LEGAL UPDATE

DUMONTIER V. SCHLUMBERGER: SUBCELLULAR DAMAGE UNDER THE PRICE-ANDERSON ACT

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I. INTRODUCTION

On May 21, 2002, several employees spent the day working on a Schlumberger Technology Corp. ("Schlumberger")[1] drilling rig in Montana. Unbeknownst to the workers, the site was contaminated with cesium-137.[2]

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[1] Schlumberger Technology Corp. is an oil and gas technology company.

[2] Dumontier v. Schlumberger Tech. Corp., 543 F.3d 567, 569 (9th Cir. 2007), *cert. denied*, 129 S. Ct. 1329 (2009). *See* U.S. ENVIRONMENTAL PROTECTION AGENCY, CESIUM: RADIATION PROTECTION (2009), *available at* http://www.epa.gov/rpdweb00/radionuclides/cesium.html#whause (Cesium-137 is a

Exposure to this radioactive substance can cause burns, radiation sickness, and cancer.[3] Although the exposed employees have yet to manifest any symptoms, fourteen of these workers sued Schlumberger for subcellular and DNA damage resulting from the radiation.[4] The workers asserted state claims for damages from emotional distress, medical monitoring, and malice based on the exposure and risk of cancer.[5] Schlumberger successfully moved to replace the plaintiff's state claims based on preemption, substituting them with a federal claim under the Price-Anderson Act Atomic Energy Act[6] ("Price-Anderson Act").[7]

This Act, enacted in 1957, is a federal statute allowing individuals to bring federal lawsuits for harm caused by nuclear incidents. The Act protects members of the public who suffer damage from a nuclear incident irrespective of the true liable party.[8] The traditional reasoning for the enactment of this statute was to foster development of the nuclear industry.[9] The Act both limits the liability arising from a nuclear incident and articulates requirements of insurance coverage for nuclear operators.[10] Consequently, the Act protects both investors in the nuclear industry and victims of exposure.[11] Should a nuclear incident occur, the operator would be responsible for a certain amount of damages,[12] and a designated federal account would fund the remainder.[13]

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radioisotope produced "when uranium and plutonium absorb neutrons and undergo fission." Cesium-137 is used in construction moisture-density gauges, leveling gauges, thickness gauges and well-logging devices "in the drilling industry to help characterize rock strata.").

[3] *Dumontier*, 543 F.3d at 567.

[4] *Id.*

[5] *Id.*

[6] 42 U.S.C. § 2210(q) (2006).

[7] *Dumontier*, 543 F.3d at 569.

[8] AMERICAN NUCLEAR SOCIETY, PRICE-ANDERSON ACT: BACKGROUND INFORMATION 1 (2005), *available at* http://www.ans.org/pi/ps/docs/ps54-bi.pdf.

[9] UNITED STATES NUCLEAR REGULATORY COMMISSION, FACT SHEET ON NUCLEAR INSURANCE AND DISASTER RELIEF FUNDS 1 (2008), *available at* http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/funds-fs.pdf.

[10] PUBLIC CITIZEN, PRICE-ANDERSON ACT: THE BILLION DOLLAR BAILOUT FOR NUCLEAR POWER MISHAPS 1 (2004), *available at* http://www.citizen.org/documents/Price%20Anderson%20Factsheet.pdf.

[11] *Id.*

[12] FACT SHEET ON NUCLEAR INSURANCE AND DISASTER RELIEF FUNDS, *supra* note 9, at 1 ("Under existing policy, utilities that operate nuclear power plants pay a premium each year for $300 million in private insurance for offsite liability coverage for each reactor unit. This primary insurance is supplemented by a second policy. In the event a nuclear accident causes damages in excess of $300 million, each licensed nuclear reactor would be assessed a prorated share of the excess up to $95.8 million. With 104 plants licensed to operate, this secondary pool contains about $8.6 billion. After 15 percent of this pool is expended, prioritization of the remaining funds is left to the discretion of local jurisdictions. After the insurance pool is used, responding organizations like State and local governments can petition Congress for additional disaster relief under the provisions of Price-Anderson.").

By providing "omnibus coverage," the Act protects individuals regardless of the responsible party.[14] Originally, the United States Senate insisted the Act would only be temporary and within ten years "the problem of reactor safety will be to a great extent solved and the insurance people will have had an experience on which to base a sound program of their own."[15] This safety issue, however, remains unsolved and Congress has extended the Price-Anderson Act through December 31, 2025.[16]

"Nuclear incident" is statutorily defined as, "any occurrence . . . causing . . . bodily injury, sickness, disease, or death, or loss of or damage to property, or loss of use of property, arising out of or resulting from the radioactive, toxic, explosive, or other hazardous properties of source, special nuclear, or byproduct material."[17] It is unclear if the Price-Anderson Act compensates for subcellular damage as a form of bodily injury. Within the context of this case, subcellular injury refers to damages to "DNA or other important cellular components" resulting from radiation exposure.[18] The exposure has the effect of "denaturing proteins and modifying DNA,"[19] which does not initially manifest physical symptoms.[20] Some courts have concluded subcellular damage falls short of the Act's bodily harm standard,[21] while others rule that the question should be presented to a jury.[22]

Although the Supreme Court refused to hear the case of *Dumontier v. Schlumberger*,[23] the Court must eventually determine whether subcellular

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[13] *Id.*

[14] PRICE-ANDERSON ACT: BACKGROUND INFORMATION, *supra* note 8, at 1.

[15] PRICE-ANDERSON ACT: THE BILLION DOLLAR BAILOUT FOR NUCLEAR POWER MISHAPS, *supra* note 10, at 3.

[16] FACT SHEET ON NUCLEAR INSURANCE AND DISASTER RELIEF FUNDS, *supra* note 9, at 3.

[17] 42 U.S.C. § 2014(q) (2006). According to the United States Nuclear Regulatory Commission "[i]t includes any accident (including those that come about because of theft or sabotage) in the course of transporting nuclear fuel to a reactor site; in the storage of nuclear fuel or waste at a site; in the operation of a reactor, including the discharge of radioactive effluent; and in the transportation of irradiated nuclear fuel and nuclear waste from the reactor. Price-Anderson does not require coverage for spent fuel or nuclear waste stored at interim storage facilities, transportation of nuclear fuel or waste that is not either to or from a nuclear reactor, or acts of theft or sabotage occurring after planned transportation has ended." FACT SHEET ON NUCLEAR INSURANCE AND DISASTER RELIEF FUNDS, *supra* note 9, at 1.

[18] *Dumontier*, 543 F.3d at 571.

[19] *Id.* at 570.

[20] *Id.* at 571.

[21] *See* Rainer v. Union Carbide Corp., 402 F.3d 608 (6th Cir. 2004), *cert. denied*, 546 U.S 978 (2005); *In re* Berg Litig., 293 F.3d 1127 (9th Cir. 2002).

[22] Bradford v. Susquehanna Corp., 586 F. Supp 14 (D. Col. 1984); Werlan v. United States, 746 F. Supp 887 (D. Minn. 1990).

[23] Dumontier v. Schlumberger Tech. Corp., 543 F.3d 567, 571 (9th Cir. 2007), *cert. denied*, 129 S. Ct. 1329 (2009).

damage caused by radiation exposure is a valid injury worthy of compensation under the Price-Anderson Act. As of now, the issue remains an open question of law.

II. *DUMONTIER V. SCHLUMBERGER*: PROCEDURAL HISTORY

A. Dumontier v. Schlumberger*: District Court*

Despite the absence of symptoms, the plaintiffs sued Schlumberger for subcellular damage from radiation exposure.[24] The plaintiffs sought damages under the state claims of emotional distress, medical monitoring, and malice in the United States District Court for the District of Montana.[25] Schlumberger, in turn, filed and was granted a motion substituting preempted state causes of action with a federal claim under the Price-Anderson Atomic Energy Act.[26] Schlumberger also succeeded on its second motion for summary judgment because the plaintiffs failed to show that subcellular damage from radiation exposure fell within the Act's definition.[27] The plaintiffs subsequently appealed.[28]

B. Dumontier v. Schlumberger*: Court of Appeals for the Ninth Circuit*

1. Application of State Law within the Federal Statutory Framework

On appeal, the plaintiffs argued that they suffered bodily injury based on subcellular damage under Montana Law.[29] The court determined that the Ninth Circuit "never relied on state law to interpret bodily injury . . . [n]or would doing so be faithful to the statutory scheme."[30] The court insisted that state law was not required to determine what constitutes bodily injury because it was not a substantive decision-making rule and the Price-Anderson Act did not require the application of state law in its interpretation.[31] Under the Act, compensable exposure requires that the plaintiff experience a listed harm, irrespective of state causes of action.[32] The court concluded that relying on state law could lead to an inappropriate expansion in the definition of bodily

[24] *Dumontier*, 543 F.3d at 567.

[25] *Id.*

[26] *Id.*

[27] *Id.* at 569.

[28] *Id.*

[29] *Id.*

[30] *Id.* at 570.

[31] *Id.* ("For example, if a state doesn't provide a cause of action for emotional distress, a plaintiff wouldn't have a cause of action for emotional distress under the Act. Or, if state law provides a cause of action for negligence but not for strict liability, the Act would provide a cause of action only for negligence.").

[32] *Id.* at 569-70.

injury, consequently over-expanding tort liability.[33]

2. What Constitutes Bodily Injury Under the Price-Anderson Act?

Based on this interpretation of the Act, the court found that subcellular damage did not constitute bodily injury.[34] The court rejected the plaintiffs' claim, in part, because if minor radiation exposure causes subcellular damage, then all radiation exposure would technically cause bodily injury.[35] The court also refuted the plaintiffs' second argument that exposure exceeding the public federal radiation dose limit set by the Nuclear Regulatory Commission ("NRC") would result in bodily injury, because under that line of reasoning, any amount of radiation surpassing the NRC limitation regulations would result in a strict liability offense.[36] The court further held that the plaintiffs' argument was faulty because NRC regulations provide conservative exposure levels and exceeding them would not necessarily result in significant damage.[37] Moreover, the court insisted change is not, in and of itself, universally damaging.[38] The Act requires "pain or interference with bodily functions."[39] Here, the plaintiffs were asymptomatic, having only a heightened risk of developing cancer.[40] Therefore, the court concluded that the plaintiffs were not subject to bodily injury nor entitled to compensation under the Act.[41]

3. State Preemption

The Ninth Circuit also affirmed the preemption of state claims. The court relied on *Phillips v. E.I. DuPont De Nemours & Co.*[42] and *Golden v. CH2M Hill Hanford Group, Inc.*[43] to reinforce the principle that "*any* suit seeking

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[33] *Id.* at 570.

[34] *Id.*

[35] *Id.*

[36] *Id.* at 570-71.

[37] *See* Sean Wajert, *Ninth Circuit Rejects Claim for Subcellular Damage Under Radiation Exposure Law*, MASS TORT DEF., Oct. 1, 2008, http://www.masstortdefense.com/2008/10/articles/ninth-circuit-rejects-claim-for-subcellular-damage-under-radiation-exposure-law.

[38] *Dumontier*, 543 F.3d at 570.

[39] *Id.* at 571.

[40] *Id.*

[41] *Id.* at 567.

[42] 534 F.3d 986, 1009-10 (9th Cir. 2008) (addressing the Hanford Reservation, a plutonium-production facility used to make the atomic bomb dropped on Nagasaki, Japan in World War II and the nearby residents of the reservation who claim the I-131 emissions caused a variety of cancers and other terminal illnesses).

[43] 528 F.3d 681, 683 (9th Cir. 2008) Daniel Golden, a Hanford Nuclear Reservation worker, suffered physical injuries after he was splashed with four gallons of toxic CH2M. *Id.*

compensation for a nuclear incident is preempted by the Act."[44] The opinion ended with a blunt assertion that the plaintiffs can only recover damages for their exposure to radiation under the Price-Anderson Act.[45]

C. Dumontier v. Schlumberger*: Briefs before the Supreme Court*

The plaintiffs filed a petition for writ of certiorari in the United States Supreme Court. Though the Supreme Court denied the petition,[46] determining the outer boundaries of "bodily injury" under the Price-Anderson Act will remain a live issue and continue to split lower circuits. This section will explore the plaintiffs' and defendant's briefs submitted to the Supreme Court to better understand the arguments on both sides of this issue.

In their petition, the plaintiffs argued that "bodily injury," as referenced in the Price-Anderson Act, is a "substantive rule of decision" requiring analysis under state law. The plaintiffs' argument stems from the *Erie* doctrine.[47] Under this doctrine, if federal and state statutes are in conflict with one another and the statutes at issue regulate substantive matters, then the state law prevails.[48] Alternatively, federal law reigns if the statutes regulate procedural matters.[49] Plaintiffs also insisted that if their subcellular injuries did not arise from a "nuclear incident" as described in the Price-Anderson Act, they were not preempted from state tort law causes of action.[50] In a brief in opposition, the defendant claimed that subcellular injuries resulting from nuclear exposure are not included in the Price-Anderson Act and no other state causes of action were available to the plaintiffs.[51]

1. Is Subcellular Damage "Bodily Injury" Under the Price-Anderson Act?

i. Plaintiffs' Argument

The plaintiffs argued the Price-Anderson Act "requires the use of state tort law unless it is inconsistent with the Act."[52] Under the Act "nuclear incident" is defined as, "any occurrence, including an extraordinary nuclear occurrence, . . . causing . . . bodily injury, sickness, disease, or death . . .

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[44] *Dumontier*, 543 F.3d at 571 (emphasis added).

[45] *Id.* ("Plaintiffs claim compensation for exposure to radioactive material, so they can only recover if they meet the requirements of the Act.").

[46] Dumontier v. Schlumberger Tech. Corp., 129 S. Ct. 1329, 77 U.S.L.W. 3365, 77 U.S.L.W. 3463, 77 U.S.L.W. 3468 (U.S. Feb 23, 2009) (No. 08-745).

[47] Erie R.R. v. Tompkins, 304 U.S. 64 (1938).

[48] *Id.* at 78.

[49] *Id.* at 92.

[50] Brief for Dumontier, et. al. as Petition for Writ of Certiorari at i, Dumontier v. Schlumberger, No. 08-745 (U.S. Dec. 8, 2008) [hereinafter Petition for Writ of Certiorari].

[51] Brief for Schlumberger Tech. Corp. as Brief in Opposition at 13, Dumontier v. Schlumberger, No. 08-745 (U.S. Jan. 9, 2009) [hereinafter Brief in Opposition].

[52] Petition for Writ of Certiorari, *supra* note 50, at 4.

arising out of or resulting from the radioactive, toxic, explosive, or other hazardous properties of source, special nuclear, or byproduct material."[53] According to the NRC, without an extraordinary nuclear occurrence, a claimant may pursue tort actions available under applicable state law.[54] The NRC regulations are binding on any nuclear operator issued a license to handle nuclear materials,[55] including Schlumberger.[56] The Ninth Circuit reasoned that the Act requires only the application of state substantive decision rules and the definition of bodily injury fails to satisfy the requirement.[57]

Referencing *In re Berg Litig.*,[58] a case involving several individuals exposed to radiation from the Hanford Nuclear Reservation for approximately fifty years, plaintiffs pointed-out that despite the *Dumontier* decision, the Ninth Circuit previously held that "there is no threshold harmful dosage level for radiation because it can cause harm at any level."[59] Plaintiffs also discussed the Sixth Circuit holding in *Rainer*,[60] which determined that analysis under state law would establish possible bodily injury to the plaintiffs.[61] Additionally, the plaintiffs referenced the Third Circuit's preemption analysis in *In re TMI Litig. Case Consol. II*, a lawsuit based upon the 1979 incident near Harrisburg, Pennsylvania at the Three Mile Island nuclear facility.[62] There, the Third Circuit held "in the Amendments Act [of the Price-Anderson Act], Congress relied upon state law as a foundation and effectuated its purpose by creating an overlay of federal law,"[63] and therefore, "the rules of decision for public liability actions filed in or removed to a federal court are . . . derived from the law of the State in which the nuclear incident occurs."[64] Plaintiffs also asserted that the Ninth Circuit's decision was inconsistent with the Seventh Circuit's analysis of the Price-Anderson Act in

[53] 42 U.S.C. § 2014(q) (2006).

[54] Petition for Writ of Certiorari, *supra* note 50, at 5-6.

[55] UNITED STATES NUCLEAR REGULATORY COMMISSION, NRC REGULATIONS TITLE 10: CODE OF FEDERAL REGULATIONS (2009), *available at* http://www.nrc.gov/reading-rm/doc-collections/cfr.

[56] Notice of Violation and Proposed Imposition of Civil Penalties, EA-03-010 Schlumberger Technology Corp., Oct. 14, 2003, http://www.nrc.gov/reading-rm/doc-collections/enforcement/actions/materials/ea03010.html.

[57] Petition for Writ of Certiorari, *supra* note 50, at 6.

[58] *In re* Berg Litig., 293 F.3d 1127, 1127 (9th Cir. 2002).

[59] Petition for Writ of Certiorari, *supra* note 50, at 7 (quoting *In re Berg Litig.*, 293 F.3d at 1129).

[60] Rainer v. Union Carbide Corp., 402 F.2d 608, 608 (6th Cir. 2004) (where uranium-enrichment plant workers were unknowingly exposed for years to harmful radioactive substances).

[61] Petition for Writ of Certiorari, *supra* note 50, at 7-8.

[62] *In re* TMI Litig. Cases Consol. II, 940 F.2d 832, 835 (3d Cir. 1991).

[63] Petition for Writ of Certiorari, *supra* note 50, at 9 (quoting *In re TMI II*, 940 F.2d at 855).

[64] *Id.* (quoting *In re TMI II*, 940 F.2d at 851).

O'Conner v. Commonwealth Edison Co., where a pipefitter sued for overexposure to radiation despite utilizing all of the provided safety equipment.[65] The court maintained that, as evidenced by the similar provisions of state law reflected in the Act, "Congress recognized that state law would operate in the context of a complex federal scheme which would mold and shape any cause of action grounded in state law."[66] Finally, plaintiffs relied on the decision in *Silkwood v. Kerr-McGee Corp.*,[67] where the Supreme Court acknowledged that Congress "intended to stand by both concepts" despite the tension between state and federal nuclear safety regulations.[68] Plaintiffs insisted this tension was inapplicable because the State accepted federal regulations as the standard of care,[69] and they were exposed to radiation doses in excess of the federal yearly limit.[70]

ii. Defendant's Argument

The defendant argued that the plaintiffs wrongly relied on state law to determine the meaning of bodily injury instead of looking at the congressional intent behind the Price-Anderson Act.[71] In *Rainer v. Union Carbide Corp.*, the Sixth Circuit reasoned that by specifying permissible types of damages allowed under 42 U.S.C. § 2014(q),[72] Congress intended to exclude damages, like subcellular damage, that are absent from the statute.[73] The defendant consequently concluded subcellular damages are not included in the Price-Anderson Act's definition of bodily injury.[74]

The defendant also attempted to discredit the plaintiffs' argument that the Ninth Circuit's decision contradicted the *Silkwood* case because the opinion addressed the pre-1998 Amendments Act of Price-Anderson.[75] The 1998 Amendments Act created a federal remedy for individuals exposed to radiation, which the defendant claimed eliminated the "'tension' between the

[65] O'Conner v. Commonwealth Edison Co., 13 F.3d 1090, 1093 (7th Cir. 1994).

[66] Petition for Writ of Certiorari, *supra* note 50, at 10-11 (emphasis omitted) (quoting *O'Conner*, 13 F.3d at 1100).

[67] 464 U.S. 238, 238 (1984) ("Administrator of estate of deceased laboratory analyst at federally licensed nuclear facility brought state law tort action against facility to recover for plutonium contamination injuries to analyst's person and property.").

[68] Petition for Writ of Certiorari, *supra* note 50, at 13 (quoting *Silkwood.*, 464 U.S. at 255-56).

[69] *Id.*

[70] *Id*.

[71] Brief in Opposition, *supra* note 51, at 13.

[72] 42 U.S.C. § 2014(q) (2006).

[73] Brief in Opposition, *supra* note 51, at 14 (citing Rainer v. Union Carbide Corp., 402 F.2d 608, 617 (6th Cir. 2004)).

[74] *Id.*

[75] *Id.* at 15.

preemption of nuclear safety and state punitive damages awards."[76] The defendant insisted that the Amendments Act eliminated any state causes of action, leaving the plaintiffs solely with a federal public liability action.[77] Emphasizing that asymptomatic subcellular damage was not bodily injury, the defendant maintained that, should any "real bodily injury, sickness, disease or death" ultimately result from the exposure, the plaintiffs would have appropriate legal recourse.[78]

2. State Claim Preemption

i. Plaintiffs' Argument

The provisions of the Price-Anderson Act only authorize federal jurisdiction over public liability action "arising out of or resulting from a nuclear incident, . . . not any incident in which radioactive material is involved."[79] The plaintiffs interpreted this provision to allow state tort claims for injuries not covered under the Price-Anderson Act. Plaintiffs maintained that the Third Circuit, Seventh Circuit, and Supreme Court all have held that a lack of federal jurisdiction under the Price-Anderson Act did not preclude state claims. In *In re TMI II*, the majority reasoned that, "[a]ny conceivable state tort action which might remain available to a plaintiff following the determination that his claim could not qualify as a public liability action, would not be one based on 'any legal liability' of 'any person who may be liable on account of a nuclear incident'."[80]

The concurring opinion clarified, "a finding that a particular claim does not fall within the definition of 'public liability' does not preclude the plaintiff from pursuing that claim in state court under a different name."[81] Moreover, in *O'Conner*, the Seventh Circuit held that the 1998 Amendments Act only expanded jurisdiction under the Price-Anderson Act to claims "arising from any nuclear incident, instead of actions arising only from [extraordinary nuclear occurrences]."[82]

Finally, in *Silkwood*, the Supreme Court asserted that,

> state law can be preempted in either of two general ways. If Congress evidence an intent to occupy a given field, any state law falling within that field is preempted. If Congress has not entirely displaced state regulation over the matter in question, state law is still preempted to the

[76] *Id.* at 16.

[77] *Id.* at 18 ("If plaintiffs cannot recover under a [Public Liability Action], they cannot recover at all.").

[78] *Id.* at 19.

[79] Petition for Writ of Certiorari, *supra* note 50, at 14.

[80] *Id.* at 15 (citing *In re* TMI Litig. Cases Consol. II, 940 F.2d 832, 854-55 (3d Cir. 1991)).

[81] *Id.* at 16.

[82] *Id.*

> extent it actually conflicts with federal law, that is, when it is impossible to comply with both federal and state law, or where the state law stands as an obstacle to the accomplishment of the full purposes and objectives of Congress.[83]

Plaintiffs argued that neither preemption factor was present in the case before the Supreme Court because: (1) the state and federal standards of care are based on the public federal dose maximum,[84] and (2) the purpose of the Act is to protect the public while fostering the atomic energy industry, using state law to define bodily injury would not "frustrate the purpose of the Act."[85]

ii. Defendant's Argument

Relying on both statutory language and language from four other circuit courts, the defendant refuted the plaintiffs' argument that if subcellular damage is not bodily injury under the Price-Anderson Act, it does not preclude state claims.[86] The defendant argued that because the statutory definition of "public liability" means "*any* legal liability arising out of or resulting from a nuclear incident," Congress eliminated the possibility of brining any state claims for injury or damages resulting from a nuclear incident.[87] The defendant referenced opinions from the Third, Sixth, Seventh, and Eleventh Circuits for support that "no state cause of action based upon public liability exists."[88] Reminding the Supreme Court that the plaintiffs agreed that their cause of action was a result of exposure to "byproduct material,"[89] the defendant again

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[83] *Id.* at 16-17.

[84] *Id.* at 17.

[85] *Id.*

[86] Brief in Opposition, *supra* note 51, at 21-23.

[87] *Id.* at 21.

[88] *Id.* at 22 ("The Amendments Act 'creat[ed] an exclusive federal cause of action for radiation injury.").

[89] 42 U.S.C. § 2014(e) (2006) ("The term 'byproducts material' means - (1) any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material; (2) the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content; (3)(A) any discrete source of radium-226 that is produced, extracted, or converted after extraction, before, on, or after August 8, 2005, for use for a commercial, medical, or research activity; or (B) any material that— (i) has been made radioactive by use of a particle accelerator; and (ii) is produced, extracted, or converted after extraction, before, on, or after the date of enactment of this paragraph for use for a commercial, medical, or research activity; and (4) any discrete source of naturally occurring radioactive material, other than source material, that— (A) the Commission, in consultation with the Administrator of the Environmental Protection Agency, the Secretary of Energy, the Secretary of Homeland Security, and the head of any other appropriate Federal agency, determines would pose a threat similar to the threat posed by a discrete source of radium-226 to the public health and safety or the common defense and security; and (B) before, on, or after August 8, 2005 is extracted or converted after

insisted that the plaintiffs could only seek damages for their 'subcellular injury' under the Price-Anderson Act.[90] The defendant's brief concluded by restating that the plaintiffs can file a federal claim after manifestation of symptoms resulting from the radiation exposure.[91]

III. *DUMONTIER V. SCHLUMBERGER*: LEGAL IMPLICATION

Although the United States Supreme Court denied the *Dumontier* petitions, the Court must eventually determine whether subcellular damage satisfies the definition of injury under the Price-Anderson Atomic Energy Act and its decision will have far reaching implications. Schlumberger's brief in opposition made an important point: if all subcellular change amounted to bodily injury, irrespective of actual harmful ramifications, then technically all radiation exposure would become a strict liability offense and the Price-Anderson Act would transform into an "unlocked cash register."[92] Alternatively, should the Supreme Court eventually follow the Ninth Circuit's reasoning, an equally devastating consequence will result. Potential plaintiffs suffering from radiation exposure, such as the employees in *Dumontier*, will have limited recourse for workplace injury. Most state-level workers compensation programs force employees to forgo their right to sue for workplace injury in exchange for predetermined conservative compensation. Therefore, if the Supreme Court finds in favor of nuclear operators, exposed workers will be unlikely to recover enough damages to compensate for their subcellular injury.

Even if the Supreme Court ultimately rules in favor of exposed workers, a multitude of new legal issues will quickly follow. First, is the difficult process of proving subcellular injury in an otherwise asymptomatic individual. Presently, individual gene mapping is not a component of the medical standard of care. Without this information it would be nearly impossible to determine whether subcellular abnormalities were present in an individual before the exposure. Second, if subcellular injury is established, the source of the harm would require identification. Some chemicals have signature symptoms that result from exposure. For example, inhalation of asbestos is frequently equated with both asbestosis[93] and mesothelioma.[94] Many chemicals,

extraction for use in a commercial, medical, or research activity.").

[90] Brief in Opposition, *supra* note 51, at 22.

[91] *Id.* at 23.

[92] Dumontier v. Schlumberger Tech. Corp., 543 F.3d 567, 571 (9th Cir. 2007), *cert. denied*, 129 S. Ct. 1329 (2009).

[93] U.S. Environmental Protection Agency, Asbestos Basic Information, http://www.epa.gov/asbestos/pubs/help.html (last visited Apr. 2, 2009) ("Asbestosis is a serious, progressive, long-term non-cancer disease of the lungs. It is caused by inhaling asbestos fibers that irritate lung tissues and cause the tissues to scar. The scarring makes it hard for oxygen to get into the blood. Symptoms of asbestosis include shortness of breath and a dry, crackling sound in the lungs while inhaling. There is no effective treatment for

however, do not have signature symptoms, making it exceedingly difficult to prove the source of the subcellular damage. The third potential complication resulting from this case is the timing component.[95] Schlumberger insisted that the exposed workers would have legal recourse if any symptoms manifested. Nevertheless, it is unclear what the proper statute of limitations should be, given the potentially lengthy period of time before symptoms arise. Scientists are just beginning to unlock the intricate secrets of the human genome and it is possible a damaged DNA molecule will not result in actual harm for generations. In conjunction with the timing issue implicated by the statute of limitations is the practice of medical monitoring. How long should exposed individuals be observed and for how many generations?

Though the Supreme Court has currently declined to rule on the matter, *Dumontier v. Schlumberger* brings to light issues that will have a substantial impact on toxic tort liabilities for years to come. Until then, lower circuits will continue to independently set the standards governing compensation for subcellular injury under the Price-Anderson Act.

asbestosis.").

[94] *Id.* ("Mesothelioma is a rare form of cancer that is found in the thin lining (membrane) of the lung, chest, abdomen, and heart and almost all cases are linked to exposure to asbestos. This disease may not show up until many years after asbestos exposure.").

[95] *See* Wajert, *supra* note 37.