IN THE TWENTY-FIRST JUDICIAL CIRCUIT
OF THE STATE OF MISSOURI
IN ST. LOUIS COUNTY

MICHAEL DAILEY
and ROBBIN DAILEY,
Plaintiffs,

vs.

BRIDGETON LANDFILL, LLC,
Serve at:
The Corporation Company
Resident Agent for Bridgeton Landfill, LLC
120 South Central Avenue
Clayton, MO 63105

REPUBLIC SERVICES, INC.,
Serve at:
CT Corporation Services
Registered Agent for Republic Services, Inc.
2390 E. Camelback Road
Phoenix, AZ 85016

ALLIED SERVICES, LLC,
Serve at:
The Corporation Company
Resident Agent for Allied Services, LLC
120 South Central Avenue
Clayton, MO 63105

ROCK ROAD INDUSTRIES, INC.,
Serve at:
C T Corporation System
Resident Agent for Rock Road Industries, Inc.
120 South Central Avenue
Clayton, MO 63015

MI HOLDINGS, INC.,
Serve at:
C T Corporation System
Resident Agent for MI Holdings, Inc.
120 South Central Avenue
Clayton, MO 63105

Cause No.

Division No.

JURY TRIAL DEMANDED

MALLINCKRODT, INC.,
Serve at:
CT Corporation System
Resident Agent for Mallinckrodt, Inc.
120 South Central Avenue
Clayton, MO 63105

COTTER CORPORATION,
Serve at:
The Corporation Company
Resident Agent for Cotter Corporation
7700 E. Arapahoe Road, Suite 220
Centennial, CO 80112

COMMONWEALTH EDISON COMPANY,
Serve at:
Corporate Creations Network IN
Resident Agent for Commonwealth Edison Company
350 S. Northwest Highway, Suite 300
Park Ridge, IL 60068

and

EXELON CORPORATION,
Serve at:
Corporate Creations Network IN
Resident Agent for Exelon Corporation
350 S. Northwest Highway, Suite 300
Park Ridge, IL 60068

Defendants.

PETITION

COME NOW Plaintiffs Michael Dailey Robbin Dailey, by and through their counsel, and for their Petition and causes of action against Defendants Bridgeton Landfill, LLC, Republic Services, Inc., Allied Services, L.L.C., Rock Road Industries, Inc., MI Holdings, Inc.,

Mallinckrodt, Inc., Cotter Corporation, Commonwealth Edison Company, and Exelon Corporation, state and allege as follows:

1. Since World War II, big companies have made significant profits processing, handling, and storing radioactive materials in the St. Louis area. This activity began six decades ago, when Mallinckrodt received in downtown St. Louis City special highly concentrated uranium with high levels of radium from Africa. This special ore was extremely toxic—more so than the ores available from anywhere else in the world. Despite the fact that these materials were some of the most harmful on Earth, Defendants moved them around St. Louis, treating the radioactive materials with less care than a reasonable person might give in moving common household garbage. Vast amounts of radioactive wastes were moved from downtown St. Louis to the St. Louis Airport, then to Hazelwood. The radioactive waste was finally dumped like trash into the West Lake Landfill—a Landfill that experts indicate is not even suitable for garbage.

2. Since then, that radioactive material, negligently dumped in an area surrounded by peaceful neighborhoods and playgrounds, has tormented the lives of everyday people—moms and dads who thought they were raising their kids in a clean home in a safe, quiet neighborhood; kids who want nothing more than to play in the backyard; and small business owners who had invested everything to build the American dream for their families. These everyday St. Louisans now find their lives disrupted, their kids sick, their homes contaminated, their businesses upended, and their properties worthless. They find their once-quaint neighborhoods filled with technicians testing and prodding their backyards and the dust of their vacuum cleaners to identify the quantity and the toxicity of the radioactive material Defendants have dumped into their lives.

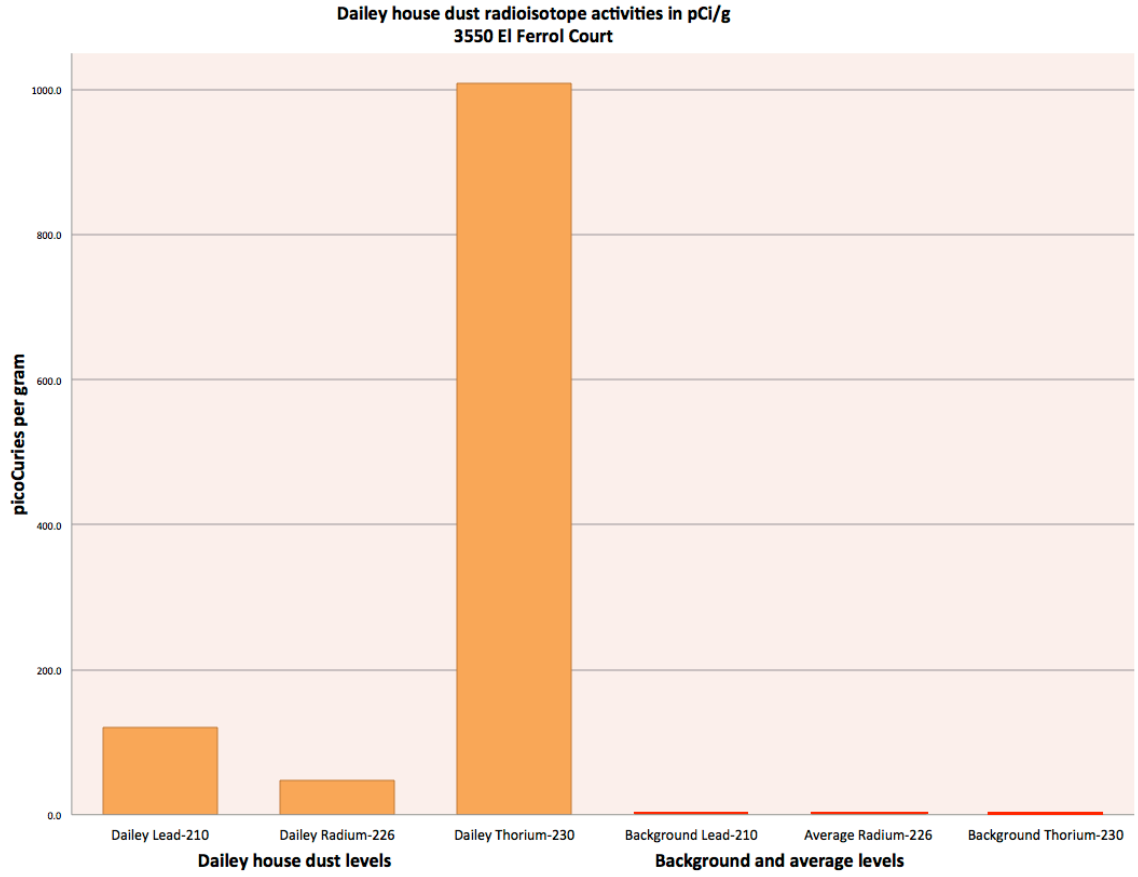
3. Tests now confirm that the areas around the West Lake and Bridgeton Landfills (referred to herein as the "Landfill" which consists of several inactive landfills including West Lake and Bridgeton) are contaminated with the same radioactive materials that Defendants brought from Africa, profited from in contracting for the Manhattan Project, and then carelessly and recklessly dumped in a Landfill, and otherwise spilled into the neighborhoods in transit and temporary storage. The off-site radioactive waste found today in the businesses and homes surrounding the Landfill has the fingerprint (or profile) of the highly toxic uranium ore from Africa processed in St. Louis and dumped into and around the Landfill.

4. These radioactive wastes are known human carcinogens that can cause chronic damage to the skin, reproductive system, blood forming system, digestive system, central nervous system, and immune system in addition to numerous cancers. Illnesses such as cancers or birth defects may take a number of years after exposure to the radioactive material to appear.

5. Defendants have failed to take responsibility for their negligent behavior, failed to clean up the area, failed to move the residents and businesses out, and failed to make amends for the widespread damage they have caused. Instead, Defendants have hidden behind misstatements and omissions, misleading the public about the widespread contamination Defendants have caused and minimizing the immense risks to public health and safety that resulted from Defendants' actions.

6. It is time that Defendants finally be held accountable for their reckless and tortious conduct. This particular lawsuit seeks to correct the harm Defendants inflicted on just a few of the victims.

7. Plaintiffs Michael Dailey and Robbin Dailey (hereinafter "Plaintiffs") own property in Bridgeton, Missouri that Defendants contaminated. The Dailey Property, including the land and Plaintiffs' home (hereinafter "Dailey Home"), is contaminated with radioactive material from the Landfill. The radioactive material consists of high levels of Uranium (U-238) decay products, including Thorium (Th-230), Lead (Pb-210), and Radon (Ra-226). Dusts inside the Dailey Home were shown to contain radioactive Th-230 at levels at least two hundred times higher than Background levels, as depicted in the graphic immediately below.



8. Plaintiffs Michael Dailey and Robbin Dailey have sustained significant damages as a result of Defendants' conduct. Defendants should remediate the Dailey Home and

compensate Plaintiffs for their damages, and provide further relief as set forth below in this Petition.

JURISDICTION, AUTHORITY, AND VENUE

9. This court has jurisdiction and authority over the subject matter and the parties in this case pursuant to Mo. Rev. State. §§ 27.060 and 526.010. Plaintiffs do not allege causes of actions arising under laws of the United States.

10. Venue is proper in this court pursuant to Mo. Rev. Stat. §508.010.5., because Defendants' conduct giving rise to this action took place in St. Louis County.

THE PLAINTIFFS

11. Plaintiffs Michael Dailey and Robbin Dailey are Missouri citizens who own real property located at 3550 El Ferrol Court, Bridgeton, Missouri (the "Dailey Property"). Plaintiffs purchased the home in 1999. The property is approximately 0.25 acres in St. Louis County adjacent to what is now the Landfill in Bridgeton, Missouri, more fully described as follows: Lot 18 in Subdivision Spanish Village Plat Two.

12. As a result of Defendants' acts and omissions, Plaintiffs have sustained significant damages including damages to the Dailey Property and the loss of use and enjoyment of the property. Plaintiffs first learned that the Dailey Property was contaminated with radioactive material in 2016.

THE DEFENDANTS

13. In this Petition, the defendants in this lawsuit are categorized into two groups.

14. The first group is the Landfill Defendants, which includes both owners and operators of the Landfill:

A. Landfill Owner Defendants

i. Bridgeton Landfill, LLC, which owns the Bridgeton and West Lake Landfills; and

ii. Rock Road Industries, Inc., which owned or owns the West Lake Landfill.

B. Landfill Operator Defendants

i. Republic Services, Inc., which owns, oversees, and directs the environmental decisions and conduct of Bridgeton Landfill, LLC, Allied Services, L.L.C., and Rock Road Industries, Inc., and operates the Bridgeton and West Lake Landfills; and

ii. Allied Services, L.L.C., which operates Bridgeton and West Lake Landfills.

15. The second group is the Radioactive Waste Defendants, which includes waste generators and waste disposers:

A. Radioactive Waste Generator Defendants

i. M Holdings, Inc., which is one of two successors to Mallinckrodt;

ii. Mallinckrodt, Inc., which is the other successor to Mallinckrodt;

B. Radioactive Waste Disposer Defendants, which include haulers, storers, and disposers:

i. Cotter Corporation, which purchased the radioactive mill tailings waste residues from the Hazelwood Interim Storage Site and shipped those wastes to the West Lake Landfill for disposal as clean fill;

ii. Commonwealth Edison Company ("ComEd"), which was the parent company of Cotter which agreed to indemnify Cotter for liability; and

iii. Exelon Corporation, which is the parent company of ComEd.

THE LANDFILL DEFENDANTS

16. Since at least November 2010, the Landfill Defendants have owned and operated the Bridgeton and West Lake Landfills.

17. Republic Services, Inc. ("Republic") is a Delaware corporation with its principal place of business in the State of Arizona that carries on continuous and systematic business activities within the State of Missouri.

A. Republic describes itself as "the second largest provider of services in the domestic non-hazardous solid waste industry, as measured by revenue as well as a Fortune 500 company, publicly traded on the New York Stock Exchange (NYSE; RSF)."[1] Despite Republic's record of violations and the widespread injuries resulting from Republic's conduct, Republic promises the public that it lives by "high environmental and sustainability standards."[2]

B. Republic's presence in Missouri is immense, servicing more than 300 cities and towns throughout the state, including many in St. Louis County.[3] Republic continuously and systematically avails itself of the protection of Missouri laws in

[1] https://www.republicservices.com/about-us
[2] http://www.republicservices.com/customer-support/facilities
[3] https://www.republicservices.com/locations/missouri

St. Louis County courts, and regularly appears to defend itself in lawsuits tried here.[4]

C. This lawsuit arises out of damages that resulted from Republic's acts and omissions within the State of Missouri. Since 2008, Republic and its subsidiaries have maintained daily operational and managerial control over the management and environmental decisions of the Bridgeton and West Lake Landfills, decisions which gave rise to the violations of law and damage to property alleged in this Petition. Republic did so directly and through its subsidiaries Allied Services, LLC, Bridgeton Landfill LLC, and Rock Road Industries, Inc.

18. Allied Services, LLC ("Allied"), a Delaware limited liability company with its principal place of business in the state of Arizona, is a wholly-owned subsidiary of Republic Services, Inc., that continuously and systematically conducts business in the State of Missouri under its own name and under the fictitious name "Republic Services of Bridgeton."

A. Allied conducts daily operations of the Bridgeton Landfill and the West Lake Landfill.

B. Allied regularly and routinely avails itself of the protection of Missouri laws in St. Louis County courts, and regularly appears to defend itself in lawsuits tried here.[5]

C. This lawsuit arises out of damages that resulted from Allied's acts and omissions within the State of Missouri. Since 2008, Allied has maintained daily operational and managerial control over the management and environmental decisions of the

[4] https://www.courts.mo.gov/casenet/cases/nameSearch.do
[5] https://www.courts.mo.gov/casenet/cases/nameSearch.do

Bridgeton and West Lake Landfills, decisions which gave rise to the violations of law and damage to property alleged in this Petition.

19. Bridgeton Landfill, LLC formerly "Laidlaw Waste Systems" ("Landfill Owner"), is a Missouri limited liability company with its principle place of business in the State of Missouri. It continuously and systematically conducts business activities in the State of Missouri.

A. Upon information and belief, Bridgeton Landfill, LLC owns the Bridgeton Landfill and the West Lake Landfill.

B. Bridgeton Landfill has continuously and systematically availed itself of the protection of Missouri laws in St. Louis County courts, and regularly appears to defend itself in lawsuits tried here.[6]

C. This lawsuit arises out of damages that resulted from Bridgeton Landfill's acts and omissions within the State of Missouri. Specifically, since 2008, Bridgeton Landfill has owned, operated and maintained daily operational and managerial control over the management and environmental decisions of the Bridgeton Landfill and the West Lake Landfill, which gave rise to the violations of law and damage to property alleged in this Petition.

20. Rock Road Industries, Inc. ("Rock Road") is a Missouri corporation with its principal place of business in St. Louis, Missouri. Rock Road is a wholly-owned subsidiary of

[6] https://www.courts.mo.gov/casenet/cases/nameSearch.do

Republic Services, Inc. that continuously and systematically conducts business in the State of Missouri.

A. This lawsuit arises out of damages that resulted from Rock Road Industries, Inc.'s acts and omissions within the State of Missouri. Upon information and belief Rock Road Industries, Inc. owns the West Lake Landfill along with Bridgeton Landfill, LLC. Rock Road Industries has maintained daily operational and managerial control over the management and environmental decisions of the West Lake Landfill, decisions which gave rise to the violations of law and damage to property alleged in this Petition.

THE RADIOACTIVE WASTE DEFENDANTS

21. The Radioactive Waste Defendants generated and improperly disposed of the radioactive waste throughout the St. Louis area. They improperly disposed of a significant portion of that waste in the West Lake Landfill.

22. The Radioactive Waste Generator Defendants are described below.

23. This lawsuit involves several Mallinckrodt entities, some of which are now defunct and some of which still exist and are defendants herein.

A. There are two Mallinckrodt Defendants, MI Holdings, Inc., and Mallinckrodt, Inc. Defendant Mallinckrodt, Inc., individually and as successor-in-interest to Mallinckrodt Missouri, is a Delaware corporation with its principal place of business in Mansfield, Massachusetts. Upon information and belief, in 1986, Mallinckrodt Missouri was broken up and sold to MI Holdings, Inc. and Mallinckrodt, Inc. Upon information and belief, Mallinckrodt Chemical Works is now known as or has been merged into MI Holdings and/or Mallinckrodt, Inc.

Both Mallinckrodt Defendants carry on continuous and systematic business operations in the State of Missouri. Both Mallinckrodt Defendants regularly and routinely avail themselves of the protection of Missouri laws in St. Louis County courts, and regularly appears to defend itself in lawsuits tried here. [7]

B. This lawsuit arises out of damages that resulted from the Mallinckrodt Defendants' conduct including acts and omissions within the State of Missouri, as well as the acts and omissions of the predecessors of the Mallinckrodt Defendants, which gave rise to the violations of law and damage to property alleged in the Petition.

24. On information and belief, MI Holdings, Inc. and Mallinckrodt, Inc. are successors to the businesses formerly known as Mallinckrodt Missouri, Mallinckrodt Chemical Works, and Mallinckrodt Nuclear Corporation. Accordingly, both Mallinckrodt Defendants are sued individually and as successors to Mallinckrodt Missouri, Mallinckrodt Chemical Works, and Mallinckrodt Nuclear Corporation.

25. This lawsuit arises out of damages that resulted from the Mallinckrodt Defendants' conduct including acts and omissions within the State of Missouri, as well as the acts and omissions of the predecessors of the Mallinckrodt Defendants, which gave rise to the violations of law and damage to property alleged in the Petition.

[7] https://www.courts.mo.gov/casenet/cases/nameSearch.do

26. Any reference in this Petition to Mallinckrodt Chemical Works, Mallinckrodt Missouri, or Mallinckrodt Nuclear Corporation should be treated as an allegation against both Mallinckrodt, Inc. and MI Holdings, Inc., unless specifically stated otherwise.

27. Mallinckrodt Chemical Works and Mallinckrodt Nuclear Corporation will be referenced together as "Mallinckrodt" whereas the term "Mallinckrodt Defendants" refers to MI Holdings, Inc., and Mallinckrodt, Inc.

28. The Radioactive Waste Disposer Defendants are described below.

There are four defendants that relate in some way to Cotter Corporation, the owner and disposer of the radioactive mill tailings residue wastes: Cotter Corporation ("Cotter"), Commonwealth Edison Company ("ComEd"), Cotter Corporation ("Cotter"), Exelon Corporation ("Exelon"), and Exelon Generation Company, LLC ("Exelon Generation")

29. Cotter Corporation ("Cotter") is a Colorado corporation with its principal place of business in Englewood, Colorado, which operates as a subsidiary of General Atomics, Inc., a California corporation. It was purchased by and became a wholly owned subsidiary of Commonwealth Edison in 1975.

A. Cotter continuously and systematically carries on business activities in the State of Missouri in its own name, through its parent companies ComEd and Exelon, as well as through its subsidiary General Atomics, Inc.

B. This lawsuit arises out of damages that resulted from the Cotter Defendants' conduct including acts and omissions within the State of Missouri, as well as the acts and omissions of the predecessors of the Cotter Defendants, which gave rise to the violations of law and damage to property alleged in the Petition.

30. Commonwealth Edison Company ("ComEd") is an Illinois corporation, whose former subsidiary corporation, Cotter, conducted business operations at the West Lake in Bridgeton, Missouri. Upon the sale of Cotter, ComEd agreed to indemnify Cotter for certain liabilities associated with the West Lake Landfill.

A. ComEd continuously and systematically carries on business activities in the State of Missouri, both on its own and through its subsidiaries including Cotter and its parent company Exelon. In addition, ComEd owned Cotter at times relevant to this Petition, and agreed to indemnify Cotter for liabilities associated with the West Lake Landfill. ComEd regularly and routinely avails itself of the protection of Missouri laws in St. Louis County courts, and regularly appears to defend itself in lawsuits tried here.[8]

B. This lawsuit arises out of damages that resulted from the ComEd Defendants' conduct including acts and omissions within the State of Missouri, as well as the acts and omissions of the predecessors of the ComEd Defendants, which gave rise to the violations of law and damage to property alleged in the Petition.

31. Exelon Corporation ("Exelon"), the parent company of ComEd, is a Pennsylvania corporation with its principal place of business in Chicago, Illinois. Exelon, through its subsidiaries including Cotter and ComEd, conducted business at the West Lake Landfill in Bridgeton, Missouri.

[8] https://www.courts.mo.gov/casenet/cases/nameSearch.do

A. Exelon is the parent company of ComEd and, through its subsidiaries including Cotter and ComEd, continuously and systematically carries out business activities in the State of Missouri. Exelon regularly and routinely avails itself of the protection of Missouri laws in St. Louis County courts, and regularly appears to defend itself in lawsuits tried here.[9]

B. This lawsuit arises out of damages that resulted from the Exelon Defendants' conduct including acts and omissions within the State of Missouri, as well as the acts and omissions of the predecessors of the Exelon Defendants, which gave rise to the violations of law and damage to property alleged in the Petition.

32. Exelon Generation Company, LLC ("Exelon") is a Pennsylvania corporation with its principal place of business in Kennett Square, Pennsylvania. Upon information and belief in connection with Exelon's corporate restructuring in 2001, the responsibility to indemnify Cotter, previously held by Exelon was transferred to Exelon Generation Company, LLC.

A. Exelon Generation regularly and routinely avails itself of the protection of Missouri laws in St. Louis County courts, and regularly appears to defend itself in lawsuits tried here.

B. This lawsuit arises out of damages that resulted from the conduct including acts and omissions of Exelon Generation and their subsidiaries, agents, and representatives within the State of Missouri, which gave rise to the violations of law and damage to property alleged in the Petition.

[9] https://www.courts.mo.gov/casenet/cases/nameSearch.do

FACTS

Radioactive Wastes

33. Ounce for ounce, radioactive isotopes (including Uranium-238, Thorium-230, and Radium-226) are considered among the most toxic materials known to man.

34. The particular radioactive wastes generated in St. Louis and dumped in and around the Landfill come from some of the most toxic uranium ore known to man. As reported in the scientific literature:

> The residue wastes disposed in the West Lake Landfill were mostly generated from ore of the Shinkolobwe mine in the Belgian Congo. Described as a "freak occurrence of nature" by a top official of the early U.S. nuclear weapons program, the Congo mine yielded the highest concentrations of uranium (30-70%) of any mine found in the world since that time. By comparison the Congo ore contained as much as 7,000 times the concentration of uranium mined in the United States (~1%). Between 1942 and 1958, the Mallinckrodt plant in St. Louis processed approximately 50,000 tons of uranium of which roughly 40 percent (20,000 tons) were from the Shinkolobwe mine [in Africa].[10]

35. The scientific literature reports that these are the radioactive isotopes that have contaminated the Landfill, which borders the Plaintiffs' property. The 2006 historical reference addressing the history of radioactive contamination of St. Louis from the Manhattan Project wastes states: "According to the NRC, the following materials are present in the Landfill and present a radiological hazard to human health and the environment: Radium-226; Uranium-238;

[10] Robert Alvarez, *The West Lake Landfill: A Radioactive Legacy of the Nuclear Arms Race* 8, Nov. 21, 2013 (footnotes and citations omitted) [hereinafter "Alvarez (2013)"]; *see also* Denise DeGarmo, *The Disposal of Radioactive Wastes in the Metropolitan St. Louis Area, The Environmental Health Legacy of the Mallinckrodt Chemical Works* 57, 62, 143 (Edwin Mellen Press 2006) (footnotes omitted) [hereinafter "DeGarmo (2006)"].

Uranium-234; Thorium-230 and protactinium."[11] The 2013 Report of Dr. Robert E. Criss, Department of Earth and Planetary Sciences, Washington University St. Louis, Missouri also stresses that the radioactive compounds at the West Lake Landfill are the most dangerous threats the contaminated Landfill poses:

> No available reports mention any accurate analysis of the chemical, physical or radiological character of the radioactive materials dumped at West Lake. Note that neither barium nor sulfate are contaminants of concern, nor is the uranium concentration of the radwaste, alleged to be similar to that of low-grade uranium ore, of primary environmental importance. Instead, the real concerns involve the concentrations of the short-lived, daughter radionuclides in the ^{238}U, ^{235}U and ^{232}Th decay chains, particularly ^{230}Th, ^{226}Ra, ^{228}Ra, ^{223}Ra, ^{210}Po, and three daughter radon isotopes, in the radwaste that was dumped.[12]

36. Radiation is a type of energy transmitted over a distance. Some materials spontaneously emit radiation through a process known as radioactive decay. As these materials decay they release radiation energy and transform into other radioactive materials which will then also decay by releasing radiation energy and transforming into other materials. For example Uranium-238 eventually decays into Thorium-230 which decays into Radium-226.

37. Some radiation energies, including the radiation from the decay of radioactive materials used in nuclear and atomic processes such as Uranium, have the ability to penetrate other material. When radiation energy interacts with other material, it causes a process called

[11] DeGarmo (2006) at 132.

[12] Robert E. Criss, *Risk and Character of Radioactive Waste at the West Lake Landfill* 1, *Bridgeton, Missouri, Department of Earth and Planetary Sciences, Washington University, St. Louis, MO*, Mar. 14, 2013 (footnotes omitted) [hereinafter "Criss (2013)"].

ionization[13] which can damage chemical structures. When the "other material" that ionizing radiation passes through is human cells, it can cause damage within those cells resulting in mutation in genetic material which can lead to cancer and other harms.

38. People are exposed to radiation in two ways: external exposure from radioactive material in the environment and internal exposure by radioactive material that has entered the body. Radioactive material can be taken into the body by consuming foodstuffs and liquids with radioactivity in them, by inhaling radioactive gases or aerosol particles, or by absorption through wounds in the skin. The material taken in will internally expose the organs and tissues for as long as it remains inside the body.

39. One characteristic of the impact of exposure to ionizing radiation on the human body through both internal and external exposure is that even if the energy absorbed is low, the biological effects can still be gravely serious. The second characteristic is that there are latent biological effects of radiation.

40. The injuries resulting from exposure to ionizing radiation can also be separated into two categories: somatic injuries and genetic injuries. Somatic injuries are damages to the individual exposed. This can be damages to the skin, reproductive system, blood forming

[13] Ionizing radiation is described as follows in the literature: "Ionizing Radiation is a form of radiation that includes alpha particles, beta particles, gamma rays, x-rays, neutrons, high-speed electrons, high-speed protons, and other particles capable of producing ions. Ionizing radiation has enough energy to cause changes in atoms through a process called ionization. Ionization can affect the atoms in living things and depending on the dose and exposure, can pose a serious health risk to humans. Ionizing radiation has sufficient energy to cause chemical changes in cells, causing damage to tissue and DNA in genes. https://www.epa.gov/radiation/radiation-health-effects

system, digestive system, central nervous system, and immune system, as well as cancers. Illnesses such as cancers may take a number of years to appear.

41. Genetic injury is damage to the reproductive cells of the exposed individual in the form of mutation of their genetic cells. As a result, the probability of detrimental effects to the descendants of the exposed persons may greatly increase. These genetic mutations can be passed down to a person's offspring even generations later. These injuries include birth abnormalities and cancer.

42. One of the most dangerous aspects of radioactive materials is the length of time that radioactive isotopes will persist and accumulate in the environment. As detailed above, radioactive materials decay over time and each radioactive material gives off radiation energy as it decays and transforms into a different material. The rate at which a radioactive isotope decays is measured in half-life. The term "half-life" is defined as the time it takes for one-half of the atoms of a radioactive material to disintegrate. For example, after one half life, there will be one half of the original material, after two half-lives, there will be one fourth the original material, after three half-lives one eight the original sample, and so forth.

43. Uranium-238 has a half-life of 4.5 billion years. Thorium-230 has a half-life of 75,438 years. Radium-226 has a half-life of 1,600 years. Uranium-238 eventually decays to Thorium-230 which decays into Radium-226. This means that as the Thorium decays, it increases the Radium-226 at the Landfill and in the surrounding environment. Furthermore half of the hazardous, carcinogenic Radium-226 currently contaminating the West Lake Landfill will still remain as a grave problem even after 1,000 years from now if it is not physically removed. This is described in the scientific literature as follows:

> Importantly, because the concentrations of short-lived radionuclides will progressively increase, the radioactivity at the site will likewise increase for the foreseeable future. For example, according to NRC, if the present day activity of ^{230}Th is estimated to be 100 times that of ^{226}Ra, then the alpha activity due to ^{226}Ra decay will increase fivefold over present levels in 100 years, nine-fold in 200 years, and 35-fold in 1000 years.[14]

Radioactive Waste in the St. Louis Area

44. From 1942 to 1957, Mallinckrodt brought various forms of highly toxic Uranium compounds to downtown St. Louis City for processing.[15]

45. At the time, Mallinckrodt was a private contractor to supply Uranium processing services to the government organizations involved in the Manhattan Project through contracts with the Manhattan Engineer District and the Atomic Energy Commission. The Manhattan Project was the U.S. research project designed to develop the first nuclear weapons.

46. Mallinckrodt's downtown facility was known as the St. Louis Downtown Site (the "Downtown Site"). The Downtown Site is about 210 acres of land 300 feet west of the Mississippi River. It is located just north of the Lumiere Casino, the Four Seasons Hotel, the Edward Jones Dome, and the Arch. The Downtown Site was used to process Uranium. Milling is the first step in processing natural Uranium ore into fuel for nuclear reactors. Uranium mills use chemicals to extract Uranium and make "yellowcake"—a yellow powder that can be processed into nuclear fuel. During the extraction of yellowcake from the Uranium ore, Uranium mills generate a sandy process waste material known as "mill tailings." These "mill tailings"

[14] Criss (2013) at 2-3 (citations omitted).
[15] *See* n.10 (citing Alvarez (2013) and DeGarmo (2006)).

contain radioactive decay products such as Radium-226 and Thorium-230, as well as heavy metals.

47. At the Downtown Site, Mallinckrodt manufactured yellow cake from pitchblende ore. The pitchblende ore originated in the Shinkilovwe mine in the Democratic Republic of the Congo. It is known in the industry as "Congo ore," "Belgian Congo ore," or "monazite" ore. The history of the Mallinckrodt radioactive material operation going back to 1942 is a history of reckless treatment of these radioactive materials and a failure to protect its workers and the community from radioactive hazards:

> Throughout the initial years of production, Mallinckrodt Chemical Works was considered a dirty operation because so few controls were in place to protect the workers.
>
> ****
>
> In March 1945, MCW [Mallinckrodt] realized that radiological hazards were not only affecting the workers, but had the potential of affecting populated areas around the downtown site.
>
> ****
>
> Increased processing demands also led to the release of hazardous waste into the atmosphere and waterways surrounding the downtown St. Louis plant. Thousands of pounds of radioactive dust spewed from Mallinckrodt's smoke stacks each year while 3 million gallons of water a day of uranium laced waste were pumped into the Mississippi River.[16]

48. In the late 1940s, the Manhattan Project acquired a 21.7-acre tract of land near Lambert airport to store the Uranium ore mill tailings wastes and scrap from the Uranium processing operations at the Downtown Site. The storage site near the airport is now referred to as the St. Louis Airport Site or SLAPS ("SLAPS").

[16] DeGarmo (2006) at 70, 72, 73 (footnotes omitted).

49. Mallinckrodt continued processing Uranium at the Downtown Site through 1957. The resulting radioactive mill tailings wastes accumulated at SLAPS. These mill tailings materials included pitchblende raffinate residues, Radium-bearing residues, Barium Sulfate cake, Colorado raffinate residues and were stored at SLAPS along with contaminated scrap. Some of the mill tailings were stored in bulk on open ground in mill tailings piles.

50. In 1957, "approximately sixty truckloads of contaminated scrap metal, several contaminated vehicles, in addition to miscellaneous radioactive wastes [including Uranium ore mill tailings] were buried on western portion of SLAPS adjacent to Coldwater Creek."[17]

51. In the 1960's, leftover mill tailings (ore residues, and uranium, and radium-bearing process wastes) that had been stored at SLAPS were moved to a storage site on Latty Avenue in Hazelwood, Missouri (the "Latty Avenue Site"). Mill tailings at the Latty Avenue Site included about 68 tons of Uranium, consisting of: 74,000 tons of Congo pitchblende raffinate containing about 13 tons of Uranium; 32,500 tons of Colorado raffinate containing roughly 48 tons of uranium; and 8,700 tons of leached Barium Sulfate containing about 7 tons of Uranium.[18]

52. In the late 1960's, Cotter purchased Uranium mill tailings stored at both SLAPS and at the Latty Avenue Site including 8,700 tons of leached Barium Sulfate that was being stored at the Latty Avenue Site.

53. In or about 1973, Cotter mixed the 8,700 tons of leached Barium Sulfate with about 38,000 tons of radioactively contaminated soil. Upon information and belief, Cotter

[17] DeGarmo (2006) at 123 (footnotes omitted).
[18] *See* n.10 (citing Alvarez (2013) and DeGarmo (2006)).

described and marketed the mixture of radioactive waste and contaminated soil as suitable for "daily cover" for Landfill operations. Daily cover is the layer of soil that is laid on top of the day's deposition of waste at an operational landfill.

54. In 1973, Cotter dumped this radioactive waste [including Uranium ore mill tailings] and contaminated soil in the West Lake Landfill.

55. The scientific literature summarizes this dumping as follows:

> In 1973, 8700 tons of radionuclide-bearing "leached barium sulfate" was allegedly dumped in an unlined Landfill in Bridgeton, MO that was not licensed to receive radwaste. This report finds that 1) the chemical and physical character of the radioactive materials has not been adequately characterized, and barium sulfate is probably not a major constituent; 2) the alpha and beta emissions of this material will increase 10x to 100x over present levels, reaching maximum activity in about 9000 years; 3) the Landfill has no protective barriers and a proximal subsurface fire; 4) the site has several hydrologic and geologic risk factors that magnify its unsatisfactory location in a populated area; 5) nuclear material has been in contact with percolating waters and with a fluctuating water table; 6) groundwaters contaminated with radionuclides have migrated far from the original location of disposal; 7) background levels of radiation have been overstated, while other risks have been underestimated ….[19]

The Landfill

56. The West Lake Landfill is situated on about 200 acres at 13570 St. Charles Rock Road, in the City of Bridgeton. The Missouri River lies about one and one-half miles to the north and west of the Landfill. A shallow aquifer lies beneath the West Lake Landfill and surrounding neighborhoods.

[19] Criss (2013) at 1.

57. Originally used for agriculture, the land became a limestone quarrying and crushing operation in 1939.

58. Beginning in the early 1950s, portions of the quarried areas and adjacent areas were used to dispose of municipal refuse, chemical wastes, industrial solid wastes, and construction/demolition debris.

59. In 1969, Cotter purchased mill tailings material remaining at the Latty Ave storage site. In 1973 Cotter took 8,700 tons of that material, mixed it with approximately 38,000 tons of contaminated soil, and transported it to the West Lake Landfill for disposal. Upon information and belief, Cotter described and/or marketed the mixture of radioactive waste and contaminated soil as suitable for "daily cover" for Landfill operations.

60. The literature clearly documents that the Landfill was never an adequate storage or disposal site for this highly radioactive contaminated waste. In a 2013 report entitled *The West Lake Landfill: A Radioactive Legacy of the Nuclear Arms Race*, researcher Robert Alvarez stated:

> The West Lake municipal Landfill in Bridgeton, Missouri is not your ordinary solid waste Landfill. By virtue of the highly radiotoxic wastes dumped there, it is a *de facto* nuclear waste disposal site – a legacy of the U.S. nuclear weapons program. Created by illegal dumping in 1973, the waste residues originated from the Mallinckrodt Chemical Works in St. Louis which was involved in U.S. nuclear weapons program from the 1942 to late 1950s.[20]

[20] Robert Alvarez, *The West Lake Landfill: A Radioactive Legacy of the Nuclear Arms Race* 1, Nov. 21, 2013 (footnotes and citations omitted) [hereinafter ("Alvarez (2013)"].

The Landfill contained a greater amount of Thorium-230, a highly radioactive compound, than every nuclear weapons or disposal site in the U.S.

> Of significance is the fact that the largest estimated amount of thorium-230, a long-lived, highly radiotoxic element is present at West Lake – more than any other U.S. nuclear weapons storage or disposal site. Soil concentrations of radium-226 and thorium-230 are substantially greater than uranium mill tailing waste. The waste residues generated at the Mallinckrodt site were found to contain the largest concentration of thorium-230 from any single source in the United States and possibly the world. Thorium-230 concentrations were found to be some 25,000 greater than its natural isotopic abundance. With a half-life of 77,500 years, thorium-230 makes up more than 80% of the measured radioactivity in soil at West Lake above cleanup limits set by the Department of Energy (DOE). Moreover, as the thorium-230 decays to radium-226, it will increase the radioactivity in the Landfill 10 to 100 times over a 9,100 year period.[21]

61. Because the Landfill was never properly designed to hold such wastes, the surrounding communities are now contaminated. As Kaltofen reports:

> The St. Louis, MO, region legacy sites hosted war-time uranium ore processing activities that provided material for Enrico Fermi's first nuclear pile, the Manhattan Project, and the Cold War. Uranium ore processing wastes from the Mallinckrodt plant in St. Louis, were disposed of around Greater St. Louis, MO, and are being redistributed by surface waters and by winds.[22]

62. The inadequacies of the Landfill itself are described in the scientific literature as follows:

> Although the West Lake Landfill contains significant amounts of long-lived radiotoxic wastes such as those contained in federally licensed commercial radioactive waste Landfills, it meets virtually

[21] Alvarez (2013) at p. 1 (footnotes and citations omitted).
[22] Kaltofen (2016) at p. 104.

> none of legal requirements governing shallow radioactive waste disposal to prevent off-site migration.[23]

63. The data collected around the Landfill, as inadequate as it is, documents radioactive contamination of soil, water, and air.

> Onsite 226Ra concentrations in soils as high as 21,000 pCi/g were measured, compared to estimated background levels of 2 pCi/g. Elevated radium contents above the EPA's MCL of 5 pCi/l are also widespread in both the alluvial and bedrock aquifer within about 1500 feet of Areas 1 and Area 2. Airborne surveys established that external radiation levels exceeding 100μR/hr, while distal samples were <10 μR/hr. Levels recorded one meter above Area 2 were as high as 3-4 mR/hr, or as much as 400x higher than background. NRC reports that the subsequent addition of soil cover and construction debris to Areas 1 and 2 diminished these levels several fold.[24]

64. The Landfill stopped accepting waste on December 31, 2004 and is now used as a transfer station for municipal wastes.

65. The Landfill waste mass encompasses approximately 52 acres with approximately 240 feet below the ground's surface and a total waste thickness of 320 feet.

[23] Kaltofen (2016) at 104.
[24] Criss (2013) at 2 (citations omitted)

Radioactive Waste at the West Lake Landfill

66. Defendants caused or contributed to improper generation, handling, storage, and disposal of an estimated 500,000 cubic yards of radioactive wastes in the West Lake Landfill. As a result, about 15 acres of the West Lake Landfill are filled with radioactive waste at depths up to 20 feet.

67. Upon information and belief, Defendants who operated the West Lake Landfill used the radioactive waste mixed with radioactive soil prepared by Cotter as daily cover in its Landfill operations thereby spreading the waste throughout the Landfill.

68. Defendants did not take necessary safety precautions when disposing of and handling the radioactive wastes and radioactive soil to prevent off-site contamination.

69. The staff of the West Lake and Bridgeton Landfills were neither qualified, nor trained to handle or dispose of radioactive wastes in a safe manner.

70. The West Lake Landfill was not intended, nor designed to contain radioactive wastes. In reality, West Lake Landfill is a chaotic pile of debris covered by unmanaged "natural vegetation, surrounded by a fence with radioactive [warning] signs." Given the significant design and operational deficiencies, experts contend that the West Lake Landfill is even unsuitable for ordinary domestic waste.[25]

The Fire

71. The Landfill has experienced problems with subsurface fires throughout its operational history. Despite having past experiences with subsurface fires, sufficient

[25] Criss (2013) at 4.

precautionary measures were not implemented to prevent future fires or to protect the radiologically contaminated areas from being affected.

72. Upon information and belief, Landfill Defendants discovered high temperatures in several monitoring wells. Landfill Defendants finally reported to authorities that the Landfill was experiencing high temperatures on extraction wells evidencing a subsurface smoldering event.

73. Since then, the smoldering has intensified into a spreading subsurface fire evidenced by surface soil settlement, increased odors, elevated hydrogen levels, and high temperatures. High temperatures and smoke caused by the fire could mobilize radionuclides into the air and ultimately into soil, surface water, ground water.

74. If the subsurface fire reaches the radioactively impacted portions of the West Lake Landfill, the hot gases from the fire will likely cause fissures in the overburden material. These fissures may allow additional quantities of radioactive radon gas to escape the Landfill and become deposited as Lead-210 onto Plaintiffs' property as it decays.

75. A subsurface fire in the radioactively contaminated areas would be expected to create increased pressure conditions within the Landfill and force out entrained radioactive gases, including radon which is extremely toxic to breathe. A subsurface fire may be present in the radioactively contaminated areas for a long period of time before it is detected, because the only apparent means to detect a subsurface smoldering event after closure is through annual visual inspections.

76. Another effect of a subsurface fire or smoldering event would be increased leachate production which has been observed in the Bridgeton Landfill from condensation of large amounts of steam.

77. The literature describes the risk of the West Lake underground fire as follows:

> An underground fire is currently ongoing in the municipal Landfill (OU-2) that is immediately south of Area 1 of OU-1. Such fires can burn for years, creating high underground temperatures, and releasing carbon monoxide, dioxins, VOCs and other noxious chemicals, and particulates into air. Numerous people who reside near the Landfill complained about odor and health problems at the January 17, 2013 public meeting in Bridgeton. Risks for adjacent, radionuclide-bearing OU-1 include but are not restricted to the following 1) fire can spread from OU-2 into OU-1, particularly because demolition and construction Landfills are known to have much higher risk than municipal Landfills; 2: subterranean fires can result in Landfills collapse, landslides and slumping, endangering personnel and exposing dangerous materials to the surface; 3) Landfill fires have high explosion risk because of methane, gas cylinders, and drums; 4) high temperatures and smoke could mobilize radionuclides into surface water, ground water and air.[26]

78. There are at least two human exposure risk pathways that would exist from a subsurface smoldering event or subsurface fire reaching the radioactive materials. The first is the risk of people being subjected to increased air exposures to contaminants such as breathing in Radon gas, Radon-226. As airborne concentrations of Radon gas increase, so would the risk to the neighboring population of breathing in Radon gas and developing injuries such as lung cancers. Additionally, as Radon gas decays it will become deposited onto people's property and in their homes as radioactive Lead-210 which would subject people to increased risk of internal

[26] Criss (2013) at 4-5 (citations omitted).

exposure to radioactive materials. The second pathway is increased leachate production that could further move contaminants and radioactive materials into the groundwater.

79. Despite these risks, the Landfill Defendants have allowed the subsurface fire to spread uncontrolled.

80. From the start of the subsurface smoldering event and throughout the subsequent fire, Plaintiffs have regularly encountered noxious, putrid, and offensive odors on their property coming from the Landfill, which diminishes quality of life and results in lost property value.

The Spread of Defendants' Nuclear Waste to Off-Site Businesses and Homes

81. Defendants have violated standards for protection against radiation. Defendants' negligent generation, handling, storage, and disposal of radioactive wastes and radioactive soil as daily cover caused dangerous contaminants to be deposited in several areas throughout the Landfill site and to be highly susceptible to off-site migration of radioactive materials including Radon gas, radioactive particles, and radioactively-contaminated groundwater.

82. An example of water impacts of the Landfill will put this in perspective. Every day, the Landfill generates about 150,000 gallons of contaminated hazardous liquid waste. In a doomed attempt to capture that waste, the Landfill Defendants installed a leachate collection system. But the leachate collection system itself was inadequate and has resulted in spills, releases, and leaks that have contributed to the groundwater and surface water contamination in the area.

83. Radiological and organic contamination was also detected in trees adjacent to and off-site from the Landfill in the vicinity of the Dailey Property. The presence of radioactive contamination in the trees resulted from the uptake of off-site contamination from the Landfill.

84. Recent studies of the Landfill area document radioactive Radon gas emissions from the Landfill are falling out and contaminating soil. Kaltofen reported the following:

> Levels of ^{210}Pb in key samples were well above background activies, and were significantly out of secular equilibrium with other members of the uranium decay chain. This is strong evidence that the ^{210}Pb originated by decay of short-lived, fugitive radon gas that escaped the Landfill.[27]

85. In addition recent studies of surface water runoff from the Landfill, particularly after heavy rains, document radioactive contaminated surface water runoff to off-site properties.[28]

86. Critical to the legacy of radioactive particles contaminating the homes and communities surrounding the Landfill is that:

a) The radioactive contamination has gone *off-site*, and

b) The off-site radioactive contamination has the *fingerprint* (or profile) of the highly toxic African Congo Uranium ore that was processed by Mallinckrodt for the Manhattan Project in St. Louis and dumped at SLAPS, Latty Avenue and in and around the Landfill.

The fact of off-site radioactive contamination is documented in the historical and scientific literature.

[27] Kaltofen (2016) at 110.
[28] EPA Finds Radiation in West Lake Landfill Runoff, *CBS St. Louis*, May 26, 2016, http://stlouis.cbslocal.com2016/05/26/epa-finds-radiation-inwestlake-landfill-runoff.

87. The contamination of the St. Louis communities surrounding Landfill was not limited to emissions directly from West Lake, it also occurred as a result of decades of careless and reckless hauling and storage of the wastes. As reported in the historical literature:

> Careless management, inadequate containment, and slipshod transportation practices characterize the nuclear legacy of St. Louis and the Metro-East. Nuclear weapons production has resulted in the contamination of the banks of the Missouri and Mississippi Rivers.[29]

88. A recent study of wastes that have come from the Landfill and migrated off-site to contaminate local businesses and homes stated the following:

> Analysis of 287 soil, sediment and house dust samples collected in a 200 km^2 zone in northern St. Louis County, Missouri, establish that off-site migration of radiological contaminants from Manhattan Project-era uranium processing wastes has occurred in this populated area.[30]

Concealment of Facts Related to Risk

89. Republic and other Defendants through their silence have reassured the public and Plaintiffs that the Landfill has not contaminated nearby properties. In particular, Republic and its representatives have made misrepresentations that were meant to assure Plaintiffs that:

a) Any suspicion of off-site contamination from the Landfill are merely rumors "being spread by alarmists."[31]

[29] DeGarmo (2006) at 113.
[30] Marco Kaltofen et al, Tracking legacy radionuclides in St. Louis, Missouri, via unsupported ^{210}Pb at 104-111, *Journal of Environmental Radioactivity*, Vol. 153 (2016) [hereinafter "Kaltofen (2016)"].
[31] Jacob Barker, Radium above federal guidelines in groundwater near West Lake at 2, *St. Louis Today*, Dec. 17, 2014.

b) Its activities "should reassure the community that they are safe from and not being exposed to any risk from groundwater beneath West Lake Landfill."[32]

c) The Landfill's neighbors, including the Plaintiffs "can rest assured that they are safe."[33]

d) The fire and Landfill are both at a "managed state."[34]

e) The waste at the Landfill presents no danger to public health.[35]

Defendants' Radioactive Particles Contaminated the Plaintiffs' Property

90. The Dailey Property is contaminated by radioactive material.

91. Samples taken on and around the Dailey Property confirm a highly elevated presence of radioactive particles in the soil and dust.

92. Dust samples from inside the Dailey Home contain decay products of radioactive isotopes U-238, including Th-230, Ra-226 and Pb-210, which match the Mallinckrodt waste fingerprint (the African Uranium ore profile) identified in Kaltofen (2016). These dusts show levels of radioactive Th-230 at least two hundred times above background.

93. The Dailey Property neighbors the West Lake Landfill. This proximity puts the Dailey Property in the direct path of radioactive air emissions, radioactive particles distributed by the wind blowing such contamination off the site in dirt and dust, Radon gas, and frequent offensive odors; all of which emanate from the West Lake Landfill.

[32] *Id.*
[33] Jacob Barker, Frustration with EPA handling of West Lake growing at 5, *St. Louis Today*, Jan. 3, 2015.
[34] *Frustration with EPA handling of West Lake growing*, Jacob Barker, St. Louis Today, January 3, 2015 at p. 5.
[35] *Id.*

94. The Kaltofen (2016) published scientific paper identified "strong evidence of short lived fugitive radon gas that escaped from the landfill."[36] These air emissions fall out to soil and dust as ^{210}Pb, a highly radioactive isotope.

95. It is also clear that radioactive material will be distributed from the Landfill "by surface water and winds."[37] The surface water runoff threat is heightened during periods of high rainfall and flooding, and has been documented.[38]

96. Frequent offensive odors from the Landfill are experienced by Plaintiffs.

97. These various forms of radioactive contamination (soil, dust, and Radon gas) that have polluted the Dailey Property and continue to threaten to further pollute the Dailey Property match the Mallinckrodt waste fingerprint (or profile).

98. This radioactive contamination on Plaintiffs' property migrated from the Landfill (and was spilled during transport to the Landfill). The contamination was caused by the Defendants' improper generation, handling, storage, and disposal of radioactive materials.

99. Radioactive contamination of the Dailey Property and frequent offensive odors renders the Dailey Property unfit for normal use and enjoyment, and diminishes its fair market value.

COUNT I - TRESPASS

100. Plaintiffs incorporate by reference all allegations of the preceding paragraphs as though fully set forth herein.

[36] Kaltofen (2016) at 111.
[37] Kaltofen (2016) at 104.
[38] EPA Finds Radiation in West Lake Landfill Runoff, *CBS St. Louis*, May 26, 2016, http://stlouis.cbslocal.com2016/05/26/epa-finds-radiation-inwestlake-landfill-runoff.

101. Plaintiffs Michael Dailey and Robbin Dailey own and control the Dailey Property located at 3550 El Ferrol Court, more particularly described in Paragraph 9 above.

102. Landfill Defendants own and control property located at the Bridgeton and West Lake Landfills, which adjoins Plaintiffs' property.

103. Landfill Defendants store and/or transport radioactive materials and other toxic and hazardous wastes on their property.

104. Radioactive Waste Generator Defendants generated massive quantities of extremely dangerous radioactive wastes and failed to ensure of its proper disposal.

105. Radioactive Waste Disposer Defendants purchased massive quantities of highly toxic radioactive wastes and failed to properly dispose of these wastes. The Radioactive Waste Disposer Defendants intentionally, maliciously, and wantonly disposed of radioactive wastes at a facility unfit to handle such wastes.

106. Landfill Defendants have used these radioactive materials in a manner that is unreasonable, unlawful, malicious, and wanton, resulting in an invasion of Plaintiffs' property.

107. Landfill Defendants have caused these radioactive materials to migrate from Defendants' property and contaminate Plaintiffs' property.

108. Landfill Defendants willfully, wantonly, and maliciously caused the emission of Radon gas, and radioactive particles onto and around Plaintiffs' property through their Landfill operations.

109. It was reasonably foreseeable that Defendants' actions would and will continue to contaminate Plaintiffs' property with radioactive particles and other hazardous wastes.

110. The migration of Radon gas and radioactive particles from Landfill Defendants' property onto Plaintiffs' property has resulted and continues to result in direct physical interference with Plaintiffs' property. Such contamination is incompatible with the normal use and enjoyment of the Dailey Property.

111. Plaintiffs did not give Defendants permission or consent to interfere with their property in this manner. Through Defendants' actions and inactions, they are illegally and improperly using Plaintiffs' property to store radioactive wastes.

112. The contamination of Plaintiffs' property with Radon gas and radioactive particles, and other hazardous wastes, has resulted in significant damage to the property.

113. As a direct and proximate cause of this continuing and recurring physical interference, Plaintiffs have suffered and continue to suffer injury, including decreased property value.

COUNT II – PERMANENT NUISANCE

114. Plaintiffs incorporate by reference all allegations of the preceding paragraphs as though fully set forth herein.

115. Plaintiffs Michael Dailey and Robbin Dailey own and control the Dailey Property located at 3550 El Ferrol Court, more particularly described in Paragraph 9 above.

116. Landfill Defendants own and control property located at the Bridgeton and West Lake Landfills, which adjoins Plaintiffs' property.

117. Defendants unreasonably and unlawfully stored and used radioactive materials at the Landfill, which adjoins Plaintiffs' property.

118. The Defendants caused and contributed to the radioactive contamination of Plaintiffs' property.

119. The Landfill and the radioactive waste that the Landfill contains are a permanent construction that is necessarily injurious to Plaintiffs as installed. It is not practical or possible to abate the presence of the Landfill or the radioactive waste stored there.

120. Operating an unlicensed radioactive hazardous waste dump in a populated area is a nuisance *per se*.

121. Defendants have intentionally, unreasonably, negligently, recklessly, willfully, wantonly and maliciously allowed the emission of Radon gas and radioactive particles onto and around Plaintiffs' property, resulting in unreasonable interference with Plaintiffs' use and enjoyment of their property. Such contamination is incompatible with the normal use and enjoyment of the Dailey Property.

122. Defendants' interference with Plaintiffs' use and enjoyment of the property is substantial.

123. Landfill Defendants have intentionally, unreasonably, negligently, recklessly, willfully, wantonly and maliciously allowed the emission of noxious, offensive odors and various hazardous substances into the surrounding air resulting in unreasonable interference with Plaintiffs' use and enjoyment of the property.

124. Landfill Defendants' continuous and unrelenting noxious odors invading Plaintiffs' property causes inconvenience to Plaintiffs and prevents them from using the property.

125. As a direct and proximate result of Defendants' interference with Plaintiffs' use and enjoyment of the property, Plaintiffs have suffered permanent injury, including decreased property value.

COUNT III – TEMPORARY NUISANCE

126. Plaintiffs incorporate by reference all allegations of the preceding paragraphs as though fully set forth herein.

127. Plaintiffs Michael Dailey and Robbin Dailey own and control the Dailey Property located at 3550 El Ferrol Court, more particularly described in Paragraph 9 above.

128. Landfill Defendants own and control property located at the Bridgeton and West Lake Landfills, which adjoins Plaintiffs' property.

129. Defendants unreasonably and unlawfully store and use radioactive materials at the Landfill, which adjoins Plaintiffs' property.

130. The Defendants caused and contributed to the radioactive contamination of Plaintiffs' property.

131. The Defendants intentionally, unreasonably, negligently, recklessly, willfully, wantonly and maliciously allow the emission of Radon gas and radioactive particles onto and around Plaintiffs' property, resulting in unreasonable interference with Plaintiffs' use and enjoyment of their property. Such contamination is incompatible with the normal use and enjoyment of the Dailey Property.

132. Defendants' interference with Plaintiffs' use and enjoyment of the property is substantial.

133. Landfill Defendants intentionally, unreasonably, negligently, recklessly, willfully, wantonly and maliciously allow the emission of noxious, offensive odors and various hazardous substances into the surrounding air resulting in unreasonable interference with Plaintiffs' use and enjoyment of the property.

134. Landfill Defendants' use of the Landfill causes frequent and unrelenting noxious odors to invade Plaintiffs' property and prevents Plaintiffs from using the property.

135. As a direct and proximate result of Defendants' interference with Plaintiffs' use and enjoyment of the property, Plaintiffs have suffered and continue to suffer injury, including decreased property value.

COUNT IV – NEGLIGENCE

136. Plaintiffs re-allege and incorporate by reference every allegation of this Complaint as if each were set forth fully herein.

137. Radioactive isotopes (including Uranium-238, Radium-226, and Thorium-230) are known human carcinogens and are among the most toxic materials known to man. When property becomes contaminated with these wastes, the dangers can persist in the environment for thousands of years. Radioactive wastes should be handled, stored, and disposed of with the utmost safety in mind. Exposures to radioactive wastes should be as low as is reasonably achievable.

138. Knowing of the grave dangers posed by their wastes and operations, the Radioactive Waste Defendants owed a duty of care to the Plaintiffs and the public to ensure the safe and legal handling, storage, and disposal of the radioactive wastes generated and owned by defendants in order to prevent significant injury to property and persons.

139. The Radioactive Waste Generator and Disposer Defendants were negligent in failing to ensure that the mill tailings wastes were safely disposed of at an appropriate facility. These Defendants negligently disposed of these mill tailings at a landfill located in a residential area that was not capable of safely and properly disposing of radioactive materials. The Landfill was not properly licensed, nor configured, nor staffed to handle the disposal of radioactive wastes. Upon information and belief some of the Radioactive Waste Defendants negligently encouraged the Landfill operators to use the radioactive wastes which were mixed with contaminated soil as daily cover.

140. As a direct and proximate result of the Radioactive Waste Generator and Disposer Defendants' failure to ensure that the mill tailings were properly disposed of at an appropriate facility, Plaintiffs have suffered and continue to suffer injury due to the radioactive contamination of their property, including diminished property value.

141. The Landfill Defendants owed a duty to the Plaintiffs to operate the Landfill in a safe, legal, and reasonable manner so as not to contaminate and interfere with surrounding properties. The Landfill Defendants owed a duty not to accept radioactive wastes for which they were not licensed or qualified to handle. After accepting radioactive wastes, the Landfill defendants had a duty to safely handle, store and/or dispose of the radioactive wastes in order to prevent significant injury to property and persons.

142. Landfill Defendants were negligent in the construction, design, operating and maintenance of the Landfill.

143. The Landfill Defendants negligently accepted mill tailings when the Landfill was not designed, nor staffed to handle the disposal of radioactive wastes. The negligent design and

maintenance of the Landfill by Landfill Defendants failed to prevent the release of Radon gas and radioactive particles and hazardous and toxic wastes onto surrounding properties in excess of guidelines.

144. Upon information and belief, Landfill Defendants' negligent training of personnel handling radioactive, toxic, and hazardous materials on site was a direct and proximate cause of damage to Plaintiff's property.

145. Landfill Defendants' negligent use of radioactive wastes mixed with radioactive soil as daily cover spread contamination into a broader area and prevented Defendants and regulators from knowing the location of these dangerous wastes. The negligent use of radioactive materials as daily cover in an unlined Landfill resulted in contamination of the groundwater underlying the Landfill and surrounding properties.

146. Landfill Defendants were negligent in failing to prevent the subsurface fire. Defendants should have implemented adequate practices with respect to gas extraction to avoid subsurface fires after they initially dealt with problems with smoldering events and increased subsurface temperatures in the 1990's. The subsurface fire along with the resulting noxious odors and increased risk of significant Radon gas emissions are a direct and proximate result of the Landfill Defendants' negligence in the operation of the Landfill. Such contamination is incompatible with the normal use and enjoyment of the Dailey Property.

147. Defendants' collective negligence throughout the history of the mishandling and improper dumping of radioactive wastes in the St. Louis area has resulted in repeated releases of Radon gas and radioactive particles and other hazardous materials as well as offensive odors onto Plaintiffs' property, in disregard of applicable regulations and property rights.

148. Defendants' negligence has damaged Plaintiffs' property by contaminating it with radioactive particles, toxic and other hazardous substances and noxious odors. Defendant's negligence diminished Plaintiffs' property value.

149. The injuries sustained by Plaintiffs are of the kind that do not occur without negligence.

150. Plaintiffs' injuries were the result of wastes generated, disposed of, and controlled by Defendants.

151. Plaintiffs did not consent to the injuries, nor did they contribute to the injuries in any way.

COUNT V – NEGLIGENCE PER SE

152. Plaintiffs re-allege and incorporate by reference every allegation of this Complaint as if each were set forth fully herein.

153. The Radioactive Waste Generator and Disposer Defendants violated Missouri regulations for Protection against Ionizing Radiation, 19 C.S.R. 20-10.070, 20-10.090, and the Missouri Hazardous Waste Management regulations, 10 C.S.R. 25-5.262, both of which require the safe storage and disposal of radioactive material so as to protect the health and safety of the public.

154. Plaintiffs are members of the class of persons that the Missouri regulations for Protection against Ionizing Radiation and Hazardous Waste Management were meant to protect.

155. The contamination of Plaintiffs' land is the kind of injury that the regulations for protection against ionizing radiation were designed to prevent.

156. The Radioactive Waste Generator and Disposer Defendants' violations of the regulations for Protection against Ionizing Radiation and Hazardous Waste Management were the proximate cause of Plaintiffs' injuries.

157. The Landfill Defendants violated Missouri regulations for Protection against Ionizing Radiation, 19 C.S.R. 20-10.070, 20-10.090, Missouri Solid Waste Management Law and Regulations, 10 C.S.R. 80-2.020(1)(F), 80-3.010(3)(A)(2), 80-3.010(3)(B)(1), 80-3.010(8)(A), 80-3.010(9)(C)(2), 80-3.010(13)(C), 80-3.010(14)(C), 80-3.010(19)(A), 10 CSR 80-3.010(19)(C)(7); Mo. Rev. Stat. §§ 260.210.1(4), 260.380(1); Missouri Clean Water Act, Mo. Rev. State. § 644.051.1, and Missouri Air Conservation regulations, 10 C.S.R. 10-6.165, all of which require the safe storage and disposal of radioactive material so as to protect the health and safety of the public.

158. Plaintiffs are members of the class of persons that the Missouri regulations for Protection against Ionizing Radiation, Missouri Solid Waste Management Law and Regulations, and Missouri Air Conservation regulations were intended to protect

159. The contamination of Plaintiffs' land is the kind of injury that the Missouri regulations for Protection against Ionizing Radiation, Missouri Solid Waste Management Law and Regulations, Missouri Hazardous Waste Management Law, and Missouri Air Conservation regulations were designed to prevent.

160. The Landfill Defendants' violations of Missouri regulations for Protection against Ionizing Radiation, Missouri Solid Waste Management Law and Regulations, and Missouri Air Conservation regulations were the proximate cause of Plaintiffs' injuries.

161. Defendants' collective negligence throughout the history of the mishandling and improper dumping of radioactive wastes in the St. Louis area has resulted in repeated releases of Radon gas and radioactive particles and other hazardous materials as well as offensive odors onto Plaintiffs' property in violation of applicable regulations and disregard for property rights.

162. Defendants' negligence has damaged Plaintiffs' property by contaminating it with radioactive particles, toxic and other hazardous substances and noxious odors. Defendant's negligence diminished Plaintiffs' property value.

163. Plaintiffs did not consent to the injuries, nor did they contribute to the injuries in any way.

COUNT VI - STRICT LIABILITY

164. Plaintiffs incorporate by reference all allegations of the preceding paragraphs as though fully set forth herein.

165. Radioactive Waste Generator Defendants, Radioactive Waste Disposer Defendants, and Landfill Defendants engage in the abnormally dangerous activity of generating, handling, storing, and/or disposing of radioactive waste.

166. By generating, handling, storing, and/or disposing of radioactive waste, Defendants have created and continue to create a high degree of risk of harm to Plaintiffs' property.

167. Defendants have intentionally failed to eliminate the risk of harm caused by their generating, handling, storing, and/or disposing of radioactive waste.

168. As a direct result of Defendants' abnormally dangerous activities, Plaintiffs' property was contaminated with radioactive materials and they suffered and continue to suffer

injury, including diminished property value. Such contamination is incompatible with the normal use and enjoyment of the Dailey Property.

169. Plaintiffs' injuries are of the kinds that result from the dangerous nature of generating, handling, storing, and/or disposing of radioactive waste.

170. The injuries that Defendants' generating, handling, storing, and/or disposing of radioactive waste have caused Plaintiffs to suffer, drastically outweigh the value of the Landfill.

171. Accordingly, Defendants are jointly and severally liable for any and all damages Plaintiffs have sustained as a result of their strict liability for generating, handling, storing and/or disposing of radioactive materials, including, without limitation, any incidental or consequential damages.

COUNT VII - MEDICAL MONITORING

172. Plaintiffs incorporate by reference all allegations of the preceding paragraphs as though fully set forth herein.

173. Defendants have tortiously contaminated the Dailey Home with radioactive cancer-causing materials such as Uranium and Thorium. The levels of radioactive isotypes in the dust in the Dailey Home are many times greater than applicable safety guidelines for soil and dust.

174. The Defendants' tortious acts threaten the safety and normal use and enjoyment of the Dailey Home.

175. The radioactive contamination of the Home has caused a significant increased risk to Mr. and Mrs. Dailey, and therefore Plaintiffs are in need of a thorough scientific evaluation of the radioactive contaminant levels throughout the Dailey Home and the Dailey Property.

176. The need for such an evaluation is a direct consequence of the Defendants' tortious conduct, and does not arise from the innocent conduct of the homeowners.

177. Therefore Plaintiffs seek injunctive and equitable relief to require the Defendants to conduct the necessary scientific evaluation of the Dailey Home and Property, consistent with contemporary scientific principles. Plaintiffs seek injunctive and equitable relief to require the Defendants to respond to the consequences of this tortious contamination by providing the necessary medical monitoring in the form of environmental testing, clean-up, and medical tests as indicated by the results of the scientific evaluation.

178. Plaintiffs seek this injunctive and equitable relief either in the form of an injunction requiring the Defendants to conduct the necessary monitoring themselves, or in the form of a court-ordered and court-supervised fund (with a court-appointed trustee if the court deems that appropriate) to provide for the necessary monitoring.

179. Such injunctive and equitable relief will decrease the radioactive contamination risks of the Dailey Home and the Dailey Property, decrease the interference with the use and enjoyment of the Dailey Home, and further mitigate Plaintiffs' damages.

WHEREFORE, as to each Count, and all Counts, Plaintiffs Michael Dailey and Robbin Dailey pray for judgment in favor of Plaintiffs and against Defendants Bridgeton Landfill, LLC, Republic Services, Inc., Allied Services, L.L.C., Rock Road Industries, Inc., MI Holdings, Inc., Mallinckrodt, Inc., Cotter Corporation, Commonwealth Edison Company, and Exelon Corporation, as well as awarding the following to Plaintiffs and against Defendants:

a. an award of actual, general, special, incidental, statutory, compensatory and consequential damages in an amount to be proven at trial, including compensatory

damages for the loss and use of enjoyment of Plaintiffs' property; annoyance and discomfort; damage to Plaintiffs' personal property; the diminution in the market value of Plaintiffs' property; as well as the costs and expenses incurred as a result of Plaintiffs' exposure to radioactive emissions, including costs of remediation and relocation;

b. an award of double damages for malicious trespass as provided for under Mo. Rev. Stat. § 537.330;

c. an award of punitive and exemplary damages as fair and reasonable in an amount sufficient to punish Defendants and to deter similar conduct in the future;

d. costs and attorney fees;

e. interest on the above amounts as allowed by law;

f. for appropriate injunctive and equitable relief, including medical monitoring; and

g. for any further relief this Court deems just and proper.

Dated: November 15, 2016

Respectfully submitted,

/s/ Daniel T. DeFeo

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