

# To What Extent Can Congress Change the Patent Right Without Effecting a Taking?

by JESSE S. CHUI\*

## I. Introduction

The Constitution confers upon Congress the power to “promote the . . . useful Arts, by securing for limited Times to . . . Inventors the exclusive Right to their . . . Discoveries.”<sup>1</sup> Since the Patent Act of 1790, Congress has continued to define and redefine the metes and bounds of the patent right. This tradition continues with the Patent Reform Act of 2005, introduced in the House of Representatives on June 8, 2005.<sup>2</sup>

A patent gives the patent holder the right to prevent others from making, using, selling, offering to sell, and importing the protected invention.<sup>3</sup> A patent does not affirmatively allow the patentee a right to make, use, sell, offer to sell, or import the invention; it only grants the patentee the right to exclude others from doing so.<sup>4</sup>

A patent, as an intellectual property right, exhibits most of the attributes that comprise the “bundle of sticks” of real property rights. Scholars disagree about all the rights included in the bundle, but the most commonly identified “sticks” include the right to exclude others, the right to possess, the right to use, and the right to alienate (i.e., to dispose of or transfer).<sup>5</sup> The Supreme Court has called the right to

---

\* J.D. candidate, May 2007, University of California, Hastings College of the Law; B.A., Computer Science, 2003, University of California, Berkeley. Special thanks to Professor Robin Feldman, Professor Jeffrey A. Lefstin, Professor Calvin R. Massey, and Isaac Fong for their guidance and insights.

1. U.S. CONST. art. 1, § 8, cl. 8.

2. H.R. 2795, 109th Cong. (2005).

3. 35 U.S.C.A. § 271(a) (West 2005).

4. *See King Instruments Corp. v. Perego*, 65 F.3d 941, 947, 949-50 (Fed. Cir. 1995).

5. Craig Anthony Arnold, *The Reconstitution of Property: Property as a Web of Interests*, 26 HARV. ENVTL. L. REV. 281, 285-286 (2002).

exclude others “[t]he hallmark of a protected property interest”<sup>6</sup> and “one of the most essential sticks in the bundle of rights that are commonly characterized as property.”<sup>7</sup> Like a land deed, a patent defines the boundaries of the invention’s “intellectual territory” and allows the patent holder to sue those who “trespass” upon the property.

The U.S. patent system flows from the Constitution, which grants Congress the power to confer patents.<sup>8</sup> Since the ratification of the Constitution, Congress has enacted a number of statutes,<sup>9</sup> including six Patent Acts,<sup>10</sup> that have in whole or in part modified the patent right.

Although “the Congress giveth, and the Congress taketh away,”<sup>11</sup> Congress cannot take away too much of the patent right without effecting a taking. The Takings Clause, which “presupposes the government’s authority to acquire private property for public use,”<sup>12</sup> provides that “private property [shall not] be taken for public use, without just compensation.”<sup>13</sup> It does not prohibit takings, but merely requires the government to provide just compensation when one has occurred.<sup>14</sup> It is important to note that when the Supreme Court characterizes governmental regulation as a valid exercise of the police power to reduce or eliminate a nuisance or social harm, no taking has occurred.<sup>15</sup>

---

6. *College Sav. Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd.*, 527 U.S. 666, 673 (1999).

7. *Kaiser Aetna v. United States*, 444 U.S. 164, 176 (1979).

8. U.S. CONST. art. 1, § 8, cl. 8.

9. *See, e.g.*, the Invention Secrecy Act, 35 U.S.C.A. § 181 (West 2005) (preventing patents from issuing on inventions whose publication “might . . . be detrimental to the national security”); the Atomic Energy Act, 42 U.S.C.A. §§ 2181(a), (b) (West 2005) (preventing patents from issuing on inventions “useful solely . . . in an atomic weapon” and revoking “[a]ny patent granted for any such invention”); the Atomic Energy Act at §§ 2183(c), (g) (requiring patentees to license atomic energy inventions); the Clean Air Act, 42 U.S.C.A. § 7608 (West 2005) (requiring patentees to license air pollution control inventions); the Plant Variety Protection Act, 7 U.S.C.A. § 2404 (West 2005) (requiring patentees to license new varieties of sexually reproduced plants).

10. The Patent Act of 1790; the Patent Act of 1793; the Patent Act of 1836; the Patent Act of 1839; the Patent Act of 1870; and the Patent Act of 1952.

11. Senate Select Comm. on Presidential Campaign Activities v. Nixon, 366 F. Supp. 51, 55 (D.D.C. 1973) (referring to federal jurisdiction).

12. DOUGLAS T. KENDALL, ET AL, TAKINGS LITIGATION HANDBOOK 3 (2000).

13. U.S. CONST. amend V.

14. *First Evangelical Lutheran Church v. County of L.A.*, 482 U.S. 304, 314 (1987).

15. *See, e.g., Calero-Toledo v. Pearson Yacht Leasing Co.*, 416 U.S. 663 (1974) (upholding statute authorizing forfeiture of a vessel used to transport marijuana); *Miller v.*

When Congress limits the patent right, it usually does so in one of three ways: it authorizes compulsory licensing,<sup>16</sup> redefines patentable subject matter,<sup>17</sup> or exempts enumerated classes from patent infringement.<sup>18</sup> Such legislation may constrict the patent right to the point that it becomes a taking. This note examines takings law and the three primary ways Congress modifies the patent right (authorizing compulsory licensing, redefining patentable subject matter, and exempting certain classes from patent infringement). The note then analyzes whether those Congressional actions effect takings.

## II. Takings

### A. Introduction

In takings jurisprudence, the issue of just compensation is not as controversial as the two issues of (1) public use and (2) the point at which regulations become takings.<sup>19</sup> The first requirement the government must meet in order to constitutionally take property is the “public use” requirement. The government may *not* constitutionally take property for private use—a governmental action

---

Schoene, 276 U.S. 272 (1928) (upholding statute authorizing the uncompensated destruction of red cedar trees in order to protect apple trees from “cedar rust” fungus); Village of Euclid v. Ambler Realty Co., 272 U.S. 365 (1926) (upholding zoning prohibiting apartments as a valid exercise of police power); Reiman v. City of Little Rock, 237 U.S. 171 (1915) (upholding municipal ordinance prohibiting livery stables as a valid exercise of police power); Chi., B. & Q. R. Co. v. City of Chi., 166 U.S. 226 (1897) (upholding regulation requiring railroads to maintain railroad crossing facilities and watchmen as a valid exercise of police power); *see also* Lucas v. S.C. Coastal Council, 505 U.S. 1003, 1020-26 (1992) (discussing the Court’s “background principles” inquiry into nuisance law).

16. *See, e.g.*, the Atomic Energy Act, 42 U.S.C.A. §§ 2183(c), (g) (West 2005) (requiring patentees to license atomic energy inventions); the Clean Air Act, 42 U.S.C.A. § 7608 (West 2005) (requiring patentees to license air pollution control inventions); the Plant Variety Protection Act, 7 U.S.C.A. § 2404 (West 2005) (requiring patentees to license new varieties of sexually reproduced plants).

17. *See, e.g.*, the Invention Secrecy Act, 35 U.S.C.A. § 181 (West 2005) (preventing patents from issuing on inventions whose publication “might . . . be detrimental to the national security”); the Atomic Energy Act, 42 U.S.C.A. §§ 2181(a), (b) (West 2005) (preventing patents from issuing on inventions “useful solely . . . in an atomic weapon” and revoking “any patent granted for such invention”).

18. *See, e.g.*, the Hatch-Waxman Act, 35 U.S.C.A. § 271(e) (West 2005) (providing that acts that are “solely for uses reasonably related to the development and submission of information under a Federal law which regulates . . . drugs or veterinary biological products” are not infringing).

19. CALVIN R. MASSEY, AMERICAN CONSTITUTIONAL LAW: POWERS AND LIBERTIES 557-58, 562 (2d ed. 2005).

usually modeled as a forcible transfer of property from one private person to another—no matter how it compensates the property owner.

### **B. Public Use**

The Supreme Court's most recent definition of the public use requirement arrived via *Kelo v. City of New London*.<sup>20</sup> Justice Stevens, writing for the five-Justice majority, declared that the public use requirement of the takings clause is satisfied when the governmental action "serves a public purpose,"<sup>21</sup> and held that the government's plan for economic development "unquestionably" served a public purpose, thereby satisfying the public use requirement.<sup>22</sup> In its analysis, the majority emphasized the Court's "traditionally broad understanding of public purpose"<sup>23</sup> and its deference to legislative determinations that an act of government serves a public purpose.<sup>24</sup> The majority criticized the "substantially advances" formula used in regulatory takings doctrine and set forth rational basis review as the proper standard for a public use inquiry.<sup>25</sup>

Any bill enacted by Congress that limits the patent right will almost certainly meet the public use requirement of the takings clause. Given the Supreme Court's latest determination of the public use requirement, any Congressional act that mentions or attempts some non-arbitrary public purpose will satisfy the public use requirement. One professor recently wrote that, after *Kelo*, "[t]he federal bar [for public use] is presently set so low as to be little more than a speed bump."<sup>26</sup>

### **C. Three Categories of Takings Claims**

There are three categories of takings claims: (1) permanent physical occupations, (2) conditions on development permits, and (3) regulatory takings. A permanent physical occupation occurs when the government permanently occupies or invades all or a portion of a piece of private property, or confiscates personal property. A

---

20. 545 U.S. 469 (2005).

21. *Id.* at 484.

22. *Id.* at 470.

23. *Id.* at 485.

24. *Id.* at 480.

25. *Id.* at 488.

26. David L. Callies, *A Requiem for Public Use*, 20 PROBATE AND PROPERTY 12 (2006).

condition on a development permit occurs when the government conditions the grant of a building permit on a dedication from the property owner (e.g., an easement). A regulatory taking is a “catch-all” government action that involves neither physical invasion nor conditional permits.

### 1. *Permanent Physical Occupations*

Since the first successful Supreme Court takings case in 1872,<sup>27</sup> the Supreme Court has found takings in numerous physical invasion cases<sup>28</sup> but has found far fewer takings in regulatory takings cases. Permanent physical occupations and invasions violate the owner’s right to exclude others—“universally held to be a fundamental element of the property right”<sup>29</sup>—and so are *per se* takings “to the extent of the occupation.”<sup>30</sup> The governmental action must constitute a permanent occupation to be considered a *per se* taking.<sup>31</sup> Justice Stevens compared the Court’s treatment of physical occupations to its treatment of other types of takings:

“Our jurisprudence involving condemnations and physical takings is as old as the Republic and, for the most part, involves the straightforward application of *per se* rules. Our regulatory takings jurisprudence, in contrast, is of more recent vintage and is characterized by ‘essentially ad hoc, factual inquiries,’ designed to allow ‘careful examination and weighing of all the relevant circumstances.’”<sup>32</sup>

In the leading Supreme Court case on permanent physical occupations, *Loretto v. Teleprompter Manhattan CATV Corp.*, the Court held that a New York statute requiring apartment owner Jean Loretto to allow a cable television company to install cables on her property was a taking because it constituted a “permanent physical occupation” of her property.<sup>33</sup> In its analysis, the Court stated that the owner’s “power to exclude has traditionally been considered one

27. *Pumpelly v. Green Bay Co.*, 80 U.S. (13 Wall.) 166 (1872).

28. *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 426-27 (1982).

29. *Kaiser Aetna v. United States*, 444 U.S. 164, 179-80 (1979).

30. *Loretto*, 458 U.S. at 434-35.

31. *Id.* at 436, n.12 (distinguishing temporary physical occupations, which “are subject to a more complex balancing process to determine whether they are a taking,” from permanent physical occupations, which are takings *per se*).

32. *Brown v. Legal Found. of Wash.*, 538 U.S. 216, 233 (2003) (quoting *Penn Cent. Transp. Co. v. City of N.Y.*, 438 U.S. 104, 124 (1978); *Palazzolo v. Rhode Island*, 533 U.S. 606, 636 (2001) (O’Connor, J., concurring)).

33. *Loretto*, 458 U.S. at 421, 441.

of the most treasured strands in an owner's bundle of property rights."<sup>34</sup> The Court noted that "an owner suffers a special kind of injury when a *stranger* invades and occupies the owner's property,"<sup>35</sup> and that such an invasion "is qualitatively more intrusive than perhaps any other category of property regulation."<sup>36</sup> "In light of our analysis," concluded the Court, the statutorily-mandated cable installation "permanently appropriate[s] appellant's property. Accordingly, . . . [the] installation is a taking."<sup>37</sup>

It is not clear whether the Supreme Court would apply the permanent *physical* occupation rule to permanent occupation of *intellectual* property such as patents; however, the Court was quite broad in outlining the scope of its permanent physical occupation rule: "We fail to see, however, why a physical occupation of one type of property but not another type is any less a physical occupation."<sup>38</sup> In addition, one of the purposes of the rule—namely, the Court's desire to protect the "treasured strand" of the right to exclude—applies to intellectual property as readily as it does to real property.

The Supreme Court has found a taking when *constructive* rather than *actual* permanent physical occupation existed. In *United States v. Causby*, the Court found that the governmental action at issue constituted a constructive permanent physical occupation.<sup>39</sup> In *Causby*, government "bombers, transports and fighters" continually took off and landed over Tommy Lee Causby's land.<sup>40</sup> The owner's home and "various outbuildings which were mainly used for raising chickens" were situated on the land.<sup>41</sup> The Court held that "there was an invasion of respondents' property"<sup>42</sup> for two reasons: (1) "[T]he flight of airplanes, which skim the surface but do not touch it, is as much an appropriation of the use of the land as a more conventional entry upon it"<sup>43</sup> and (2) under the facts of the case, which included the death of 150 chickens and sleep deprivation, nervousness, and fright, the Court found that flights over the land were "so low and so

---

34. *Id.* at 435 (citing *Kaiser Aetna*, 444 U.S. at 179-80).

35. *Id.* at 420 (emphasis in original).

36. *Id.* at 441.

37. *Id.* at 438.

38. *Id.* at 439.

39. 328 U.S. 256 (1946); *see also* *Massey*, *supra* note 19, at 576.

40. *Causby*, 328 U.S. at 259.

41. *Id.* at 258.

42. *Id.* at 266.

43. *Id.* at 264.

frequent as to be a direct and immediate interference with the enjoyment and use of the land.”<sup>44</sup>

On the one hand, the *Causby* Court applied its permanent physical occupation takings analysis to airspace and not land; on the other hand, the decision repeatedly tied the effect of the governmental action to the property owner’s “enjoyment and use of *the land*” (emphasis added).<sup>45</sup> Nonetheless, the Court’s taking decisions are predicated on protecting the bundle of sticks that comprise property rights and when property rights have been denied or destroyed, the Court will consider whether a taking has occurred. *Babbitt v. Youpee* and *Hodel v. Irving* demonstrate that government regulation that abrogates the right to convey property can effect a taking.<sup>46</sup> *Causby* demonstrates that governmental action that reduces the right to “enjoy[] and use”<sup>47</sup> property can effect a taking. *Loretto* demonstrates that governmental action that abridges the right to exclude can effect a taking. The Court’s motivations in its takings jurisprudence suggest that it might be willing to find a constructive permanent physical occupation of a patent.

Furthermore, while a patent does not have physical borders, it is similar to a real property deed because the claims in a patent set out the “metes and bounds” of the intellectual property rights conferred by the patent.<sup>48</sup> In addition, the patent right consists primarily of the “treasured strand” of the right to exclude,<sup>49</sup> a right granted by a real property deed.

Patent holders have the right to exclude others from making, using, offering to sell, selling or importing into the United States the invention described in the patent claims.<sup>50</sup> The patent holder may sue to enjoin infringement by “trespassers” who exploit the patented invention without authorization.<sup>51</sup> A patent does not affirmatively allow its owner to exploit the patented product on the marketplace.<sup>52</sup>

44. *Id.* at 266.

45. *Id.* See also *id.* at 261 (“If, by reason of the frequency and altitude of the flights, respondents could not use this land for any purpose, their loss would be complete.”).

46. *Babbitt v. Youpee*, 519 U.S. 234, 236-42 (1997); *Hodel v. Irving*, 481 U.S. 704, 706-10 (1987).

47. *Causby*, 328 U.S. at 266.

48. *Corning Glass Works v. Sumitoto Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257 (Fed. Cir. 1989).

49. *Kaiser Aetna v. United States*, 444 U.S. 164, 179-80 (1979).

50. 35 U.S.C.A. § 271(a).

51. See e.g., 35 U.S.C.A. 253 (West 2005).

52. 35 U.S.C.A. § 721(a) (West 2005).

The greatest value, if not the entire value, of a patent lies in the right to exclude that it confers to the patent holder. “[W]ithout the right to exclude ‘the express purpose of the Constitution and Congress, to promote the progress of the useful arts, would be seriously undermined.’”<sup>53</sup>

Infringement of a patent is therefore strongly analogous to physical occupation of real property: Both violate the property owner’s right to exclude by abrogating one of the sticks in the bundle of property rights. Any regulation that allows patent infringement amounts to a “physical occupation” of the patent, any regulation that does so *permanently* falls under the “permanent physical occupation” rule, and permanent physical occupation of property by the government effects a taking.

## 2. *Conditions on Development Permits*

Almost all conditions on development permits cases follow the same fact pattern: A property owner wishes to develop her property; the government finds that the property owner’s proposed development causes or exacerbates a problem; consequently, the government demands land (i.e., requires a dedication of land) from her or forbids her from realizing her proposed development, ostensibly as a means to offset the problem or mitigate it.

The Supreme Court has created two tests to determine whether a required dedication constitutes a taking: the essential nexus test from *Nollan v. California Coastal Commission*<sup>54</sup> and the rough proportionality test from *Dolan v. City of Tigard*.<sup>55</sup> Under the essential nexus test, the government must show the existence of an “essential nexus” between the stated legitimate state interest and the required dedication.<sup>56</sup> Under the roughly proportionality test, the government must show that the required dedication is “roughly proportional” to the problem created by the development.<sup>57</sup> Only when a challenged government regulation satisfies both tests will a court consider it to *not* be a taking.

In *Nollan v. California Coastal Commission*, the California Coastal Commission conditioned a building permit on the grant of

---

53. *Patlex Corp. v. Mossinghoff*, 758 F.2d 594, 600 (Fed. Cir. 1985) (quoting *Smith Internat’l, Inc. v. Hughes Tool Co.*, 718 F.2d 1573, 1577-78 (Fed. Cir. 1983)).

54. 483 U.S. 825, 837 (1987).

55. 512 U.S. 374, 391 (1994).

56. *Nollan*, 483 U.S. at 837.

57. *Dolan*, 512 U.S. at 391.



public lateral beachfront access across the Nollans' property (i.e., an easement to pass across their property), ostensibly to preserve "the public's ability to see the beach."<sup>58</sup> The majority, led by Justice Scalia, stated:

It is quite impossible to understand how a requirement that people already on the public beaches be able to walk across the Nollans' property reduces any obstacles to viewing the beach created by the new house. It is also impossible to understand how it lowers any "psychological barrier" to using the public beaches, or how it helps to remedy any additional congestion on them caused by construction of the Nollans' new house.<sup>59</sup>

Because the Court found that people already walking on the beach had an unobstructed view of the beach, it found that the required dedication failed the essential nexus test.<sup>60</sup> The majority then concluded that the Commission's requirement was a taking: "California is free to advance its 'comprehensive program,' if it wishes, by using its power of eminent domain for this 'public purpose,' but if it wants an easement across the Nollans' property, it must pay for it."<sup>61</sup>

In *Dolan v. City of Tigard*, Mrs. Dolan wished to double the size of her plumbing and electric supply store and pave the store's gravel parking lot.<sup>62</sup> The City of Tigard conditioned the grant of a building permit on (1) a public greenway intended to minimize flooding that would have been exacerbated by the increases in water-impermeable surfaces associated with her development and (2) a pedestrian/bicycle pathway intended to relieve traffic congestion.<sup>63</sup> Chief Justice Rehnquist, writing for the majority, determined that "a nexus exist[ed] between preventing flooding . . . and limiting development" and between "the city's attempt to reduce traffic congestion" and the pedestrian bicycle/pathway such that the City of Tigard satisfied the essential nexus test.<sup>64</sup> Nevertheless, the majority found that the city's two requirements were not "roughly proportional" to its goals, since the city "never said why a public greenway, as opposed to a private one, was required in the interest of flood control"<sup>65</sup> and failed to meet

---

58. *Nollan*, 483 U.S. at 835.

59. *Id.* at 838-39.

60. *Id.* at 838.

61. *Id.* at 841-42 (citations omitted).

62. *Dolan*, 512 U.S. at 379, 387.

63. *Id.* at 378.

64. *Id.* at 387-88.

65. *Id.* at 393.

“its burden of demonstrating that the additional number of vehicle and bicycle trips generated by petitioner’s development reasonably relate to the city’s requirement for a dedication of the pedestrian/bicycle pathway easement.”<sup>66</sup> Regarding the rough proportionality test, the Court stressed, “No precise mathematical calculation is required, but the city must make some effort to quantify its findings in support of the dedication for the pedestrian/bicycle pathway beyond the conclusory statement that it could offset some of the traffic demand generated.”<sup>67</sup>

To date, Supreme Court cases in this area have only involved challenges to required dedications of land.<sup>68</sup> In addition, since “the essential nexus test applies only to conditions placed on the government’s granting of a *discretionary* permit,”<sup>69</sup> the *Nollan* and *Dolan* tests most likely do not apply to patents. A patent is not a discretionary permit—it “is a right and not a matter of grace or favor.”<sup>70</sup> The building permits sought by the plaintiffs in *Nollan* and *Dolan* were discretionary permits. In addition, “[a] regulation that is constitutional as part of a conditional permit might violate the Fifth Amendment [i.e., it might effect a taking] if it were not tied to the permit.”<sup>71</sup> For example, in *Nollan* the Court noted that if the California Coastal Commission had “simply required the Nollans to make an easement across their beachfront available to the public on a permanent basis . . . rather than conditioning their permit to rebuild their house on their agreeing to do so, we have no doubt there would have been a taking.” Accordingly, even if a congressional act that affected the patent right had an essential nexus to a legitimate government interest, it could still be a taking—the essential nexus test would simply be irrelevant in a takings case involving a patent.

### 3. *Regulatory Takings*

Regulatory takings did not exist until the Supreme Court decided *Pennsylvania Coal Co. v. Mahon*. “Prior to Justice Holmes’

---

66. *Id.* at 395.

67. *Id.* at 395-96.

68. See e.g., *Nollan v. Cal. Coastal Comm’n*, 482 U.S. 825 (1987); *Dolan*, 512 U.S. at 374; *City of Monterey v. Del Monte Dunes, Ltd.*, 256 US 687 (1999).

69. Courtenay C. Brinckerhoff, *Medical Method Patents and the Fifth Amendment: Do the New Limits on Enforceability Effect a Taking?*, 4 U. BALT. INTELL. PROP. L. J. 147, 168 (1996) (emphasis in original).

70. *Patlex Corp. v. Mossinghoff*, 758 F.2d 594, 599 (1985) (quoting *Johnson & Johnson, Inc. v. Wallace A. Erickson & Co.*, 627 F.2d 57, 59 (7th Cir. 1980)).

71. Brinckerhoff, *supra* note 69, at 168.

exposition in *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393 (1922), it was generally thought that the Takings Clause reached only a ‘direct appropriation of property’ . . . or the functional equivalent of a ‘practical ouster of [the owner’s] possession.’”<sup>72</sup> Almost all Supreme Court regulatory takings cases have involved government action that affected tangible property tied in some respect to land—coal,<sup>73</sup> beachfront lots,<sup>74</sup> cedar trees,<sup>75</sup> and buildings.<sup>76</sup> Nonetheless, by adjudicating a case in which the plaintiff argued that new federal pesticide laws effected a taking of trade secrets and then holding that a taking had occurred,<sup>77</sup> the Court has made it clear that a regulatory takings claim may arise from government regulation that affects intellectual property.

The landmark case of *Pennsylvania Coal* marked the first time the Court applied the Takings Clause to governmental action that did not involve an appropriation or physical invasion of property.<sup>78</sup> In *Pennsylvania Coal*, the Court examined the constitutionality of the Kohler Act, a Pennsylvania statute that prohibited coal companies from mining coal when the removal of the subsurface coal would cause the buildings above to subside except when the owner of the coal also owned the surface.<sup>79</sup> After rejecting the argument that the Kohler Act was necessary to protect public safety, Justice Holmes, writing for the majority, stated that “if regulation goes too far it will be recognized as a taking.”<sup>80</sup> The Court ruled in favor of the plaintiff coal company, finding that the Kohler Act went “too far” and therefore effected a taking.<sup>81</sup>

Despite the result of *Pennsylvania Coal*, the Court indicated that “[g]overnment hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law,” and that “some values are enjoyed under

---

72. *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1014 (1992) (citations omitted).

73. *Keystone Bituminous Coal Ass’n v. DeBenedictis*, 480 U.S. 470 (1987); *Pa. Coal Co. v. Mahon*, 260 U.S. 393 (1922).

74. *Lucas*, 505 U.S. 1003.

75. *Miller v. Schoene*, 276 U.S. 272 (1928).

76. *Penn Cent. Transp. Co. v. N.Y. City*, 438 U.S. 104 (1978).

77. *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986 (1984).

78. *Kendall*, *supra* note 12, at 15 (2000).

79. *Pa. Coal Co.*, 260 U.S. at 412-13.

80. *Id.* at 415.

81. *Id.*

an implied limitation and must yield to the police power.”<sup>82</sup> Moreover, the Court noted that the regulatory takings analysis “depend[ed] upon the particular facts” of each case and that courts must give “[t]he greatest weight . . . to the judgment of the legislature.”<sup>83</sup>

a. The *Penn Central* Factors

In 1978, Justice Brennan summarized the status of takings law in *Penn Central Transportation Co. v. New York City* and presented three factors to be used in a regulatory takings analysis: the economic impact of the regulation, the extent to which the regulation interfered with the claimant’s “distinct investment-backed expectations,” and the character of the government action.<sup>84</sup> A government regulation is *not* a taking if it meets all three of the *Penn Central* factors—in other words, when the public benefits of the regulation are greater than the private costs imposed by it, the regulation leaves the property owner with uses that allow the owner to earn a “reasonable return” on his “investment-backed expectations,” and the benefits of the regulation to the public outweigh the burden to the property owner.<sup>85</sup>

When a claimant proves that a government regulation fails at least one of the *Penn Central* factors, the regulation is a taking.<sup>86</sup> It is important to note that, although economic impact is one of the *Penn Central* factors, it is also a *per se* rule: Any regulation that denies all economically beneficial and productive use of property is a *per se* taking.<sup>87</sup>

**i. Economic Impact**

Courts have measured the economic impact of a regulation on property by examining the percentage to which the regulation

---

82. *Id.* at 413.

83. *Id.*

84. *Penn Cent. Transp. Co. v. N.Y. City*, 438 U.S. 104, 124 (1978).

85. *Id.*

86. *See e.g.*, *Dolan v. City of Tigard*, 512 U.S. 374, 391 n.8 (1994) (“[T]he burden properly rests on the party challenging the regulation to prove that it constitutes an arbitrary regulation of property rights.”).

87. *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1028 (1992) (treating equally “permanent physical occupation” of land” (a *per se* takings rule) and “regulations that prohibit all economically beneficial use of land”); *see also id.* at 1052 (Blackmun, J., dissenting) (“Ultimately even the Court cannot embrace the full implications of its *per se* rule.”).

reduces the property's value.<sup>88</sup> In *Lucas v. South Carolina Coastal Council*, the Supreme Court held that when a regulation deprives or prohibits the property owner of "all economically viable use" of his property, the regulation is a taking that requires just compensation.<sup>89</sup> Justice Scalia, writing for the majority, elaborated on this holding by stating that "the notion . . . that title is somehow held subject to the 'implied limitation' that the State may subsequently eliminate all economically valuable use is inconsistent with the historical compact recorded in the Takings Clause . . . ."<sup>90</sup> Justice Scalia analogized extreme property regulation to permanent physical occupation takings (previously discussed in this Note as being the governmental action most likely to effect a taking), finding that the "total deprivation of beneficial use is, from the landowner's point of view, the equivalent of a physical appropriation."<sup>91</sup>

According to the *Lucas* Court, government regulation that reduces a property's value by ninety-five percent would not automatically effect a taking under the "all economically viable use" test.<sup>92</sup> The "all economically viable use" *per se* rule announced in *Lucas* "has been narrowly applied, with courts strictly construing the requirement that the regulation in question deprive the property owner of *all* economically viable use of his land."<sup>93</sup> In a subsequent takings decision, the Court wrote, "It is worth noting that *Lucas* underscores the difference between physical and regulatory takings. . . . For under our physical takings cases it would be irrelevant whether a property owner maintained five percent of the value of her property so long as there was a physical appropriation of any of the parcel."<sup>94</sup> Thus, a governmental action that leaves the property with some economically viable use may not trigger takings liability under the *Lucas per se* rule, but may still trigger takings liability under the permanent physical occupation rule or the *Penn Central* factors.

---

88. See e.g., *Euclid v. Ambler Realty Co.*, 272 U.S. 365, 384 (1926) (rejecting takings claim where property value decreased 75%); *Hadacheck v. Sebastian*, 239 U.S. 394, 405 (1915) (rejecting takings claim where property value decreased from \$800,000 to \$60,000 – i.e., a 92.5% diminution in value).

89. *Lucas*, 505 U.S. at 1019.

90. *Id.* at 1028.

91. *Id.* at 1017.

92. *Id.* at 1019 n.8.

93. *Brinckerhoff*, *supra* note 69, at 170.

94. *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Reg'l Planning Agency*, 535 U.S. 302, 330 (2002) n.25.

## ii. Investment-Backed Expectations

The second *Penn Central* factor is the investment-backed expectations of the property owner. This factor can be viewed as a separate factor<sup>95</sup> or viewed as a proxy for determining economic impact.<sup>96</sup> “The economic impact of the regulation on the claimant and, particularly, the extent to which the regulation has interfered with distinct investment-backed expectations are, of course, relevant considerations.”<sup>97</sup> Whether viewed as a separate factor or as a proxy, investment-backed expectations are particularly important to patent holders, because “[t]he encouragement of investment-backed risk is the fundamental purpose of the patent grant.”<sup>98</sup>

The party challenging the government regulation bears the burden of showing that the expectations were objectively reasonable; “a mere unilateral expectation or an abstract need is not a property interest entitled to protection.”<sup>99</sup> The party must be mindful of the *Lucas* Court’s view that investment-backed expectations are different for personal property than for real property:

[I]n the case of personal property, by reason of the State’s traditionally high degree of control over commercial dealings, [the property owner] ought to be aware of the possibility that new regulation might even render his property economically worthless (at least if the property’s only economically productive use is sale or manufacture for sale).<sup>100</sup>

## iii. The Character of the Government Regulation

The third *Penn Central* factor is the character of the government regulation. “A ‘taking’ may more readily be found when the interference with property can be characterized as a physical invasion by government than when interference arises from some public program adjusting the benefits and burdens of economic life to promote the common good.”<sup>101</sup> This factor may be thought of as a reiteration of the rule that a governmental action that reduces or

---

95. Kendall *supra* note 12 at 24-27.

96. Brinkerhoff, *supra* note 69, at 172 (“Economic impact is relevant only if it ‘interferes with distinct investment-backed expectations.’”) (quoting *Penn Cent. Transp. Co. v. N.Y. City*, 438 U.S. 104, 124 (1978)).

97. *Penn Cent.*, 438 U.S. at 124.

98. *Patlex Corp. v. Mossinghoff*, 758 F.2d 594, 599 (Fed. Cir. 1985).

99. *Webb’s Fabulous Pharmacies, Inc., v. Beckwith*, 449 U.S. 155, 161 (1980).

100. *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1027-28 (1992) (citing *Andrus v. Allard*, 444 U.S. 51, 66-67 (1979)).

101. *Penn Cent.*, 438 U.S. at 124.

eliminates property rights will most likely not be found to be a taking when the action seeks to prevent significant harm to the public—the action does not effect a taking because it is an exercise of the government’s police power.<sup>102</sup> The Supreme Court observed the same, finding that “many of [the Court’s] prior opinions have suggested that ‘harmful or noxious uses’ of property may be proscribed by government regulation without the requirement of compensation.”<sup>103</sup>

As was the case with the “economic impact” *Penn Central* factor, the *Lucas* opinion analyzes the third *Penn Central* factor, the character of the government regulation. “The ‘harmful or noxious uses’ principle was the Court’s early attempt to describe in theoretical terms why government may, consistent with the Takings Clause, affect property values by regulation without incurring an obligation to compensate—a reality we nowadays acknowledge explicitly with respect to the full scope of the State’s police power.”<sup>104</sup> The degree to which a governmental action would comport with the Takings Clause depended on the government’s ability to “identify background principles of nuisance and property law that prohibit the uses [the property owner] now intends in the circumstances in which the property is presently found.”<sup>105</sup> Justice Scalia provided two examples to further explain the background principles inquiry:

[T]he owner of a lake-bed, for example, would not be entitled to compensation when he is denied the requisite permit to engage in a landfilling operation that would have the effect of flooding others’ land. Nor the corporate owner of a nuclear generating plant, when it is directed to remove all improvements from its land upon discovery that the plant sits astride an earthquake fault.<sup>106</sup>

In these two examples, even if the regulations eliminate “the land’s only economically productive use”<sup>107</sup> the *character* of the governmental actions satisfies the third *Penn Central* factor and therefore does not effect a taking. “The use of these properties for what are now expressly prohibited purposes was *always* unlawful, and (subject to other constitutional limitations) it was open to the State at

---

102. See *supra* note 15; Pa. Coal Co. v. Mahon, 260 U.S. 393, 413 (1922)).

103. *Lucas*, 505 U.S. at 1021.

104. *Id.* at 1023.

105. *Id.* at 1031.

106. *Id.* at 1029.

107. *Id.* at 1030.

any point to make the implication of those background principles of nuisance and property law explicit.”<sup>108</sup>

Since the Court deemed the background principles inquiry to be “the logically antecedent inquiry,”<sup>109</sup> it is the first step of a takings analysis. As the logically antecedent inquiry, it trumps the two *per se* rules of takings liability, permanent physical occupation and denial of all economically viable use. If, under the background-principles inquiry, a court finds that the property owner never fully or freely possessed the property right alleged to have been taken, then no taking has occurred regardless of whether further inquiry would show that the government permanently physically occupied the property, and/or deprived the property owner of all economically viable use of the property.

### III. Compulsory Licensing

Compulsory licensing of a patented invention is “[a] statutorily created license that allows certain people to pay a royalty and use an invention without the patentee’s permission.”<sup>110</sup> The U.S. Patent Act does not contain a general compulsory licensing provision.<sup>111</sup> Congress, however, has authorized compulsory licensing “for preventing air pollution, public health purposes, government use, atomic energy, aerospace, and national security.”<sup>112</sup> For example, the Atomic Energy Act compels patentees to license atomic energy inventions,<sup>113</sup> the Clean Air Act compels patentees to license air pollution control inventions,<sup>114</sup> and the Plant Variety Protection Act compels patentees to license new varieties of sexually reproduced plants.<sup>115</sup> Most compulsory licensing provisions require the licensee to pay “reasonable royalt[ies]” to the patent holder.<sup>116</sup> In addition, United States patent law effectively entitles the federal government

---

108. *Id.*

109. *Id.* at 1027.

110. BLACK’S LAW DICTIONARY 938 (8th ed. 2004).

111. *See generally* 35 U.S.C.A. §§ 1-376 (West 2005) (absence of any provision that would compel a patentee to license its patent to a private third party); *see also* Grace K. Avedissian, Comment, *Global Implications of a Potential U.S. Policy Shift Toward Compulsory Licensing of Medical Inventions in a New Era of “Super-Terrorism,”* 18 AM. U. INT’L L. REV. 237, 253 (2002-2003).

112. Avedissian, *supra* note 111 at 101; *see also* note 16, *supra*.

113. 42 U.S.C.A. § 2183(c), (g) (West 2005).

114. 42 U.S.C.A. § 7608 (West 2005).

115. 7 U.S.C.A. § 2404 (West 2005).

116. *See generally* note 16, *supra*.



to a compulsory license on *any* patented technology it sees fit to exploit by limiting a patent holder's remedy against unlicensed use or manufacture by the United States government to "the recovery of his reasonable and entire compensation for such [unlicensed] use and manufacture."<sup>117</sup>

#### IV. Redefinition of Patentable Subject Matter

Ordinarily, 35 U.S.C. section 101 and federal case law determine the boundaries of patentable subject matter. Nonetheless, Congress has previously enacted legislation that has redefined what can and cannot be patented. Two examples of Congressional redefinition are the Invention Secrecy Act<sup>118</sup> and the Atomic Energy Act.<sup>119</sup>

The Invention Secrecy Act affects patents that "might . . . be detrimental to the national security."<sup>120</sup> Normally, when a patent is issued, the PTO simultaneously publishes the patent application, thereby making publicly available the details of the invention. That is the tradeoff of the patent system: The patentee receives exclusive rights to the invention for twenty years and the public gains detailed knowledge of the invention. In fact, a patent must include information that would "enable any person skilled in the art to which [the invention] pertains . . . to make and use"<sup>121</sup> the invention.

The Invention Secrecy Act affects two types of patents: patents on "invention[s] in which the Government has a property interest" and those "in which the Government does not have a property interest."<sup>122</sup> For the former type of patent, when publication of the application might, "in the opinion of the head of the interested Government agency, be detrimental to the national security, the Commissioner of Patents . . . shall order that the invention be kept secret and shall withhold the publication of the application or the grant of a patent therefor."<sup>123</sup> For the latter type, when the Commissioner believes that publication of the patent application might be "detrimental to the national security, [the Commissioner] shall make the application for patent . . . available for inspection to the Atomic Energy Commission, the Secretary of Defense, and the

---

117. 28 U.S.C.A. § 1498(a) (West 2005).

118. 35 U.S.C.A. § 181 (West 2005).

119. 42 U.S.C.A. § 2181 (West 2005).

120. 35 U.S.C.A. § 181. (West 2001).

121. 35 U.S.C.A. § 112 (West 2005).

122. 35 U.S.C.A. § 181. (West 2001).

123. *Id.*

chief officer of any other department or agency of the Government designated by the President as a defense agency of the United States.”<sup>124</sup> In both situations, a government official may issue a secrecy order and withhold the grant of a patent.<sup>125</sup> A secrecy order prohibits the inventor from publishing or disclosing any material information relating to the invention.<sup>126</sup> “It then becomes a criminal offense for private persons, knowing of the order and without authorization, to publish or disclose the invention or material information respecting it.”<sup>127</sup> The affected patent applicant “shall have a right to appeal from the order to the Secretary of Commerce.”<sup>128</sup> The secrecy order and patent withholding may last for at most for one year, and may be renewed as often as necessary.<sup>129</sup> The Commissioner may rescind the secrecy order and patent withholding when “the publication or disclosure of the invention is no longer deemed detrimental to the national security” by the “the heads of the departments and the chief officers of the agencies who caused the order to be issued.”<sup>130</sup> (It may interest the reader to note that 4,942 secrecy orders are in effect as of the end of fiscal year 2006.<sup>131</sup>)

The Atomic Energy Act declares, “No patent shall issue for any invention or discovery which is useful solely in the utilization of special nuclear material or atomic energy in an atomic weapon.”<sup>132</sup> Accordingly, it is like the Invention Secrecy Act in that it keeps a class of patents from issuing. The Atomic Energy Act goes further than the Invention Secrecy Act, however, by revoking *existing* patent rights on any patent granted for an “invention or discovery . . . used in the utilization of special nuclear material or atomic energy in atomic weapons.”<sup>133</sup> Such patents “are revoked to the extent that such

---

124. *Id.*

125. *Id.*

126. *See* 35 U.S.C.A. §§ 182, 186 (West 2005).

127. *Constant v. United States*, 617 F.2d 239, 240 (Ct.Cl. 1980) (citing 35 U.S.C. § 186).

128. 35 U.S.C.A. § 181. (West 2001).

129. *Id.*

130. *Id.*

131. Letter from Robert Fawcett, Program Analyst, Office of General Counsel, United States Patent and Trademark Office, to Steven Aftergood, Director, Project on Government Secrecy, Federation of American Scientists (Oct. 22, 2004) *available at* <http://www.fas.org/sgp/othergov/invention/stats.pdf>.

132. 42 U.S.C.A § 2181(a) (West 2000).

133. *Id.* at § 2181(b).

invention or discovery is so used, and just compensation shall be made therefore.”<sup>134</sup>

## V. Exemptions of Enumerated Classes or Activities from Patent Infringement

Certain congressional acts have exempted classes of people or activities from patent infringement. The Medical Activity Act of 1996, for example, exempted from patent infringement medical practitioners and related health care entities who used patented medical procedures.<sup>135</sup> Congress passed the Medical Activity Act of 1996 in response to a lawsuit alleging that an ophthalmologist had violated a patent on a technique for cataract surgery,<sup>136</sup> the first action in the United States that enforced a medical procedure patent against a physician.<sup>137</sup>

The Hatch-Waxman Act modified, among other things, the definition of infringement by providing that activities are not infringing if they are “solely for uses reasonably related to the development and submission of information under a Federal law which regulates . . . drugs or veterinary biological products.”<sup>138</sup> All drug manufacturers must obtain regulatory approval from the Food & Drug Administration (FDA) for their drugs before they can market the drugs to consumers in the United States.<sup>139</sup> Before passage of the Hatch-Waxman Act, a generic drug manufacturer infringed a patent when it used a patented drug as a necessary condition to gaining approval from the FDA for its generic version.<sup>140</sup> Moreover, because the generic drug manufacturer could not begin the FDA approval process until the patent expired, the branded drug

134. *Id.*

135. Medical Activity Act of 1996, Pub. L. No. 104-208, § 101(a), 110 Stat. 3009, 3009 (codified as amended at 35 U.S.C. § 287(c) (West 2005)).

136. *Pallin v. Singer*, No. 5:93-202, 1995 WL 608365 (D. Vt. May 1, 1995).

137. See Jim Chen, *The Parable of the Seeds: Interpreting the Plant Variety Protection Act in Furtherance of Innovation Policy*, 81 NOTRE DAME L. REV. 105, 123 n.120 (2005); William D. Noonan, *Patenting Medical and Surgical Procedures*, 77 J. PAT. & TRADEMARK OFF. SOC'Y 651, 653 (1995); John R. Thomas, *The Patenting of the Liberal Professions*, 40 B.C. L. REV. 1139, 1176 (1999).

138. 35 U.S.C.A. § 271(e)(1) (West 2003).

139. 21 U.S.C.A. §§ 301-395 (West 2005).

140. See *Roche Products, Inc. v. Bolar Pharmaceutical Co.*, 733 F.2d 858 (Fed. Cir. 1984) (discussing a branded drug manufacturer that sued a generic drug manufacturer, where the court held that limited use of a patented drug, even though made solely to obtain FDA approval, was infringement).

manufacturer had in effect an extension on the term of its patent equal to the length of the FDA approval process—a process that takes 8.2 years on average.<sup>141</sup> As a result of the Hatch-Waxman Act, a generic drug manufacturer can now legally obtain regulatory approval before the expiration of the branded drug's patent and sell its version of the drug as soon as the patent expires. It is important to note that one provision of the Hatch-Waxman Act, codified at 35 U.S.C. section 156, extends the patent terms of products subject to FDA approval if the patentee can meet certain requirements.<sup>142</sup> Thus, for example, the initial developer of a new drug is not penalized by the shortened patent term caused by a prolonged FDA approval process that prevented the drug developer from marketing the drug for the first several years of the patent term.<sup>143</sup>

## VI. Analysis

### A. Compulsory Licensing

Under compulsory licensing schemes, Congress removes from the patentee's "bundle of rights" the right to exclude because the patentee is unable to enjoin the infringer's use of the patent. Compulsory licenses can be analogized to compulsory easements across the patentee's intellectual property: The government forbids the patentee (the property owner) from excluding others from the property by prohibiting the patentee from turning anyone away who pays a reasonable fee.

Even if these reasonable royalties amount to just compensation, compulsory licensing schemes constitute permanent "intellectual" occupations, akin to the permanent physical occupation found by the Supreme Court in *Loretto v. Teleprompter Manhattan CATV Corp.*<sup>144</sup> In *Loretto*, a New York statute barred any property owner from interfering with the installation of cable television facilities or from demanding payment of more than one dollar from any cable television operator.<sup>145</sup> In essence, the government permanently barred the plaintiff from excluding from the roof of her apartment building the government or any entities which had the government's

---

141. ROGER SCHECTER & JOHN THOMAS, PRINCIPLES OF PATENT LAW 286 (2d ed. 2004).

142. 35 U.S.C.A. § 156(a) (West 2005).

143. Schechter, *supra* note 141, at 286.

144. *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419 (1982).

145. *Id.* at 423.

permission to occupy the roof. The Court noted the irrelevance of identity of the occupant: “A permanent physical occupation authorized by state law is a taking without regard to whether the State, or instead a party authorized by the State, is the occupant.”<sup>146</sup> Despite the fact that a roof comprises only a fraction of the surface area of an apartment building, the Court held that the installation and presence of cables on the plaintiff’s roof constituted a permanent occupation by the State that effected a taking.<sup>147</sup> Indeed, the Court made it clear that “constitutional protection for the rights of private property cannot be made to depend on the size of the area permanently occupied.”<sup>148</sup>

Similarly, even though a compulsory license may only amount to an occupation of a fraction of the “surface area” of a patent, such occupation permanently bars the patentee from excluding from the affected “surface area” the government or any entities which have the government’s permission to occupy the intellectual property. The *Loretto* Court noted that “the owner suffers a special kind of injury when a *stranger* invades and occupies the owner’s property,”<sup>149</sup> and that such an invasion “is qualitatively more intrusive than perhaps any other category of property regulation.”<sup>150</sup>

To be fair, there are two features that distinguish a taking that results from a compulsory license and the taking found in *Loretto*: (1) The property occupied by a compulsory license is intellectual property, while in *Loretto* the property was real property, and (2) while it is unlikely that a compulsory license will empty the patent of any value, the *Loretto* Court observed of the plaintiff that “though the owner may retain the bare legal right to dispose of the occupied space by transfer or sale, the permanent occupation of that space by a stranger will ordinarily empty the right of any value, since the purchaser will also be unable to make any use of the property.”<sup>151</sup> These distinguishing features, however, do not rescue compulsory licensing schemes from takings liability.

It is possible to apply the constructive permanent physical occupation rule to patents, as discussed in Section II.C.1, *supra*. In a nutshell, the Court has consistently been highly protective of the right

---

146. *Id.* at 432, n.9.

147. *Id.* at 421, 441.

148. *Id.* at 436.

149. *Id.* at 420 (emphasis in original).

150. *Id.* at 441.

151. *Id.* at 436.

to exclude and has found takings where the government has *permanently* abridged a property owner's right to exclude. The *Loretto* decision was thusly predicated on protecting property owners from permanent occupations of their property.

A patent gives the patent holder the right to prevent others from making, using, selling, offering to sell, and importing the protected invention.<sup>152</sup> A patent does not affirmatively allow the patentee a right to make, use, sell, offer to sell, or import the invention; it only grants the patentee the right to exclude others from doing so.<sup>153</sup>

It does not matter that a compulsory license does not prevent the patentee from using his patent in other ways or is only an occupation of a fraction of the intellectual property. As the Supreme Court has emphasized, "Our cases establish that even a 'minimal permanent physical occupation of real property' requires compensation under the [Takings] Clause."<sup>154</sup> The compulsory license constitutes a permanent occupation of the patentee's property. The compulsory license bars the patentee from excluding any would-be licensees. Allowing the government to permanently occupy a patent through a compulsory license would "seriously undermine[]" "the express purpose of the Constitution and Congress[] to promote the progress of the useful arts."<sup>155</sup>

It is highly unlikely that compulsory licensing statutes effect *unlawful* takings because such statutes purport to be for the public benefit and generally require reasonable royalties. As a result, if any compulsory licensing scheme is a taking, it is most likely a *valid* taking because it satisfies the public use and just compensation requirements of the Takings Clause—but these compulsory licensing provisions are takings nonetheless.

## **B. Redefinition of Patentable Subject Matter**

Congress, which has the constitutional authority to grant patents, may redefine what is and is not patentable subject matter. Two examples of such redefinition are found in the Atomic Energy Act and the Invention Secrecy Act.

---

152. 35 U.S.C.A. § 271(a) (West 2005).

153. See *King Instruments Corp. v. Perego*, 65 F.3d 941, 947, 949-50 (Fed. Cir. 1995).

154. *Palazzolo v. Rhode Island*, 533 U.S. 606, 617 (2001) (citing *Loretto*, 458 U.S. at 427).

155. *Patlex Corp. v. Mossinghoff*, 758 U.S. 594, 600 (Fed. Cir. 1985).

Looking at just the text of the Invention Secrecy Act,<sup>156</sup> which does not specifically enumerate intellectual property prohibited by background principles,<sup>157</sup> the Act effects a taking for any patent applications within the scope of the Act, whether the patent application was pending at the time the Act was enacted or was pending after it was enacted. To reiterate, the Invention Secrecy Act affects patents that are the subject of patent applications; it authorizes the Commissioner of Patents and Trademarks, when “publication or disclosure of the invention by the grant of a patent might be detrimental to the national security, to order that the invention be kept secret and to withhold the grant of a patent so long as the national interest requires.”<sup>158</sup>

“[A] secrecy order . . . weighs very heavily toward finding a compensable taking.”<sup>159</sup> The Act deprives a patent applicant of a patent to which he otherwise would have been entitled, but does so in order to protect the national security. Thus, it meets the public use requirement of the Takings Clause. The Act also provides two routes for affected patent applicants to seek just compensation. “Court determinations of what constitutes ‘just compensation’ under section 183 [the Invention Secrecy Act] are rare,” however.<sup>160</sup> In one of those rare determinations, *Constant v. United States*, the Court of Claims stated that “[t]he core of the legislation is recovery of all ‘damage caused by the order of secrecy and/or for the use of the invention by the Government.’”<sup>161</sup>

That the Invention Secrecy Act provides a monetary remedy for affected patent applicants strongly suggests that the Act provides adequate recourse for patent applicants seeking just compensation. As a result, the Act meets the public use and just compensation requirements of the Takings Clause. Because the government may, pursuant to the Invention Secrecy Act, withhold a patent and do so for an indefinite amount of time, the Act effects a taking for any invention which is not prohibited by background principles. For

---

156. 35 U.S.C.A. § 181 (West 2001); see also discussion *supra* Section IV, from *supra* note 119 to *supra* note 134.

157. The term “background principles” used here and throughout this Note refers to the “background principles” described in *Lucas*, 505 U.S. 1003; see also *supra* discussion accompanying notes 104-107.

158. *Constant*, 617 F.2d 239, 239-40 (Ct. Cl. 1980) (citing 35 U.S.C. § 181).

159. Sabing H. Lee, *Protecting the Private Inventor under the Peacetime Provisions of the Invention Secrecy Act*, 12 BERKELEY TECH. L.J. 345, 407 (1997).

160. *Id.* at 368.

161. *Constant*, 617 F.2d at 243, n.10.

example, the invention involved in *Constant* was “a method of encoding radar signals.”<sup>162</sup> It does not seem to be prohibited by background principles of law; that the secrecy order imposed on the invention was rescinded after fifteen months<sup>163</sup> also suggests that the invention violated no background principles. Accordingly, the invention was subject to a governmental taking for fifteen months and the inventor deserved just compensation.

Patents affected by the Atomic Energy Act in general have *not* been subjected to a taking because much of the intellectual property expressly enumerated in the statute is prohibited or highly regulated by background principles of law. To reiterate, the Atomic Energy Act states, “No patent shall hereafter be granted issue for any invention or discovery which is useful solely in the utilization of special nuclear material or atomic energy in an atomic weapon.”<sup>164</sup> The Atomic Energy Act also revokes existing patent rights on any patent granted for an “invention or discovery . . . used in the utilization of special nuclear material or atomic energy in atomic weapons.”<sup>165</sup>

As stated in the *Lucas* opinion, the background principles inquiry is the first step in a takings analysis;<sup>166</sup> under a background principles inquiry, anything “which is useful solely in the utilization of special nuclear material or atomic energy in atomic weapons” is almost certainly prohibited or heavily regulated under existing background principles. For example, in the realm of non-weapon “nuclear material or atomic energy,” the government may, without triggering takings liability, order the owner of a nuclear generating plant to “remove all improvements from its land upon discovery that the plant sits astride an earthquake fault.”<sup>167</sup>

A D.C. Circuit Court of Appeals case, decided several decades before *Lucas*, found that governmental action pursuant to the Act effected a taking: “Under the Atomic Energy Act the Government exercised its constitutional power of eminent domain. In the exercise of that power, it is required to render just compensation.”<sup>168</sup>

---

162. *Id.* at 240.

163. *Id.*

164. 42 U.S.C.A. § 2181(a); *see also supra* note 132.

165. *Id.* at § 2181(b); *see also supra* note 133.

166. *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1027 (1992); *see also supra* note 109.

167. *Lucas*, 505 U.S. at 1032.

168. *N. V. Philips' Gloeilampenfabrieken v. Atomic Energy Comm'n*, 316 F.2d 401, 407 (D.C. Cir. 1963).



Nonetheless, under the “logically antecedent” background principles inquiry presented in *Lucas*,<sup>169</sup> an illustration for which specifically indicated that condemnation of a nuclear generating plant sitting on a earthquake fault would not be a taking, it is “open to the State at any point to make the implication of those background principles of nuisance and property law explicit.” As a result, the government may pursuant to the Atomic Energy Act withhold the grant of patents and revoke issued patents without triggering takings liability. For example, the government certainly has the power, under background principles, to protect citizens from risks of atomic radiation. Some of the risks were recently listed by the D.C. Circuit: “At massive levels, radiation exposure can cause sudden death. At lower doses, radiation can have devastating health effects, including increased cancer risks and serious birth defects such as mental retardation, eye malformations, and small brain or head size.”<sup>170</sup> If the government may constitutionally act, under background principles, to control nuclear energy and nuclear waste, then *a fortiori* the government may constitutionally control via the Atomic Energy Act inventions that are “useful solely in the utilization of” or “used in the utilization of” atomic weapons.<sup>171</sup>

In addition, because atomic energy is a field that has been heavily regulated by the legislative and executive branches,<sup>172</sup> patent applicants and patent holders will have a harder time proving to a court that their investment-backed expectations were reasonable or that the governmental action interfered with those expectations.<sup>173</sup> “In a heavily regulated field . . . the standard for finding reasonableness in investment-backed expectations is higher than in largely deregulated activities.”<sup>174</sup>

In sum, governmental abrogation or abridgement, pursuant to the Atomic Energy Act, of patent applications and existing patents does not effect a taking.

---

169. *Lucas*, 505 U.S. at 1027.

170. *Nuclear Energy Inst., Inc. v. Env'tl. Prot. Agency*, 373 F.3d 1251, 1258 (D.C. Cir. 2004) (internal citations omitted).

171. 42 U.S.C.A. §§ 2181(a), (b) (West 2005).

172. *Id.* at §§ 1258-61 (chronicling the history of federal regulation of nuclear waste).

173. *See also* 35 U.S.C.A. § 103(a) (West 2005) (discussed *infra* note 187).

174. John C. O'Quinn, *Protecting Private Intellectual Property From Government Intrusion: Revisiting SmithKline and the Case for Just Compensation*, 29 PEPP. L. REV. 435, 500 (2002).

### C. Exemptions of Enumerated Classes or Activities from Patent Infringement

The takings analysis is slightly more complicated for patent holders whose patents are subject to regulation such as the Hatch-Waxman Act or the Medical Activity Amendment, which provide infringement exemptions. Statutes that provide infringement exemptions typically state some public purpose and therefore almost certainly meet the public use requirement of the takings clause. The Medical Activity Act of 1996 states that a primary goal of the Amendment is to contain medical costs by allowing doctors to practice patented medical procedures without paying royalties or bearing the costs of infringement litigation.<sup>175</sup> The Hatch-Waxman Act aims to hasten the introduction of generic medicines to the market by allowing companies to sell generic medicines as soon as the patent on the branded medicine has expired.

The Medical Activity Act of 1996, for example, exempted from patent infringement medical practitioners and related health care entities who used patented medical procedures.<sup>176</sup> “The effective result of the statute is that while medical methods remain statutory subject matter, a proprietor cannot enforce a medical method patent against those parties most likely to infringe it.”<sup>177</sup>

The essence of a patent is that it grants to the holder the legal right to exclude — “universally held to be a fundamental element of the property right.”<sup>178</sup> A patent only grants to the patent holder the right to exclude others from making, using, selling, offering to sell, or importing the subject of the patent; it does not grant an affirmative rights.<sup>179</sup> Accordingly, when a patent no longer confers upon the owner the legally enforceable right to exclude those most likely to practice the patented invention, the regulation severely reduces the economically viable use of the patent. A patent constrained by a statute like the Medical Activity Amendment can easily lose greater than ninety-five percent of its value. Patents do not have as many economically viable uses as land. For example:

Land required to be left in its natural state may retain value because it might be purchased by (1) neighboring owners to

---

175. 142 Cong. Rec. S12,023-24 (daily ed. Sept. 30, 1996) (statement of Sen. Frist).

176. Medical Activity Act of 1996, Pub. L. No. 104-208, § 101(a), 110 Stat. 3009, 3009 (codified as amended at 35 U.S.C. § 287(c) (West 2005)).

177. Schecter, *supra* note 141, at 40.

178. *Kaiser Aetna v. United States*, 444 U.S. 164, 179-80 (1979).

179. *See King Instruments Corp. v. Perego*, 65 F.3d 941, 947, 949-50 (Fed. Cir. 1995).

enlarge their lots or protect their view; (2) land speculators hoping the restrictions will be lifted someday; (3) conservancy groups to guard against the possibility that the restrictions might be lifted; or (4) other who could use the property in its natural state, perhaps as a campground, grazing area, or hunting preserve.<sup>180</sup>

That is not the case for patent holders, however, who have a much narrower range of economically viable uses. A patent, as a license to exclude, gives patentees two economically viable uses that would not be available in the absence of some form of legally conferred intellectual property protection such as copyright, trademark, or patent: royalty fees and infringement damages.<sup>181</sup> (A third economically viable use for a patent, which is more of a negative benefit to a patent holder, arises when companies seek and/or derive a competitive advantage by owning one or more patents, thereby preventing competitors from using or selling the patented invention or inventions.)

In finding no takings liability, courts have suggested ways in which a property might still have economically viable use. In *Hadacheck v. Sebastian*, the Court upheld a city ordinance prohibiting the operation of a brickyard within Los Angeles city limits.<sup>182</sup> In evaluating the impact of the regulation, the Court noted that while the regulation kept Hadacheck from making bricks on his property, it did not deprive him of all economically viable use of his property because it did not keep him from removing the brick clay from his property and making the bricks elsewhere.<sup>183</sup> If a court can suggest ways in which the holder of a medical procedure patent can still make economically viable use of his property, then it is almost certain that the court will find no takings liability. Nonetheless, given the nature of the patented medical procedure and the field to which the procedure belongs, it is unrealistic for any economically viable use to remain once Congress has exempted medical practitioners from infringement liability.

Alternatively, the Medical Activity Amendment, by allowing infringement of patents, could be a permanent physical occupation, under the rule set forth in *Loretto*.<sup>184</sup> The Medical Activity

---

180. Kendall, *supra* note 12, at 196.

181. See, e.g., Jeremiah Chan & Matthew Fawcett, *Footsteps of the Patent Troll*, 10 No. 1 INTELL. PROP. L. BULL. 1 (2005).

182. 239 U.S. 394 (1915).

183. *Id.* at 411-12.

184. *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419 (1982).

Amendment defines an entire class of people whom patent holders cannot exclude from practicing their inventions,<sup>185</sup> forcing a medical method patent holder to endure “occupations” of its patent. Moreover, this occupation is not temporary, but endures for the entire term of the patent.<sup>186</sup> The result of applying the permanent physical occupation rule to the Medical Activity Amendment is that it effects a taking for which the government must justly compensate the patent holder.

There is one important and perhaps dispositive countervailing consideration: If the field (or “art,” to use the language of the Patent Act<sup>187</sup>) in which the invention exists is subject to constant and/or heavy governmental regulation, a patentee whose patent is subject to unfavorable legislation most likely *does not* have a successful takings claim because a court would determine that the patentee adjusted his investment-backed expectations in light of the regulation.<sup>188</sup> Such is the case for pharmaceuticals, which are subject to the Hatch-Waxman Act: “In a heavily regulated field (such as pharmaceuticals) the standard for finding reasonableness in investment-backed expectations is higher than in largely deregulated activities.”<sup>189</sup>

The diminution of the patent right by a regulation like the Hatch-Waxman Act would not be a regulatory taking because “it must be acknowledged that the pharmaceutical industry is one of the most heavily regulated of any industry in modern commerce, and that government alterations in regulatory schemes come with the territory of doing business in the market.”<sup>190</sup> The property owner’s reasonable investment-backed expectations are a critical factor: In *Pennsylvania Coal*, the Supreme Court found that no taking had occurred since the surface owners in the case had knowingly acquired the surface rights without the mineral estate and had expressly assumed the risk that mining might damage their property.<sup>191</sup>

---

185. 35 U.S.C.A. § 287(c) (West 2005).

186. *Id.*

187. *See, e.g.*, 35 U.S.C.A. § 103(a) (West 2005) (denying patentability “if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.”).

188. O’Quinn, *supra* note 174; John C. Yoo, *Takings Issues in the Approval of Generic Biologics*, 60 FOOD & DRUG L.J. 33, 43 (2005).

189. O’Quinn, *supra* note 174.

190. Yoo, *supra* note 188.

191. *Pa. Coal Co. v. Mahon*, 260 U.S.393, 412 (1922).

Timing is a factor as well: A takings claim by patentee would be slightly stronger if the relevant legislation was enacted after the patentee submitted its patent application. Under a court's "ad hoc, factual inquir[y],"<sup>192</sup> it would be more likely to find that the legislation altered the patent applicant's reasonable investment-backed expectations than if the legislation was enacted prior to submission of the patent application.

"The encouragement of investment-based risk is the fundamental purpose of the patent grant,"<sup>193</sup> and as a result, any governmental action that interferes with the patentee or potential patentee's investment-backed expectations carries with it potential takings liability. However, factors such as (1) historical and/or existing government regulation in the field and (2) timing have been viewed by courts as factors which lower the patentee's investment-backed expectations such that the governmental action does not effect a taking.

## VI. Conclusion

The question of what constitutes a taking has caused the courts great difficulty. Judicial answers to the question are not altogether in harmony.<sup>194</sup> The Supreme Court has established several principles, rules, and tests but has confessed that beyond the more obvious cases that fall under the *per se* rules, takings analyses are "essentially ad hoc, factual inquiries."<sup>195</sup> The Court's jurisprudence is detailed and developed enough, however, to give Congress, the courts, patent holders, and patent applicants a firm starting point from which to determine when legislation has gone "too far" and effected a taking of intellectual property in violation of the Takings Clause of the Fifth Amendment. Such constitutional concern deserves consideration, given the fundamental changes proposed in the Patent Reform Act of 2005,<sup>196</sup> the increasing backlog and number of applications received by

---

192. *Penn Cent. Transp. Co. v. N.Y. City*, 438 U.S. 104, 124 (1978).

193. *Patlex Corp. v. Mossinghoff*, 758 F.2d 594, 599 (Fed. Cir. 1985).

194. WILLIAM MEADE FLETCHER, *FLETCHER CYCLOPEDIA OF THE LAW OF PRIVATE CORPORATIONS* § 2918 (2005).

195. *Penn Cent.*, 438 U.S. at 124.

196. Steve Seidenberg, *A Sea Change in Patent Law: Proposed Legislation Would Wean the United States from a "First to Invent" Approval System*, A.B.A. J., Jan. 2006, at 49.

the Patent and Trademark Office,<sup>197</sup> and the evolving metes and bounds of technology and law.

---

197. See, e.g., Kelly D. Talcott, *The "Limited Patent,"* N.Y.L.J., Feb. 21, 2006, at 5 (“[T]he current reported patent application backlog [is] in excess of 600,000, and application pendency periods stretch[] to three and four years—sometimes longer. . .”).