98-371-I, March 1999 (Ex. 1002) ("Sullivan").

<sup>&</sup>lt;sup>2</sup> J.A. BEGLEY, ET AL. *Depth Based Structural Analysis Methods for SG Circumferential Indications*, Interim Report TR-107197-P1, Westinghouse Electric Corporation and Aptech Engineering Services, Inc., December 1997 (Ex. 1018) ("Begley").

<sup>&</sup>lt;sup>3</sup> U.S. Patent No. 6,566,871 B2, issued May 6, 2003 (Ex. 1011) ("Hölzl").

<sup>&</sup>lt;sup>4</sup> U.S. Patent No. 4,763,274, issued Aug. 9, 1988 (Ex. 1012) ("Junker").

<sup>&</sup>lt;sup>7</sup> U.S. Patent No. 4,942,545, issued July 17, 1990 (Ex. 1008) ("Sapia").

<sup>&</sup>lt;sup>8</sup> European Patent Application Publication EP 0 990 897 A2, published April 5, 2000 (Ex. 1014) ("Winslow").

<sup>&</sup>lt;sup>9</sup> U.S. Patent No. 4,194,149, Mar. 18, 1980 (Ex. 1005) ("Holt").

Hedengren and Sullivan. In another example, the Petition includes a ground asserting claim 16 would have been obvious over "any of Hölzl, Holt, Eberhard et al., or Hedengren et al. in view of Junker et al. and Sullivan or Begley et al." (Pet. 7), which is, in reality, eight grounds. Of the 68 grounds presented in the summary table, at least 22 are multiple grounds resulting, at least, in an additional 59 grounds. *See* Pet. 4-7. Thus, the Petition presents no fewer than 127 asserted grounds of unpatentability.

#### Anticipation Assertions in the Petition

Anticipation requires each limitation recited in a claim to be found, either expressly or inherently described, in a single prior art reference, arranged as in the claim. *See Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008) (quoting *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983)); *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). In an apparent attempt to satisfy these requirements, the Petition in this case presents underdeveloped arguments.

Regarding the assertion that claim 1 is anticipated by Sullivan, for example, the Petition states only the following:

Sullivan discloses each element of Claim 1 of the '269 patent. The specific references are listed with the claim elements in the claim chart below. Sullivan refers to the process as "signal injection" p. 9. The "field site" data of the claim are taken from an "in-service tube" in Sullivan. Flawed tubes are created in the lab (p. 9), scanned and the flaw signal superimposed on the in-service tube data (p. 9) to create a combined data signal.

Pet. 16-17.<sup>10</sup> An excerpt from the Petition's claim chart is set forth below, with elements of claim 1 appearing in the left column and the corresponding portion where the limitation allegedly is disclosed in Sullivan appearing in the right column:

Claim 1	Anticipated by Sullivan (Ex. 1002)
creating a specimen that simulates the component undergoing non-	"These laboratory measurements may consist of scans of the flawed tubes" (p. 9).
destructive examination with a	scans of the nawed tubes (p. 9).
selected flaw;	
generating nondestructive	"Laboratory methods have been developed that can
examination data at a laboratory site, remote from the field site, from the	induce real fatigue cracks and SCC [stress corrosion cracks] in SG [steam generator] tubes" (p.4).
specimen of the component	cracks] in SO [steam generator] tubes (p.4).
undergoing non[]destructive	
examination;	

### Pet. 17.

Neither the textual argument, nor the claim chart, explains adequately where each element of claim 1 is found in the reference, much less how these elements are arranged as in the claim. For example, the Petition does not explain adequately how Sullivan's equivocating description that laboratory measurements may consist of scans of the flawed tubes discloses "creating a specimen that simulates the component undergoing non-destructive examination with a selected flaw," as recited in claim 1. *See* Pet. 17. Nor does the Petition explain sufficiently how Sullivan's indication of the existence of laboratory methods to induce flaws discloses the specific claim element that requires generating data from a particular component—"from the specimen of the component undergoing non-destructive examination." *See id.* 

<sup>&</sup>lt;sup>10</sup> The Petition refers to the page numbers at the top of the page, not the exhibit page numbers appearing at the bottom of the page. For clarity, we will adopt the same convention.

The Petition also presents sparse analyses for the other grounds of anticipation asserted against claim 1. For example, the Petition includes an assertion that Begley anticipates claim 1, in part, because Begley's description of cutting sectors of flaw signals to provide a large database of flaw signals and Begley's description of preparing test data using signal flaws disclose the required combining step, as recited in claim 1. Pet. 24. The Petition, however, does not explain adequately how creating a database of flaw signals and preparing test data disclose the particular elements of the combining step in the manner claimed—combining nondestructive examination data collected at the field site with nondestructive examination data collected at the laboratory site to establish a combined data train that reflects the nondestructive examination response to the selected flaw in a background representative of data collected at the field site.

Moreover, the Petition includes a number of contentions that a claim element is inherent in a purportedly anticipating reference, without sufficient explanation and evidence why such a feature necessarily would be present. *See In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349 (Fed. Cir. 2002) ("Under the principles of inherency, if the prior art necessarily functions in accordance with, or includes, the claimed limitations, it anticipates." (citations and internal quotation marks omitted)).

For example, claim 2 depends from claim 1 and further recites "the steps of separately calibrating the data collected at the field site and the data collected at the laboratory site so that the data collected at the field site and the data collected at the laboratory site have the same relative signal strengths corresponding to a first flaw." The Petition, without relying on expert testimony or including further analysis as to what one skilled in the

art would understand Hölzl to disclose, contends claim 2 is anticipated by Hölzl, relying in part on a purportedly inherent disclosure by Hölzl. The argument regarding claim 2 is:

**Claim 2 is anticipated by Hölzl (Ex. 1011).** Claim 2 is directed to calibrating the lab and field data to the same signal strengths, i.e. amplitude. This is a common sense step for any measurement method. Hölzl discloses that fault signals are displayed as a function of amplitude and phase (c. 1, 11. 28-32). *It is inherent in Hölzl that the two signals would have to be aligned as to signal strength to produce a consistent combined data stream.* 

Pet. 28 (italic emphasis added).

Similarly, claim 4, which depends from claim 1, additionally recites "separately calibrating the data collected at the field site and the data collected at the laboratory site so that the data collected at the field site and the data collected at the laboratory site have the same relative signal orientation." The Petition asserts, without further support or evidence, that "[i]t is inherent in Hölzl that the two signals would have to be aligned as to signal orientation to produce a consistent combined data stream that consistently reflects material thickness and therefore any damage." Pet. 28.

#### **Obviousness Assertions in the Petition**

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art;

(2) any differences between the claimed subject matter and the prior art;
(3) the level of ordinary skill in the art; and (4) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966).

The Petition, however, addresses the issue of obviousness with perfunctory assertions. For example, turning again to the grounds asserted against claim 1, the Petition also includes eight grounds that claim 1 would have been obvious over various references. Many of those asserted grounds are analyzed together—claim 1 would have been obvious over Hedengren in view of any of Hölzl, Junker, Begley, or Sullivan (Pet. 31-32), and claim 1 would have been obvious over Holt in view of Junker, Sullivan, or Begley (Pet. 32-34).

The Petition does not include expert testimony or other evidence to support its allegations concerning reasons why one skilled in the art would have combined features of references to arrive at the claimed invention. *See, e.g.*, Pet. 18 (asserting claim 2 would have been obvious over Sullivan in view of any of Sapia, Winslow, or Junker); Pet. 19 (asserting claim 3 would have been obvious over Sullivan in view of Winslow or Junker).

Moreover, many of the obviousness grounds in the Petition allege limitations are obvious, "common sense" steps without a specific prior art reference. For example, the Petition asserts independent claim 14 would have been obvious over Sullivan because, in part, two recited steps "are obvious common sense measures." Pet. 45; *see also* Pet. 47 (alleging the same with regard to the assertion that independent claim 14 would have been obvious over Begley); Pet. 49 (alleging the same with regard to the assertion that independent claim 14 would have been obvious over Hölzl in view of Junker).

The reliance on "common sense" is unhelpful in this case because the Petition fails to explain adequately or provide sufficient evidence as to why one skilled in the art "would store both data and the calibration factors to ensure integrity of the data and that the next user of the data was aware of the calibration factor used in obtaining the data" (Pet. 45).

#### Patent Owner's Preliminary Response

Patent Owner's remarks in its Preliminary Response similarly are sparse, presumably due to having to address many multiple grounds in page limits assigned to that response. For example, Patent Owner presents only a single paragraph discussion of the asserted ground that claim 3 would have been obvious over Sullivan in view of Winslow or Junker (Prelim. Resp. 12, ¶ D), and only a single paragraph discussion of the asserted ground that claim 3 would have been obvious over Sullivan in view of Sapia or Hölzl, and in further view of Sullivan (Prelim. Resp. 13, ¶ E). *See also* Prelim. Resp. *passim* § V, ¶¶ H-M, O-W, Z, AA-GG, LL, MM, OO, PP, RR, SS, ZZ, AAA, CCC-FFF, KKK-QQQ (each a single paragraph challenging a ground asserted in the Petition).

#### ANALYSIS

"Although parties are given wide latitude in how they present their cases, the Board's experience is that the presentation of an overwhelming number of issues tends to detract from the argument being presented . . . . Thus, parties should . . . focus on concise, well-organized, easy-to-follow arguments supported by readily identifiable evidence of record." Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,763 (Aug. 14, 2012).

In contrast to that guidance, the Petition asserts a large number of grounds and presents underdeveloped arguments against each claim. Moreover, numerous grounds are presented and argued together in the Petition, thereby obfuscating the arguments as to each ground. Although the Petition includes proposed claim constructions, the bases of the proffered constructions are not stated. In addition, the sparse arguments and claim charts in the Petition do not adequately tie the evidence of the references to specific claim limitations. Further, sufficient evidence is not presented to support assertions that limitations were inherent in a particular reference or would have been "common sense" steps. Nor does the Petition include adequate supporting evidence for obviousness rationales for combining the teachings of the cited references.

For these reasons, the Petition does not comply with the Board's rules that a petition must include "[a] full statement of the reasons for the relief requested, including a detailed explanation of the significance of the evidence" and "where each element of [each challenged] claim is found in the prior art patents or printed publications relied upon [and] the relevance of the evidence to the challenge raised." 37 C.F.R. §§ 42.22(a)(2), 42.104(b)(4),(5).

Further, the Petition places a significant and unfair burden on the Patent Owner to respond adequately to underdeveloped arguments for numerous asserted grounds. The burden on the Patent Owner is evident in its cursory responses to the numerous grounds asserted in the Petition, presumably necessitated by the Petition's underdeveloped arguments. *See, e.g.*, Prelim. Resp. 12,  $\P$  D (presenting one paragraph challenging the asserted ground that claim 3 would have been obvious over Sullivan in view

of Winslow or Junker); Prelim. Resp. 13, ¶ E (presenting one paragraph challenging the asserted ground that claim 3 would have been obvious over Sullivan in view of Sapia or Hölzl, and in further view of Sullivan).

Moreover, under these circumstances, attempting to evaluate fully the numerous grounds and underdeveloped assertions in the Petition to determine whether Petitioner has shown that it would be likely to prevail in any unpatentability challenge would place a significant burden on the Board and contravene the efficient administration of the Office. *Cf. Heckler v. Chaney*, 470 U.S. 821, 831 (1985) (acknowledging an agency decision not to undertake permitted action "often involves a complicated balancing of a number of factors which are peculiarly within its expertise"); *Schumer v. Lab. Computer Sys., Inc.*, 308 F.3d 1304, 1316 (Fed. Cir. 2002) ("It is not our task, nor is it the task of the district court, to attempt to interpret confusing or general testimony to determine whether a case of invalidity has been made out . . . .").

Therefore, we decline to expend our resources scouring the numerous grounds for one that demonstrates a reasonable likelihood that Petitioner would prevail in showing unpatentability of at least one of the claims challenged in the Petition (*see* 35 U.S.C. § 314(a)). Nor will we attempt to fit evidence together into a coherent explanation that supports an argument that demonstrates a reasonable likelihood that Petitioner would prevail. *See Stampa v. Jackson,* 78 USPQ2d 1567, 1571 (BPAI 2005) (quoting *Ernst Haas Studio, Inc. v. Palm Press, Inc.,* 164 F.3d 110, 111-12 (2d Cir. 1999) ("Appellant's Brief is at best an invitation to the court to scour the record, research any legal theory that comes to mind, and serve generally as an advocate for appellant. We decline the invitation.")).

Moreover, in the present circumstances, to attempt to determine, within the three-month period mandated by Congress, whether any of the grounds asserted by the Petitioner shows that there is a reasonable likelihood that Petitioner would prevail on at least one of the claims challenged in the Petition undermines the Board's ability to complete determinations regarding other petitions awaiting decisions on institution and to complete instituted trials in the time periods mandated by Congress. *See* 35 U.S.C. §§ 314(b), 316(a)(11); *cf. Heckler v. Chaney*, 470 U.S. at 831 (indicating an agency, when deciding whether to take action in a particular matter, must determine whether its resources are best spent on one matter or another).

#### CONCLUSION

The Office promulgated regulations concerning the requirements for a petition for *inter partes* review, taking into consideration "the efficient administration of the Office[] and the ability of the Office to timely complete proceedings instituted," among other factors. 35 U.S.C. § 316(b). Further, we are to construe our rules "to secure the just, speedy, and inexpensive resolution of every proceeding." 37 C.F.R. § 42.1(b).

Therefore, we exercise our discretion and do not institute an *inter partes* review of any claim in the '269 patent for reasons of administrative efficiency. *See* 37 C.F.R. § 42.108.

#### ORDER

For the foregoing reasons, it is:

ORDERED that the Petition is denied as to all challenged claims, and no trial is instituted.

#### For PETITIONER:

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