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## Cardiac Pacemakers v. St. Jude Medical: The Federal Circuit Correctly Reins in the Reach of U.S. Patent Law

Eric Hamp

*Northwestern University School of Law, Candidate for Juris Doctor in 2011, e-hamp2011@nlaw.northwestern.edu*

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N O R T H W E S T E R N  
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*Cardiac Pacemakers v. St. Jude Medical:*  
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Reach of U.S. Patent Law**

*Eric Hamp*



# *Cardiac Pacemakers v. St. Jude Medical:* The Federal Circuit Correctly Reins in the Reach of U.S. Patent Law

By Eric Hamp\*

## I. INTRODUCTION

¶1 The United States Patent Act generally defines the activities that infringe a U.S. patent as making, using, selling, or offering to the sell the patented invention within the United States or importing such an invention into the United States.<sup>1</sup> As such, the reach of traditional patent law was clearly limited to infringing activities within the United States and did not extend into foreign territories.

¶2 One dramatic departure from this stance is § 271(f) of the Patent Code, which imposes liability on domestic companies that ship parts of patented inventions to foreign customers. However, recent Federal Circuit case law made it unclear what inventions were protected by § 271(f) and when infringement liability would be imposed. Specifically, it was unclear whether the statute applied to method and process patents. The Federal Circuit settled this uncertainty in an en banc rehearing for the case of *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.*,<sup>2</sup> overturning its own precedent and definitively holding that the statute did not extend protection to method patents.<sup>3</sup>

¶3 This note will first examine the policy and economic motivations for the enactment of § 271(f) by Congress in Section II. Then, Section III will examine the most important subsequent Federal Circuit opinions on the subject and the conflicting holdings that resulted. The following two sections will examine the Supreme Court's interpretation of the statute and the resulting *Cardiac Pacemakers* en banc rehearing by the Federal Circuit. The final sections will analyze the effects of the Federal Circuit's holding on domestic companies and illustrate why it was proper for the court to limit the extraterritorial reach of the statute.

## II. THE ORIGINS OF § 271(F)

¶4 Congress originally enacted § 271(f) of the Patent Act to eliminate a loophole created for patent infringers by the Supreme Court in *Deepsouth Packing Co. v. Laitram Corp.*<sup>4</sup> The patent at issue in *Deepsouth* was for a machine Laitram invented that cheaply

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\* Northwestern University School of Law, Candidate for Juris Doctor in 2011. I would like to thank Britni Ratliff, James Hamp & Leslie Hamp for their unwavering support throughout my law school experience.

<sup>1</sup> 35 U.S.C. § 271(a) (2007).

<sup>2</sup> *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 576 F.3d 1348 (Fed. Cir. 2009) (en banc).

<sup>3</sup> *Id.* at 1359.

<sup>4</sup> *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518 (1972).

and efficiently removed shells and veins from shrimp.<sup>5</sup> Laitram's machine, however, was a combination of non-patentable parts and only covered a certain, precise arrangement of these components.<sup>6</sup> After the Fifth Circuit affirmed an injunction against Deepsouth for infringing Laitram's patent,<sup>7</sup> Deepsouth sought to avoid further infringement by manufacturing all of the parts of the invention, partially assembling them, and shipping the partially assembled machine to foreign customers, who could complete the final two steps of the assembly easily and quickly.<sup>8</sup>

¶5 Laitram argued this logic would allow Deepsouth to improperly profit off Laitram's invention through a "hypertechnical reading of the Patent Code."<sup>9</sup> The Supreme Court, however, disagreed with this assessment, noting that the plain language of the statute "makes it clear that it is not an infringement to make or use a patented product outside of the United States."<sup>10</sup> Because a complete "operable assembly" was needed to make or sell an invention covered by a combination patent, the Court held that there was no infringing activity in the United States unless every step of the assembly was performed domestically.<sup>11</sup> While the Court was conscious of the holding's ramifications on patent protection, it justified its position by noting that the Patent Code made no claim to any extraterritorial effects, and the Court was unable to expand patent rights in such a manner without a "clear and certain signal from Congress."<sup>12</sup> While the dissenters bemoaned the general unfairness of the decision and argued that it lowered incentives for future innovation,<sup>13</sup> the majority correctly utilized the strong precedent of limiting the territoriality of U.S. patent protection and deferred to Congress to expand territorial protection.<sup>14</sup>

¶6 After the holding of *Deepsouth*, proponents of strengthened patent protection sought a congressional remedy to the loophole opened by the Supreme Court.<sup>15</sup> Twelve years later, Congress obliged by passing § 271(f) of the Patent Code to "prevent copiers from avoiding U.S. patents by supplying components of a patented product . . . so that the assembly of the components may be completed abroad."<sup>16</sup> As subsequent cases would later make clear, however, the legislative history and precise language of the statute call into question whether § 271(f) extends to method patents.

¶7 The language of § 271(f) created two additional ways manufacturers may be held liable for infringement. The first new section dictated that manufacturers are liable for

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<sup>5</sup> U.S. Patent No. 2,825,927 (filed July 8, 1954).

<sup>6</sup> *Deepsouth*, 406 U.S. at 520.

<sup>7</sup> See *Laitram Corp. v. Deepsouth Packing Co.*, 443 F.2d 928 (5th Cir. 1971).

<sup>8</sup> *Deepsouth*, 406 U.S. at 524. *Deepsouth*, it should be noted, had no reservations about frankly utilizing this loophole simply to avoid infringement, telling its foreign customers the new shipping arrangement was for the sole purpose of circumventing a "very technical decision" against *Deepsouth* in the United States. *Id.* at 523, n.5. *Deepsouth*'s openness of its motivations no doubt played a role in the dissenters' view of the unfairness of the majority's holding.

<sup>9</sup> *Id.* at 524.

<sup>10</sup> *Id.* at 527.

<sup>11</sup> *Id.* at 527–28.

<sup>12</sup> *Id.* at 531.

<sup>13</sup> *Id.* at 532–33 (Blackmun, J., dissenting).

<sup>14</sup> *Id.* at 530–31.

<sup>15</sup> James R. Farrand, *Territoriality and Incentives Under the Patent Laws: Overreaching Harms U.S. Economic and Technological Interests*, 21 BERKELEY TECH. L.J. 1215, 1225–27 (2006).

<sup>16</sup> 130 CONG. REC. H28069 (daily ed. Oct. 1, 1984) (debate on Patent Law Amendments Act of 1984, Pub. L. No. 98-622, 98 Stat. 3383).

inducing infringement by supplying components of a patented invention to foreign customers:

Whoever without authority supplies or causes to be supplied in or from the United States all or a substantial portion of *the components of a patented invention*, where such components are uncombined in whole or in part, in such manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.<sup>17</sup>

The second section of § 271(f) followed the language for standard contributory infringement from the Patent Code. This section of the statute establishes that manufacturers are liable for infringement when supplying a component to foreign customers that is specifically needed in a patented invention and has no common non-infringing use:

Whoever without authority supplies or causes to be supplied in or from the United States *any component* of a patented invention that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component will be combined outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.<sup>18</sup>

It is clear that both new possibilities for infringement under § 271(f) depend on the word component. Congress, however, did not explicitly define this term or clearly identify the applicable scope of the new section.<sup>19</sup> This ambiguity made it unclear whether or not § 271(f) extended protection to method patents, despite the statute's conspicuous failure to use any of the common terms of art referring to method patents, such as process, act, or step.

18 Evidence in the legislative history indicated that the statute was only intended to apply to components of patented products so as to specifically remedy the holding of *Deepsouth*. The *Deepsouth* opinion was the only fact pattern or problem mentioned anywhere in the legislative debate over § 271(f),<sup>20</sup> and there were statements that the new sections were solely enacted in direct response to the loophole opened by *Deepsouth*.<sup>21</sup> There were also direct statements showing the statute was intended to apply to physical products, such as Representative Kastenmeier's assertion that the "bill provides that a *product's patent* cannot be avoided through the manufacture of component parts within

<sup>17</sup> 35 U.S.C. § 271(f)(1) (2007) (emphasis added).

<sup>18</sup> 35 U.S.C. § 271(f)(2) (2007) (emphasis added).

<sup>19</sup> Sean Fernandes, Note, *Microsoft Corp. v. AT&T: A Welcome Return to Patent Law's Tradition of Territoriality*, 23 BERKELEY TECH. L.J. 75, 86–87 (2008).

<sup>20</sup> Farrand, *supra* note 15, at 1230.

<sup>21</sup> 130 CONG. REC. H10525 (daily ed. Oct. 1, 1984) (statement of Rep. Kastenmeier) ("This proposal responds to the United States Supreme Court decision in *Deepsouth Packing* . . . concerning the need for a legislative solution to close a loophole in patent law."), *reprinted in* 1984 U.S.C.C.A.N. 5827, 5828, 1984 WL 37541.

the United States for assembly outside the United States.”<sup>22</sup> Furthermore, § 271(g), which directly addressed process and method patents by imposing infringement liability for importing a product made by a method or process that was patented in the U.S., was concurrently drafted although it was not passed for another two years. The legislative history of § 271(g) implies that the previously enacted section did “not attempt to prevent the use of the [patented] process in another country.”<sup>23</sup>

¶9 While there was evidence that Congress only intended § 271(f) to protect product patents, the ambiguity of the statute’s plain language in defining its scope was still present because of Congress’s failure to show that the terms component and patented invention refer to concrete products.<sup>24</sup> While the courts did not have much opportunity to interpret § 271(f) for years after its enactment,<sup>25</sup> patent law authority Donald Chisum disparaged what he viewed as a clumsy legislative effort to remedy the *Deepsouth* holding.<sup>26</sup> Chisum also pointed out that the decision, which was supposed to protect domestic innovation and production, would provide incentives for manufacturers to transfer facilities abroad to side-step liability, ultimately harming the U.S. economy.<sup>27</sup> Another potentially negative effect not raised by Chisum was the harm done to the many U.S. manufacturers that depended on international sales by imposing infringement liability for supplying components internationally, while manufactures located outside of the U.S. can make and supply those components without risking liability under § 271(f).

### III. APPLICATION OF § 271(F) BY COURTS

¶10 After the initial enactment of § 271(f) by Congress, it appeared that the statute only imposed infringement liability for tangible inventions and not processes or methods. A recent wave of decisions, however, went against this precedent and brought into question the extent of the statute’s application. This section will examine the tension in the Federal Circuit’s jurisprudence that eventually required the en banc panel to clearly define the scope of the statute.

#### A. *The Federal Circuit Initially Limits the Extraterritorial Reach of § 271(f)*

¶11 In 1991, the Federal Circuit first examined the issue of whether § 271(f) applied to method patents in *Standard Havens v. Gencor Industries*.<sup>28</sup> Standard Havens sued Gencor for infringement of its patent directed to a method of forming various asphalt compositions.<sup>29</sup> Gencor sold the machine that performed the patented method to foreign customers, but the Federal Circuit declined to hold Gencor liable under § 271(f).<sup>30</sup> The court did not provide any reasoning for its decision, however, as the only mention of the

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<sup>22</sup> 130 CONG. REC. H28073 (daily ed. Oct. 1, 1984) (emphasis added).

<sup>23</sup> 132 CONG. REC. S17386 (daily ed. Nov. 6, 1986).

<sup>24</sup> Fernandes, *supra* note 19, at 87.

<sup>25</sup> *Id.*

<sup>26</sup> Donald S. Chisum, *Normative and Empirical Territoriality in Intellectual Property: Lessons from Patent Law*, 37 VA. J. INT’L L. 603, 607 (1997).

<sup>27</sup> *Id.*

<sup>28</sup> *Standard Havens Prods., Inc. v. Gencor Indus.*, 953 F.2d 1360 (Fed. Cir. 1991).

<sup>29</sup> *Id.* at 1363.

<sup>30</sup> *Id.* at 1374.

statute was the conclusory statement that “[f]inally, we do not find the provisions of 35 U.S.C. § 271(f) implicated.”<sup>31</sup>

¶12 While the Court’s holding on the issue was the height of brevity, it was in accordance with the general assumption at the time that § 271(f) did not extend to method claims.<sup>32</sup> After the *Standard Havens* opinion, the question seemed to be settled entirely and subsequent District Court holdings<sup>33</sup> and scholarly articles<sup>34</sup> further emphasized that § 271(f) would not protect process or method patents.

### B. *The Federal Circuit Greatly Expands the Scope of Protection of § 271(f)*

¶13 Despite the holding in *Standard Havens*, the Federal Circuit later reversed course in regards to § 271(f)’s application to non-tangible inventions. In *Eolas Technologies Inc. v. Microsoft Corp.*,<sup>35</sup> a Federal Circuit panel had to determine what qualified as a component under the language of § 271(f) when Eolas sued Microsoft for infringing one of its software product patents. Microsoft sold the Windows operating system overseas on physical “master discs”<sup>36</sup> that also included the allegedly infringing Internet Explorer program.<sup>37</sup> Microsoft countered that software code was not a tangible item, as opposed to a two ton physical machine in *Deepsouth*, and therefore did not qualify as a component under the statute.<sup>38</sup>

¶14 The panel, however, noted that the plain language of the statute imposed no “tangibility” requirement on “*any component* of a patented invention.”<sup>39</sup> The panel then examined the legislative history of § 271(f) and saw no evidence of intent to limit the statute to “components of machines and other structural combinations.”<sup>40</sup> Because the statute included no express narrowing provision on the broad term patented invention, the panel refused to limit the reach of the statute simply because Microsoft requested it.

¶15 The panel further justified the holding from a public policy standpoint, stating that courts must provide the same treatment and protection to all forms of inventions, unless there is a “principled reason” not to do so.<sup>41</sup> The panel justified this point by citing a provision of the Trade-Related Aspects of Intellectual Property Rights (TRIPS)

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<sup>31</sup> *Id.*

<sup>32</sup> Farrand, *supra* note 15 at 1234 (2006).

<sup>33</sup> *See, e.g.,* Enpat, Inc. v. Microsoft Corp., 6 F. Supp. 2d 537, 539 (E.D. Va. 1998) (“Clearly, had Congress intended to prohibit U.S. companies from exporting products which allow foreign companies to make unauthorized use of patented methods, it could have done so in clear, unambiguous language like that found in § 271(g). Instead, we agree . . . [that § 271(f) is] exclusive[ly] focus[ed] on the sale of components patented in the United States for combination into a finished product, apparatus, or invention abroad.”); Synaptic Pharm. Corp. v MDS Panlabs, Inc., 265 F. Supp. 2d 452, 464 (D.N.J. 2002) (“Given [prior] determinations that § 271(f) does not apply to method patents, this Court will refrain from extending § 271(f) liability to [the defendant’s] activities with regard to [the plaintiff’s method] patents.”).

<sup>34</sup> *See, e.g.,* Mark A. Lemley, *Divided Infringement Claims*, 6 SEDONA CONF. J. 117, 121 (2005).

<sup>35</sup> *Eolas Techs. Inc. v. Microsoft Corp.*, 399 F.3d 1325 (Fed. Cir. 2005).

<sup>36</sup> Master discs are the single physical copy of source code provided to outside party manufacturers to copy the code *en mass* to computers so the desired programs are installed before the computer is ever shipped to a retailer or distributor.

<sup>37</sup> *Eolas*, 399 F.3d. at 1331.

<sup>38</sup> *Id.* at 1340.

<sup>39</sup> *Id.* (emphasis added).

<sup>40</sup> *Id.*

<sup>41</sup> *Id.* at 1339.

Agreement.<sup>42</sup> This was likely an effort to justify the reasoning of the decision and its extraterritorial impact by citing to a supporting authority that obviously considered international effects while determining the proper scope of patent protection. As a final vindication for the holding that components of an invention do not need to be tangible, the panel noted that in the advanced field of computer technology, the practical reality is that the line between intangible software code and physical hardware was blurred and often changing, which further removed any need to differentiate between tangible and non-tangible components.<sup>43</sup>

¶16 In the months following *Eolas*, three Federal Circuit opinions came out in quick succession that further delved into the scope of § 271(f). The first, *AT&T Corp. v. Microsoft Corp.*,<sup>44</sup> was factually very similar to *Eolas* and supported its holding. The court again found Microsoft liable for infringement by supplying master discs of code to foreign customers that allowed mass international production of software that, when installed on a computer, infringed AT&T's patent for an apparatus that digitally encoded speech.<sup>45</sup>

¶17 The court first used *Eolas* to show that software was a component, even though it was not a physical structure, and then to show that the word supply in § 271(f) should be construed broadly, especially considering the ease of software replication.<sup>46</sup> Because the master disc was used to produce many copies of the software, the court held that Microsoft supplied all of these copies even though only a small number of physical master discs were shipped abroad.<sup>47</sup> When Microsoft argued against the public policy of the decision, stating that it incentivized moving facilities overseas, the court noted that Congress enacted § 271(f) despite that possibility, so dissatisfaction with the results of the statute should be directed to Congress, not the courts.<sup>48</sup>

¶18 Just after the *AT&T* holding, however, the Federal Circuit issued language that seemed to discourage applying § 271(f) to method claims in *NTP, Inc. v. Research In Motion, Ltd.*<sup>49</sup> NTP, a non-practicing entity, alleged RIM infringed several of its patents that were related to the hardware, software, and email subscription services offered by RIM for its Blackberry product.<sup>50</sup> While the case is generally known for being a prominent example of a non-practicing entity allegedly "trolling" for profits, NTP's lawsuit against RIM also provided the Federal Circuit another opportunity to comment on § 271(f) and foreign use of methods patented in the United States.

¶19 In *NTP*, the Court held that RIM was not liable for infringement under § 271(f) because the Blackberry product was sold in the United States, meaning it was therefore impossible to subsequently supply any components of the invention outside the country

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<sup>42</sup> *Id.*; Trade-Related Aspects of Intellectual Property Rights Agreement, Part II, Section 5 (1994) ("[P]atents shall be available and patent rights enjoyable without discrimination as to the place of invention [and] the field of technology.").

<sup>43</sup> *Eolas*, 399 F.3d at 1339.

<sup>44</sup> *AT&T Corp. v. Microsoft Corp.*, 414 F.3d 1366 (Fed. Cir. 2005).

<sup>45</sup> *Id.* at 1368.

<sup>46</sup> *Id.* at 1370–71.

<sup>47</sup> *Id.*

<sup>48</sup> *Id.* at 1372.

<sup>49</sup> *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282 (Fed. Cir. 2005), *cert. denied*, 126 S. Ct. 1174 (2006).

<sup>50</sup> *NTP, Inc. v. Research in Motion, Ltd.*, No. 3:01CV767, 2003 WL 23325540 (E.D. Va. Aug. 5, 2003).

since the patent rights were already exhausted.<sup>51</sup> While the opinion did not extensively focus on § 271(f) because other provisions of the Patent Code were more applicable to the facts, the Court did note that “it is difficult to conceive of how one might supply or cause to be supplied all or a substantial portion of the *steps of a patented method in the sense contemplated by the phrase ‘components of a patented invention.’*”<sup>52</sup>

¶20 Although this phrase was dicta under the facts of the case, its criticism of *Eolas* showed the growing rift in the Federal Circuit concerning the interpretation of § 271(f). The Court then further emphasized that method patents were not entitled to extraterritorial protection by holding that RIM did not infringe NTP’s method patents because one step of the patented method was performed on a Canadian relay server, meaning that the method was not completely performed in the United States.<sup>53</sup>

¶21 While the *Eolas* opinion established that § 271(f) should not discriminate between the forms of various inventions, the patent in that case was determined to be a tangible product (software code on a physical structure such as a disk); and therefore, the language referring to process and method claims was technically dicta.<sup>54</sup> This reasoning, however, was used to specifically affirm the applicability of § 271(f) to process and method claims in the case of *Union Carbide Chemicals & Plastics Technology Corp. v. Shell Oil Co.*<sup>55</sup>

¶22 Union Carbide had patented a method for large scale commercial production of ethylene oxide that relied on the use of particular silver-based chemical catalysts.<sup>56</sup> The Federal Circuit Panel cited to the passage from *Eolas* stating that every component of every invention is protected by § 271(f) and that this broad definition of patented invention “makes no distinction between patentable method/process inventions and other forms of patentable inventions.”<sup>57</sup>

¶23 The Court contrasted the facts of the present case from those of *NTP*, stating that that case dealt with domestic sales of components that were then subsequently used outside the United States. This meant that NTP was simply liable for standard infringement under § 271(a) of the Patent Code for selling a patented invention, and not liable under § 271(f). *Union Carbide*, in the opinion of the Court, was analogous to *Eolas* since the accused infringer was supplying goods internationally that would infringe a domestic patent.

¶24 The reasoning of the Court in *Union Carbide* and the treatment of previous opinions left the holding open to criticism. The opinion failed to mention *Standard Havens* at all and ignored its clear holding in favor of statements from *Eolas* that were arguably dicta. The holding in *Union Carbide*, however, was explicit and helped usher in the greatest expansion of U.S. patent law extraterritoriality along with *AT&T Corp. v. Microsoft Corp.*<sup>58</sup>

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<sup>51</sup> *NTP*, 418 F.3d at 1322.

<sup>52</sup> *Id.* (emphasis added).

<sup>53</sup> *Id.* at 1318.

<sup>54</sup> *Id.* at 1322 (“*Eolas* held that software code—even if intangible—is a component of a *patented product* within the meaning of § 271(f) . . . [t]he holding does not impact the application of section 271(f) to the method claims in the present appeal.”) (emphasis added) (internal citations omitted).

<sup>55</sup> *Union Carbide Chems. & Plastics Tech. Corp. v. Shell Oil Co.*, 425 F.3d 1366 (Fed. Cir. 2005).

<sup>56</sup> *Id.* at 1369–70.

<sup>57</sup> *Id.* at 1379.

<sup>58</sup> *AT&T*, 414 F.3d. 1366.

¶25 In 2006, the Federal Circuit denied Shell’s petition for an en banc rehearing.<sup>59</sup> Judge Lourie wrote the dissenting opinion, arguing that both *Eolas* and *AT&T* were distinguishable cases since they focused on non-method claims.<sup>60</sup> Judge Lourie also noted that the structure of § 271 as a whole showed that § 271(f) did not apply to process claims and pointed out *Union Carbide*’s obvious indifference to the *Standard Havens* holding.<sup>61</sup> Even though the Federal Circuit declined to rehear the case, the opinion further fueled legal debate on the subject of whether the extension of § 271(f) went too far.<sup>62</sup> This may have provided the motivation for the Supreme Court to weigh in on the issue when it granted certiorari to the *AT&T* decision.<sup>63</sup>

#### IV. THE SUPREME COURT CLARIFIES THE LANGUAGE OF § 271(F) IN *MICROSOFT V. AT&T*

¶26 In 2007, the Supreme Court curtailed the expansion of § 271(f) somewhat by reversing the Federal Circuit’s holding in *AT&T*.<sup>64</sup> While the Court’s holding directly applied to software and not method patents, the narrowed interpretation of the words component and supply resulted in a clear intention to interpret § 271(f) in a non-expansive manner.

¶27 There were several motivations for the Court’s holding, but the strongest was the general presumption against extending United States patent law into other countries.<sup>65</sup> The first sentence of the opinion emphasized this general rule, although the Court later conceded that § 271(f) did provide an exception.<sup>66</sup> By starting the opinion with this general presumption against extraterritorial liability, however, the Court clearly established what factor would be the dominant consideration when weighing the various policy considerations.

¶28 The Court briefly discussed the *Deepsouth* holding and the subsequent passage of § 271(f).<sup>67</sup> The Court further stressed the foundational principle against extraterritorial effects and noted that a “clear Congressional indication of intent” was needed to surmount this presumption.<sup>68</sup> The Court then reasoned that § 271(f) was enacted by Congress to address the narrow and specific issue raised by the *Deepsouth* holding.<sup>69</sup> Therefore, the “exceptional” nature of § 271(f) demanded judicial restraint in its interpretation and application.<sup>70</sup> With this framework established, the Court then examined the definitions of the critical terms component and supply.

¶29 The Court first held that software code did not qualify as a component of an invention under the language of § 271(f).<sup>71</sup> In reaching this conclusion, the Court noted

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<sup>59</sup> *Union Carbide Chems. & Plastics Tech. Corp. v. Shell Oil Co.*, 434 F.3d 1357, 1358 (Fed. Cir. 2006).

<sup>60</sup> *Id.* at 1358 (Lourie J., dissenting).

<sup>61</sup> *Id.* at 1358–59.

<sup>62</sup> Denise W. DeFranco et al., *Technology and the Global Economy: Progress Challenges the Federal Circuit to Define the Extraterritorial Scope of U.S. Patent Law*, 34 *AIPLA Q. J.* 373, 393 (2006).

<sup>63</sup> *Microsoft Corp. v. AT&T Corp.*, 549 U.S. 991 (2006).

<sup>64</sup> *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437 (2007).

<sup>65</sup> *Id.* at 441.

<sup>66</sup> *Id.*

<sup>67</sup> *Id.* at 444.

<sup>68</sup> *Id.*

<sup>69</sup> *Id.*

<sup>70</sup> *Id.* at 442. *See also* Fernandes, *supra* note 19, at 93.

<sup>71</sup> *Microsoft*, 550 U.S. at 450.

various common definitions of the term such as constituent part, element, or ingredient, all of which did not seem to apply to abstract software code.<sup>72</sup> More importantly, the Court examined the portion of § 271(f) that referred to the combination of various components and stated that the statute therefore applied only to components that “are combined to form the ‘patented invention’ at issue.”<sup>73</sup>

¶30 The Court then stated that because software code was an abstract concept with no sort of physical embodiment, it could not be a component of any physical or tangible invention.<sup>74</sup> While the code holds specific details about a component, similar to a blueprint or a schematic, it cannot be physically combined with other components and therefore escapes the reach of the statute.<sup>75</sup> Therefore, no infringement occurs without transcribing the code onto a physical thing, such as a CD-ROM, and even if this transfer step is very quick or simple, a physical embodiment is required to have an infringing component under § 271(f) for a product patent.<sup>76</sup>

¶31 The Court also noted that Congress did not identify information or instructions in the statute, and therefore the use of component required some sort of physical embodiment.<sup>77</sup> While the issue before the Court was whether software was a component, the Court’s requirement of a tangible object was clearly a more narrow construction of this critical term that could have widespread effects.

¶32 The court then analyzed whether companies exporting master discs were supplying a component as required by § 271(f). Despite the ease of replication, the Court held that only the shipped “master disc” was supplied to foreign customers because the copies of the software were not made until the foreign customer used the master disc.<sup>78</sup> No matter how easy Microsoft made it to mass produce the software, it was not responsible for the downstream activities of the foreign companies and could not be held liable for supplying any copies made by those customers.<sup>79</sup> Congress had to have been aware of the simplicity of mass producing the software, yet there was still a complete “absence of anything addressing copying in the statutory text.”<sup>80</sup> This meant that it was improper for the Federal Circuit to consider these activities and broaden the definition of supplies.

¶33 The Court ended the opinion by restating the importance of the presumption against extraterritoriality and noting that “any doubt” on the reach of § 271(f) should be resolved in deference to this presumption.<sup>81</sup> In particular, the Court noted that this presumption carries even greater weight in the realm of patent law, as the Patent Code frequently uses language limiting patentee’s rights to the United States.<sup>82</sup> While conceding that § 271(f) was specifically enacted to surmount this presumption, the Court stressed that it was enacted to regulate a certain type of activity, and “the presumption is not defeated . . . just

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<sup>72</sup> *Id.* at 449, n.11.

<sup>73</sup> *Id.* at 449.

<sup>74</sup> *Id.*

<sup>75</sup> *Id.* at 450.

<sup>76</sup> *Id.* at 449.

<sup>77</sup> *Id.* at 451.

<sup>78</sup> *Id.* at 453.

<sup>79</sup> Fernandes, *supra* note 19, at 94.

<sup>80</sup> *Microsoft*, 550 U.S. at 454.

<sup>81</sup> *Id.*

<sup>82</sup> *Id.* at 454–55.

because [a statute] specifically addresses [an] issue of extraterritorial application, it remains instructive in determining the *extent* of the statutory exception.”<sup>83</sup>

¶34 The reasoning of the Court clearly meant to limit the Federal Circuit’s expansion of § 271(f) protection. The holding, however, was limited under the facts of the case and did not necessarily mean that *Union Carbide*’s holding was improper. The Court, in fact, made a point of noting that the opinion did not foreclose § 271(f) protection of method patents, stating that “[i]f an intangible method or process, for instance, qualifies as a ‘patented invention’ under § 271(f) (a question as to which we express no opinion), the combinable components of that invention might be intangible as well. The invention before us, however, . . . is a tangible thing.”<sup>84</sup> Furthermore, the Court declined to rule on whether or not intangible things are always foreclosed from being a component, even if the patented invention is not a tangible, physical product.<sup>85</sup>

¶35 Despite these qualifications, the holding did make it clear that the Court disapproved of expansive interpretations of § 271(f). Because the statute has extraterritorial effects, the Court explicitly declined to give the language “an expansive interpretation” and deferred to Congress the authority to alter the statute if necessary.<sup>86</sup> Therefore, the Court may have not chosen to issue a sweeping mandate on § 271(f) simply because the facts of the case were too specific and hoped the repeated statements concerning limited application of the language of the statute would be sufficient to guide future decisions.

#### V. THE FEDERAL CIRCUIT READDRESSES § 271(F)’S PROTECTION OF METHOD PATENTS IN *CARDIAC PACEMAKERS V. ST. JUDE MEDICAL*

¶36 The Federal Circuit did not have a chance to address the question raised by the Supreme Court of whether § 271(f) applied to method patents until it heard the case of *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.*<sup>87</sup> The long and convoluted patent dispute centered on Cardiac’s patent for an implantable cardioverter defibrillator (ICD).<sup>88</sup> ICDs are small devices that are attached to the heart and detect abnormal heart rhythms, correcting these potentially fatal rhythms by administering small and precise electrical impulses to the heart.<sup>89</sup>

¶37 One of Cardiac’s ICD patents, U.S. Patent 4,407,288 (the ’288 patent), claimed a method of stimulating the heart in this manner.<sup>90</sup> The fourth claim of the ’288 patent, which was the claim at issue on this particular appeal, is dependent on the first claim of the ’288 patent. The two claims read in part:

1. A method of heart stimulation using an implantable heart stimulator capable of detecting a plurality of arrhythmias and capable of being programmed to undergo

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<sup>83</sup> *Id.* at 455–56 (internal citations omitted).

<sup>84</sup> *Id.* at 452, n.13.

<sup>85</sup> *Id.*

<sup>86</sup> *Id.* at 442.

<sup>87</sup> *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 576 F.3d 1348 (Fed. Cir. 2009) (en banc).

<sup>88</sup> *Id.* at 1351–52.

<sup>89</sup> *Id.* at 1352.

<sup>90</sup> *Id.*

a single or multi-mode operation to treat a detected arrhythmia, corresponding to said mode of operation the method comprising the steps of:

- (a) determining a heart condition of the heart . . . ;
- (b) selecting at least one mode of operation of the implantable heart stimulator . . . ; and
- (c) executing said at least one mode of operation of said implantable heart stimulator thereby to treat said determined heart condition.

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4. The method of claim 1, wherein said at least one mode of operation of said implantable heart stimulator includes cardioversion.<sup>91</sup>

Cardiac sued St. Jude in 1996, alleging infringement of various Cardiac patents, including the '288 Patent.<sup>92</sup> The procedural history of the case is extremely convoluted; as such, much of it will not be recited here for the purpose of simplicity.

¶38 On remand, the Southern District Court of Indiana denied St. Jude's motion to limit the damages under the '288 patent to domestic sales of the ICD devices even though the claim at issue was a patented method.<sup>93</sup> At the time, the District Court was following the *Union Carbide* precedent that § 271(f) protected method claims.<sup>94</sup> The Federal Circuit, citing the same precedent, upheld the District Court's holding despite the Supreme Court's opinion in *Microsoft v. AT&T*.<sup>95</sup> The Federal Circuit first noted that the Supreme Court specifically did not resolve whether or not § 271(f) applied to method claims, and that without direction from the Supreme Court, the panel was bound by the earlier precedent of *Union Carbide*.<sup>96</sup>

¶39 The panel, however, explicitly pointed out that the Federal Circuit was not unanimously in favor of *Union Carbide*, but that "as a panel" the precedent was binding.<sup>97</sup> Therefore, while affirming the District Court's judgment on this issue, the opinion was strongly suggest that St. Jude should file a petition for a rehearing en banc.

#### A. *Domestic Industries Clamor for En Banc Rehearing of Cardiac Pacemakers to Overturn Union Carbide.*

¶40 St. Jude, however, was not alone when it filed for the en banc rehearing, as several industry groups, as well as the American Intellectual Property Law Association, filed amicus briefs urging the Federal Circuit to overturn *Union Carbide*. The multiple briefs filed on behalf of St. Jude illustrated some of the economic and public policy justifications for excluding method claims from § 271(f). St. Jude and its supporters argued that the inclusion of method patents into the statute harmed U.S. companies by exposing them to infringement liability foreign companies were free to avoid.<sup>98</sup> St. Jude

<sup>91</sup> U.S. Patent No. 4,407,288 (filed Mar. 16, 1981).

<sup>92</sup> *Cardiac Pacemakers*, 576 F.3d at 1352.

<sup>93</sup> *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 418 F. Supp. 2d. 1021, 1042 (S.D. Ind. 2006).

<sup>94</sup> *Id.* at 1042–44.

<sup>95</sup> *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 303 F. App'x 884, 893 (Fed. Cir. 2008).

<sup>96</sup> *Id.*

<sup>97</sup> *Id.*

<sup>98</sup> Brief for Cisco Sys. et al. as Amici Curiae Supporting Petitioners, *Cardiac Pacemakers, Inc. v. St.*

also argued that the presumption against extraterritorial effects of United States patent law required a reversal of *Union Carbide*.<sup>99</sup>

¶41 St. Jude further contended that the Supreme Court's decision in *Microsoft*, which overturned or severely limited the *Eolas* and *AT&T* decisions, demanded a reversal of *Union Carbide* due to its reliance on those two cases.<sup>100</sup> St. Jude also argued that *Union Carbide* went against the precedent of *Standard Havens* and that Congress had chosen not to include explicit method or process language when enacting the statute.<sup>101</sup>

¶42 Cardiac's arguments against the rehearing, conversely, did not focus on economic effects or public policy, but rather a basic interpretation of the plain language of the statute. Cardiac argued that the term patented invention covers all types of patentable subject matter and there is no reason to suddenly disqualify the process class from the term.<sup>102</sup>

¶43 In a final attempt to use the *Microsoft* holding to its advantage, Cardiac noted that the case clearly allows extraterritorial infringement claims for products.<sup>103</sup> Continuing to use Supreme Court precedent in an attempt to bind the Federal Circuit, Cardiac then pointed to statements in *Quanta Computer Inc. v. LG Electronics, Inc.*<sup>104</sup> that equated apparatus and method claims,<sup>105</sup> meaning that the two classes are not so different that one must be excluded from § 271(f).

*B. The Majority Opinion Expressly Overrules Union Carbide and Holds That § 271(f) Does Not Protect Method Claims*

¶44 The majority opinion for the en banc panel agreed with the arguments of St. Jude and its supporters, reversing *Union Carbide* and holding that § 271(f) did not cover method claims.<sup>106</sup>

¶45 The majority first examined the plain language of the statute, but disagreed with Cardiac's arguments that the plain language required protection of all classes of inventions.<sup>107</sup> The majority did concede that in isolation, the term patented invention includes method patents, but noted that the remaining language of the statute clearly implies that is not the case.<sup>108</sup>

¶46 The majority emphasized that throughout § 271, tangible inventions and method inventions are treated differently.<sup>109</sup> This shows that Congress believes components of physical inventions are distinct from the steps that comprise methods and processes.

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Jude Med., Inc., 576 F.3d 1348 (Fed. Cir. 2009) (No. 96-Cv-1718), 2009 WL 1208021 at \*4.

<sup>99</sup> Defendants-cross appellants Petition for Rehearing en banc, *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 576 F.3d 1348 (Fed. Cir. 2009) (No. 96-Cv-1718), 2009 WL 329925 at \*9.

<sup>100</sup> *Id.* at \*3–4.

<sup>101</sup> *Id.* at \*4.

<sup>102</sup> Plaintiff-Appellants Responsive Brief on Rehearing en banc, *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 576 F.3d 1348 (Fed. Cir. 2009) (No. 96-Cv-1718), 2009 WL 1399679 at \*5.

<sup>103</sup> *Id.* at \*12.

<sup>104</sup> *Quanta Computer, Inc. v. LG Elecs., Inc.*, 533 U.S. 617 (2008).

<sup>105</sup> *Id.* at 629.

<sup>106</sup> *Cardiac Pacemakers*, 576 F.3d at 1359.

<sup>107</sup> *Id.* at 1362.

<sup>108</sup> *Id.*

<sup>109</sup> *Id.* at 1363–64.

While physical objects may be used to perform a portion of a patented process, it is the step, not the physical object, which is truly a component of a process.<sup>110</sup>

¶47 Because of this distinction, the majority reasoned, Cardiac’s contentions failed because it is impossible to meet the second requirement of § 271(f), supplying the component, when an intangible step is the component at issue.<sup>111</sup> The standard definitions of supply<sup>112</sup> imply a transfer of physical objects, and even Cardiac conceded that this was impossible to do with intangible steps.<sup>113</sup> The majority also referred back to the statements in *NTP* providing that “it is difficult to conceive how one might supply or cause to be supplied all or a substantial portion of the steps in a patented method in the sense contemplated by the phrase ‘components of a patented invention’ in Section 271(f).”<sup>114</sup> Under this analysis, the majority concluded that the plain language of the statute did, in fact, preclude the class of processes from the patentable subject matter protected by § 271(f).

¶48 The majority’s analysis ended with a reliance on the presumption against extraterritorial effect whenever a statute is ambiguous.<sup>115</sup> The majority also cited the Supreme Court’s narrow interpretation of § 271(f) in *Microsoft* to support the idea that when U.S. patent law is extended into other countries, it must be done in a limited manner.<sup>116</sup>

¶49 After providing this analysis on § 271(f), the majority stated that the language of the statute, the legislative history, and the structure of the U.S. patent system all demanded that method patents not be given extraterritorial protection under the statute.<sup>117</sup> The majority, however, did not raise any economic justifications of the holding, in contrast with Judge Newman’s dissent. To conclude its opinion, the majority expressly overruled *Union Carbide*, the relevant portions of *Eolas*, and dismissed this portion of Cardiac’s lawsuit.<sup>118</sup> While the reasoning of the majority is not above criticism, the opinion finally resolves the rift in Federal Circuit precedent and harmonizes this area of patent law.

### C. Judge Newman’s Dissenting Opinion

¶50 Judge Newman vigorously dissented, arguing with each justification for the majority panel’s holding and raising additional criticisms of the majority’s logic. Judge Newman first contended that the plain language of the statute required the term patented invention to include all types of patentable subject matter.<sup>119</sup> She then argued that since the express definition of patented invention in the Patent Code includes all types of patentable subject matter, a class cannot be excluded from the typical definition without a

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<sup>110</sup> *Id.* at 1364.

<sup>111</sup> *Id.*

<sup>112</sup> To “provide” or “furnish . . . supplies, provisions, or equipment.” WEBSTER’S THIRD NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE 2297 (1981).

<sup>113</sup> *Cardiac Pacemakers*, 576 F.3d at 1364.

<sup>114</sup> *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1322 (Fed. Cir. 2005). *See also Cardiac Pacemakers*, 576 F.3d at 1361.

<sup>115</sup> *Cardiac Pacemakers*, 576 F.3d at 1364.

<sup>116</sup> *Id.*

<sup>117</sup> *Id.* at 1365.

<sup>118</sup> *Id.* at 1365–66.

<sup>119</sup> *Id.* at 1366 (Newman, P., dissenting).

clear statement indicating so.<sup>120</sup> She then contended that because § 271(f) contains no express statement, the statute is unambiguous and its use of the term patented invention must include processes.<sup>121</sup> Judge Newman also showed that § 271(e), enacted shortly before § 271(f), uses patented invention to describe all patentable subject matter, and it is unlikely that Congress would radically diverge from the definition of the term in such a short amount of time.<sup>122</sup>

¶51 Judge Newman then examined the legislative history of the section, noting that the term machine was replaced with patented invention during the years of debate about the statute.<sup>123</sup> By referring back to the machine language that was explicitly omitted, the majority placed a limitation on § 271(f) that Congress itself did not put into the statute.<sup>124</sup>

¶52 Judge Newman then countered the majority's concerns about international comity. Judge Newman stressed that the reach of § 271(f) only applies to "domestic conduct and intent" and is simply included to prevent circumvention of patentee's right.<sup>125</sup> Therefore, according to Judge Newman, the statute should reach all actions performed in the United States that are consequently subject to United States law.<sup>126</sup>

¶53 Finally, Judge Newman criticized the bright line rule of the majority, which discounted the complex issue raised by the Supreme Court in *Quanta Computer, Inc. v. LG Electronics, Inc.*,<sup>127</sup> of how to distinguish method and apparatus claims.<sup>128</sup> Judge Newman lamented that such issues were never even considered by the majority, which issued a sweeping mandate without regard to today's complex technologies.<sup>129</sup> Colorfully characterizing the majority's "blunderbuss attack on all process technologies," Judge Newman noted, "as in all areas of evolving interests and policy, if statutory change is warranted, it should be achieved with the participation of all those affected. It is not the judicial role to dump the statute entirely, as overreaction to the facts of one case."<sup>130</sup>

#### VI. ANALYSIS—ECONOMIC AND POLICY RAMIFICATIONS OF THE EN BANC OPINION

¶54 While there are impassioned supporters on both sides of the issue, the Federal Circuit reached the correct decision on § 271(f) by limiting the extraterritorial reach of the statute for several reasons. First, the holding properly avoids overexpansion of U.S. patent law into foreign jurisdictions. Second, the holding removes economic liabilities for domestic companies, especially those in the computer industry where the United States is dominant in the international marketplace. Finally, the holding is the proper application of the decisions of Congress and the Supreme Court. Therefore, the economic, public policy and precedential justifications all illustrate that the exclusion of method claims from § 271(f) is correct.

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<sup>120</sup> *Id.* at 1367.

<sup>121</sup> *Id.* at 1367–68.

<sup>122</sup> *Id.* at 1368.

<sup>123</sup> *Id.* at 1370.

<sup>124</sup> *Id.* at 1371.

<sup>125</sup> *Id.* at 1373.

<sup>126</sup> *Id.*

<sup>127</sup> 553 U.S. 617 (2008).

<sup>128</sup> *Cardiac Pacemakers*, 576 F.3d at 1372 (Newman, P., dissenting).

<sup>129</sup> *Id.*

<sup>130</sup> *Id.* at 1374.

### A. Extraterritorial Application of U.S. Patent Law

¶55 The presumption against extraterritorial effects of United States law is particularly important for patents. Because other countries make different policy judgments when extending or denying patent protection to various types of inventions, especially in regard to processes patents, the United States should refrain from attempting to regulate activities in foreign countries. As pointed out by Cisco Systems in one of the many amicus briefs filed for the en banc rehearing, medical methods, business methods, and the very idea of what constitutes patentable subject matter are three examples of instances where viewpoints and laws vary across the globe.<sup>131</sup> To hold a European company liable for infringing a business method patent, for example, seems absurd on its face when the European Patent Convention does not extend patent protection to that subject matter.<sup>132</sup> Therefore, courts should be reticent to conflict with these viewpoints without a clear signal from Congress.

¶56 Furthermore, after the enactment of the Paris Convention Treaty and the TRIPS agreement, inventors that desire geographically broad intellectual property protection can more easily acquire foreign patents for their inventions. These agreements have also strengthened patent protection around the world to a degree not present when *Deepsouth* occurred and motivated Congress to initially enact § 271(f).

¶57 In signing the TRIPS agreement the United States has also pledged to respect foreign nation's independent patent systems. Furthermore, the fact that it was generally accepted that § 271(f) did not apply to method claims for several decades shows that Congress, a body much more capable of evaluating complex foreign policy issues than courts, did not intend to expand the reach of the statute because it never chose to amend the law.<sup>133</sup> This last point could be disputed by pointing out that the enactment of § 271(f) took over a decade, and virtually all Patent Code reform takes such a long time that the absence of intervention may not reflect the desires of Congress. Even so, separation of powers demands that courts not "fix" perceived deficiencies in the law through case interpretation, but defer to Congress's ability to properly weigh the necessary policy considerations.

### B. Economic Effects

¶58 Due to the relatively recent holding of the Federal Circuit in *Cardiac Pacemakers*, the actual economic effects may not be known for some time, but it is likely that the overall effects will be beneficial for domestic companies. Before oral arguments, Cisco Systems led a large contingent of software and computer technology companies in filing amicus briefs imploring the Federal Circuit to exclude method patents from § 271(f).<sup>134</sup> Even though software code was already outside the reach of the statute after *Microsoft*,

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<sup>131</sup> Brief for Cisco Sys. et al. as Amici Curiae Supporting Petitioners, *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 576 F.3d 1348 (Fed. Cir. 2009) (No. 96-Cv-1718), 2009 WL 1208021 at \*4.

<sup>132</sup> Petition for Rehearing en banc, *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 576 F.3d 1348 (Fed. Cir. 2009) (No. 96-Cv-1718), 2009 WL 329925 at \*10.

<sup>133</sup> Jennifer Giordano-Coltart, *Walking the Line: Why the Presumption Against Extraterritorial Application of U.S. Patent Law Should Limit the Reach of 35 U.S.C. § 271(f)*, 2007 DUKE L. & TECH. REV. 4, 27 (2007).

<sup>134</sup> Brief for Cisco Sys. et al. as Amici Curiae Supporting Petitioners, *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 576 F.3d 1348 (Fed. Cir. 2009) (No. 96-Cv-1718), 2009 WL 1208021.

the widespread industry support illustrates the importance of excluding method and process patents from § 271(f) to companies that produce complex technology.

¶159 There are several ways the United States economy was hindered by the incentives created by the previous interpretation of § 271(f). First, many domestic businesses, especially those in industries such as computer technology in which the U.S. is the dominant economic power, depend greatly on international sales.<sup>135</sup> Allowing § 271(f) to reach any international sale of a product that may perform a domestically patented process could subject companies to vast infringement liability for products that are produced domestically. This is an especially important concern because U.S. law grants patentability to types of methods that cannot receive patent protection in some foreign countries. Including method patents in § 271(f), however, would still allow infringement liability for these foreign sales.

¶160 An expansive interpretation § 271(f) also went against the settled expectations industries, which for decades believed that § 271(f) did not apply to method claims. The Supreme Court's statement that "courts must be cautious before adopting changes that disrupt the settled expectations of the inventing community"<sup>136</sup> stressed the importance of industries' expectations and reliance on its previous rulings.<sup>137</sup>

¶161 Finally, there is the extremely common business arrangement of domestic companies manufacturing some parts at facilities in foreign countries at lower costs, which often requires exporting instructions, manuals or various items that can perform processes patented in the United States. An overbroad interpretation of § 271(f) creates worldwide liability for domestic companies for these types of exports, while foreign competitors escape this liability even as they enjoy the other benefits of off-shore production. This potential infringement liability is extremely wide-ranging because it could conceivably ensnare domestic companies that export *anything* that is capable of performing process step or that could somehow be configured to perform a process. Furthermore, under the first section of the statute, domestic companies are potentially liable for direct infringement as well as inducing infringement. This type of widespread global infringement liability from § 271(f) incentivizes companies to move all their facilities outside of the United States, not just selected manufacturing facilities.

¶162 In summary, including method and process patents in § 271(f) would provide companies with even greater incentives for moving research and manufacturing facilities overseas to avoid infringement liability. As the widespread industry support for St. Jude showed, limiting the reach of the statute is in the best interests of domestic industries that ship products abroad by eliminating a potential source of significant liability that foreign manufactures are free to avoid. Therefore, the majority panel's holding results in the best possible economic incentives for companies in the United States.

### C. Proper Application of Precedent & Congressional Intent

¶163 The holding was also the correct application of the controlling precedent and Congress's intent for the statute. Only three Federal Circuit cases had applied § 271(f) to

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<sup>135</sup> Fernandes, *supra* note 19, at 102.

<sup>136</sup> Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 739 (2002).

<sup>137</sup> See, e.g., Brief for Cisco Sys. et al. as Amici Curiae Supporting Petitioners, Cardiac Pacemakers, Inc. v. St. Jude Med., Inc., 576 F.3d 1348 (Fed. Cir. 2009) (No. 96-Cv-1718), 2009 WL 1208021 at \*6.

process claims, *Eolas*, *AT&T*, and *Union Carbide*. *Eolas* and *AT&T*, however, were either reversed outright or severely limited by the Supreme Court in *Microsoft*.<sup>138</sup> The only enduring case was *Union Carbide*, and while the case was not expressly overruled, its holding could not survive the logic of *Microsoft* requiring that components of an invention be combinable.<sup>139</sup> In addition, *Union Carbide* improperly ignored the relevant and controlling holding of *Standard Havens*, and therefore the decision was improper even before the Supreme Court weighed in on the issue.

¶164 The legislative history of the statute also shows the holding was correct. The language of 271(f) came primarily from § 271(c), but language referring to method or process claims was explicitly left out. The later enactment of § 271(g), which imposes liability for importing foreign products made by a process patented in the United States, further shows Congress did not intend § 271(f) to apply to method patents.<sup>140</sup>

## VII. CONCLUSION—THE *CARDIAC PACEMAKERS*'S HOLDING WAS CORRECT

¶165 The economic and international comity policy factors, combined with the significant Federal Circuit precedent limiting § 271(f), imply that the issue has probably been settled. The Supreme Court, however, has recently criticized the Federal Circuit's reliance on bright line rules in the *KSR*<sup>141</sup> and *eBay*<sup>142</sup> decisions. When one further considers that the Supreme Court explicitly declined to issue a sweeping mandate for § 271(f) regarding all technology fields in *Microsoft*, it is possible that the Court will again intervene and limit the Federal Circuit's holding in *Cardiac*.

¶166 However, it appears that *Cardiac Pacemakers*'s holding strikes the proper balance between international concerns and economic incentives. By limiting the reach of § 271(f), the Federal Circuit has further altered how companies can protect their inventions. Under the current holding, domestic companies should emphasize obtaining foreign patent protection, as well as attempt to draft claims that read on the inventions themselves, not simply their method of use.

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<sup>138</sup> *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 457 (2007) (“While the majority’s concern [in *AT&T*] is understandable, we are not persuaded that dynamic judicial interpretation of § 271(f) is in order.”).

<sup>139</sup> Petition for Rehearing en banc, *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 576 F.3d 1348 (Fed. Cir. 2009) (No. 96-Cv-1718), 2009 WL 329925.

<sup>140</sup> *Id.* at \*7–8.

<sup>141</sup> *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007).

<sup>142</sup> *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006).

