

United States Court of Appeals for the Federal Circuit

03-1356

SIERRA APPLIED SCIENCES, INC.,

Plaintiff-Appellant,

v.

ADVANCED ENERGY INDUSTRIES, INC.,

Defendant-Appellee.

M. Gabriel McFarland, Evans & McFarland, LLC, of Denver, Colorado, argued for plaintiff-appellant. The briefs were submitted by Susan E. Chetlin, Dahl & Osterloth, L.L.P. of Denver, Colorado, for the appellant. Of counsel was Bruce E. Dahl.

Thomas C. Grimm, Morris, Nichols, Arsht & Tunnell, of Wilmington, Delaware, argued for defendant-appellee. With him on the brief were Kristen M. Healey and Sean P. Haney. Of counsel on the brief was Craig A. Neugeboren, Cooley Godward LLP, of Broomfield, Colorado.

Appealed from: United States District Court for the District of Colorado

Chief Judge Lewis T. Babcock

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v.

ADVANCED ENERGY INDUSTRIES, INC.,

Defendant-Appellee.

DECIDED: April 13, 2004

Before MICHEL, GAJARSA, and DYK, Circuit Judges.

MICHEL, Circuit Judge.

This case raises the jurisdictional issue of when a patent suit seeking a declaratory judgment of noninfringement or invalidity presents a “case or controversy” within the meaning of Article III of the United States Constitution. Sierra Applied Sciences, Inc. (“Sierra”) appeals the decision of the United States District Court for the District of Colorado that dismissed Sierra’s declaratory-judgment complaint against Advanced Energy Industries, Inc. (“AEI”) for lack of a case or controversy. Sierra Applied Scis., Inc. v. Advanced Energy Indus., Inc., 258 F. Supp. 2d 1148 (D. Colo. 2003). We reverse-in-part, vacate-in-part, affirm-in-part, and remand.

BACKGROUND

The following facts are uncontested, except where otherwise noted:

I. AEI and Its Reactive-Sputtering Patents

AEI sells power supplies, including power supplies designed for use in reactive sputtering. AEI describes reactive sputtering as “a process whereby the surface of an item is coated with a thin film formed through chemical reactions in the presence of a plasma of charged particles in a vacuum chamber.” Reactive sputtering is used in, inter alia, the fabrication of electrical circuits.

AEI’s patent portfolio includes U.S. Patent Nos. 5,718,813 (“’813 patent”), 6,217,717 (“’717 patent”), and 6,001,224 (“’224 patent”). According to AEI, these patents “cover methods of reactive sputtering using a direct current power supply to create a sputtering plasma of positively charged ions in the chamber. By periodically reversing the voltage applied to the sputtering target in the chamber, the occurrence of electrical discharges or arcs within the chamber is reduced or eliminated.” See also ’813 patent, col. 2, ll. 41-44 (“The present invention discloses both the fundamental understandings and circuitry designs which virtually eliminate the occurrences of arcs and which afford processing advantages within a reactive DC sputtering system.”); ’224 patent, col. 2, ll. 41-44 (same); ’717 patent, col. 2, ll. 36-39 (“The present invention discloses both the fundamental understandings and circuitry designs which minimize and in some instances completely eliminate the occurrences of arcs within a DC plasma processing system.”).

Each of the patents includes both method and system claims. Salient to the instant case, each patent includes at least one claim that recites the use of a direct-current (“DC”) power source in a method or system of reactive sputtering, without specifying a particular numerical wattage for the power source. See, e.g., ’813 patent, col. 10, ll. 46-63 (claim 1, reciting limitation of “furnishing direct current power to said coating chamber to create a plasma composed of charged particles”).

The three patents' claims also recite language directed to arc prevention; in some claims, this language focuses on the functioning of the power supply. See, e.g., id. at col. 11, ll. 13-17 (claim 3, reciting limitation of "reversing said voltage so as to avoid potential arcing conditions in the first place during said deposition wherein said step of reversing said direct current power occurs for a time which does not extinguish said plasma").

II. Sierra's Reactive-Sputtering Power Supplies

Sierra is involved in developing and commercializing at least two types of reactive-sputtering products: cathodes and power supplies. Only the latter are at issue in this suit. Sierra's attempts to develop and commercialize reactive-sputtering power supplies date back approximately a decade, as described below.

A. 2 kW Power Supply

? At some point in the early to mid-1990s, Sierra developed a 2 kW power supply that could be used in reactive sputtering.

? Sierra asserts that at least two or three times in every year since 1993, it has used its 2 kW power supply for in-house reactive sputtering, for customer tests and product development.

? In 1994, Sierra began manufacturing and selling a 2 kW power supply for use in, inter alia, reactive sputtering. Sierra stopped selling the 2 kW power supply in the fall of 1995, because, according to Sierra's president and owner Barry Manley, "it [was] just not a large base of customers requiring only two kilowatts."

B. 150 kW Power Supplies

? In 1998, Sierra began developing a 150 kW power supply that could be used for reactive sputtering. In late 1999, Sierra advertised its plans to market a 150 kW power supply, using a picture of a prototype. This prototype was principally designed by Charlie Coleman, a

Sierra engineer. The Coleman prototype was destroyed during testing in 2000. It is unclear on the appellate record whether the Coleman prototype was used successfully in reactive sputtering before it failed.

? In mid-2000, Sierra started work on a second version of a 150 kW power supply. This second version was principally designed by a different engineer, Keith Billings. Sierra first tested a "breadboard unit" -- i.e., a unit whose circuitry is laid out on a table or board, as opposed to a unit in a housing (or "box") -- of the Billings 150 kW power supply in 2002.

III. AEI's Correspondence with Sierra

On December 1, 1995, AEI's outside counsel sent Sierra a letter that stated in part:

This firm represents Advanced Energy Industries, Inc. Recently we have become aware that Sierra Applied Sciences makes, uses, or sells certain power supplies for thin film applications. Please be advised that Advanced Energy Industries, Inc. has been issued the above-referenced United States Patent (and has others pending) involving processes and systems which it appears your company is using. A copy of United States Patent No. 5,427,669 is enclosed as the first in a series of patents involving this technology. Based upon an initial analysis, we believe that your equipment infringes upon this first patent. Since my client has invested heavily in developing and protecting its technology, it intends to protect its position.

Accordingly, by this letter we are formally notifying you of this first patent and the likelihood of an infringement. . . . In addition, should you consider redesigning your systems, be aware that other patents are pending and are expected to issue which will further cover our client's technology. . . .

[O]ur client has invested heavily in developing and patenting this technology and has been granted the exclusive right to it. Our client does intend to aggressively protect its rights.

At the time of this letter, Sierra had used, manufactured, and sold a 2 kW reactive-sputtering power supply.

On January 15, 1996, Sierra's outside counsel sent AEI's counsel a letter that stated in part:

We have now completed our investigation of the matter referred to in your letter of December 1, 1995. While Sierra Applied Sciences once manufactured and sold a power supply which we presume to be the power supply referenced in your letter, Sierra only manufactured and sold less than five of those power supplies. Sierra is no longer manufacturing those power supplies and has no plans to do so in the future. In the light of the foregoing, then, we regard any charges of infringement

moot and will consider this matter closed.

Please note that Sierra's decision to discontinue production of the power supply should in no way be construed as an admission of infringement. The decision to discontinue the product was based solely on business considerations and not on any considerations of patent infringement.

Sierra did not receive a response from AEI.

On December 8, 1999 -- almost four years later -- AEI's counsel sent Sierra another letter, which stated in part:

Several years ago, we informed you of an initial patent (No. 5427669) and of a growing patent position which protects some significant technologies in the field of thin film processing. In a letter dated January 15, 1996, we were assured that less than five of the offending power supplies had been manufactured and that Sierra had changed its plans and was no longer manufacturing that type of power supply. In spite of those assurances, it appears that Sierra is now in fact again marketing pulsed power supplies which use some of AEI's technology. As a result, it appears that we need to again reiterate to you our client's patent position and our concern regarding certain of Sierra's business activities.

Specifically, as you already know, Advanced Energy Industries, Inc. has been issued United States Patent No. 5,427,669. We provided you a copy of that patent in late 1995. In 1995 we told you that other patents were pending which further covered our client's technology. As you could have easily determined, several of these have now issued. Specifically, we attach US Patent Nos. 5576939, 5718813, and 5917286. Once more, do be aware that other patents protecting yet other aspects of the technology are also pending and are anticipated to issue. . . .

It seems the situation of several years ago is now recurring because it appears that your current designs still infringing [sic] upon AEI's rights. Unlike the prior situation, however, we are concerned because your actions now appear to present a situation of intentional infringement. . . .

[E]lecting to continue to make, use, or sell infringing products in the face of our letters seems likely to be considered intentional patent infringement, which offers more serious remedies to our client.

At the time of this letter, Sierra was in the process of developing the Coleman 150 kW power supply, which it had advertised in 1999 (presumably attracting AEI's renewed attention). According to Sierra, Sierra was also continuing to use its 2 kW power supply for in-house reactive sputtering during this period.

On December 15, 1999, Sierra's counsel sent AEI's counsel a letter stating:

We represent Sierra Applied Sciences, Inc., and have been asked by its president, Mr. Barry Manley, to consider your letter of December 8, 1999. We are

currently investigating the matter and will respond formally to your letter shortly.

Sierra did not provide any further response to AEI.

On November 13, 2000, AEI's counsel sent Sierra's counsel another letter, which stated in part:

[I]n December of 1999, we wrote Sierra Applied Sciences advising it of a renewed concern of intentional patent infringement of several of Advanced Energy Industries' technologies. This was the second instance in which we formally put Sierra on notice. The original notification was in 1995. After the 1995 notice, Sierra was responsive. It assured us that only five of the offending power supplies were shipped and that it was no longer manufacturing the product.

In our recent letter we expressed concern that we may have been misled by Sierra in its earlier assurances and that Sierra appeared to have been surreptitiously copying AEI's technology. Given the seriousness of these concerns, if anything, we expected an even higher level of responsiveness. In fact, on December 15, 1999, you responded on Sierra's behalf advising us that your firm was investigating the matter and would respond shortly. We have received no response. Thus it appears that our concerns are well placed. . . .

Please advise Sierra that if it has any comments on the situation, they must be received by no later than November 28. . . . also know that given the approach selected by Sierra, if we do not hear by that date, we will act as and when we deem appropriate without further notice.

At the time of this letter, Sierra was in the very early stages of developing the Billings 150 kW prototype. According to Sierra, Sierra was also continuing to use its 2 kW power supply for in-house reactive sputtering during this period.

On November 27, 2000, Sierra's counsel responded to AEI's counsel, stating:

This letter is in response to your letter of November 13, 2000.

We did not formally respond to your letter of December 8, 1999, because our investigation revealed that Sierra Applied Sciences was not then and is not now selling any power supplies. We presume that you became aware of that fact since you never (until now) questioned the absence of our formal reply. Your renewed interest in this matter makes us curious as to the source of your information. One would have assumed that you would have at least seen a Sierra power supply before concluding that there was infringement. A prudent investigation would have actually involved a technical analysis of a power supply in light of the claims of any AEI patents before bringing a charge of infringement.

We also take umbrage with your accusations that Sierra has been engaged in some type of "surreptitious copying" and that Sierra has been "misleading" AEI. The facts remain as follows: Sierra was not selling any power supplies on December 8, 1999. Sierra is not now selling any power supplies. Therefore, we regard your

charges of infringement, copying, and/or misleading conduct as being without merit.

You should know that Sierra is expecting to market sometime in the next quarter a 150 kW power supply. Sierra is, of course, aware of the various AEI power supply patents and has continuously consulted those patents during the design stage. Sierra is confident that its 150 kW power supply does not infringe any AEI patent. In fact, Sierra Applied Sciences has itself obtained numerous patents covering various aspects of its power supply.

We trust that the information contained in this letter addresses AEI's issues and concerns. If you have any other questions regarding the subject matter of this letter, please contact me directly. Otherwise, we will consider this matter closed.

This letter was the last communication between the parties prior to Sierra's filing of the complaint.

IV. Sierra's Initiation of Litigation

On September 14, 2001, Sierra sued AEI, seeking, inter alia, a declaratory judgment of invalidity or noninfringement of the '813 patent. The complaint did not refer to the '717 and '224 patents. The complaint included the following allegations:

7. Sierra during the years 1993-1996, manufactured, used, and sold a pulsing type power supply system (referred to herein as the "2 kW power supply") designed to be used with sputter deposition system to perform sputter deposition processes, including reactive sputter deposition processes. . . .

8. AEI has notified Sierra that the 2 kW power supply manufactured, used, and sold by Sierra is an infringement of United States Letters Patent No. 5,427,669. This notification was received by certified mail, dated December 1, 1995

9. While Sierra is no longer selling the 2 kW power supply, it plans on remarketing the 2 kW power supply shortly. Sierra is currently using a 2 kW power supply at its facilities to develop new and improved reactive sputter deposition processes with the goal that such processes will be of use to Sierra's customers. The 2 kW supply is identical to the 2 kW power supply previously sold by Sierra.

10. Sierra is currently developing a 150 kW power supply designed to be used with sputter deposition systems to perform sputter deposition processes, including reactive sputter deposition processes. Sierra has announced to the trade its plans to soon offer for sale its 150 kW power supply. A brochure containing the announcement is attached hereto as Attachment F.

11. On information and belief, after becoming aware of Sierra's announcement of its plans to soon market its 150 kW power supply, AEI notified Sierra that the 150 kW power supply is an infringement of United States Letters Patent Nos. 5,427,669; 5,576,939; 5,718,813; and 5,917,286. This notification was received by certified mail, dated December 8, 1999

On November 9, 2001, AEI filed an answer, affirmative defenses, and counterclaims. The counterclaims alleged that Sierra had willfully infringed the '813, '717, and '224 patents, by making,

using, selling, or offering to sell its 2 kW and 150 kW power supplies. AEI requested damages and injunctive relief. Sierra filed a reply to AEI's counterclaims on November 29, 2001.

V. Discovery

During discovery in the case, AEI explored the evidence of Sierra's past and present activities with respect to the 2 kW and 150 kW power supplies, as described below.

A. 2 kW Power Supply

? In July 2002, Sierra's president, Manley, gave deposition testimony that contradicted the complaint's allegation that Sierra "plans on remarketing the 2 kW power supply shortly." Manley testified that Sierra was not currently manufacturing a 2 kW power supply, that Sierra was currently undecided as to whether it would manufacture such a power supply, and that Sierra was undecided as to the date on which it would decide how to proceed.

? On October 30, 2002, AEI's expert conducted a physical inspection of the 2 kW power supply. AEI's expert tested the unit at the inspection, and later opined that it infringed AEI's '813, '224, and '717 patents.

B. 150 kW Power Supplies

? In its initial interrogatory responses, dated March 6, 2002, Sierra stated that "[a] 150 kW power supply was tested, but was destroyed in the process." In this interrogatory response, Sierra did not disclose any subsequent development of the successor Billings 150 kW power supply. In a supplemental interrogatory response dated September 6, 2002, Sierra stated that "Sierra has made a 150 kW power supply, the development of which has just been completed."

? At his July 18, 2002 deposition, Manley disclosed that the 150 kW power supply that was destroyed in testing was the power supply that was depicted in the brochure attached to the complaint. Manley also testified regarding the Billings 150 kW power supply, stating that Sierra

was “finishing [its] development” and expected to begin manufacturing “by the first of the year” in 2003. Manley testified that Sierra needed “to do final layouts of the circuit boards” and that the power supply “need[ed] to go through some more thorough testing, so there [was] most likely going to be some minor changes.” Manley conceded that as of the date of his deposition, there was “no existing or draft advertising literature for the [Billings] 150-kilowatt supply,” and moreover that it was conceivable that Sierra would not sell any 150 kW power supplies for sputter deposition:

Q: I thought you said it hasn’t been determined yet whether or not 150-kilowatt power supplies will be sold for sputter deposition; did I get that right?

A: You got that right.

Q: Okay. And my question now goes a step further and asks you, is it conceivable that none of those will be sold for use in sputter deposition?

A: That’s always a possibility.

? On September 20, 2002, Billings, the chief designer of Sierra’s second 150 kW power supply, gave the following deposition testimony:

Q: [S]itting here today, do you have an expectation of when the 150-kilowatt supply will first be made for -- available for sale?

A: Well, again, it would be speculation. I don’t think it could be made available in less than six months, but it could take several years.

Q: Have --

A: In fact, I would extend that. Make it a year. I don’t think they’ll do it in six months.

Q: Why do you think that?

A: Because there’s a lot of work to be done yet.

Q: So minimum time probably a year, and maybe longer?

A: Oh, yes.

? On October 30, 2002, AEI’s expert conducted a physical inspection of the Billings prototype. At the time of the inspection, the Billings prototype was in “breadboard” form. It was, however, capable of providing pulsed, direct-current power as part of a reactive-sputtering process. Indeed, AEI’s expert tested the unit at the inspection, and later opined that it infringed AEI’s ’813, ’224, and ’717 patents.

VI. AEI's Motion to Dismiss

On November 5, 2002, AEI moved to dismiss the complaint for lack of subject matter jurisdiction, asserting the absence of a case or controversy between the parties. The motion cited the discovery evidence that Sierra was not manufacturing and selling any power supplies for reactive sputtering, and that Sierra was uncertain about whether and when it would begin manufacturing and selling the power supplies.

In response, Sierra argued that it had made, used, and sold its 2 kW power supply, and that it had made, used, and otherwise made meaningful preparations for potentially infringing activities with respect to its 150 kW power supplies. Sierra emphasized that it continued to use the 2 kW power supply for in-house testing and product development. Sierra also stated that the Billings 150 kW power supply was "now operational and being used at Sierra's facility to develop new and improved reactive sputtering processes," noting that AEI had itself used the Billings 150 kW power supply during its October 2002 inspection. Sierra asserted that "in less than two months" Sierra would "complete final testing and final circuit diagrams" for the Billings 150 kW power supply, and that Sierra "anticipate[d] shipping its [Billings] 150 kW power supply to select potential customers in less than three months." Sierra conceded, however, that it "d[id] not intend to sell its 2kW power supply until, and only if, this Court has determined invalidity or noninfringement in favor of Sierra," and likewise that its sale of the Billings 150 kW power supply was "pending the resolution of this suit."

On March 24, 2003, the district court held a full-day hearing, which included argument from counsel and direct and cross examinations of Manley, Sierra's software designer, Sierra's technical expert, and one of the inventors of AEI's patents. The testimony of the witnesses was consistent with the earlier deposition testimony. Sierra also brought box (as opposed to breadboard) versions of its 2 kW and Billings 150 kW power supplies to the hearing.

In its argument at the hearing, AEI's counsel focused on the date the complaint was filed, contending that Sierra had not had any operational 150 kW power supply on the date of filing, that Sierra had no immediate plans for manufacture or sale of either the 2 kW or the Billings 150 kW power supplies on the date of filing, and that any in-house use by Sierra of its 2 kW power supply would be insufficient to establish a case or controversy, as "the two parties only care about the marketing and sale of these two devices." The last argument prompted the following colloquy with the district court:

THE COURT: Let me ask you a question now. It sounds to me as though AEI is making a judicial admission here that it does not object to nor would threaten suit to any internal use of the 2K power supply. You may be bound by that, you know.

MR. GRIMM: The internal use they're currently making of it, your Honor, absolutely.

At the close of the hearing, the district court ruled from the bench, stating in part,

I am left with an abiding and firm conviction and find and conclude that the Complaint filed September 14, 2001 seeks an advisory opinion. It is an attempt, when focused, as this case has evolved, on the issue of, quote, "use," unquote, to vault into this Court on a slender and insubstantial reading, which does not support this Court's jurisdiction. It didn't exist when the Complaint was filed as was requisite. And, accordingly, the Complaint must be dismissed.

The district court also dismissed AEI's counterclaims without prejudice. The district court promised to issue "a more detailed and thorough opinion, which then, should Sierra wish, can be reviewed by the Federal Circuit." In a formal order dated the same day as the hearing, the court granted AEI's motion to dismiss, dismissed the complaint, dismissed AEI's counterclaim without prejudice, and iterated that "[a] comprehensive Order stating the Court's Findings and [sic] Fact and Conclusions of Law is forthcoming."

On April 22, 2003, the Court issued its Memorandum Opinion and Order.¹ As for the 2 kW power supply, the district court stated:

Plaintiff's owner, Bruce [sic] Manley, testified that Plaintiff developed its 2-kW power supply in 1991-93 and manufactured it in 1994. By Fall 1995, Plaintiff had sold "12 or 13" of the devices. Manley testified that in Fall 1995 he recognized a decreased market interest in the 2-kW power supply coupled with an increased market need for a larger power supply. This led to Plaintiff's effort to develop a 150-kW power supply. Plaintiff wrote a letter to Defendant in 1996. It stated, "Sierra is no longer manufacturing [the 2-kW supply] and has no plans to do so in the future." Manley admitted that the 2-kW was no longer being manufactured, and testified that Plaintiff still uses the 2-kW supply at its facility for testing and product development, two-to-three times a year.

The evidence shows Defendant was satisfied Plaintiff was not marketing the 2-kW power supply upon receipt of Plaintiff's 1996 letter and never communicated opposition to Plaintiff's internal use of the 2-kW device. Defendant stipulates that it does not care whether Plaintiff uses the 2-kW power supply internally. Therefore, I find and conclude Plaintiff never had reasonable apprehension of a patent infringement lawsuit regarding the 2 kW supply. . . . Plaintiff has not proven there was an actual case or controversy in existence at the time it filed its Complaint September 14, 2001.

Sierra, 258 F. Supp. 2d at 1152 (citation omitted). With respect to the 150 kW power supplies, the district court stated in part:

Since 1999 Plaintiff has been developing a 150-kW power supply to be used in sputtering and reactive-sputtering deposition systems. Manley testified it is now operational and in use at Plaintiff's facility. Defendant sent three warning letters to Plaintiff (1995, 1999, 2000) advising Plaintiff it would take appropriate action to protect its patents. In the December 1, 1995 and December 8, 1999 letters, Defendant wrote it would "aggressively defend its rights." The parties agree this admonishment created in Plaintiff "reasonable apprehension" of a forthcoming patent-infringement suit by Defendant. . . .

The 150-kW power supply is in its second incarnation. The first prototype, designed by Plaintiff's designer, Charlie Coleman, was destroyed during testing. This first version was depicted in Plaintiff's Complaint. After this prototype was destroyed, Bruce [sic] Manley testified Plaintiff's designer, Keith Billings, created

¹ Sierra argues that the March 24, 2003 order was the final judgment, from which Sierra filed a notice of appeal on April 21, 2003, and that the district court lacked jurisdiction to issue its April 22, 2003 Memorandum Opinion and Order. Sierra seems to be suggesting that our court should ignore the district court's opinion, which we regard as nonsense. It is not unusual for a district court to issue an opinion after orally informing the parties of a ruling; the opinion provides a more formal and thorough explanation of the earlier oral ruling. While our court ultimately rules on a district court's judgment, not its opinion, we always review the opinion to understand the analysis that led to the district court's judgment.

another 150-kW model. Manley testified that he had expected to introduce the model into the marketplace in Fall 2002. However, as of the hearing date, March 24, 2003, Plaintiff was still engaged in pre-marketing development of the 150-kW device. For example, Manley testified to the following:

1. Plaintiff was still testing the 150-kW device, and needed to do more testing. . . .
6. Accompanying advertising, marketing literature, or an operating manual do not exist.

The evidence shows that as of the time of the filing of the Complaint on September 14, 2001, the 150-kW power supply Plaintiff brought to the hearing was not in existence because the first prototype (the Coleman device) was destroyed before the Complaint was filed.

Defendant inspected and tested the second prototype of the 150-kW power supply (the Billings device) for four hours at Plaintiff's facility on October 30, 2002. One year and nine months after Plaintiff's Complaint was filed, Defendant found no more than a conglomeration of circuit boards, wiring, and other components spread out on a "bread board," or test-bed work table in Plaintiff's facility. There is no evidence that a 150-kW supply existed at all in tangible form as of the filing date of the Complaint, September 14, 2001. Approximately two and one-half weeks before the hearing, Plaintiff inserted the components that were wired together on the "bread board" into the large, black, boxy housing that Plaintiff brought to the courtroom. This version of the "bread-board" component set-up has not been tested by Plaintiff or Defendant.

Plaintiff's designer Keith Billings testified in deposition that the second version of the 150-kW device was at least a year away from sale. Manley testified in deposition that he was "undecided" whether to market and sell the 150-kW device. . . .

There is no persuasive evidence that Plaintiff was engaging in infringing activity with regard to any 150-kW device at the time it filed its Complaint. In fact, Plaintiff admitted in its response to Defendant's Interrogatory 1B that its only 150-kW power supply as of March 2002 was the first prototype that had been destroyed. . . .

Plaintiff has never manufactured a 150-kW device. Its only prototype, presumably in working condition, has not been fully tested and is undergoing further improvements. Plaintiff had not sold any 150-kW devices as of September 14, 2001, and did not have concrete plans to do so then. Its plans for the 150-kW power supply are still murky. In addition to other substantial and unfinished testing, packaging, and marketing issues, Manley admits he wants a decision regarding infringement from this Court before deciding whether to market the 2-kW or finish testing and final assembly of the 150-kW supply. Plaintiff vaulted into court on a slender reed: its dubious "use" of the 150-kW device. This cannot withstand dismissal for lack of subject-matter jurisdiction.

Id. at 1153-54 (citations omitted). The district court concluded that "[w]hat Plaintiff seeks is an advisory opinion. The evidence shows there was no case or controversy between the parties

regarding either the 2-kW or the 150-kW power supplies on September 14, 2001.” Id. at 1154.

On April 30, 2003, the district court entered a formal final judgment. Sierra timely appealed to our court, which has jurisdiction pursuant to 28 U.S.C. § 1295(a)(1). We heard argument on January 9, 2004.

DISCUSSION

“Whether, upon a particular set of facts, an actual controversy exists for purposes of Article III is a question of law subject to plenary appellate review,” Super Sack Mfg. Corp. v. Chase Packaging Corp., 57 F.3d 1054, 1058 (Fed. Cir. 1995), but a “district court’s view of the legal effect of the fact pattern before it is not to be lightly disregarded,” Arrowhead Indus. Water, Inc. v. Ecolochem, Inc., 846 F.2d 731, 735 (Fed. Cir. 1988). Article III limits federal jurisdiction to suits that address “a real and substantial controversy admitting of specific relief through a decree of a conclusive character, as distinguished from an opinion advising what the law would be upon a hypothetical state of facts.” Aetna Life Ins. Co. of Hartford, Conn. v. Haworth, 300 U.S. 227, 241 (1937). In the declaratory-judgment context, “the question in each case is whether the facts alleged, under all the circumstances, show that there is a substantial controversy, between parties having adverse legal interests, of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.” Md. Cas. Co. v. Pac. Coal & Oil Co., 312 U.S. 270, 273 (1941). We have developed a two-part test to guide the case-or-controversy analysis in patent-based declaratory judgment suits:

There must be both (1) an explicit threat or other action by the patentee, which creates a reasonable apprehension on the part of the declaratory plaintiff that it will face an infringement suit, and (2) present activity which could constitute infringement or concrete steps taken with the intent to conduct such activity.

BP Chems. Ltd. v. Union Carbide Corp., 4 F.3d 975, 978 (Fed. Cir. 1993). The first prong looks to the patentholder’s conduct, and the second prong looks to the potential infringer’s conduct. See id. The burden is on the declaratory-judgment plaintiff “to establish that jurisdiction over its declaratory

judgment action existed at, and has continued since, the time the complaint was filed.” Int’l Med. Prosthetics Research Assocs., Inc. v. Gore Enter. Holdings, Inc., 787 F.2d 572, 575 (Fed. Cir. 1986).

As a threshold matter, Sierra argues that in analyzing whether a case or controversy exists, we should treat Sierra’s various power supplies as unitary technology. The district court took a different view, separately considering its jurisdiction over the 2 kW and 150 kW power supplies; the district court did not, however, separately consider its jurisdiction as to the Coleman and Billings devices.

We believe that the record demonstrates that Sierra has developed three distinct, technologically different power supplies -- the 2kW power supply, the Coleman 150 kW power supply, and the Billings 150 kW power supply -- and that jurisdiction must be separately considered as to each. Sierra’s complaint itself distinguishes between the 2 kW and 150 kW power supplies. The complaint includes separate allegations for the 2 kW and 150 kW power supplies, and gives no indication that they used the same technology -- to the contrary, the complaint alleges that “[t]he 2 kW power supply utilized a polarity reversing circuit that is covered by U.S. Patent No. 5,682,067,” but does not allege that this patent covers the 150 kW power supplies.

While Sierra’s complaint does not distinguish between the Coleman and Billings 150 kW power supplies, we believe the record requires such a distinction. At his deposition, Sierra’s president, Manley, testified that in developing the Billings 150 kW power supply, “we’re not using anything that Charlie Coleman did,” and that for this reason the Billings 150 kW power supply would not be an embodiment of U.S. Patent No. 5,990,668, a patent assigned to Sierra and on which Coleman is the named inventor. At the district court hearing, Manley’s testimony underscored the distinction between the Coleman and Billings 150 kW power supplies:

Q: Now we’ve also heard some discussion this morning about a 150 watt power supply.

A: Yes.

Q: And did you develop one of those?

A: I worked on developing two different versions. The most recent one is the one you see here in this black box . . .

Q: When did you start development of the 150 kW power supply?

A: I started working on the first version in '98 and stopped working on it when Charlie Coleman couldn't seem to figure out how to make something work right. And at that point I contacted Keith Billings and he took over the project in 2000. . . .

Q: So the 150 pictured in the ad that was designed by Coleman was the one destroyed in testing, correct?

A: Okay. Yes.

Q: And after the one in the ad designed by Coleman was destroyed in testing Sierra had to come up with a new design for the 150, correct?

A: We didn't have to, but Keith Billings chose to.

Manley testified at his deposition that the output of the Billings 150 kW power supply was ultimately "very similar" -- not identical -- to the output of the Coleman 150 kW power supply.

Where, as here, a declaratory-judgment plaintiff attempts to ground jurisdiction on activities involving distinct, technologically different products, the court must carefully calibrate its analysis to each of the products. To do otherwise would risk issuing an advisory opinion on one product -- or on a method using that product -- based on an actual controversy involving another product. Thus, we separately apply the two-pronged case-or-controversy test to the 2 kW, Coleman 150 kW, and Billings 150 kW power supplies.

I. 2 kW Power Supply

A. AEI's Conduct

The analysis of whether a patentee's -- here, AEI's -- conduct created a reasonable apprehension of suit on the part of the declaratory plaintiff "is an objective one." Shell Oil Co. v. Amoco Corp., 970 F.2d 885, 888 (Fed. Cir. 1992). With respect to the 2 kW power supply, the starting point of the inquiry is AEI's December 1, 1995 letter, which accused Sierra of infringing United States Patent No. 5,427,669, by "mak[ing], us[ing,] or sell[ing] certain power supplies for thin

film applications,” and informed Sierra that AEI “intend[ed] to aggressively protect its rights.” The letter also referred to “other patents [that] are pending and are expected to issue which will further cover our client’s technology.” At the time of the letter, Sierra’s only power supply was its 2 kW device. AEI’s express charge of infringement sufficed to establish a reasonable apprehension that AEI would assert its patent portfolio against Sierra for making, using, or selling the 2 kW supply.

This reasonable apprehension, however, would diminish over time. Sierra responded to AEI’s letter on January 15, 1996, stating in part:

While Sierra Applied Sciences once manufactured and sold a power supply which we presume to be the power supply referenced in your letter, Sierra only manufactured and sold less than five of those power supplies. Sierra is no longer manufacturing those power supplies and has no plans to do so in the future. In the light of the foregoing, then, we regard any charges of infringement moot and will consider this matter closed.

AEI neither responded to Sierra’s letter nor initiated litigation. The parties did not communicate for almost four years. By the end of this long interlude, Sierra could no longer have reasonably apprehended an infringement suit aimed at its disclosed manufacturing and sales of the 2 kW device.

But the pendulum swung back in 1999 and 2000, when AEI sent additional accusatory letters to Sierra. These letters were apparently sparked by Sierra’s advertisement of AEI’s (still-in-development) Coleman 150 kW power supply, but the letters made accusations of infringement that were not limited to 150 kW power supplies; indeed, the letters made no reference to particular numerical wattages. The letters indicated that AEI previously had been content not to target Sierra’s disclosed activities, but that its view had changed in light of recent events. For example, in its December 8, 1999 letter, AEI stated that:

It seems the situation of several years ago is now recurring because it appears that your current designs still infringing [sic] upon AEI’s rights. Unlike the prior situation, however, we are concerned because your actions now appear to present a situation of intentional infringement. . . .

[E]lecting to continue to make, use, or sell infringing products in the face of our

letters seems likely to be considered intentional patent infringement, which offers more serious remedies to our client.

AEI's 1999 and 2000 letters referred to several newly-issued patents, including the '813 patent. The charges established a reasonable apprehension that the '813 patent would be asserted against all of Sierra's power supplies, including the 2 kW power supply. Moreover, in light of the letters, it would be reasonable to apprehend that any infringement suit would be aimed at all of Sierra's activities, even Sierra's pre-1996 manufacturing and sales, which had been dormant issues. These apprehensions remained equally reasonable when Sierra filed its declaratory judgment suit on September 14, 2001.

AEI contends that whatever reasonable apprehension Sierra might have had with respect to the 2 kW power supply at the date of filing the complaint, it was later undercut by AEI's colloquy with the district court regarding Sierra's internal use. Cf., e.g., Amana Refrigeration, Inc. v. Quadlux, Inc., 172 F.3d 852, 855 (Fed. Cir. 1999) ("[A]n actual controversy must be extant at all stages of review, not merely at the time the complaint is filed." (quoting Preiser v. Newkirk, 422 U.S. 395, 401 (1975))). Sierra complains that this colloquy did not constitute an enforceable promise that AEI would forebear from suing Sierra for Sierra's in-house use of the 2 kW power supply. But in its brief to our court, AEI stated that it had "effectively promised not to sue Sierra for infringement for Sierra's stated internal use of its 2 kW power supply," and at oral argument in our court, AEI's counsel again represented that AEI would not sue Sierra for such in-house use. We believe that AEI's statements at the district court and at our court are sufficient to create an estoppel against AEI with regard to suing Sierra for in-house use of its 2 kW power supply, and that "[t]his estoppel, in turn, removes from the field any controversy sufficiently actual to confer jurisdiction" over such in-house use. Super Sack, 65 F.3d at 1059.

AEI's promise as to in-house use of the 2 kW power supply, however, does not vitiate the

reasonable apprehension of suit for other potentially infringing activities, such as Sierra's manufacturing and sale of the 2 kW power supply. The broad accusations of the 1999 and 2000 letters embraced all potentially infringing activities, but AEI's narrow promise was limited to in-house use. By not making a promise not to sue of a breadth equal to its earlier threats, AEI failed to eliminate completely the reasonable apprehension of suit with respect to the 2 kW power supply, and in particular failed to eliminate the reasonable apprehension of suit with regard to potentially infringing activities other than in-house use. The district court erred by holding that Sierra lacked a reasonable apprehension of suit with respect to the 2 kW supply.

B. Sierra's Conduct

The second prong of the case-or-controversy test is often formulated as "present activity which could constitute infringement or concrete steps taken with the intent to conduct such activity." BP Chems., 4 F.3d at 978. This prong "looks to the accused infringer's conduct [to] ensure[] that the controversy is sufficiently real and substantial." Lang v. Pac. Marine & Supply Co., 895 F.2d 761, 764 (Fed. Cir. 1990).

The term "present activity" is somewhat misleading, in two ways. First, the term might suggest that post-complaint conduct by the accused infringer is relevant, when it is not: "[L]ater events may not create jurisdiction where none existed at the time of filing."² GAF Bldg. Materials Corp. v. Elk Corp., 90 F.3d 479, 483 (Fed. Cir. 1996) (quoting Spectronics Corp. v. H.B. Fuller Co., 940 F.2d 631, 635 (Fed. Cir. 1991)). Second, "present activity" might imply that pre-complaint conduct is not relevant, when it is: Just as a patent-holder can sue based on past acts that no longer continue, a declaratory-judgment plaintiff can sue using past acts as the jurisdictional predicate for the suit, provided the plaintiff has the requisite reasonable apprehension as to these

² Later events can eliminate jurisdiction that existed at the time of filing, as where the patentholder promises not to sue for the activities at issue. See, e.g., Super Sack, 65 F.3d at 1059.

past acts. See, e.g., Super Sack, 57 F.3d at 1058 (stating that “a party who fears potential infringement liability as a result of its past or present acts can be placed in reasonable apprehension of a suit for patent infringement, and therefore bring a justiciable declaratory judgment action” (emphasis added)). The only restriction is the Patent Act’s six-year limit, set out in 35 U.S.C. § 286, on bringing a claim or counterclaim for infringement damages. Cf. Luckenbach Steamship Co. v. United States, 312 F.2d 545, 549 (2d Cir. 1963) (“For purposes of the statute of limitations [a declaration of] non-liability is inextricably linked with that cause of action. So long as the claim can be made, its negative can be asserted. When the claim itself has been barred, a declaration of non-liability is also barred, except for non-liability which is itself based upon the bar of the limitations period.”). _

With respect to the 2 kW power supply, we have determined that AEI’s conduct created a reasonable apprehension as to all potentially infringing activities -- including past activities -- but that this reasonable apprehension no longer extends to Sierra’s internal use of the 2 kW power supply. We thus must determine whether Sierra has engaged in any potentially infringing conduct other than in-house use, or concrete steps with intent to conduct such activities, in the six-year period before the filing of the complaint. Given its holding that Sierra had no reasonable apprehension of suit with respect to the 2 kW power supply, the district court did not reach this issue, but we can decide jurisdiction on the uncontested facts.

It is undisputed that Sierra’s last sales of the 2 kW power supply took place in the fall of 1995, less than six years before the filing of the complaint. Since then, however, Sierra has not engaged in any potentially infringing activities with the 2 kW power supply other than in-house use. Nor has Sierra taken any concrete steps towards such activities: Manley testified that Sierra had no present intention to remarket the 2 kW power supply and that Sierra was undecided as to the date on which it would decide how to proceed; moreover, no Sierra witness gave any indication that

the market condition that precipitated Sierra's commercial withdrawal of the 2 kW power supply -- i.e., the lack of a "large base of customers requiring only two kilowatts" -- had changed since 1995. Thus, Sierra's sales activity in the fall of 1995 is the only evidence in support of the activity prong of the case-or-controversy test as applied to the 2 kW power supply.

This 1995 sales activity, while probably de minimis in terms of damages AEI might obtain on an infringement claim, is sufficient to satisfy the jurisdictional threshold. The Patent Act does not set a damages threshold for bringing suit, and thus a patent case or controversy can exist even where the conduct at issue would result in only de minimis damages, provided the requisite reasonable apprehension of suit exists. Here, AEI's conduct created the requisite reasonable apprehension of suit as to Sierra's past sales of the 2 kW power supply, and such sales in fact took place within the relevant time period, establishing the district court's Article III jurisdiction to adjudicate whether the past sales of the 2 kW power supply constituted infringement of the '813 patent, and to adjudicate whether the '813 patent is invalid. We reverse the district court's dismissal as to the 2 kW power supply.

II. Coleman 150 kW Power Supply

A. AEI's Conduct

AEI's 1999 and 2000 letters manifestly created a reasonable apprehension of suit with respect to the Coleman 150 kW power supply, which Sierra was developing in the 1998-2000 period. Indeed, in its opinion the district court stated that "[t]he parties agree th[e] admonishment [in AEI's letters] created in Plaintiff 'reasonable apprehension' of a forthcoming patent-infringement suit by Defendant. Prong one of the actual-controversy test is met [as to the 150 kW power supplies]." Sierra, 258 F. Supp. 2d at 1152. The reasonable apprehension embraced all potentially infringing activities regarding the Coleman 150 kW power supply -- including past activities and in-house use.

B. Sierra's Conduct

As stated above, the activity prong of the case-or-controversy test requires either “activity which could constitute infringement or concrete steps taken with the intent to conduct such activity.” BP Chems., 4 F.3d at 978 (emphasis added). Sierra contends that its Coleman 150 kW power supply qualifies under the first, more stringent half of this disjunctive test, as Sierra asserts it engaged in potentially infringing activity when it “used” the Coleman 150 kW power supply during the testing of the Coleman prototype.

The facts surrounding this testing, however, are murky. In an interrogatory response, Sierra stated that the Coleman “power supply was tested, but was destroyed in the process.” At his deposition, Manley testified that “[i]t had a few problems and a few parts burned up.” On this record, it is unclear whether the Coleman 150 kW power supply was actually used for reactive sputtering before it failed. If not, the testing cannot be characterized as even potentially infringing. But if the Coleman 150 kW power supply was used for reactive sputtering -- even if only briefly -- the testing would satisfy the “activity” prong of the case-of-controversy test. Again, that this conduct would result in only de minimis damages is irrelevant to the case-or-controversy analysis.

If the Coleman 150 kW power supply does not qualify under the “activity which could constitute infringement” standard, the suit must be dismissed as to this power supply, as we believe that Sierra cannot invoke the “concrete steps with intent to engage in potentially infringing activities” standard as to the Coleman 150 kW power supply. Nothing in the record indicates that Sierra has taken any steps to resurrect the Coleman 150 kW power supply since its demise during testing in 2000; it appears to be simply an artifact of Sierra's past. Once a development effort has been wholly abandoned, it can no longer be the basis for an “intent to engage” case or controversy.

We vacate the district court's dismissal of the complaint as to the Coleman 150 kW power supply and remand for further fact-finding, including, if necessary in the discretion of the district

court, further development of the record regarding the testing of the Coleman 150 kW power supply. The district court must determine whether the Coleman 150 kW power supply was actually used for reactive sputtering such that the testing could be characterized as a potentially infringing activity (i.e., use).

III. Billings 150 kW Power Supply

A. AEI's Conduct

AEI's 1999 and 2000 letters, not limiting their warnings in any way, created a reasonable apprehension of suit broad enough to embrace the Billings 150 kW power supply, which Sierra began developing in mid-2000, approximately one year before Sierra filed its complaint. This reasonable apprehension embraced all potentially infringing activities, including in-house use.

B. Sierra's Conduct

It is undisputed that Sierra had not engaged in potentially infringing activities with the Billings 150 kW power as of the complaint's filing. Jurisdiction over the complaint insofar as it concerns this device therefore turns on whether, by the date the complaint was filed, Sierra had taken "concrete steps" (or, to put it another way, had made "meaningful preparation") with intent to engage in potentially infringing activities with the Billings 150 kW power supply.

The body of our case law in this area is slender. In Lang v. Pacific Marine & Supply Co., 895 F.2d 761, 763-65 (Fed. Cir. 1990), we affirmed the dismissal of suit filed by a patent holder seeking, inter alia, a declaratory judgment that a ship in the process of being built would infringe, upon completion, certain hull-design patents. We stated that "[t]he accused infringing ship's hull would not be finished until at least 9 months after the complaint was filed" and that "the accused infringers had not distributed sales literature, prepared to solicit orders, or engaged in any activity indicating that the ship would soon be ready for sea," and that therefore "there [wa]s no substantial controversy . . . of sufficient immediacy and reality to warrant consideration of [the patent-holder's]

claim for declaratory relief.” Id. at 765 (citation and internal quotation marks omitted).

In Teletronics Pacing Systems, Inc. v. Ventritex, Inc., 982 F.2d 1520, 1525-27 (Fed. Cir. 1992), we affirmed the dismissal of a suit filed by a patent holder seeking, inter alia, a declaratory judgment that a medical device would infringe upon its approval by the Food and Drug Administration (“FDA”). We stated that “[a]t the commencement of the suit, [the] device had only recently begun clinical trials, and was years away from potential FDA approval,” that the device manufacturer had not distributed any sales literature or solicited any orders (as it was prohibited from doing so under federal law), that “[t]here was no certainty that the device when approved would be the same device that began clinical trials,” and that therefore “the district court could have correctly ruled that the case lacked sufficient immediacy and reality to meet the actual controversy requirement.” Id. at 1527.

Lang and Teletronics underscore the importance of heeding the basic principle that Article III requires a dispute “of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.” Md. Cas. Co., 312 U.S. at 273 (emphasis added). Applying this principle in the context of activities that fall short of potential infringement can be difficult, but Lang and Teletronics provide some guidance as to the meaning of “immediacy” and “reality” in this context.

As for “immediacy,” both Lang and Teletronics highlight the importance of the period of time between the date on which the complaint was filed and the date on which potentially infringing activities will begin. The greater the length of this interim period, the more likely the case lacks the requisite immediacy. In Lang we held that immediacy was absent where the ship at issue would not be ready for at least nine months and the owners of the ship had not engaged in any marketing activities. See 895 F.2d at 764-65.

Teletronics implicitly tied the concept of “reality” to whether the design of the potentially infringing subject of the declaratory-judgment suit was substantially fixed, particularly with respect to

its potentially-infringing characteristics, on the date the complaint was filed. Thus, in analyzing jurisdiction over a suit involving a medical device, Teletronics placed weight on the fact that “[t]here was no certainty that the device when approved would be the same device that began clinical trials.” 982 F.2d at 1527. This approach is proper: The greater the variability of the subject of a declaratory-judgment suit, particularly as to its potentially infringing features, the greater the chance that the court’s judgment will be purely advisory, detached from the eventual, actual content of that subject -- in short, detached from eventual reality. As the Seventh Circuit stated (prior to the creation of our court) in dismissing a patent-based declaratory judgment suit for lack of case or controversy,

Our concern is not that the [product at issue] will never be produced, but rather that because of the relatively early stage of its development, the design which is before us now may not be the design which is ultimately produced and marketed. For a decision in a case such as this to be anything other than an advisory opinion, the plaintiff must establish that the product presented to the court is the same product which will be produced if a declaration of noninfringement is obtained.

Int’l Harvester Co. v. Deere & Co., 623 F.2d 1207, 1216 (7th Cir. 1980); cf. also Amana Refrigeration, 172 F.3d at 855 (rejecting argument that a reasonable apprehension of suit existed as to “new products ‘in the pipeline,’” stating that “an actual controversy cannot be based on a fear of litigation over future products”).

Here, Sierra needed to show both immediacy and reality with respect to the Billings 150 kW power supply, but it failed to show either. As for immediacy, the record contains no evidence that the breadboard prototype of the Billings 150 kW power supply was built and operational until about a year after the complaint was filed -- a period longer than the nine months determined to be too long in Lang. Indeed, it was not until its supplemental interrogatory response dated September 6, 2002 that Sierra first identified the Billings 150 kW power supply, and even then, Sierra stated that the power supply’s development had “just been completed.” Sierra’s March 2002 interrogatory

response did not even mention the Billings device; this initial interrogatory response was dated approximately six months after the complaint was filed. Moreover, Manley testified at his deposition in July 2002 that there was no “existing or draft advertising literature” for the Billings 150 kW power supply, and that it was conceivable Sierra would never sell any version of a 150 kW power supply for use in reactive sputtering.

As for reality, Sierra has not carried its burden to prove that the design of the Billings 150 kW power supply was substantially fixed, particularly in its potentially infringing characteristics, on the date the complaint was filed -- to the contrary, the evidence strongly suggests that the design of the Billings 150 kW power supply was fluid and indeterminate on that date. After Coleman had failed to develop a reliable 150 kW power supply for reactive sputtering, in mid-2000 Billings began afresh; as Manley stated at his July 2002 deposition, “we’re not using anything that Charlie Coleman did.”³ That Billings’s project was at an early stage when the complaint was filed was underscored by Sierra’s failure to identify the Billings 150 kW power supply in its March 2002 initial interrogatory responses, and by Sierra’s statement in its September 2002 supplemental interrogatory responses that development of the device had “just been completed.” Moreover, although a breadboard prototype of the Billings 150 kW power supply was operational by the late summer or early fall of 2002, Billings testified at his September 2002 deposition that it would be a minimum of one more year and possibly “several years” before the 150 kW power supply would be available for sale, which suggests that further design changes were possible even then -- a year after the complaint was filed. Finally, Manley’s deposition testimony regarding the absence of

³ At his deposition, Manley described the prototype of the Billings 150 kW power supply -- which was apparently not operational until the late summer or early fall of 2002 -- as having a “very similar” power output to the Coleman 150 kW power supply. This testimony is not probative as to the state of the Billings design at the time the complaint was filed in September 2001, particularly given Manley’s testimony that Billings decided against using Coleman’s design as the foundation for Billings’s new project.

advertising literature or any solicitation of orders for the Billings 150 kW power supply provides further evidence that the design of the device was not finalized.

Because the design was fluid on the date the complaint was filed, it was impossible to determine -- on that date -- whether any eventual design of the Billings 150 kW power supply would infringe AEI's patents. As noted above, the asserted patents were aimed, at least in large part, at eliminating arcing in reactive sputtering. See, e.g., '813 patent, col. 2, ll. 41-44 ("The present invention discloses both the fundamental understandings and circuitry designs which virtually eliminate the occurrences of arcs and which afford processing advantages within a reactive DC sputtering system."). When Sierra's complaint was filed, the design of any anti-arcing features in the Billings 150 kW power supply was not fixed.

We affirm the district court's dismissal as to the Billings 150 kW power supply, as Sierra's efforts at developing this device were not sufficiently far along on the date the complaint was filed in 2001 to vest a dispute over the device with the requisite immediacy and reality.

CONCLUSION

The district court's judgment was based solely on the case-or-controversy requirement of Article III of the United States Constitution. With regard to this constitutional requirement, we hold (1) that a case or controversy exists as to Sierra's 2 kW power supply, based on past sales of this device, (2) that it is unclear whether a case or controversy exists as to the Coleman 150 kW power supply, and that on remand the district court must determine whether this power supply was actually used for reactive sputtering, and (3) that no case or controversy exists as to the Billings 150 kW power supply.

On remand, the district court may reach the separate, statutory question of whether, under the Declaratory Judgment Act, this suit should be dismissed as a discretionary matter in view of the unusual circumstances of this case. See 28 U.S.C. § 2201 (2000) ("In a case of actual controversy

within its jurisdiction, . . . any court of the United States, upon the filing of an appropriate pleading, may declare the rights and other legal relations of any interested party seeking such declaration” (emphasis added)); Teletronics, 982 F.2d at 1526 (“Even assuming an actual controversy, the exercise of a court’s jurisdiction over a declaratory judgment action is discretionary.”).

REVERSED-IN-PART, VACATED-IN-PART, AFFIRMED-IN-PART, AND REMANDED

COSTS

Costs to appellant.