

**AN ACT OF WAR:  
FINDING A MEANING FOR WHAT CONGRESS HAS LEFT  
UNDEFINED**

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**I. INTRODUCTION**

What would happen if you were one of the brilliant, successful entrepreneurs who owned a beautiful glass-steel skyscraper in a busy city and your building was destroyed as an unforeseen violent act against your country, leaving behind burning rubble that released hazardous toxins into the community through the air, water run-off and other source points?<sup>1</sup> There would surely be residual mercury left from your fluorescent lights, lead and possibly cadmium from the many computers you had housed, traces of asbestos that the builders may have used when they constructed your building, and do not forget about all of the glass and concrete scattered in pieces around your property as well as the community.<sup>2</sup> When the time comes to determine who is liable for the cleanup costs, property owners have generally faced strict liability for the release of hazardous waste under section 107 of the Comprehensive Environmental Response,

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<sup>1</sup> This scenario has already occurred in the United States. *See infra* Part V (discussing the terrorist attack on September 11, 2001, and how the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601-28 (2006), may apply).

<sup>2</sup> *See* Anita Gates, *Buildings Rise From Rubble While Health Crumbles*, N.Y. TIMES (Sept. 11, 2006), <http://www.nytimes.com/2006/09/11/arts/television/11dust.html?r=1&ref=nyregionspecial3> (describing the residual effects from the destruction of the World Trade Center).

Compensation, and Liability Act (hereinafter “CERCLA”).<sup>3</sup> Thus, in the hypothetical question presented, it does not matter whether you intended for your skyscraper to come tumbling down and pollute the environment, as the property owner, you could be held liable as a responsible party for the hazardous wastes released from or as a result of the destruction of your building.<sup>4</sup>

CERCLA provisions generally address the cleanup of hazardous wastes already released into the environment, as opposed to preventing the release of hazardous waste before an event occurs.<sup>5</sup> CERCLA is also frequently referred to as the “Superfund” because of the provision designed to clean up hazardous waste sites that have been abandoned or closed.<sup>6</sup> A property owner may raise certain defenses when called upon for cleanup costs under CERCLA on the basis of an act of God, act of war or the unrelated fault of a third party.<sup>7</sup> However, the particular defense of an act of war has only been raised once and has never been successfully asserted, thereby raising the question of whether the defense is a “dead letter”<sup>8</sup> or if there can ever be circumstances in which the defense would prove useful.<sup>9</sup> If your skyscraper is destroyed by a terrorist committing a hostile act against the United States—an act that is recognized by the United States as a reason to initiate a war—it would seem only fair for you, the property owner, to be able to defend against liability costs because the hazardous waste was created or caused by “an act of war” and not by any

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<sup>3</sup> 42 U.S.C. § 9607.

<sup>4</sup> *Id.*

<sup>5</sup> Compare CERCLA, 42 U.S.C. §§ 9601-28 (addressing the cleanup of hazardous waste that has already been released and the recovery of costs associated with such cleanup), with Resource Conservation and Recovery Act [hereinafter referred to as “RCRA”], 42 U.S.C. §§ 6901-92 (helping to prevent the release of hazardous wastes by “giv[ing] the [Environmental Protection Agency] the authority to control hazardous waste from the ‘cradle-to-grave’ ”) (quoting EPA, *Laws and Regulations: Summary of the Resource Conservation and Recovery Act*, EPA.GOV, <http://www.epa.gov/lawsregs/laws/rcra.html> (last updated on Feb 24, 2012)).

<sup>6</sup> See EPA, *Superfund: CERCLA Overview*, EPA.GOV, <http://www.epa.gov/superfund/policy/cercla.htm> (last updated on Dec. 12, 2011) (explaining that “[CERCLA], commonly known as Superfund, was enacted by Congress on December 11, 1980 . . . CERCLA: . . . established a trust fund to provide for cleanup when no responsible party could be identified”).

<sup>7</sup> See 42 U.S.C. § 9607(b) (listing four types of defenses).

<sup>8</sup> See BLACK’S LAW DICTIONARY (9th ed. 2009) (defining dead letter as “[a] law or practice that, although not formally abolished, is no longer used, observed, or enforced”).

<sup>9</sup> See *infra* Part III.a (discussing *United States v. Shell Oil Co.*, 294 F.3d 1045, 1061 (9th Cir. 2002), the only environmental case that addresses the defense of an act of war pursuant to an action brought under CERCLA, which as the court points out never defined an act of war).

fault of your own. Nonetheless, there remains uncertainty as to: (1) whether the CERCLA defense covers only an “act of war” *by the United States* that causes the creation and/or release of hazardous waste,<sup>10</sup> or whether the defense also includes action by another country against the United States;<sup>11</sup> and (2) what an “act of war” actually means within the context of the CERCLA statute.

This Comment examines why the act of war defense has consistently failed and determines if the law places too high of a burden on property owners who assert this defense. Part II of this article describes the liability standards under CERCLA, explains the types of defenses that people may raise against CERCLA liability and addresses the legislative history of the act of war defense clause, including a discussion of the lack of available legislative history. Part III analyzes the environmental case history and discusses how cases in other areas of the law have approached finding a meaning for an “act of war.” Part IV proposes a test for property owners to successfully assert the defense of an act of war and Part V explores when this defense could effectively be used going forward.

## II. CERCLA LIABILITY

### A. Generally

CERCLA liability applies to property owners in three distinct ways: (1) if the person or entity is—or has been in the past—the owner or operator of the facility; (2) if the person or entity is the arranger of the waste disposal; or (3) if the person or entity accepts hazardous waste for treatment or disposal.<sup>12</sup> The scope of CERCLA extends to a facility or vessel from which there is “any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment . . . .”<sup>13</sup> This applies only to hazardous substances, which CERCLA defines in relation to other listed substances designated for regulation under

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<sup>10</sup> See *infra* Part III.a.i (discussing the *Shell Oil* case where the United States’ involvement in World War II led to an increase in demand for “avgas” and caused an increase in the production of hazardous waste).

<sup>11</sup> See *infra* Part V (discussing whether the defense of an “act of war” could apply to the terrorist attacks on September 11, 2001).

<sup>12</sup> 42 U.S.C. § 6907(a)(2)-(4).

<sup>13</sup> 42 U.S.C. § 9601(22).

other environmental acts.<sup>14</sup> CERCLA also broadly defines environment to include a wide assortment of surface waters (navigable waters and oceans), ground water, “land surface or subsurface strata, or ambient air within the United States or under the jurisdiction of the United States.”<sup>15</sup>

If a release of hazardous waste occurs, the Environmental Protection Agency (hereinafter “EPA”) may engage in two types of responses: quick removal and long-term remediation.<sup>16</sup> Both are complex and costly operations in which potentially responsible parties (hereinafter “PRPs”) will be involved to minimize the costs and pay for the cleanup.<sup>17</sup> Under section 107(a) of CERCLA, any person or entity found to be involved in the creation, disposal or handling of the hazardous substance will be subject to liability, unless the person or entity is able to qualify under a defense.<sup>18</sup>

There are four defenses a property owner may raise against charges under CERCLA and, if successful, will relieve the owner of liability for hazardous waste.<sup>19</sup> These four defenses are found in CERCLA section 107(b), which states:

There shall be no liability. . . [if the] release of a hazardous substance and the damages resulting therefrom were caused solely by—(1) an act of God; (2) an act of war; (3) an act or omission of a third party other than an employee or agent of the defendant, . . . if the

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<sup>14</sup> See 42 U.S.C. § 9601(14)(A)-(F) (defining hazardous substances as: “(A) any substance designated pursuant to section 311(b)(2)(A) of the Federal Water Pollution Control Act [33 U.S.C. § 1321(b)(2)(A)], (B) any element, compound, mixture, solution, or substance designated pursuant to section 9602 of this title, (C) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act [42 U.S.C. § 6921] . . . (D) any toxic pollutant listed under section 307(a) of the Federal Water Pollution Control Act [33 U.S.C. § 1317(a)], (E) any hazardous air pollutant listed under section 112 of the Clean Air Act [42 U.S.C. § 7412], and (F) any imminently hazardous chemical substance or mixture with respect to which the Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act [15 U.S.C. § 2606].”).

<sup>15</sup> 42 U.S.C. § 9601(8)(A)-(B).

<sup>16</sup> KATHRYN L. SCHROEDER, ENVIRONMENTAL LAW 188 (Robert L. Serenka, Jr., et al. eds., 2008); see also EPA, *supra* note 6 (describing the two types of actions authorized under the law as: “Short-term removals, where actions may be taken to address releases or threatened releases requiring prompt response” and “Long-term remedial response actions, that permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life threatening”).

<sup>17</sup> SCHROEDER, *supra* note 16, at 189.

<sup>18</sup> 42 U.S.C. § 6907(a)(1)-(4).

<sup>19</sup> 42 U.S.C. § 9607(b)(1)-(4).

defendant establishes by a preponderance of the evidence that (a) he exercised due care with respect to the hazardous substance concerned, . . . and (b) he took precautions against foreseeable acts or omissions of any such third party and the consequences that could foreseeably result from such acts or omissions; or (4) any combination of the foregoing paragraphs.<sup>20</sup>

Of the four potential defenses, as briefly mentioned before, the defense of “an act of war” has never been successfully raised.<sup>21</sup>

### B. Legislative History

The explicit language of the defense in CERCLA section 107 specifies that the “act of war” must be the *sole* cause of the release of hazardous waste.<sup>22</sup> Other than this limitation within the statutory language, CERCLA provides no explanation for what an “act of war” is meant to cover.<sup>23</sup>

The legislative history of CERCLA does not include any explanation for the inclusion of “an act of war,” but it does describe the manner or method in which CERCLA is to be applied.<sup>24</sup> In the Congressional Record, Representative Florio stated: “The standard of liability . . . is intended to be the same as that provided in section 311 of the Federal Water Pollution Control Act; that is, strict liability.”<sup>25</sup> Additionally, when Congress used the Superfund Amendments and Reauthorization Act (hereinafter “SARA”) to amend CERCLA, the House Report stated, “liability under CERCLA is strict, that is, without regard to fault or willfulness.”<sup>26</sup> The draftsmen of CERCLA seemed to have intended a presumption of liability against any PRP.

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<sup>20</sup> *Id.*

<sup>21</sup> See *infra* Part III a.ii (discussing case law under CERCLA for the “act of war” defense and explaining why the defense failed when it was raised).

<sup>22</sup> 42 U.S.C. § 9607(b)(2).

<sup>23</sup> See *United States v. Shell Oil Co.*, 841 F. Supp. 962, 970 (C.D. Cal. 1993), *aff'd*, 281 F.3d 812, 827 (9th Cir. 2002), *opinion withdrawn and superseded on denial of rehearing*, 294 F.3d 1045, 1061 (9th Cir. 2002), *cert. denied*, 537 U.S. 1147 (2003) (stating: “[t]he term ‘act of war’ is undefined in CERCLA and, though familiar from common usage, does not disclose its parameters on its face”).

<sup>24</sup> Cong. Rec. – House H11787, Dec. 3, 1980 (remarks of Rep. Florio), *reprinted in* 2 SUPERFUND: A LEGISLATIVE HISTORY, 168 (Helen Cohn Needham ed., 1982).

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

<sup>26</sup> *Shell Oil Co.*, 841 F. Supp. at 971 n.3 (quoting H.R. Rep. No. 253, Pt. 1 at 74 (1986) (SARA)) (internal quotation marks omitted).

This presumption of liability and strict liability standard under CERCLA places a heavy burden of proof on any property owner who attempts to assert a defense.

American law does not clearly identify what “an act of war” means.<sup>27</sup> “An act of war” is a term of art borrowed from international law, which defines it as a “use of force or other action by one state against another” which “[t]he state acted against recognizes . . . as an act of war, either by use of retaliatory force or a declaration of war.”<sup>28</sup> An environmental law commentator “has opined that the act of war defense presumes ‘governmental sponsorship’ and ‘formalization of hostilities,’ and contemplates ‘a confrontation of organized forces, acts of state, massive violence, and overwhelming influence that are unlikely to be found in the domestic Superfund context.’”<sup>29</sup> In addition, only one case in American history raised an act of war defense under CERCLA and the judges had to determine what the defense was meant to cover.<sup>30</sup>

### III. CASE LAW

#### A. Environmental Case Law Addressing CERCLA Section 107(b) Act of War Defense

##### 1. *United States v. Shell Oil Co.*<sup>31</sup>

*United States v. Shell Oil Co.* was an action brought under CERCLA for the hazardous waste dumped by oil companies from the manufacturing of aviation fuel that increased during World War II.<sup>32</sup>

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<sup>27</sup> See BLACK'S LAW DICTIONARY 26, 1614 (Bryan A. Garner ed., 8th ed. 1990) (providing no definition for “act of war”; however, “act” is defined as an “[s]omething done or performed, esp. voluntarily; a deed . . . [t]he process of doing or performing” and “war” is defined as a “[h]ostile conflict by means of armed forces, carried on between nations, states, or rulers, or sometimes between parties within the same nation or state; a period of such conflict”).

<sup>28</sup> JAMES R. FOX, DICTIONARY OF INTERNATIONAL AND COMPARATIVE LAW 6 (1992).

<sup>29</sup> *Shell Oil Co.*, 841 F. Supp. at 971 (quoting 4 William H. Rodgers, Jr., Environmental Law: Hazardous Wastes and Substances § 8.13(C)(3)(c) (1992)).

<sup>30</sup> See *Shell Oil Co.*, 294 F.3d at 1061 (discussing the lack of precedents on which to base the court's decision).

<sup>31</sup> 294 F.3d 1045 (9th Cir. 2002).

<sup>32</sup> *Id.* at 1048.

It is the only environmental law case which addresses the CERCLA section 107(b) “act of war” defense. The defendants were a group of oil companies located in and around Los Angeles, which controlled and operated refineries for aviation fuel.<sup>33</sup> During the war, when business increased for the defendants, the defendants disposed of their excess refinery waste at a location known as the McColl site.<sup>34</sup>

The facts of the underlying dispute concerning the hazardous waste dumped at the McColl site were provided to the court in a stipulation between the parties.<sup>35</sup> In the 1930s, new technology for aviation fuel, nicknamed “avgas,” was developed; the United States military became a major consumer at the onset of World War II.<sup>36</sup> Manufacturers used sulfuric acid in the manufacturing process to create a necessary compound additive called “alkylate,” which caused the acid to reduce in purity; the “spent acid either could be used in other refinery processes, or could be dumped . . . .”<sup>37</sup> Production of avgas increased significantly during the war, increasing both the use of sulfuric acid as well as the production of spent acid.<sup>38</sup>

President Franklin D. Roosevelt established multiple agencies to oversee production of avgas during World War II, including the War Production Board (hereinafter “WPB”) and the Petroleum Administration for War (hereinafter “PAW”).<sup>39</sup> Even though these agencies were given power over the oil companies, contractual agreements were still used to guarantee production.<sup>40</sup> The United States entered long-term contracts with the oil companies to build more plants and produce more avgas, but the facilities remained in the private ownership of the oil companies.<sup>41</sup>

During the period of increased production, the oil companies used the spent alkylation acid in various refinery processes.<sup>42</sup> A result of the use of spent alkylation acid was the production of acid sludge.<sup>43</sup> Acid sludge was too low in purity to be reprocessed and

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<sup>33</sup> *Id.*

<sup>34</sup> *Id.*

<sup>35</sup> *Id.* at 1049.

<sup>36</sup> *Shell Oil Co.*, 294 F.3d at 1049.

<sup>37</sup> *Id.*

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

<sup>39</sup> *Id.*

<sup>40</sup> *Id.* at 1049-50.

<sup>41</sup> *Shell Oil Co.*, 294 F.3d at 1050.

<sup>42</sup> *Id.*

<sup>43</sup> *Id.*

because there were high costs associated with certain disposal methods, the acid sludge was typically dumped or burned.<sup>44</sup>

During 1944 and 1945, oil companies were operating at increased rates which resulted in a “bottlenecking” where large amounts of the spent alkylation acid were dumped at the McColl site.<sup>45</sup> The government attempted to aid the acid waste generation problem and leased the Wilshire Storage Tank in Southern California—a large container meant to hold and store vast amounts of hazardous waste.<sup>46</sup> However, the defendants continued dumping and entering disposal contracts to place the acid sludge and spent alkylation acid at the McColl site.<sup>47</sup> Dumping at the McColl site began in 1942 and continued until after the end of World War II.<sup>48</sup> The court estimated that by the end of the dumping activity, nearly 82.5% of the hazardous waste found at the McColl site was comprised of acid sludge that resulted from using the spent alkylation acid to treat non-avgas refinery products, while only 12% of the hazardous waste consisted of spent sulfuric acid and 5.5% was the acid sludge that occurred from treating government-owned benzol.<sup>49</sup>

In the 1990s, the government began excavating and removing the waste from the McColl site and incurred an approximate cost of \$100 million.<sup>50</sup> The United States and the State of California sued the oil companies under CERCLA to recover the costs incurred during the cleanup of the McColl site.<sup>51</sup> The oil companies relied upon CERCLA’s section 107(b) defense provision for release of hazardous waste caused by an “act of war.”<sup>52</sup>

The district court, in the lower court proceedings for the *Shell Oil Co.* case, rejected the “act of war” defense raised by the oil companies but “held that 100% of the cleanup costs for all the waste, including the benzol waste, should be allocated to the United States, and 0% to the Oil Companies, under 42 U.S.C. § 9613(f)(1)[Contributions].”<sup>53</sup> The United States appealed the district

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<sup>44</sup> *Id.*

<sup>45</sup> *Id.* at 1051.

<sup>46</sup> *Shell Oil Co.*, 294 F.3d at 1051.

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

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

<sup>49</sup> *Id.* (citing *Shell Oil Co.*, 13 F. Supp. 2d 1081, 1024-25 (C.D. Cal. 1998)).

<sup>50</sup> *Id.* at 1051.

<sup>51</sup> *Shell Oil Co.*, 294 F.3d at 1048.

<sup>52</sup> *Id.*

<sup>53</sup> *Id.* (citing *Shell Oil Co.*, 13 F. Supp. 2d at 1030). The statute cited states in relevant

court's decision and the oil companies cross-appealed the dismissal of their defense.<sup>54</sup> Ultimately the Court of Appeals reversed the district court only on its holding of liability for the United States.<sup>55</sup> The Ninth Circuit instead held the United States was only liable for the benzol waste—for which it was an arranger—and not the non-benzol waste.<sup>56</sup>

Unlike actions in which private parties are held liable, the United States could be held liable under CERCLA as an arranger only because CERCLA contains a waiver of sovereign immunity.<sup>57</sup> Had CERCLA contained no such waiver, there would have been no issue as to partial liability of the United States government. Relying on the precedent of *Lane v. Pena*,<sup>58</sup> the Ninth Circuit in *Shell Oil Co.* explained that plaintiffs were required to “point to an ‘unequivocal expression’ of intent to waive sovereign immunity,” and “[a] waiver of sovereign immunity must be ‘unambiguous[ ],’ and the relevant statutory language is to be ‘strictly construed’ in favor of the sovereign.”<sup>59</sup> The United States argued for a narrower reading of the statute to only apply when the “government acts as a ‘nongovernmental entity.’”<sup>60</sup> The circuit court, however, held that the United States’ interpretation was too narrow and no such limit to CERCLA’s waiver of sovereign immunity existed.<sup>61</sup> The waiver of sovereign immunity in CERCLA was important because the provision allowed the court to hold the United States responsible at least for the benzol portion of the hazardous waste, regardless of whether the “act of war” defense raised by the defendants was successful.<sup>62</sup>

After analyzing the degree of control the United States actual-

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part: “In resolving contribution claims, the court may allocate response costs among liable parties using such equitable factors as the court determines are appropriate.” 42 U.S.C. § 9613(f)(1).

<sup>54</sup> *Shell Oil Co.*, 294 F.3d at 1048.

<sup>55</sup> *Id.* at 1048-49.

<sup>56</sup> *Id.*

<sup>57</sup> *Id.* at 1051-52; *see also* 42 U.S.C. § 9620(a)(1) (2006) (stating “[e]ach department, agency, and instrumentality of the United States (including the executive, legislative, and judicial branches of government) shall be subject to, and comply with, this chapter in the same manner . . . as any nongovernmental entity . . .”).

<sup>58</sup> 518 U.S. 187 (1996).

<sup>59</sup> *Shell Oil Co.*, 294 F.3d at 1051 (citing *Lane*, 518 U.S. at 192 (1996)).

<sup>60</sup> *Id.* at 1052.

<sup>61</sup> *Id.* at 1052-53.

<sup>62</sup> *See id.* at 1060-61 (holding that the United States was responsible for one-hundred percent of the benzol cleanup).

ly exercised over the non-benzol waste generation, the court reversed the district court and instead held “that the United States was not an arranger under § 9607(a)(3) with respect to non-benzol waste, even under a broad theory of arranger liability.”<sup>63</sup> The United States had never been an owner of any of the manufacturing products.<sup>64</sup> Rather, the United States acted as a consumer and only owned the finished product.<sup>65</sup> Even though the United States had the authority to control the manufacturing processes, neither the United States nor its employees ever exercised any actual control in any form.<sup>66</sup> Unlike the non-benzol waste, the court agreed with the district court that the United States was liable for one hundred percent of the cleanup costs relating to the benzol waste.<sup>67</sup> The court supported the district court on this point because the United States conceded that it was the arranger for all of the benzol waste.<sup>68</sup> The court held that the lower court “did not abuse its discretion in choosing the factors on which to rely in determining allocation, nor did it clearly err in applying those factors to the benzol waste.”<sup>69</sup>

Since the court held that the United States was *only* liable for the government-owned benzol waste, the court reanalyzed the defendants’ argument—defense against liability—that the non-benzol waste was caused by an act of war.<sup>70</sup> In determining whether the oil companies could successfully raise the defense of “an act of war” under section 107 of CERCLA, the court affirmed the determination of the district court.<sup>71</sup> The court specifically referenced the fact that “an act of war” is not defined within CERCLA and further stated that there is “no case law exploring the extent of the defense.”<sup>72</sup> The court deferred to the district court’s comparison of the broad language used in 42 U.S.C. § 9607(a), which imposes liability, with the narrower § 9607(b), which presents defenses.<sup>73</sup> When trying to determine the meaning of the defense, the district court conducted an

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<sup>63</sup> *Id.* at 1059.

<sup>64</sup> *Shell Oil Co.*, 294 F.3d at 1056.

<sup>65</sup> *Id.* at 1056.

<sup>66</sup> *Id.* at 1057.

<sup>67</sup> *Id.* at 1060-61.

<sup>68</sup> *Id.* at 1060.

<sup>69</sup> *Shell Oil Co.*, 294 F.3d at 1060.

<sup>70</sup> *Id.*

<sup>71</sup> *Id.* at 1062.

<sup>72</sup> *Id.* at 1061.

<sup>73</sup> *Id.* (citing *Shell Oil Co.*, 841 F. Supp. at 970-72).

analysis of the structure of CERCLA and found that “the provisions imposing liability under CERCLA are sweeping in their language and scope, while the provisions exempting parties from liability are narrowly drawn.”<sup>74</sup> Furthermore, the legislative history of CERCLA provided no explanation of “an act of war” and instead “emphasize[d] that CERCLA was to be a strict liability statute with *narrowly construed exceptions*.”<sup>75</sup>

The district court had found that the term “act of war” was “borrowed from international law, where it is defined as a ‘use of force or other action by one state against another’ which ‘the state acted against recognizes . . . as an act of war, either by use of retaliatory force or a declaration of war.’ ”<sup>76</sup> The court further relied upon treatises and case law from other contexts outside of environmental law to determine that “an act of war” should be very narrowly construed and, therefore, rejected the broad argument put forward by the oil companies that it should include an action taken under the authority of the War Powers Clause in Article I of the United States Constitution.<sup>77</sup> The court held that the disposal of hazardous waste resulting from avgas production could not be “caused ‘solely’ by an act of war, as required by that section,” because the oil companies were dumping waste from more than just avgas production, they had alternative disposal options and the disposal was occurring before, during and after World War II.<sup>78</sup> The focus on this holding should be the court’s and the legislature’s use of the word “solely” in relation to the cause of the release. “Solely” is an adverb that is defined as “not involving anyone or anything else.”<sup>79</sup> Therefore, the oil companies appropriately were not entitled to the defense of “an act of war” for their liability resulting from the disposal of hazardous waste at the McColl site because the waste production was caused by more than the govern-

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<sup>74</sup> *Shell Oil Co.*, 841 F. Supp. at 970.

<sup>75</sup> *Shell Oil Co.*, 294 F.3d at 1061 (emphasis added); see also *Shell Oil Co.*, 841 F. Supp. at 971 (stating the “legislative histories of both CERCLA and SARA indicate beyond any doubt that CERCLA’s sponsors intended the scheme of liability under CERCLA to be, in effect, one of strict liability and the defenses enumerated in section 107(b) to be narrowly construed”).

<sup>76</sup> *Shell Oil Co.*, 294 F.3d at 1061 (quoting *Shell Oil Co.*, 841 F. Supp. at 972).

<sup>77</sup> *Id.* at 1061-62. Congress has the power: “To declare War, grant Letters of Marque and Reprisal, and make Rules concerning Captures on Land and Water.” U. S. CONST. art. I, § 8, cl. 11.

<sup>78</sup> *Shell Oil Co.*, 294 F.3d at 1062 (emphasis added).

<sup>79</sup> NEW OXFORD AMERICAN DICTIONARY 1661 (Angus Stevenson & Christine A. Lindberg eds., 3d ed. 2010).

ment's increased need for avgas.<sup>80</sup>

## 2. *Why the Defense of an Act of War Failed in United States v. Shell Oil Co.*

The oil companies' attempt to assert the defense of "act of war" for liability under CERCLA failed for a variety of reasons. The court specifically emphasized that the statutory language requires the "act of war" to be the exclusive cause of the release of hazardous waste.<sup>81</sup> Even though the oil companies dumped the hazardous waste in part because of the increased production for the wartime efforts, a large portion of the hazardous waste at the McColl site was a result of reprocessing the spent acid in production of materials other than avgas which were not used or meant for use in World War II.<sup>82</sup> Moreover, the production and disposal of the acid sludge resulted from a consensual contract between the oil companies and the government; the contract and the production of avgas in California had no actual proximity to any hostile or military acts that were occurring during that time period.<sup>83</sup>

In its brief, the United States presented a very compelling argument that "an act of war" should be given the narrowest interpretation possible.<sup>84</sup> The United States asserted that:

The narrowest *and* most plausible interpretation is that an act of war is an act involving military combat during wartime. Although there is little case law or legislative history illuminating what the term "act of war" means in CERCLA, Congress most likely included the defense because there are no reasonable measures that parties can take to protect their facilities against damage or destruction from military combat.<sup>85</sup>

The court particularly took issue with the timing of the dumping in relation to World War II because production of acid sludge oc-

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<sup>80</sup> *Shell Oil Co.*, 294 F.3d at 1062.

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

<sup>82</sup> *Id.*

<sup>83</sup> *Id.* at 1049-50.

<sup>84</sup> Second Brief for the United States as Appellant/Cross-Appellee at 18-20, *United States v. Shell Oil, Co.*, 294 F.3d 1045 (9th Cir. 2002) (Nos. 00-55027, 00-55077), 2000 WL 35458907.

<sup>85</sup> *Id.* at 18.

curred before the war and dumping of the acid sludge extended after the war.<sup>86</sup> Acid sludge was being produced as a byproduct of other refinery processes and dumped before avgas was ever produced for the purposes of World War II.<sup>87</sup> Additionally, while the war may have increased the production of acid sludge at a significant rate, the dumping at the McColl site was used for more than just the acid sludge created by wartime avgas production.<sup>88</sup> Although science might be able to be used to chemically separate and measure benzol waste from non-benzol waste,<sup>89</sup> the court did not have an accurate method to measure how much acid sludge was specifically caused by wartime refining activities exclusively;<sup>90</sup> thus, there could be no apportionment of the dumping between wartime and non-wartime activities.<sup>91</sup> Had there been a way to accurately measure what portion of the non-benzol waste was directly caused by the wartime refining activities, the court might have been more willing to allow the act of war defense for at least that portion of the waste.

While World War II may have increased the production of avgas in order to meet the United States' increased needs—which thereby caused an increase in the production and dumping of acid sludge—the court was correct to determine that the dumping at the McColl site did not qualify under CERCLA's act of war defense.<sup>92</sup> The plain language of the statute does make clear that an act of war must be the *sole cause* of the release of hazardous substances into the environment.<sup>93</sup> The court's holding set a narrow standard for the interpretation of the defense's plain-language meaning in the future—the limiting language of “sole cause” must be strictly applied to the entire release of any hazardous substances. An apportionment of the hazardous substances was not appropriate in this case because the de-

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<sup>86</sup> See *Shell Oil Co.*, 294 F.3d at 1050-51, 1062 (discussing how the acid sludge was a known by-product before the war, dumping at the specific McColl site extended past the end of the war and most of the acid sludge at the McColl site was a result from non-avgas refinery products; thus, the defendants could not establish that World War II was the “sole” cause of the dumping for which the defendants were held liable).

<sup>87</sup> *Id.* at 1050.

<sup>88</sup> See *id.* at 1051 (“82.5% of the waste [at the McColl site] . . . was acid sludge resulting from the chemical treatment of non-avgas refinery products using spent alkylation acid.”).

<sup>89</sup> See *Shell Oil Co.*, 13 F. Supp. 2d at 1024-25 (discussing the different theories each party has in methods that could be used to calculate the presence of certain materials).

<sup>90</sup> *Id.* at 1025.

<sup>91</sup> *Shell Oil Co.*, 294 F.3d at 1048-49; see also *Shell Oil Co.*, 13 F. Supp. 2d at 1023.

<sup>92</sup> *Shell Oil Co.*, 294 F.3d at 1048-49.

<sup>93</sup> 42 U.S.C. § 9607(b).

fendants raised the defense against liability for the entire McColl site, not just for the portion of acid sludge caused by completing orders for avgas placed by the United States during World War II.<sup>94</sup> A defendant cannot use the defense to attempt to mitigate liability and be held responsible for the only parts of the hazardous waste that do not qualify, but rather, the standard for the defense is all or nothing.<sup>95</sup> Assuming the majority of the acid sludge was a result of the avgas materials produced for World War II, it would not have made a difference in the court's holding because a portion of hazardous waste dumped was caused by non-wartime refinery processes with no way to measure how much of the waste was attributable to the war; the act of war, which was the United States' involvement in World War II, was never the sole or exclusive cause of the release of hazardous substances as required by CERCLA.<sup>96</sup>

### **B. Non-Environmental Cases that Help Develop a Definition for “an Act of War”**

Congress's use of the “act of war” defense could have been borrowed from international law as suggested by the court in *Shell Oil Co.*, or it could be a reference to the War Powers Clause in the United States Constitution. The United States Constitution states that Congress has the power “[t]o declare War.”<sup>97</sup> The United States Supreme Court discussed the scope of the war powers and assessed whether the right to confiscate foreign patents existed under the Trading with the Enemy Act in *Farbwerke Vormals Meister Lucius and Bruning v. Chemical Foundation*.<sup>98</sup> The Court stated, “ ‘we are not here concerned with an assignment of a patent or of royalties by the German owners to the Alien Property Custodian. We are concerned with their capture – *an act of war.*’ ”<sup>99</sup> The Court's definition of “an act of war” appeared to include any action pursuant to the War Powers Clause in Article I of the United States Constitution that would have been unlawful under normal circumstances, such as the taking

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<sup>94</sup> *Shell Oil Co.*, 294 F.3d at 1062.

<sup>95</sup> *Id.*

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

<sup>97</sup> U.S. CONST. art. I, § 8, cl. 11.

<sup>98</sup> 283 U.S. 152 (1931).

<sup>99</sup> *Farbwerke*, 283 U.S. at 161 (quoting *Farbwerke Vormals Meister Lucius & Bruning v. Chemical Foundation, Inc.*, 39 F.2d 366, 371 (3d Cir. 1930)) (emphasis added).

of property.<sup>100</sup>

Although the Court in *Farbwerke* appeared to recognize a broad meaning for an act of war under the War Powers Clause of the Constitution, other case law tends to narrow what an act of war might mean by requiring: (1) that an actual war be in progress and (2) the activity in question be of a military character.<sup>101</sup> In *Ribas y Hijo v. United States*,<sup>102</sup> an action was brought by a Spanish corporation against the United States to recover the monetary value for the use of a Spanish ship that was seized during the war with Spain.<sup>103</sup> The United States Supreme Court found that the ship was seized as an enemy vessel and was thus not used for gain upon which the plaintiff could collect.<sup>104</sup> “The seizure, which occurred while the war was flagrant, was *an act of war*, occurring within the limits of military operations.”<sup>105</sup> The Court determined the seizure was “an act of war” because the seizure took place as a part of military operations during a formally declared and ongoing war and there was no element of a contract.<sup>106</sup> Similarly, in an earlier Supreme Court case, *United States v. Winchester & P.R. Co.*,<sup>107</sup> the Court held that there was “an act of war” when the seizure of railroad materials “had no element of contract, but was wholly military in character.”<sup>108</sup>

*Koohi v. United States*<sup>109</sup> involved a claim to recover damages for an Iranian Civilian Airbus mistakenly shot down in 1988 by a naval cruiser, the USS Vincennes, which was dispatched to investigate Iranian gunboats.<sup>110</sup> The Ninth Circuit faced the task of determining whether the events fell within an exception to the Federal Torts Claim Act (hereinafter “FTCA”),<sup>111</sup> which provides immunity to the

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<sup>100</sup> See *Farbwerke*, 283 U.S. at 161 (discussing how the purpose of the Trading with the Enemy Act was to cease trade and take certain property or “seize patents” to weaken the enemy; these acts of capturing enemy property were “an act of war”).

<sup>101</sup> Compare *id.* at 160-61, with *Ribas y Hijo v. United States*, 194 U.S. 315, 322-23 (1904).

<sup>102</sup> 194 U.S. 315 (1904).

<sup>103</sup> *Ribas y Hijo*, 194 U.S. at 321.

<sup>104</sup> *Id.* at 322.

<sup>105</sup> *Id.* at 323 (emphasis added).

<sup>106</sup> *Id.* at 322-23. A contractual element might be seen in scenarios where the government takes land for public use during wartime. *Id.*

<sup>107</sup> 163 U.S. 244 (1896).

<sup>108</sup> *Id.* at 256-57.

<sup>109</sup> 976 F.2d 1328 (9th Cir. 1992).

<sup>110</sup> *Id.* at 1330.

<sup>111</sup> See 28 U.S.C. § 2680(j) (2006) (stating as an exception: “[a]ny claim arising out of the

United States for actions occurring in a “time of war.”<sup>112</sup> Similar to CERCLA’s “act of war” defense, the FTCA did not provide any definition for a “time of war” and there is no legislative history for the court to refer to determine the meaning of the “time of war” language.<sup>113</sup>

Significantly, in *Koohi*, the court did make clear that it believed that there did not need to be any “express declaration of war” for the events to qualify as an act of war.<sup>114</sup> “[F]rom a practical standpoint ‘time of war’ has come to mean periods of significant armed conflict rather than times governed by formal declarations of war.”<sup>115</sup> The court reasoned that this definition followed and enforced the purpose of the exception, which was to “ensure that the government will not be liable for negligent conduct by our armed forces in times of combat.”<sup>116</sup> The ultimate holding as to the meaning of what constituted a time of war was:

[W]hen, as a result of a deliberate decision by the executive branch, United States armed forces engage in an organized series of hostile encounters on a significant scale with the military forces of another nation, the FTCA exception applies. Under those circumstances, a “time of war” exists, at least for purposes of domestic tort law.<sup>117</sup>

In accordance with this holding, the court dismissed the charges under FTCA against the United States because the combatant activity exception applied to the events culminating in the shooting down of the Iranian Civilian Airbus.<sup>118</sup> Although the *Koohi* definition was to be applied to the FTCA exception, the congressional purpose and intent analyzed by the court seemed analogous to the possible purpose and intent of the “act of war” defense to CERCLA liability.

In *Juragua Iron Co. v. United States*,<sup>119</sup> a case involving the

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combatant activities of the military or naval forces, or the Coast Guard, during time of war”).

<sup>112</sup> *Koohi*, 976 F.2d at 1333.

<sup>113</sup> *Id.*

<sup>114</sup> *Id.* at 1333-34 (citing *Vogelaar v. United States*, 665 F. Supp. 1295, 1302 (E.D. Mich. 1987); *Rotko v. Abrams*, 338 F. Supp. 46, 47-48 (D. Conn. 1971), *aff’d*, 455 F.2d 992 (2d Cir. 1972); *Morrison v. United States*, 316 F. Supp. 78, 79 (M.D. Ga. 1970)).

<sup>115</sup> *Koohi*, 976 F.2d at 1334.

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

<sup>117</sup> *Id.* at 1335.

<sup>118</sup> *Id.* at 1335-36.

<sup>119</sup> 212 U.S. 297 (1909).

destruction of property during the Spanish war, the Supreme Court referred to *Ribas y Hijo* and explained that there was no “act of war” when an implied agreement provided for the payment of the property.<sup>120</sup> During the Spanish-American War, troops that were fighting in Santiago de Cuba were also facing the threat of yellow fever.<sup>121</sup> To protect the health of the troops against the spread of yellow fever, an order was issued to destroy sixty-six buildings privately owned by the plaintiff by setting fire to each of the buildings.<sup>122</sup> The property was located in Cuba and, at that time, Cuba was owned by Spain, the enemy.<sup>123</sup> The Supreme Court specified, without making reference to a specific law granting such a right, that any enemy property could be seized during wartime without compensation.<sup>124</sup> Therefore, any implied contractual agreement to compensate for the taking of private property would mean that the destruction of the property, for which the plaintiff was trying to collect damages, was not an act of war.<sup>125</sup>

In 1898, the court in *White v. United States*<sup>126</sup> distinguished between property that was seized as an act of war and property that was merely an appropriation for use by the army.<sup>127</sup> When the property is seized as an act of war, the United States is not liable for the resulting damages.<sup>128</sup> This supports the proposition in *Koohi* that the purpose of an “act of war” exemption is to protect the United States from liability for negligent acts which may occur during the course of war.<sup>129</sup>

Based upon the cases discussed in this section, there remains no absolute answer to what an “act of war” inherently means, but it can be inferred that a certain variety of acts relating to an ongoing war may appropriately be included. By using the foregoing cases to develop a working standard, it is possible to interpret what an act of war should mean in relation to CERCLA’s defense provisions. If all of the pollutants dumped at the McColl site in the *Shell Oil* case were deposited only during World War II, the defense would still not be

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<sup>120</sup> *Id.* at 309-10 (citing *Ribas y Hijo*, 194 U.S. at 322).

<sup>121</sup> *Id.* at 301.

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

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

<sup>124</sup> *Juragua Iron Co.*, 212 U.S. at 306.

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

<sup>126</sup> 33 Ct. Cl. 368 (1898).

<sup>127</sup> *Id.* at 375.

<sup>128</sup> *Id.* at 376.

<sup>129</sup> *Koohi*, 976 F.2d at 1334.

applicable because a contract existed between the oil companies and the United States for compensation for the production—and disposal—of the avgas and its byproducts. The following section discusses in further detail what the standard in environmental law should be by applying the cases and standards analyzed above to CERCLA section 107(b).

#### IV. RECOMMENDATIONS AS TO WHAT THE STANDARD FOR THE CERCLA ACT OF WAR DEFENSE OUGHT TO BE

There should be three elements necessary to establish an “act of war” within the meaning of the defense under CERCLA section 107(b)(3) for a property owner to avoid strict liability: (1) the activity causing the release must be a part of an armed conflict, but the armed conflict does not need to be an actual declaration of war by Congress;<sup>130</sup> (2) the activity causing the release of hazardous waste into the environment must be military in nature;<sup>131</sup> and (3) the activity causing the release of hazardous waste should not be attached to any contractual, implied or in fact, agreement for compensation of resulting damages from the hazardous waste to the environment.<sup>132</sup> In addition to these three elements, the strict holding from *Shell Oil Co.* must still be applied; even if there is an act of war as established by this proposed three-element test, the act of war must be the *exclusive* cause of the *entire* release of hazardous substances.<sup>133</sup> The release cannot merely occur in concurrence with an act of war or be exacerbated by an act of war, but the act of war must be the only in-fact cause of the release into the environment. Furthermore, the act of war may be an action taken by another country against the United States; the act of war does not necessarily need to be the United States’ involvement in a war, which causes the production of hazardous waste, for the activity to qualify within the meaning of the statute.

Even with a working standard to apply in future scenarios, it is still difficult to determine whether this defense could ever be suc-

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<sup>130</sup> See *id.* at 1333-34 (stating that an “express declaration of war” is not required).

<sup>131</sup> See *Winchester & P.R. Co.*, 163 U.S. at 256-57 (discussing how an activity that was military in nature was an act of war).

<sup>132</sup> See *Ribas y Hijo*, 194 U.S. at 322-23 (describing how an act of war cannot be an activity in which the resulting damage is covered under a contract for repayment by the actor).

<sup>133</sup> See *Shell Oil Co.*, 294 F.3d at 1062 (rejecting the “act of war” defense because the war was not the sole cause of the release of hazardous substances at the McColl site).

cessfully used because the defense is extremely narrow. CERCLA was enacted with the intent that it be enforced against the property owners as strict liability<sup>134</sup> and having only a very narrowly applicable defense matches that intent. However, the restricted applicability still leaves the question: will there ever be a situation in which the defense of “an act of war” can be used or should be used? The answer to that question may not be as difficult to find as it sounds. Not very long ago, the United States was faced with a tragedy when the terrorist attacks on 9/11 destroyed the iconic Twin Towers in lower Manhattan and left behind a spread of hazardous waste that had to be cleaned up.<sup>135</sup> Similar to the hypothetical scenario presented at the beginning of this Comment, 9/11 also raised issues of how to clean the disaster, remove the debris, limit hazardous exposure to the community, and pay for the large cleanup costs.<sup>136</sup>

#### V. ILLUSTRATION OF WHEN THE ACT OF WAR DEFENSE MIGHT BE APPLICABLE SO AS TO LIMIT LIABILITY UNDER CERCLA

On September 11, 2001, when the Twin Towers in lower Manhattan were tragically brought down by terrorists who crashed commercial airliners into the buildings, the remaining debris had to be cleaned up and someone had to pay for it.<sup>137</sup> The airplanes that crashed into the buildings and the collapse of the Twin Towers that followed covered the entire lower city in dust and debris.<sup>138</sup> Within

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<sup>134</sup> *United States v. Monsanto Co.*, 858 F.2d 160, 167-68 n.11 (4th Cir. 1988).

<sup>135</sup> See generally Associated Press, *New York City Shuts Down*, N.Y. TIMES (Sept. 11, 2001), <http://www.nytimes.com/2001/09/11/nyregion/11CND-NYC.html?scp=7&sq=sept.%2011,%202001&st=cse> (describing the terrorist attack that occurred that morning and the destruction that was caused in lower Manhattan). See also Julian E. Barnes, *Horror, Alarm and Chaos Grip Downtown Manhattan*, N.Y. TIMES (Sept. 11, 2001), <http://www.nytimes.com/2001/09/11/national/11CND-SCENE.html?scp=9&sq=sept.+11%2C+2001&st=cse>, (describing the horrible events of the day as each tower was hit and then subsequently fell).

<sup>136</sup> See *infra* Section V (discussing the various issues and how the defense of war might apply).

<sup>137</sup> See Andrew Ross Sorkin & Simon Romero, *A Day of Terror: The Insurers; Reinsurance Companies Wait to Sort Out Cost of Damages*, N.Y. TIMES (Sept. 12, 2001), <http://www.nytimes.com/2001/09/12/business/day-terror-insurers-reinsurance-companies-wait-sort-cost-damages.html?scp=6&sq=sept%2012%202001&st=cse> (explaining the potential costs that are expected to be incurred from the devastating disaster of the terrorist attack in lower Manhattan).

<sup>138</sup> *New York City Shuts Down*, *supra* note 135. See also Barnes, *supra* note 135 (describing the blankets of dust and smoke that covered the city as people attempted to escape).

twenty-four hours of the terrorist attack, analysts had already estimated that the cleanup costs would be around five billion dollars.<sup>139</sup> Who was responsible for paying for this very large bill? According to an article in the New York Times the day after the incident, “dozens of insurers [were] expected to bear the cost of the damage, including the cost of the towers, which collapsed and burned after being struck by two hijacked airliners, as well as damage to the surrounding area and the cost of office furnishings and equipment.”<sup>140</sup>

More than just the physical destruction of the buildings had to be monitored for cleanup purposes; environmental scientists also had to analyze the effects on air quality from the dust and smoke that were released to determine whether there would be extensive impacts reaching far into the future.<sup>141</sup> Under CERCLA, a release of hazardous substances into the environment also includes release into the air and water.<sup>142</sup> Fortunately, officials from the EPA reported to the public that tests conducted on air quality revealed there were “no harmful levels of asbestos, lead or toxic organic compounds.”<sup>143</sup> The EPA also reported that there were low levels, found in the dust near Ground Zero, of lead and asbestos, but these levels decreased every day and were below the level of concern.<sup>144</sup>

Although the EPA reported that the health risks going forward were minor, two months later there was still an ongoing concern for firemen and workers at Ground Zero; one article in the New York Times reported there were continuing dangers faced by workers including non-visible threats such as “the toxins that have been measured in the dusty air, or the smoke that rises from the fires still burning deep underground.”<sup>145</sup> Another article published by the New

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<sup>139</sup> Sorkin & Romero, *supra* note 137.

<sup>140</sup> *Id.*

<sup>141</sup> See Andrew C. Revkin, *Monitors Say Health Risk From Smoke Is Very Small*, N.Y. TIMES (Sept. 14, 2001), <http://www.nytimes.com/2001/09/14/nyregion/14ENVI.html?scp=5&sq=sept.+14%2C+2001&st=cse>, (explaining that “tests of air and the dust coating parts of Lower Manhattan appeared to support the official view expressed by city, state and federal health and environmental officials: that health problems from pollution would not be one of the legacies of the attacks”).

<sup>142</sup> See 42 U.S.C. § 9601(8) (2012) (defining the environment as including “surface water, ground water, drinking water supply, land surface or subsurface strata, or ambient air within the United States or under the jurisdiction of the United States”).

<sup>143</sup> Revkin, *supra* note 141.

<sup>144</sup> *Id.*

<sup>145</sup> Eric Lipton & Kirk Johnson, *A Nation Challenged: The Site; Safety Becomes Prime Concern at Ground Zero*, N.Y. TIMES (Nov. 8, 2001), <http://www.nytimes.com/2001/11/08/nyregion/a-nation-challenged-the-site-safety-becomes->

York Times in 2006 discussed a movie, “Dust to Dust: The Health Effects of 9/11,” and stated that the contaminants released into the environment were:

[M]ore than 400 tons of asbestos, . . . 90,000 tons of jet fuel containing benzene; mercury from more than a half-million fluorescent lights; 200,000 pounds of lead and cadmium from computers; crystalline silica from 420,000 tons of concrete, plasterboard and glass; and perhaps as much as two million pounds of polycyclic aromatic hydrocarbons from the diesel-fueled fires. Some of those substances are carcinogens; others can cause kidney, liver, heart and nervous-system damage.<sup>146</sup>

Furthermore, contrary to what the EPA was telling the general public, a health article reporting on the issue stated:

[T]he conditions at Ground Zero—in spite of Federal and State warnings to the contrary—were exceedingly toxic: hundreds of contaminants, including asbestos, lead, mercury and benzene—to name a few—were present in unprecedentedly high levels, both within the billowing dust cloud that settled over Lower Manhattan and the surrounding areas, and in the emissions from the Pile that smoldered for months afterward during the nine-month recovery and cleanup operation.<sup>147</sup>

Another report characterized the contents of the hazardous release in two ways, (1) the physical collapse of the towers released “pulverized steel, glass cement, and other debris;” and (2) the fires caused by the crashed airplanes that contained jet fuel released “smoke and fumes, including polycyclic aromatic hydrocarbons, volatile organic compounds, lead, dioxin, and furans.”<sup>148</sup>

The presence of the toxic contaminants at Ground Zero and in

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prime-concern-at-ground-zero.html?scp=2&sq=A%20nation%20Challenged:%20the%20Site,%20Nov.%208,%202001&st=cse.

<sup>146</sup> Gates, *supra* note 2.

<sup>147</sup> Claire Calladine & David Miller, *The 9/11 Health Crisis*, 911HEALTHNOW.ORG (last visited Mar. 10, 2012), [http://www.911healthnow.org/911healthnow/The\\_9\\_11\\_Health\\_Crisis.html](http://www.911healthnow.org/911healthnow/The_9_11_Health_Crisis.html) (emphasis omitted).

<sup>148</sup> Robert M. Brackbill, et al., *Surveillance for World Trade Center Disaster Health Effects Among Survivors of Collapsed and Damaged Buildings*, CDC.GOV (April 7, 2006), <http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5502a1.htm>.

the air all across lower Manhattan affected not only the workers at Ground Zero but also the general public who lived, worked and attended school in the area.<sup>149</sup> Under CERCLA, these hazardous releases of toxins into the environment should have been addressed and were required to have been cleaned up.<sup>150</sup> The limited response by the government and the EPA to engage in the proper response under CERCLA led to many adverse effects up to nine years later:

Afflictions range from chronic bronchial disease to asbestosis, leukemia and cancers, plus a host of other diseases including systemic organ failure for which the etiology remains unidentified. As of June 2010, 836 WTC workers have died; an estimated 70% of the 70,000-plus First Responders have declared illnesses; it is estimated by the World Trade Center Health Registry that 410,000 people have been ‘heavily exposed’ to WTC toxins (includes Responders), and may become seriously ill in the future.<sup>151</sup>

Hypothetically, had the United States government, including the EPA, addressed the hazardous substances as a release under CERCLA, owners of the buildings, office spaces, property and the airplanes might have been called upon as PRPs under CERCLA section 107 to pay for the expenses of cleaning lower Manhattan.<sup>152</sup> This is because all of the hazardous substances released as a result of the terrorist attacks were materials and substances that were a part of the buildings, property, and airplanes before the incident occurred.<sup>153</sup> If the property or airplane owners were threatened with liability under CERCLA section 107 for the cleanup costs associated with the toxic dust and air near Ground Zero, the defense of “an act of war” could have been an appropriate means for them to avoid liability.<sup>154</sup>

The activity culminating in the disaster of 9/11 qualifies as an

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<sup>149</sup> Calladine & Miller, *supra* note 147.

<sup>150</sup> *See id.* (stating that there was “no government-mandated cleanup”); *see also* 42 U.S.C. § 9601(23) (2012).

<sup>151</sup> Calladine & Miller, *supra* note 147 (emphasis omitted).

<sup>152</sup> *See generally* 42 U.S.C. § 9607 (2012) (describing liability for the release of hazardous substances).

<sup>153</sup> *See* Brackbill, et al., *supra* note 148 (describing the matter that was released as originating from the collapse of the twin towers, surrounding buildings, and the fires caused by the airplanes colliding with the buildings).

<sup>154</sup> 42 U.S.C. § 9607(b).

act of war under the proposed standard set forth in the previous section. The first necessary element for establishing an act of war required the activity to be a part of an armed conflict.<sup>155</sup> The two airplanes did not accidentally collide with the World Trade Center Twin Towers; but rather, the airplanes were hijacked by enemies of the United States and intentionally crashed into the buildings as an act of terrorism.<sup>156</sup> While at the time of the attack, there was no declaration of war between the United States and the country to which the terrorists belonged, there did not need to be one so long as the hijacking and crashing of the airplanes was part of an armed conflict.<sup>157</sup> The second element required to establish an event as an act of war is that the activity must be military in nature.<sup>158</sup> The men who carried out the acts of terrorism against the United States received military training and used weapons in order to hijack the airplanes.<sup>159</sup> Furthermore, the hijackers used the airplanes as a weapon in order to commit an act of terrorism on American soil.<sup>160</sup> Therefore, the events of 9/11 are military in nature and satisfy the second element. The third requirement is that there be no agreement of compensation for any of the resulting damage by the actors.<sup>161</sup> Al Qaida, led by Osama Bin Laden, never expressed nor intended to compensate any of the loss that the United States suffered; the acts were express undertakings of terrorism meant to cause the United States and its people as much loss as possible.<sup>162</sup> Since all three elements could be clearly estab-

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<sup>155</sup> See *Koohi*, 976 F.2d at 1333-34 (discussing the need for an armed conflict, not an express declaration of war to constitute a time a war).

<sup>156</sup> See generally *Bin Laden Claims Responsibility for 9/11*, CBC.CA (Oct. 29, 2004), [http://www.cbc.ca/news/world/story/2004/10/29/binladen\\_message041029.html](http://www.cbc.ca/news/world/story/2004/10/29/binladen_message041029.html) (describing how Osama Bin Laden publicly claimed responsibility for planning and carrying out the terrorist attack against the United States).

<sup>157</sup> *Koohi*, 976 F.2d at 1333-34 (explaining that a formal declaration of war is not a necessary prerequisite for there to be acts of war during an armed conflict).

<sup>158</sup> See *Winchester & P.R. Co.*, 163 U.S. at 256-57 (discussing how an activity that was military in nature was an act of war).

<sup>159</sup> Al-Qaida / Al-Qaeda Terrorist Training Camps, GLOBALSECURITY.ORG, <http://www.globalsecurity.org/military/world/para/al-qaida-camps.htm> (last visited Sept. 23, 2012).

<sup>160</sup> James Barron, *Thousands Feared Dead as World Trade Center Is Toppled*, NYTIMES.COM (Sept. 11, 2001) <http://www.nytimes.com/2001/09/11/national/11WIRE-PLAN.html?pagewanted=all>.

<sup>161</sup> See *Ribas y Hijo*, 194 U.S. at 322-23 (describing how an act of war cannot be an activity in which the resulting damage is covered under a contract for repayment by the actor).

<sup>162</sup> See generally *Bin Laden Claims Responsibility for 9/11*, *supra* note 156 (discussing who was responsible for the attack and never mentioning any intent to compensate the United States for damages).

lished, it is likely that the terrorist acts of 9/11 would qualify as “an act of war” within the meaning of CERCLA section 107(b).

Not only are the events of 9/11 likely to qualify as an act of war, but the events would also satisfy the limitation that the act of war be the *sole* cause of the release of substances.<sup>163</sup> The airplanes colliding with the towers caused the collapse of the buildings, which directly led to the release of jet-fuel, mercury, lead, cadmium, glass, concrete, steel particles and smoke into the air and water.<sup>164</sup> There was no release of such hazardous waste from the site before the events, as there was in *Shell Oil*.<sup>165</sup> The only cause for the release of the hazardous wastes into the surrounding environment from the destroyed buildings was the act of war carried out by the terrorists against the United States on September 11, 2001. Therefore, if CERCLA liability ever became an issue for the property/building owners, the defense of “an act of war” would likely shield them from strict liability caused by the terrorist attacks.

## VI. CONCLUSION

While Congress chose not to define an “act of war” when it drafted section 107(b) of CERCLA, the analysis of case law allows for a reasonable inference to be adduced for the future use of the defense in environmental cases. There may not have been a successful use of the defense in the past,<sup>166</sup> but the defense serves a necessary purpose in equity and remains good law. When hazardous wastes are released into the environment through uncontrollable acts of destruction and war, holding private parties liable would not be just. This logic is in line with the holding of *Shell Oil* and the overall intent for liability under the general terms of CERCLA. The defense provision protects PRPs from acts which may occur beyond their control, i.e., acts of terrorism.

As suggested in Section IV of this comment, for an effective application and understanding of the act of war defense, there are three requirements—the activity causing the discharge of hazardous

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<sup>163</sup> See 42 U.S.C. § 9607(b) (stating that the defense is only applicable when the resulting damages were “caused solely by” the defense).

<sup>164</sup> See Brackbill, *supra* note 148.

<sup>165</sup> See *supra*, Section III.a.i. (describing the facts of *Shell Oil* relating to the timing of the creation of acid sludge and the dumping at the McColl site).

<sup>166</sup> See generally *Shell Oil Co.*, 294 F.3d 1045 (this is the *only* case in American history for which the “act of war” defense was raised under CERCLA and the defense failed).

substances into the environment must (1) be a part of an armed conflict, (2) be military in nature, and (3) must not be connected to any contract for compensation. These three elements, applied jointly with the holding from *Shell Oil*, can help guide a successful use of the act of war defense in future environmental cases brought under CERCLA. The unfortunate events of the 9/11 terrorist attack against the United States, the long lasting impacts of which the United States is still attempting to mitigate today, provide a clear example of what should qualify as an act of war to defend against CERCLA liability. Not all acts in the future may be as clearly coverable by the act of war defense as the events of 9/11, but the foregoing analysis of *Shell Oil* and other case law outside the environmental practice area, illustrates that there are other events and actions beyond terrorism that would fittingly qualify as an act of war.

To qualify as an act of war, the action does not have to be an act undertaken by the United States or someone within the United States; it can be another country or group taking action against the United States that leads to an unforeseeable release of hazardous waste within the United States. So long as the qualifying event is the exclusive cause of the release of hazardous substances into the environment, and the activity is a part of an armed conflict, is military in nature, and is not connected to any contract for compensation, then a PRP who may normally be held liable for cleanup costs will likely be able to defend against any unfair enforcement of the strict provisions of CERCLA.