

# The Electronic Waste Recycling Act of 2003: California's Response to the Electronic Waste Crisis

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# THE ELECTRONIC WASTE RECYCLING ACT OF 2003:

## CALIFORNIA'S RESPONSE TO THE ELECTRONIC WASTE CRISIS

### I. INTRODUCTION

The high-tech industry has experienced an unprecedented rate of growth and success over the past two decades. But with this success comes a steep environmental price: toxic electronic waste (“e-waste”) generated at an increasingly staggering rate. For example, the Environmental Protection Agency (“EPA”) reports that the average lifespan of a computer is a mere three to five years, and over the next five years, 250 million computers are estimated to become obsolete.<sup>1</sup> In 2001, only eleven percent of personal computers were recycled.<sup>2</sup> As a direct result of such sparse recycling, more than 2.05 million tons of e-waste are disposed of in landfills every year.<sup>3</sup> Because e-waste contains many toxic materials including lead, mercury, barium, cadmium, beryllium, and brominated flame retardants,<sup>4</sup> there is legitimate concern surrounding how these materials will be disposed.

One segment of e-waste, the cathode ray tube (“CRT”), has generated the most attention because of its substantial lead content. The CRT is the glass picture tube found in computer monitors, which contains lead to protect users from radiation.<sup>5</sup> In fact, CRTs contain, on average, between four and eight pounds of lead.<sup>6</sup> Given that lead can produce adverse effects on reproductive and neurological health, especially in children who are particularly susceptible to the effects of lead poisoning,<sup>7</sup> it is not surprising that the disposal of CRTs

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1. EPA: eCycling, at <http://www.epa.gov/epaoswer/hazwaste/recycle/ecycling> (last visited Aug. 29, 2004).

2. *Id.*

3. *Id.*

4. Silicon Valley Toxics Coalition, *Composition of a Personal Desktop Computer*, at [http://www.svtc.org/hightech\\_prod/desktop.htm](http://www.svtc.org/hightech_prod/desktop.htm) (last visited Aug. 29, 2004); [http://www.svtc.org/hu\\_health/edcs/bfrs/bfr\\_index.html](http://www.svtc.org/hu_health/edcs/bfrs/bfr_index.html) (last visited Aug. 29, 2004).

5. Silicon Valley Toxics Coalition, *Poison PCs and Toxic TVs: California's Biggest Environmental Crisis That You've Never Heard of*, at <http://www.svtc.org/cleancc/pubs/ppc-ttv1.pdf> (last visited Oct. 1, 2004).

6. Miguel Bustillo, *Paying to Junk TVs, Monitors*, L.A. TIMES, June 26, 2002, at B1.

7. Center for Disease Control, National Center for Environmental Health, *Facts on . . . Lead*, at <http://www.cdc.gov/nceh/lead/guide/1997/docs/factlead.htm> (last visited July 18, 2004).

has become the focus of the e-waste awareness movement in recent years. Several states have already classified discarded CRTs as hazardous waste and banned their disposal in landfills.<sup>8</sup> However, even once states ban the disposal of CRTs in landfills, the question still remains: What *should* be done with this toxic waste?

One potential solution to this question has resulted in another urgent problem associated with e-waste: the exportation of e-waste from industrialized nations to underdeveloped nations where the waste poses serious health threats to men, women, and especially children.<sup>9</sup> Economically speaking, because exporting the waste to nations with lax regulations is dramatically cheaper than recycling the waste in the United States, there is a natural economic incentive to export these wastes. And in the absence of regulation to the contrary, this practice will undoubtedly continue.

Another solution to the e-waste problem, which is not so much a solution as it is a temporary answer to a difficult question, is stockpiling. Recent studies estimate that approximately three-quarters of all computers ever purchased in the United States are currently stockpiled in people's homes.<sup>10</sup> Unfortunately, stockpiling is not a long-term solution, nor is it the most economical solution given the numerous valuable, usable materials in electronics.<sup>11</sup>

Recently, California became the first state to pass legislation aimed at establishing a comprehensive recycling program for e-waste.<sup>12</sup> The purpose of this Comment is to provide an overview of the California legislation and examine its potential strengths and weaknesses with reference to the various problems associated with e-waste. Arguably, legislation aimed at curbing these problems will solve or, at the very least, address all of the problems. While the California legislation may ease some of the problems, it wholly fails to address others. This Comment will highlight and discuss these issues.

Part II of this Comment provides a basic, simplified conceptual outline of the California legislation and its purposes. As background, Part III discusses the history of this legislation as well as a brief discussion of the political

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8. California and Massachusetts have banned the disposal of CRTs in landfills.

9. Silicon Valley Toxics Coalition, *supra* note 5, at 18.

10. Silicon Valley Toxics Coalition, *Just Say No to E-waste: Background Document on Hazards and Waste from Computers*, at <http://www.svtc.org/cleancc/pubs/sayno.htm> (last visited July 18, 2004); see CAL. CODE REGS. tit. 22, § 66273.81 (2004); MASS. REGS. CODE tit. 310, 19.017 (2004).

11. For a brief discussion of various metals and chemicals found in computers, see Silicon Valley Toxics Coalition, *Why Focus on Computers*, at <http://www.svtc.org/cleancc/focus.htm> (last visited July 18, 2004).

12. On September 23, 2003, Governor Gray Davis signed the Electronic Waste Recycling Act of 2003. CAL. PUB. RES. CODE §§ 42460–42485 (West 2004).

environment surrounding the passage of this legislation and how political pressures likely contributed to the passage of this legislation. Part IV will highlight the shortcomings of the legislation, including blatant failures to address certain issues associated with e-waste. Part V suggests possible solutions to the various shortcomings, including a brief discussion of the European extended producer responsibility approach to e-waste.

## II. CALIFORNIA'S ELECTRONIC WASTE RECYCLING ACT OF 2003

In response to California's e-waste problem, Governor Gray Davis signed the Electronic Waste Recycling Act of 2003 (the "Act") on September 24, 2003.<sup>13</sup> The Act declares four main purposes. First, the Act is intended to establish a program to facilitate the collection and recycling of covered electronic devices.<sup>14</sup> Second, the Act is intended to eliminate e-waste stockpiles and legacy waste.<sup>15</sup> Third, the Act is intended to end the illegal disposal of covered electronics devices.<sup>16</sup> And finally, the Act is intended to make manufacturers responsible for reporting on their efforts to increase their use of recycled materials and reduce their use of hazardous materials.<sup>17</sup>

In an attempt to further these purposes, the California Legislature structured the Act around the following three prongs: a consumer prong, a manufacturer prong, and an enforcement prong.<sup>18</sup> The consumer prong of the Act is the keystone of this legislation. It imposes a point-of-purchase recycling fee on all "covered electronic devices," which includes CRTs and flat panel screens.<sup>19</sup> This fee ranges between six dollars and ten dollars depending upon the device's screen size.<sup>20</sup> Retailers have the responsibility for collecting this fee at the point-of-purchase and for depositing such funds in the Electronic Waste Recovery and Recycling Account (the "Account").<sup>21</sup> The California Integrated Waste Management Board (the "Board") may use funds from this account to pay e-waste collectors, recyclers, and any costs associated with the administration and enforcement of the Act.<sup>22</sup>

The manufacturer prong of the Act requires manufacturers of covered electronic devices to comply with several requirements, including labeling

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13. *Id.*

14. *Id.* § 42461.

15. *Id.* § 42461(h).

16. *Id.*

17. *Id.*

18. *Id.*

19. *Id.* §§ 42463(f)(1), 42464(a).

20. *Id.* § 42464(b).

21. *Id.* § 42464(c).

22. *Id.* § 42476(a).

products and filing annual reports with the Board.<sup>23</sup> These reports must include the estimated number of covered electronic devices sold by the manufacturer in California during the previous year, the amount of hazardous materials used in those electronic devices, and the reduction in the use of those hazardous materials from the previous year.<sup>24</sup> Further, manufacturers must report annually the amount of recycled materials used in the devices sold in California and the increase in such usage, if any, from the previous year.<sup>25</sup> The Act also makes manufacturers responsible for reporting on their efforts, if any, to design electronic devices more amenable to recycling.<sup>26</sup> Additionally, the Act requires manufacturers to provide information to the public describing where and how to return, recycle, and dispose of electronic devices.<sup>27</sup>

Finally, the Act contains an enforcement provision that provides for the imposition of monetary penalties against both retailers and manufacturers in the event of noncompliance.<sup>28</sup> Against retailers, the Board may administratively impose liability up to \$2500 for each failure to collect the requisite fee.<sup>29</sup> Additionally, retailers are subject to a court-imposed penalty of up to \$5000 for each such failure.<sup>30</sup> Against manufacturers, the Board may impose liability up to \$25,000 for failure to comply with the requirements of the Act, including the labeling and reporting requirements.<sup>31</sup>

On its face, this three-prong statutory structure seems to reflect the California Legislature's position that the responsibility to recycle and dispose of electronic devices lies with those that produce and consume these devices.<sup>32</sup> Naturally, the question then becomes whether California's three-prong scheme is sufficient to achieve its stated purposes, and further, whether the stated purposes themselves are consistent with the underlying health and environmental risks associated with e-waste. Parts III, IV, and V will highlight the rather interesting history of the Act and question whether the final product is likely to sufficiently address all of the problems associated with e-waste.

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23. *Id.* §§ 42465.1, 42465.2(a).

24. *Id.* § 42465.2(a)(1)(A)–(B).

25. *Id.* § 42465.2(a)(1)(C).

26. *Id.* § 42465.2(a)(1)(D).

27. *Id.* § 42465.2(a)(2).

28. *Id.* § 42474.

29. *Id.* § 42474(a).

30. *Id.* § 42474(b).

31. *Id.* § 42474(c).

32. *Id.* § 42461(c).

## III. LEGISLATIVE HISTORY OF THE ACT

Although California and Massachusetts already ban the disposal of CRTs in landfills,<sup>33</sup> the Act is the first comprehensive e-waste recycling law in the United States. Prior to signing the final version of the Act, Governor Gray Davis vetoed a prior version, Senate Bill 1523, stating that he was “willing to sign legislation that challenges industry to assume greater responsibility for the recycling and disposal of electronic waste.”<sup>34</sup> Despite this statement, former Governor Davis ultimately signed legislation that did not differ materially from the previously vetoed Senate Bill 1523.<sup>35</sup>

In 2002, Senate Bill 1523, which imposed a \$10 flat fee on all CRTs sold in California,<sup>36</sup> was introduced and followed by intense opposition from electronics producers.<sup>37</sup> The opposition from electronics producers is of three general types. First, manufacturers based in California argue that the imposition of this fee would put them at an unfair disadvantage because, arguably, the fee could not be imposed on manufacturers based outside of California who sell their products primarily through the internet.<sup>38</sup> Second, manufacturers argue that California should avoid enacting this type of legislation prior to the existence of some national e-waste recycling standard.<sup>39</sup> A third argument by the manufacturers is that government-imposed fees are unnecessary and “heavy-handed” since, as the industry argues, they themselves are the best police of this waste.<sup>40</sup>

On the other side of the fence are the staunch environmental groups who argue that legislation should make producers almost entirely responsible for the collection, redesign, and recycling of electronic products.<sup>41</sup> Further, these groups argue that comprehensive e-waste legislation must ban the exporting

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33. In California, see CAL. CODE REGS. tit. 22, § 66273.81 (West 2004). In Massachusetts, see MASS. REGS. CODE tit. 310, § 19.017 (2004).

34. Letter from Governor Gray Davis to California Senate accompanying his veto of SB 1523, at [http://www.leginfo.ca.gov/pub/bill/sen/sb\\_0001-0050/sb\\_20\\_cfa\\_20030509\\_184221\\_sen\\_comm.html](http://www.leginfo.ca.gov/pub/bill/sen/sb_0001-0050/sb_20_cfa_20030509_184221_sen_comm.html) at 10 (last visited Aug. 29, 2004).

35. Former Governor Davis ultimately signed Senate Bill 20, the Electronic Waste Recycling Act of 2003. See *supra* note 12.

36. S.B. 1523, 2001–2002 Sess. (Cal. 2002).

37. See *infra* notes 38–40.

38. The question of whether this fee may or may not be enforceable against manufacturers not based in California is outside the scope of this Comment.

39. For a full discussion of the manufacturer’s arguments, see Bustillo, *supra* note 6, at B1.

40. For a discussion of this argument, see Miguel Bustillo, *The State: Makers Seek To Recycle TV Sets*, L.A. TIMES, Aug. 12, 2002, at B5.

41. See, e.g., Computer Take Back Campaign, at [http://www.computertakeback.com/legislation\\_and\\_policy/essentials.cfm](http://www.computertakeback.com/legislation_and_policy/essentials.cfm) (last visited Aug. 29, 2004).

of waste to underdeveloped nations.<sup>42</sup> For these reasons, among others, groups on this side of the issue do not endorse legislation such as the recently passed Act.<sup>43</sup>

Although former Governor Gray Davis vetoed Senate Bill 1523 in 2002, he nevertheless signed Senate Bill 20<sup>44</sup> in 2003 despite his prior statement that manufacturers should assume the bulk of the responsibility for the management of these products at the end of their lifecycle.<sup>45</sup> Some argue that the manufacturer lobby took advantage of the “political chaos”<sup>46</sup> in California to get Senate Bill 20 signed.<sup>47</sup> In other words, when faced with an impending recall, Governor Davis chose to sign this legislation rather than sign no legislation at all.

Perhaps an argument equally deserving of attention is that Senate Bill 20, as enacted, represents a compromise between two fiercely divided camps regarding a novel and complex problem that this country is only beginning to address. More likely, however, is that the Act is a product of a chaotic political atmosphere where then Governor Davis, facing impending recall, signed the Act in what would be his last opportunity to sign legislation addressing the recycling of CRTs.

#### IV. POTENTIAL SHORTCOMINGS OF THE ACT

There are two ways of analyzing the success of this legislation: (1) by analyzing the Act with reference to its stated purposes and (2) by analyzing the purposes themselves with reference to the various problems associated with e-waste. With reference to its stated purposes, the Act is fairly successful and, at the very least, a step in the right direction. However, with reference to the various problems associated with e-waste, the Act is a failure. The following subsections will present each of these analyses.

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42. *Id.*

43. Computer Take Back Campaign, *Companies Gut CA Computer/TV Recycling Bill*, at [http://www.computertakeback.com/news\\_and\\_resources/press\\_releases/companies\\_gut\\_sb20.cfm](http://www.computertakeback.com/news_and_resources/press_releases/companies_gut_sb20.cfm) (last visited Aug. 29, 2004).

44. Senate Bill 20 is the Electronic Waste Recycling Act of 2003. See Electronic Waste Recycling Act of 2003, CAL. PUB. RES. CODE § 42461 (West 2004).

45. Letter from Gray Davis, *supra* note 35.

46. The citizens of California recalled Governor Gray Davis in 2003 and subsequently elected Arnold Schwarzenegger as Governor of California. The Electronic Waste Recycling Act was signed by Gray Davis in the midst of this political upheaval.

47. See, e.g., Computer Take Back Campaign, *Companies Gut CA Computer/TV Recycling Bill*, at [http://www.computertakeback.com/news\\_and\\_resources/press\\_releases/index.cfm?pressReleaseID=4](http://www.computertakeback.com/news_and_resources/press_releases/index.cfm?pressReleaseID=4) (last visited Aug. 29, 2004).

*A. Analysis of the Act with Reference to Its Stated Purposes*

You will recall from Part II that the Act stated the following four main purposes: (1) to establish a program to facilitate the collection and recycling of covered electronic devices, (2) to eliminate e-waste stockpiles and legacy waste, (3) to end the illegal disposal of covered electronic devices, and (4) to make manufacturers responsible for reporting on their efforts to increase their use of recycled materials and reduce their use of hazardous materials.<sup>48</sup> Logically, the first step in analyzing the success of this Act is to do so with reference to these specific purposes.

With respect to its first purpose, it is unclear how this Act creates a comprehensive program to facilitate the collection and recycling of covered electronic devices. Indeed, the Act mandates the collection of fees, the deposit of those fees into the Account, and the expenditure of those fees to pay e-waste collectors, recyclers, and any costs associated with the administration and enforcement of the Act.<sup>49</sup> However, no more than one percent of annually deposited funds may be used for the purposes of educating the public about the hazards of e-waste storage and disposal and the opportunities to recycle these devices.<sup>50</sup> Even accepting that consumers of new electronic devices are informed by virtue of the fee that they pay,<sup>51</sup> it is questionable whether this one percent allotment of funds will prove sufficient to inform the owners of the estimated nearly six million stockpiled electronic devices in California.<sup>52</sup>

Along the same lines, the second purpose of the Act is to eliminate electronic stockpiles and legacy waste. As already discussed, the marginal allotment of funds provided for educating and informing the public about e-waste and recycling opportunities could be a barrier.<sup>53</sup> If people do not know about these recycling opportunities, it is of little use that the opportunities exist. On the other hand, if the public is well educated, and Californians deliver their estimated six million stockpiled electronic devices for recycling at or near the same time, it is not clear that the resources provided by the Act are adequate to manage such a scenario.

The Act is relatively successful at furthering its third purpose: to end the

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48. See *supra* Part II.

49. Electronic Waste Recycling Act of 2003, CAL. PUB. RES. CODE § 42464 (West 2004).

50. *Id.* § 42476(c).

51. *Id.* § 42461.

52. Press Release, California Integrated Waste Management Board, 6.1 Million Old TVs and Computer Monitors Stockpiled in California, *at*

<http://www.ciwmb.ca.gov/PressRoom/2001/December/048.htm> (last visited Aug. 29, 2004).

53. See *supra* notes 50–52 and accompanying text.

illegal disposal of covered electronic devices.<sup>54</sup> There can be little doubt that the creation and mere existence of a recycling program discourages the illegal disposal of these devices. However, as previously discussed, it is crucial that the public be informed about the hazards of such waste and properly educated about the proper methods of disposal and recycling.

The final stated purpose of the Act—to make manufacturers responsible for reporting—is facially hollow. Although the Act requires manufacturers to submit annual reports, it does not require that the manufacturers actually do anything to reduce the quantity of hazardous materials or increase the use of recycled materials in their products. The reporting requirement does place a new level of accountability on manufacturers because now the State of California will know what the manufacturers are doing. Yet, even if California knows what they are doing, without a requirement to actually do anything, the reporting requirement does little, if anything, to encourage manufacturers to reduce hazardous material use and increase recycled material use.

*B. Analysis of the Act with Reference to the Various Problems Associated with Electronic Waste*

You will recall from Part I that e-waste poses several problems, including the potential for groundwater contamination through landfill leachate,<sup>55</sup> concerns about environmental justice and the exporting of e-waste to underdeveloped nations, and the increased stockpiling of such waste.<sup>56</sup> Arguably, successful legislation would at least ameliorate, if not eliminate, all of these problems. Given that California banned the disposal of CRTs in landfills in 2001,<sup>57</sup> the question then becomes whether the Act does much, if anything, to address the remaining issues.

There are two primary criticisms of this legislation. First, environmental groups argue that effective legislation must reflect what is commonly referred to as Extended Producer Responsibility (“EPR”),<sup>58</sup> or at the very least, the

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54. Electronic Waste Recycling Act of 2003, CAL. PUB. RES. CODE § 42461(d) (West 2004).

55. Leachate is defined as “any liquid, including any suspended components in the liquid, that has percolated through or drained from hazardous waste.” 40 C.F.R. § 260.10 (2004). In this context, landfill leachate is the resulting liquid when water percolates through a landfill and picks up hazardous materials from that landfill.

56. See *supra* Part I.

57. CAL. CODE REGS. tit. 22, § 66273.81 (West 2004).

58. Extended Producer Responsibility refers to the idea of making producers responsible for the end-of-life management of their products. See Computer TakeBack Campaign, *Advance Recovery Fees (ARFs) and the Need for Extended Producer Responsibility (EPR)*, at [http://www.computertakeback.com/legislation\\_and\\_policy/e\\_waste\\_legislation\\_in\\_the\\_us/ca\\_sb20\\_a\\_nalysis.cfm](http://www.computertakeback.com/legislation_and_policy/e_waste_legislation_in_the_us/ca_sb20_a_nalysis.cfm) (last visited Aug. 29, 2004).

more watered-down version known as Product Stewardship. Product Stewardship is watered-down EPR because it imposes the responsibility for e-waste management on government, manufacturers, consumers, and retailers, rather than primarily on manufacturers as EPR proposes.<sup>59</sup> Second, it is argued that effective legislation should prohibit the exporting of this toxic waste to underdeveloped nations.<sup>60</sup> Unfortunately, this Act fails to address either of these issues.

Even adopting the EPA's version of product stewardship, which the EPA describes as a "different 'take'" on EPR,<sup>61</sup> California's Act does virtually nothing to make producers responsible for the end-of-life management of their products; therefore, it cannot be considered a model for product stewardship. The Act requires *consumers* to pay the fee, *retailers* to collect the fee, and *local government* to administer the recycling program.<sup>62</sup> Further, this cost structure fails to impose any cost on producers for the already staggering numbers of stockpiled electronics that will eventually have to be recycled.

It is true that the Act does impose some new responsibility on manufacturers. For example, the Act requires manufacturers to submit an annual report estimating the amounts of toxic materials used in their products and any efforts to reduce the use of those materials.<sup>63</sup> Similarly, manufacturers must include in such reports any efforts made to increase the use of recyclable materials and design electronic devices for recycling.<sup>64</sup> Unfortunately, because reporting requirements impose no financial responsibility on manufacturers, such reporting requirements essentially do nothing to encourage end-of-life responsibility.

Second, and perhaps most devastatingly, the Act does nearly nothing to stop the export of e-waste to other countries. The California Legislature acknowledges that the exportation of e-waste poses significant threats to public health in developing countries,<sup>65</sup> but the Act itself makes only one reference to the exportation of e-waste to foreign countries, providing that the Board is not allowed to expend funds for electronic devices exported to a

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59. EPA, *What is Product Stewardship?*, at <http://www.epa.gov/epr/about/index.html> (last visited July 18, 2004).

60. See Computer TakeBack Campaign's Analysis and Position on SB 20, at [http://www.computertakeback.com/legislation\\_and\\_policy/e\\_waste\\_legislation\\_in\\_the\\_us/ca\\_sb20\\_analysis.cfm](http://www.computertakeback.com/legislation_and_policy/e_waste_legislation_in_the_us/ca_sb20_analysis.cfm) (last visited Aug. 29, 2004).

61. See *supra* note 58.

62. See *supra* Part II.

63. Electronic Waste Recycling Act of 2003, CAL. PUB. RES. CODE § 42465.2(1)(B), (D) (West 2004).

64. *Id.* § 42465.2(1)(C), (D).

65. *Id.* § 42461.

country where the import of such hazardous waste is prohibited.<sup>66</sup> Basically, this provision provides only that exportation of hazardous electronic devices will not be funded by the account. As a result, there is virtually no incentive to those who currently export to cease doing so.

Perhaps the most overriding potential problem that could spring from e-waste legislation would occur when other states begin to enact similar legislation. Currently, there are twenty-three state and local legislatures, not including California, in the process of developing legislation to handle the disposal of e-waste.<sup>67</sup> If each state and local government adopts individual legislation, each different from the next, it could become a web of regulation that manufacturers, retailers, and consumers are unable to maneuver within, despite good faith attempts to comply.

#### V. POSSIBLE SOLUTIONS TO THE POTENTIAL SHORTCOMINGS OF THE ACT

Perhaps the most obvious solution would be a federal mandate on the disposal and handling of e-waste. Although the issue has received little

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66. *Id.* § 42476(d).

67. H.B. 6269 (Conn. 2003) (establishing electronic waste recycling program); S.B. 674 (Fla. 2003) (withdrawn from committee) (would have created electronic waste recycling program); S.B. 29 (Haw. 2003) (bans disposal of CRTs in landfills and establishes CRT recycling program); H.B. 1165 (Ill. 2003) (enrolled; creates a Computer Equipment Disposal and Recycling Commission); H.B. 1533 (Mass. 2003) (requires manufacturers to implement a plan for end-of-life management); H.P. 549 (Me. 2003) (bans disposal of CRTs in landfills and establishes group to develop a plan for recycling); H.B. 911 (Md. 2003) (died in committee) (would have banned disposal of CRTs in landfills and established recycling); L.B. 301 (Neb. 2003) (bans disposal of CRTs in landfills, imposes \$10 fee on all new CRTs sold, and agency must develop short-term and long-term strategies for e-waste management); H.B. 2971 (Or. 2003) (bans disposal of CRTs in landfills and places a \$50 fee on all new devices containing CRTs); H.B. 5783 (R.I. 2003) (bans disposal of electronic devices in landfills and incinerators, and makes manufacturers responsible for final disposition of devices); S.J.R. 148 (S.C. 2003) (temporary recycling program which imposes a \$5 fee on new computers); S.B. 1239 and H.B. 2967 (Tex. 2003) (requires manufacturers to develop a plan for final disposition of devices and bans disposal of e-waste in landfills and incinerators); H.B. 67 (Utah 2003) (failed in the House) (would have created an education initiative about e-waste); H.B. 343 (Vt. 2003) (manufacturers responsible for developing a plan for final disposition of devices, prohibits disposal of e-waste in landfills and incinerators, and creates a presumption of liability for landfill contamination by e-waste); H.B. 2376 (Va. 2003) (allows local governments to ban disposal of CRTs in landfills if a recycling program has been established by the locality); S.B. 583 (Mich. 2003) (bans disposal of CRTs in landfills); S.F. 905 (Minn. 2003) (bans disposal of CRTs in landfills); S.B. 2398 (Miss. 2003) (died in committee) (would have required all state agencies to develop a plan for end-of-life electronic products used within the agencies); H.B. 73 (N.H. 2003) (establishes a committee to study imposing a fee on new computers); H.J.M. 58 (N.M. 2003) (requests agency study to determine the cost of implementing a recycling program); A.B. 6096 (N.Y. 2003) (requires manufacturers to establish collection centers and bans disposal of CRTs and other hazardous electronic waste in landfills); H.B. 898 and S.B. 970 (N.C. 2003) (bans disposal of CRTs in landfills and imposes a \$10 tax on all electronic devices); H.B. 1942 (Wash. 2003) (manufacturers responsible for creation and financing of program to collect and recycle e-waste).

attention at the federal level, there are several initiatives that deserve some attention.

The National Electronics Product Stewardship Initiative (“NEPSI”) is comprised of representatives of electronics manufacturers, government agencies, and environmental groups.<sup>68</sup> The NEPSI’s goal is “the development of a system, which includes a viable financing mechanism, to maximize the collection, reuse, and recycling of used electronics, while considering appropriate incentives to design products that facilitate source reduction, reuse and recycling; reduce toxicity; and increase recycled content.”<sup>69</sup> NEPSI essentially promotes the product stewardship approach to e-waste, which distributes the responsibility for recycling e-waste among government, manufacturers, consumers, and retailers.<sup>70</sup> If successful, NEPSI would create a nationwide program covering the collection and recycling of used electronic equipment.<sup>71</sup>

Another important initiative is The Basel Ban of 1995,<sup>72</sup> which amended the Basel Convention of 1989.<sup>73</sup> The Basel Ban is a global agreement whereby ratifying countries have agreed that hazardous wastes will not be exported from OECD<sup>74</sup> to non-OECD countries.<sup>75</sup> The primary concern of this activist group, Basel Action Network, is the promotion and encouragement of global environmental justice described as “where no peoples or environments are dispro-portionately [sic] poisoned and polluted due to the dictates on unbridled market forces and trade.”<sup>76</sup> The United States is not currently among the nearly fifty countries that have ratified the agreement.<sup>77</sup> Perhaps,

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68. NEPSI, *available at* <http://eerc.ra.utk.edu/clean/nepsi/stakeholders.htm> (last visited Aug. 29, 2004).

69. NEPSI, *available at* <http://eerc.ra.utk.edu/clean/nepsi/> (last visited Aug. 29, 2004).

70. *Id.*

71. *Id.*

72. The Basel Ban was adopted in 1995 as an amendment to the Basel Convention of 1989. The Ban prohibits the exporting of hazardous waste from Organisation of Economic Co-operation and Development (“OECD”) countries to non-OECD countries. Basel Action Network, *available at* [http://www.ban.org/about\\_Basel\\_Ban/what\\_is\\_basel\\_ban.html](http://www.ban.org/about_Basel_Ban/what_is_basel_ban.html) (last visited Aug. 29, 2004).

73. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was adopted in 1989 and originally banned the transport of hazardous waste to Antarctica. The Convention was significantly amended in 1995 by the Basel Ban. Basel Action Network, *available at* [http://www.ban.org/about\\_basel\\_conv.html](http://www.ban.org/about_basel_conv.html) (last visited Aug. 29, 2004).

74. OECD refers to the Organization for Economic Co-operation and Development. Currently, thirty of the world’s wealthiest nations belong to this organization. For more information about OECD, see OECD, *at* <http://www.oecd.org> (last visited Oct. 1, 2004).

75. Basel Action Network, *available at* [http://www.ban.org/about\\_Basel\\_Ban.html](http://www.ban.org/about_Basel_Ban.html) (last visited Oct. 1, 2004).

76. Basel Action Network, *available at* [http://www.ban.org/main/about\\_BAN.html#mission](http://www.ban.org/main/about_BAN.html#mission) (last visited Aug. 29, 2004).

77. Basel Action Network, *County Status: Waste Trade Ban Agreements*, *available at*

in part, this is because the EPA concluded in 2002 that the United States possesses sufficient resources to recycle e-waste, albeit at a much higher cost than exporting the waste.<sup>78</sup>

Another initiative is the European Union's Directive on Wastes from Electrical and Electronic Equipment ("WEEE"). Enacted in February 2003, WEEE is an excellent example of an extended producer responsibility program because it places almost 100% of the responsibility for the financing, collection, and recycling of e-waste on producers of electronics.<sup>79</sup> Extended Producer Responsibility ("EPR") ensures that those creating the problems pay for the problems.

## VI. CONCLUSION

As with any new and exciting product or invention, it often takes time for awareness of the downside of such products to become public. We also know that an extremely powerful, efficient lobby can extend the time it takes for such downsides to reach public awareness, as is the case with electronic devices. Our society has developed a culture of disposability, and electronic devices have proved no exception. The estimated average useful life of a computer today is a mere two years,<sup>80</sup> and the United States lacks a comprehensive plan to cope with the upcoming demands placed on our environment and health as a result of the ensuing waste.

California has taken our nation's first step towards a comprehensive plan with the enactment of the Electronic Waste Recycling Act of 2003. Although it is an attempt, and should be lauded as such, it does not present a pattern that should be followed by other jurisdictions.

California's legislation fails entirely to extend responsibility for these products to the manufacturers. Although the manufacturers are in the best position to alter their products to include less hazardous materials and more recycled materials, the entirety of the cost is borne by consumers in California. This Act is simply a standard recycling program financed by consumers, and potentially by taxpayers in the event that the Account does not cover all of the expenses related to the recycling of current and stockpiled

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[http://www.ban.org/country\\_status/country\\_status\\_chart.html](http://www.ban.org/country_status/country_status_chart.html) (last visited Aug. 29, 2004).

78. Frances O'Brien & Michael Calvert, *Electronic Waste Disposal Is a Critical and Growing Problem*, TECH REPUBLIC, March 24, 2003, at [http://techrepublic.com.com/5100-6265\\_11-1058179.html?tag=search](http://techrepublic.com.com/5100-6265_11-1058179.html?tag=search) (last visited July 18, 2004).

79. Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 on Waste Electrical and Electronic Equipment (WEEE), available at [http://europa.eu.int/eur-lex/pri/en/oj/dat/2003/l\\_037/l\\_03720030213en00240038.pdf](http://europa.eu.int/eur-lex/pri/en/oj/dat/2003/l_037/l_03720030213en00240038.pdf) (last visited Aug. 29, 2004).

80. See Silicon Valley Toxics Coalition, *supra* note 5, at 2 (citing NATIONAL SAFETY COUNCIL, ELECTRONIC PRODUCT RECOVERY AND RECYCLING BASELINE REPORT (1999)).

waste.

In all fairness, the only solution available that would end the exporting of e-waste and extend responsibility for end-of-life product management to manufacturers would be a federal initiative. Although California tried, the pressure really needs to be placed at the federal level to avoid the entangled web that will undoubtedly be created if every jurisdiction, both at the state and local level, enacts its own policies and initiatives.

Additionally, in response to our nation's practice of exporting our dangerous e-waste to underdeveloped nations, the United States could add itself to the list of countries that have ratified the Basel Ban and the Basel Convention. However, given this nation's history with global environmental legislation and agreements, ratification is not likely to occur anytime soon, if ever.

This Comment was designed to provide a general background of the e-waste problem that faces the United States and the world. As of now, only two states have banned the disposal of CRTs in landfills,<sup>81</sup> and only half of the states have even begun to introduce legislation on the issue of e-waste management.<sup>82</sup> Every day that CRTs are allowed to be disposed of in landfills is another day that we risk tons of toxic materials leaching into our groundwater. Like many other environmental issues, e-waste is likely to be most comprehensively managed on a national level, not piecemeal by state and local governments.

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81. *See supra* note 8.

82. *See supra* note 67.

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