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ATTORNEYS FOR PLAINTIFFS

UNITED STATES DISTRICT COURT

SOUTHERN DISTRICT OF CALIFORNIA

SAN DIEGO DIVISION

DUSTIN BARTEL; NOLAN R ALLEN;
ANDREW ANDERSON; JEFFREY
ARMSTRONG; CHARLIEMAGNE
ATERRADO; JESSICA BARLOW;
BEATRICE BARTHELEMY; JENNIFER
BOYLE; SAMATHAN BREGANT;

Case No.: **'17CV1671 DMS KSC**

COMPLAINT FOR DAMAGES

1. NEGLIGENCE
2. STRICT LIABILITY FOR
MANUFACTURING DEFECT
3. STRICT LIABILITY FOR

COMPLAINT FOR DAMAGES

JONATHAN BURBACH; ADRIANA CABARCAS; DEREK CAMBRIDGE; CAMRY CAMPBELL; ALEXANDRA CAMPOS ; CHRISTOPHER CARR ; ASHLEY CHITTY; ASHLEY COCHRAN; CHRISTOPHER COLEMAN; PATRICK CRESPO; BRIAN CROSS; DONALD H. DELLINGER; OLIVIA DIMAS; MATTHEW DONALDSON; BRIAN DRAWLINS; COREY DREWBELL; ANDREA EISENHOWER; ERIC I. EPPS; JASON FERGUSON; JUSTINE FRALEY; RUTH FREEMAN; CYRINTHIA HAMBLEY; MICHAEL HARVEY; JOSEPH KYLE HENRY ; MARTY HILL; MITCHELL HODGES; JOHN WESLEY HYATT; KEVIN JACOBSON; JUSTIN JAEHNIG; NICHOLAS KOVACHEV; MELISSA LESTER; LAWRENCE LEVAN ; JOE LEWIS; SCOTT LIENG; ARNULFO LIMON; ALVIN MAGNO; FRANCISCO JR. MARIGUNDO; CHAD MARTINS; EDWARD MELLO; BRANDON MONTGOMERY; CHRISTOPHER MORIN; JONATHAN MULDOWNNEY; EION NELSON; ROBERT OCHOA; GLENN OFORI; LUKE OPYD; TIM PALMER; JOSHUA PEOPLES; ALEJANDRO PEREZ; CLINTON RAMSIARE; JACOB REED; BALTHAZAR REFORSADO; ANGELINA REYNA; QUENTIN RICHARDSON; WILLIAM E. RIGBY; LYDIA SALGADO; JERRID SEVART; QUINCY SHEPHERD; CARL SLAUBAUGH; GREGORY SMITH; MELLONY SNYDER; JUSTIN STEINMETZ; AMANDA STEMEN; RONALD STEMEN; LOWELL STEWART; JANICE STEWART; DANIEL STROHL; JOSE SUERO; RANDY

DESIGN DEFECT
4. STRICT LIABILITY FOR ULTRAHAZARDOUS ACTIVITIES
5. NEGLIGENCE PER SE: RES IPSA LOQUITUR
6. PRESUMPTION OF NEGLIGENCE *PER SE*
7. LOSS OF CONSORTIUM
8. SURVIVAL ACTION-- WRONGFUL DEATH
9. WRONGFUL DEATH
JURY TRIAL DEMANDED

COMPLAINT FOR DAMAGES

1 VALENTIN; GABRIEL VASQUEZ;
2 SHAWN VELASQUEZ; ROBERT
3 VENABLE; ROBERT VENABLE;
4 PATRICK WALTON; BRIDGET
5 WATERS; TIM WHITE; CHRISTOPHER
6 WOODS; DEREK YODA; EDWARD
7 ZIMMERMAN; ALEXANDER TIDD;
8 CONTRAIL ALLEN; MATTHEW
9 ANDERSON; MATTHEW AYRES;
10 DANIEL BARBIERO; LOGAN BLACK;
11 SHANEE BROWN; CARISSA CLARK;
12 JAIME CLAVITO; JESTINE CLAYTON ;
13 JEFF COOK; MICHAEL CROSS;
14 JOSHUA CUNNINGHAM ; LAWRENCE
15 EDWARDS; EDWARD ELUERE;
16 RAMON JR. ENCISO; MARLON
17 FRANCIS; STEVEN GARDNER;
18 RODOLFO GUERRA; TYMESHIA
19 GUIDRY; CECILIA GUTIERREZ;
20 HALDANE HAMILTON; DARREN
21 HANSON; MARTIN HITSON; WILLIAM
22 HOLT; NANCY JACKSON; RODERICK
23 JESSAMY; MATTHEW KNAUST; RYAN
24 KUNIN; RENE LANDEROS; MICHAEL
25 LELAND; STEWART LOWELL;
26 ADRIAN LUCINA; EDWIN MAHER;
27 FRANCIS MARLON; RYAN
28 MCLAUGHLIN; JEREMY MICHAUD;
GARRETT NELSON; TRANG PHAM ;
BRIAN RAWLEY; DEVIN RITCHEY;
CESAR SALGADO; TIFFANY SCHAD;
BRETT SCHMIDT; MICHELLE SCOTT;
JOSHUA SEGREE; GREGORY SMITH;
CRYSTAL SOUDER; JAMES SOUDER;
KYLE SPURLOCK; RONALD L.
STEMEN; NICHOLAS SWANN; LUIS
TORRES; CASEY TUCKER; DONALD
VORHEES; BRITTNEY WACHNER;
CAROLYN FELIX WHITE; ELOI
WHITEMAN; BRANDON ZACHARIE;

COMPLAINT FOR DAMAGES

1 MONTY JR BARHAM; ESMERALDA
2 KOPKA; AND BYRON SY; **TERESA**
3 **READY** Individually And As The
4 Administrator Of The Estate Of **JESSE**
5 **READY deceased; DERRICK LUCKEY;**
6 **ANNETTE LUCKEY** Individually And As
7 The Administrator Of The Estate Of
8 **DANYELLE LUCKEY deceased;**
9 **GRACE EUNAE PARK** Individually And
10 As The Administrator Of The Estate Of
11 **Josh Park; RACHEL MENDEZ; KIRK**
12 **GODAIR** Individually And As The
13 Administrator Of The Estate Of **RUBY**
14 **PEREZ deceased; C. G. (a minor through**
15 **her guardian ad litem Kirk Godair);**
16 **JANETH. MASINDE** Individually And As
17 The Administrator Of The Estate Of
18 **BRENDA DOWNING deceased;**

19 Plaintiffs,

20 vs.

21 TOKYO ELECTRIC POWER COMPANY,
22 INC. aka TEPCO, GENERAL ELECTRIC,
23 and Does 5 through 200, inclusive
24 Defendants

25 PLAINTIFFS, by their attorneys, **PAUL C. GARNER, ESQ., CHARLES**
26 **A. BONNER ESQ., and JOHN R. EDWARDS ESQ,** respectfully allege, upon
27 information and belief, on behalf of themselves and others similarly situated, as
28 follows:

At all relevant times, PLAINTIFFS were members of the armed forces, their dependents, and support personnel, who served in a variety of capacities, and who are and were, at all times mentioned, citizens of the United States of America.

COMPLAINT FOR DAMAGES

JURISDICTION

1. This case is brought on behalf of the named plaintiffs who at the time of filing the third amended complaint in the related action ***Cooper, et al. v. TEPCO, et al. 12-CV-3032-JLS-WMc*** had not discovered they had injuries caused by Defendants' conduct as set forth below.

2. This action is related and should be consolidated with the presently pending lawsuit under the case entitled ***Cooper, et al. v. TEPCO, et al. 12-CV-3032-JLS-WMc***. The Plaintiffs in the lawsuit being filed at this time were all similarly situated to those Plaintiffs who were named in the presently pending action, ***Cooper, et al. v. TEPCO, et al. 12-CV-3032-JLS-WMc***, who have now discovered, since the filing of the Complaint in said pending lawsuit that their injuries were caused by the wrongful and negligent conduct of the Defendants named herein as hereinafter alleged. Accordingly, this lawsuit should therefore be consolidated by this Honorable Court with the pending lawsuit under ***Cooper, et al. v. TEPCO, et al. 12-CV-3032-JLS-WMc***.

3. The jurisdiction of this Court over the subject matter in this action is predicated upon Diversity Jurisdiction, 28 U.S.C. §1332. The amount in controversy exceeds \$75,000, exclusive of interest and costs.¹

PARTIES

4. The PLAINTIFFS:

- 1.) Dustin Bartel;
- 2.) Nolan R Allen;
- 3.) Andrew Anderson;
- 4.) Jeffrey Armstrong;
- 5.) Jessica Barlow;

¹ Diversity jurisdiction is currently codified at 28 U.S.C. §1332, <http://www.law.cornell.edu/uscode/28/1332.html>; also see

- 6.) Beatrice Barthelemy;
- 7.) Samathan Bregant;
- 8.) Jennifer Boyle
- 9.) Jonathan Burbach;
- 10.) Adriana Cabarcas;
- 11.) Derek Cambridge;
- 12.) Camry Campbell;
- 13.) Alexandra Campos ;
- 14.) Christopher Carr ;
- 15.) Ashley Chitty;
- 16.) Ashley Cochran;
- 17.) Christopher Coleman;
- 18.) Patrick Crespo;
- 19.) Brian Cross;
- 20.) Donald H. Dellinger;
- 21.) Olivia Dimas;
- 22.) Matthew Donaldson;
- 23.) Brian Drawlins;
- 24.) Corey Drewbell;
- 25.) Andrea Eisenhower;
- 26.) Eric I. Epps;
- 27.) Jason Ferguson;
- 28.) Justine Fraley;
- 29.) Ruth Freeman;
- 30.) Cyrinthia Hambley;
- 31.) Michael Harvey;
- 32.) Joseph Kyle Henry ;
- 33.) Marty Hill;
- 34.) Mitchell Hodges;
- 35.) John Wesley Hyatt;
- 36.) Kevin Jacobson;
- 37.) Justin Jaehnig;
- 38.) Nicholas Kovachev;
- 39.) Melissa Lester;

COMPLAINT FOR DAMAGES

- 40.) Lawrence Levan ;
- 41.) Joe Lewis;
- 42.) Scott Lieng;
- 43.) Arnulfo Limon;
- 44.) Alvin Magno;
- 45.) Francisco Jr. Marigundo;
- 46.) Chad Martins;
- 47.) Edward Mello;
- 48.) Brandon Montgomery;
- 49.) Christopher Morin;
- 50.) Jonathan Muldowney;
- 51.) Eion Nelson;
- 52.) Robert Ochoa;
- 53.) Glenn Ofori;
- 54.) Luke Opyd;
- 55.) Tim Palmer;
- 56.) Joshua Peoples;
- 57.) Alejandro Perez;
- 58.) Clinton Ramsiare;
- 59.) Jacob Reed;
- 60.) Balthazar Reforsado;
- 61.) Angelina Reyna;
- 62.) Quentin Richardson;
- 63.) William E. Rigby;
- 64.) Lydia Salgado;
- 65.) Jerrid Severt;
- 66.) Quincy Shepherd;
- 67.) Carl Slaubaugh;
- 68.) Gregory Smith;
- 69.) Mellony Snyder;
- 70.) Justin Steinmetz;
- 71.) Amanda Stemen;
- 72.) Ronald Stemen;
- 73.) Lowell Stewart;

COMPLAINT FOR DAMAGES

- 74.) Janice Stewart;
- 75.) Daniel Strohl;
- 76.) Jose Suero;
- 77.) Randy Valentin;
- 78.) Gabriel Vasquez;
- 79.) Shawn Velasquez;
- 80.) Robert Venable;
- 81.) Robert Venable;
- 82.) Patrick Walton;
- 83.) Bridget Waters;
- 84.) Tim White;
- 85.) Christopher Woods;
- 86.) Derek Yoda;
- 87.) Edward Zimmerman;
- 88.) Alexander Tidd;
- 89.) Contrail Allen;
- 90.) Matthew Anderson;
- 91.) Matthew Ayres;
- 92.) Daniel Barbiero;
- 93.) Logan Black;
- 94.) Shanee Brown;
- 95.) Carissa Clark;
- 96.) Jaime Clavito;
- 97.) Jestine Clayton ;
- 98.) Jeff Cook;
- 99.) Michael Cross;
- 100.) Joshua Cunningham ;
- 101.) Lawrence Edwards;
- 102.) Edward Eluere;
- 103.) Ramon Jr. Enciso;
- 104.) Marlon Francis;
- 105.) Steven Gardner;
- 106.) Rodolfo Guerra;
- 107.) Tymeshia Guidry;

COMPLAINT FOR DAMAGES

- 108.) Cecilia Gutierrez;
- 109.) Haldane Hamilton;
- 110.) Darren Hanson;
- 111.) Martin Hitson;
- 112.) William Holt;
- 113.) Nancy Jackson;
- 114.) Roderick Jessamy;
- 115.) Matthew Knaust;
- 116.) Ryan Kunin;
- 117.) Rene Landeros;
- 118.) Michael Leland;
- 119.) Stewart Lowell;
- 120.) Adrian Lucina;
- 121.) Edwin Maher;
- 122.) Francis Marlon;
- 123.) Ryan McLaughlin;
- 124.) Jeremy Michaud;
- 125.) Garrett Nelson;;
- 126.) Trang Pham ;
- 127.) Brian Rawley;
- 128.) Devin Ritchey;
- 129.) Cesar Salgado;
- 130.) Tiffany Schad;
- 131.) Brett Schmidt;
- 132.) Michelle Scott;
- 133.) Joshua Segree;
- 134.) Gregory Smith;
- 135.) Crystal Souder;
- 136.) James Souder;
- 137.) Kyle Spurlock;
- 138.) Ronald L. Stemen;
- 139.) Nicholas Swann;
- 140.) Luis Torres;
- 141.) Casey Tucker;

COMPLAINT FOR DAMAGES

- 142.) Donald Vorhees;
143.) Brittney Wachner;
144.) Carolyn Felix White;
145.) Eloï Whiteman;
146.) Brandon Zacharie;
147.) Monty Jr Barham;
148.) Esmeralda Kopka;
149.) Byron Sy;
150.) Annette Luckey Individually And As The Administrator Of
The Estate Of Danyelle Luckey deceased;
151.) Derrick Luckey;
152.) Grace Eunae Park Individually And As The Administrator
Of The Estate Of Josh Park;
153.) Kirk Godair Individually And As The Administrator Of The
Estate Of RUBY PEREZ deceased;
154.) Rachel Mendez
155.) C. G. (a minor through her guardian ad litem Kirk Godair)
156.) Teresa Ready Individually And As The Administrator Of
The Estate Of Jesse Ready deceased;
157.) Janeth. Masinde Individually And As The Administrator Of
The Estate Of Brenda Downing deceased

at all times herein mentioned were among the members of the U.S. Navy crews of the U.S.S. RONALD REAGAN (CVN-76), with its home port in San Diego, California, the crews of other vessels participating as part of the Reagan Strike Force, 7th Fleet, land-based service personnel, and/or their dependents. All of the Plaintiffs were repeatedly exposed to ionizing radiation on or after March 11, 2011, due to the release of radioisotopes from the Fukushima Nuclear Power Plant (hereinafter, “FNPP”). All of the PLAINTIFFS were exposed during the mission known as “Operation Tomodachi.”²

² On March 14, 2011, the U.S. 7th Fleet, U.S. Naval personnel, and aircraft aboard the vessels were repositioned away from Japan’s FNPP after detecting

1 5. PLAINTIFFS' injuries, losses, damages, and harms are the results of
2 DEFENDANTS' and each of their subsidiaries, agents, servants and/or employees
3 illegal conduct, including the negligently designed and maintained GE Boiling
4 Water Reactors, situated at Fukushima Daiichi, which contain numerous design
5 and manufacturing defects. These harms include, but are not limited to, the
6 following: Illnesses such as Leukemia, ulcers, gall bladder removals, brain cancer,
7 brain tumors, testicular cancer, dysfunctional uterine bleeding, thyroid illnesses,
8 stomach ailments, birth defects, death, and a host of other complaints unusual in
9 such young adults and victims. The injured servicemen and women will require
10 treatment for their deteriorating health, medical monitoring, payment of their
11 medical bills, appropriate health monitoring for their children, and monitoring for
12 possible radiation-induced genetic mutations. Some of the radioactive particles
13 inside these service personnel have long half-lives, from 6 to 50 to 100 years.

15 6. PLAINTIFFS have only recently, within all the applicable statutes of
16 limitation periods, discovered the facts pertaining to the nature and extent of their
17 injuries and causes thereof. PLAINTIFFS also have just recently discovered facts
18 which show DEFENDANTS' illegal conduct, as well as DEFENDANTS'
19 negligent conduct in the engineering, construction, maintenance, operation,
20 management and control of the defectively designed Fukushima Nuclear Power
21 Plant. PLAINTIFFS recently discovered facts showing that DEFENDANTS'
22 negligence and defective design of FNPP which caused injuries to PLAINTIFFS
23 occurred before, during and after the March 11, 2011 earthquake and tsunami.
24 Within all the relevant statutes of limitation periods, PLAINTIFFS discovered the
25 facts which prove that DEFENDANTS, and each of them, are the actual and
26

27 contamination in the air and on the helicopters returning to the U.S.S. Ronald
28 Reagan (CVN-76) from ferrying supplies to the land on aircraft deployed by the U.
Sed.

COMPLAINT FOR DAMAGES

proximate cause of their injuries, damages and harm. This delayed discovery tolls the expiration of the statutes of limitation, pursuant to all applicable principles, both in law and equity.

7. DEFENDANT TOKYO ELECTRIC POWER COMPANY, INC. aka TEPCO, (hereinafter, "TEPCO"), at all times herein mentioned, was and still is a foreign corporation, organized and existing under the laws of Japan, with its principal place of business situated at 1-1-3 Uchisai wai-Cho, Chiyoda-Ku, in the city of Tokyo, Japan, and with offices located at Suite 720, 1901 L Street N.W., Washington, D.C. 20036. In 2003, TEPCO registered as a California foreign corporation with the California Secretary of State. TEPCO is the largest electric utility in Japan and the 4th largest electric utility in the world. TEPCO enjoys billions of dollars in revenue from electricity sales. During all times relevant, TEPCO conducted business as a foreign Corporation registered in the State of California. Hence, TEPCO is subject to the jurisdiction of this United States Federal District Court, which is empowered to enforce any Judgment against DEFENDANT TEPCO.

8. DEFENDANT TEPCO is a Japanese public benefit corporation, charged with the responsibility to provide electric power to the people of Japan.

9. DEFENDANT GENERAL ELECTRIC, at all times herein mentioned, was and still is a for-profit corporation, organized and existing under the laws of the United States of America, with its principal place of business and Corporate Headquarters located at General Electric Company, 3135 Easton Turnpike, Fairfield, CT 06828.

10. GENERAL ELECTRIC (GE) is an American multinational conglomerate corporation incorporated in New York. The company operates through the

1 following segments: Energy, Technology Infrastructure, Capital Finance as well as
2 Consumer and Industrial.

3 11. In 2011, GE ranked among the Fortune 500 as the 26th-largest firm in the
4 U.S. by gross revenue, as well as the 14th most profitable. The company is listed as
5 the fourth largest in the world among the Forbes Global 2000.

6 12. At all times herein mentioned, DEFENDANTS, and each of them, derived
7 substantial revenue from their activities via goods used or consumed in the United
8 States of America and its several States, including the State of California, through
9 the operation of the FNPP.

10 13. At all times herein mentioned, DEFENDANTS, and each of them, expected
11 or should reasonably have expected their acts to have consequences in the State of
12 California and elsewhere within the United States of America.

13 14. At all times herein mentioned, the DEFENDANTS, and each of them,
14 derived substantial revenue from interstate or international commerce.

15 15. At all times herein mentioned, DEFENDANT TEPCO owned the premises
16 where the FNPP was situated, within the prefecture of Fukushima, Japan.

17 16. At all times herein mentioned, DEFENDANT TEPCO was one of the
18 owners of the FNPP.

19 17. At all times herein mentioned, DEFENDANT TEPCO was a lessee of the
20 FNPP.

21 18. At all times herein mentioned, the DEFENDANTS, and each of them,
22 DEFENDANTS' servants, agents and DEFENDANTS' employees operated the
23 FNPP.
24

25 19. At all times herein mentioned, the DEFENDANTS, and each of them,
26 DEFENDANTS' servants, agents and employees engineered, constructed,
27 maintained, operated, managed and controlled the FNPP.
28

1 20. At all times herein mentioned, DEFENDANT TEPCO, TEPCO'S servants,
2 agents and employees supervised the FNPP.

3 21. On or before March 10, 2011, DEFENDANT TEPCO, TEPCO'S servants,
4 agents and employees negligently attempted to perform repairs at the FNPP.

5 22. On or before March 10, 2011, DEFENDANT TEPCO, TEPCO'S servants,
6 agents and employees negligently inspected and negligently failed to inspect the
7 FNPP.

8 23. On or before March 10, 2011, the DEFENDANTS, and each of them, the
9 DEFENDANTS' servants, agents and employees negligently engineered,
10 constructed, maintained, operated, managed and controlled the FNPP.

11 24. More than 40 years ago, the DEFENDANTS, and each of them, the
12 DEFENDANTS' servants, agents and employees negligently designed, engineered
13 constructed, maintained, operated, managed, controlled and built the FNPP.
14

15 **DOE DEFENDANTS**

16 25. PLAINTIFFS do not know the true names and capacities, whether
17 individual, corporate, associate, or otherwise of DEFENDANT Does 5 through 200
18 inclusive, and therefore sue these DEFENDANTS by such fictitious names.
19 PLAINTIFFS will amend their complaint to allege their true names and capacities
20 when this has been ascertained.

21 **RESPONDEAT SUPERIOR**

22 26. All of the described conduct, acts, and failures to act are attributed to
23 agents, servants and employees under the direction and control, and with the
24 permission, consent and authorization of DEFENDANTS. Said acts, conduct and
25 failures to act were within the scope of such agency and/or employment, and each
26 of the DEFENDANTS ratified, endorsed, and agreed to the acts and omissions of
27 each of the other DEFENDANTS. Each of these acts and failures to act is alleged
28

1 against each DEFENDANT, whether acting individually, jointly, or severally. At
2 all times relevant herein, each DEFENDANT was acting within the course and
3 scope of his or her employment, agreement, and ratification.

4 5 **STATEMENT OF FACTS**

6
7 27. ON MARCH 11, 2011, before the PLAINTIFFS arrived off the coast of
8 Fukushima prefecture, Japan, the DEFENDANTS, and each of them, were
9 negligent. This negligence was underscored on December 12, 2013, by admission
10 of the former Prime Minister of Japan, Naoto Kan, who was in office when the
11 Fukushima disaster took place. It was at that time that he admitted, for the first
12 time: "People think it was March 12th [2011] but the first meltdown occurred 5
13 hours after the earthquake." Unaware of either the melt-down or any potentially
14 harmful radio-active release, the U.S. Sailor First Responders arrived off the coast
15 of Fukushima during the afternoon of March 12, 2011 in order to carry out their
16 mission of providing humanitarian aid to the victims of the earthquake and tsunami
17 disaster. At no time did this mission include, nor expand into a response to a melt-
18 down or a nuclear emergency at the FNPP. Rather, PLAINTIFFS were carrying
19 out their mission to provide humanitarian aid to the people of Japan by coming to
20 their aid by delivering clean water, blankets, food, and other aspects of providing
21 other humanitarian relief to the inhabitants of Fukushima Prefecture.

22
23 28. A Japanese Parliamentary Panel, The Fukushima Nuclear Accident
24 Independent Investigation Commission, charged by the government of Japan to
25 investigate the circumstances giving rise to the release of harmful radiation,
26 concluded on July 5, 2012 that TEPCO was negligent in having failed to avoid the
27 man-made disaster and in creating the conditions leading to the meltdown that
28

1 “occurred 5 hours after the earthquake”: The Commission accused TEPCO of
2 negligently failing to take adequate precautions, despite evidence that the area was
3 susceptible to powerful earthquakes and tsunamis. The Commission concluded that
4 “the accident was clearly 'man-made'. “We believe that the root causes were the
5 organizational and regulatory systems that supported faulty rationales for decisions
6 and actions...”

7 29. Before MARCH 11, 2011, which was before the PLAINTIFFS arrived off
8 the coast of Fukushima Prefecture, TEPCO was negligent, as determined by the
9 Commission, which found that TEPCO showed a negligent “disregard for global
10 [safety] trends and a disregard for public safety.” The commission's chairman,
11 Kiyoshi Kurokawa, a professor emeritus at Tokyo University, said in a scathing
12 introduction that TEPCO managers’ cultural traits had caused the disaster. He said:
13 “What must be admitted-very painfully-is that this was a disaster Made in Japan”.
14 The 10-member commission is the panel which is investigating the Fukushima
15 Daiichi accident. The report follows a six-month investigation involving more than
16 900 hours of hearings, and interviews with more than 1,100 people.” ³

17
18 30. ON MARCH 11, 2011, before the PLAINTIFFS arrived off the coast of
19 Fukushima prefecture, TEPCO was negligent as detailed in the report by the
20 Fukushima Nuclear Accident Independent Investigation Commission. The
21 Commission outlines TEPCO’S “errors and willful negligence” at the FNPP before
22 the earthquake and tsunami which devastated swaths of northeastern Japan on
23 March 11, bluntly stating that TEPCO negligently created a “man-made disaster”.⁴
24
25

26
27 ³ [http://www.theguardian.com/environment/2012/jul/05/fukushima-meltdown-](http://www.theguardian.com/environment/2012/jul/05/fukushima-meltdown-manmade-disaster)
28 [manmade-disaster](http://www.theguardian.com/environment/2012/jul/05/fukushima-meltdown-manmade-disaster)

⁴ <http://www.cnn.com/2012/07/05/world/asia/japan-fukushima-report/>

1 31. Before MARCH 11, 2011, before the PLAINTIFFS arrived off the coast of
2 Fukushima prefecture, TEPCO was negligent as detailed in the report by the
3 Fukushima Nuclear Accident Independent Investigation Commission, finding that
4 the Fukushima plant operators: "...weren't adequately prepared to deal with a
5 nuclear accident." And the Commission concluded that TEPCO failed to properly
6 prepare for the earthquake and tsunami, and that "the direct causes of the accident
7 were all foreseeable prior to March 11, 2011."⁵

8 32. Both on and before the earthquake of MARCH 11, 2011, before the
9 PLAINTIFFS arrived off the coast of Fukushima prefecture, TEPCO was negligent
10 because TEPCO negligently "failed to correctly develop the most basic safety
11 requirements-such as assessing the probability of damage, preparing for containing
12 collateral damage from such a disaster, and developing evacuation plans."⁶

13 33. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
14 coast of Fukushima prefecture, TEPCO was negligent as evidenced by the "lack of
15 training and knowledge of the TEPCO workers at the facility [which] reduced the
16 effectiveness of the response to the situation at a critical time"⁷

17 34. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
18 coast of Fukushima prefecture, TEPCO was negligent because TEPCO'S managers
19 were ineffective in "preventing or limiting the consequential damage" at
20 Fukushima Daiichi.⁸

21 35. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
22 coast of Fukushima prefecture, TEPCO was negligent, as admitted by TEPCO,
23 which publicly stated that it "was not fully prepared for the nuclear disaster."
24

25
26 ⁵ Id

27 ⁶ Id.

28 ⁷ Id.

⁸ Id.

1 TEPCO's final report on the disaster said it “did not have sufficient measures to
2 prevent the accident. TEPCO's final report also acknowledged criticism that
3 TEPCO took too long to disclose information.”⁹

4 36. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
5 coast of Fukushima prefecture, TEPCO was negligent, as revealed by former Prime
6 Minister Naoto Kan, who said, “TEPCO and the nuclear safety agency had hidden
7 key details from him in the days after March 11, adding that he had been as open
8 as possible with the public, based on the information he had been given. Kan said
9 he feared further meltdowns that could result in the evacuation of Tokyo—a
10 metropolitan area of more than 30 million people. Deserting the capital, he added,
11 would have brought the government to a standstill and led to “a collapse of the
12 nation's ability to function”.¹⁰

13 37. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
14 coast of Fukushima prefecture, TEPCO was negligent because TEPCO operators
15 of the Fukushima Daiichi nuclear power plant negligently ignored warnings that
16 the complex was at risk of damage from a tsunami of the size that hit north-east
17 Japan in March, negligently dismissing the need for better protection against
18 seawater flooding. TEPCO officials rejected and scoffed at “unrealistic” estimates
19 made in a 2008 internal report that the plant could be threatened by a tsunami of up
20 to 10.2 meters. The tsunami that crippled backup power supplies at the plant on the
21 afternoon of 11 March, leading to the meltdown of three (3) reactors, was more
22 than 14 meters high, yet a tsunami of that height and higher had happened more
23

24
25
26 ⁹ Id.

27 ¹⁰ [http://www.theguardian.com/world/2012/may/29/fukushima-inquiry-naoto-](http://www.theguardian.com/world/2012/may/29/fukushima-inquiry-naoto-kan?uni=Article:in%20body%20link)
28 [kan?uni=Article:in%20body%20link](http://www.theguardian.com/world/2012/may/29/fukushima-inquiry-naoto-kan?uni=Article:in%20body%20link)

1 than once in Japan's recent history.¹¹ The meltdown was caused by design and
2 manufacturing defects, which resulted in catastrophic "Loss of Coolant Accidents",
3 resulting from the reactors' piping failing, breaking, splitting apart and cracking
4 during the earthquake.

5 38. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
6 coast of Fukushima prefecture, TEPCO was negligent because the "Assessments of
7 the aftermath of Fukushima tell a story of confusion at the site, and a lack of
8 communication between TEPCO and safety officials." The Plant's manager, Masao
9 Yoshida, took early retirement last year after being diagnosed with cancer.¹²

10 39. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
11 coast of Fukushima prefecture, TEPCO'S then President Masataka Shimizu,
12 although knowing that his statements were factually untrue, repeatedly assured the
13 public that "There has been no meltdown," and that the disaster was an
14 unforeseeable disaster. Both statements were patently false as the meltdowns were
15 in fact already occurring at the same time as Mr. Shimizu was providing statements
16 to the contrary and, far from being unforeseeable, the disaster had been repeatedly
17 forewarned by industry critics since 2008.

18 40. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
19 coast of Fukushima prefecture, TEPCO was negligent because problems with the
20 fractured, deteriorating, poorly repaired pipes and cooling system had been pointed
21 out for years. In September 2002, TEPCO admitted covering up data about cracks
22 in critically important circulation pipes. In their analysis of the cover-up, The
23 Citizen's Nuclear Information Centre wrote: "The records that were covered up had
24

25
26 ¹¹ [http://www.theguardian.com/world/2012/may/29/fukushima-inquiry-naoto-](http://www.theguardian.com/world/2012/may/29/fukushima-inquiry-naoto-kan?uni=Article:in%20body%20link)
27 [kan?uni=Article:in%20body%20link](http://www.theguardian.com/world/2012/may/29/fukushima-inquiry-naoto-kan?uni=Article:in%20body%20link)

28 ¹² Id.

1 to do with cracks in parts of the reactor known as recirculation pipes. These pipes
2 are there to siphon off heat from the reactor. If these pipes were to fracture, it
3 would result in a serious accident in which coolant leaks out.”

4 41. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
5 coast of Fukushima prefecture, TEPCO was negligent because on March 2, only
6 nine days before the meltdown, the government watchdog, the Nuclear Industrial
7 Safety Agency (NISA), warned TEPCO in regard to its failure to inspect critical
8 pieces of equipment at the plant, including recirculation pumps. TEPCO was
9 ordered to make the inspections and perform repairs if needed.¹³

10 42. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
11 coast of Fukushima prefecture, TEPCO was negligent because Kei Sugaoka, who
12 conducted on-site inspections at the plant and was the first to blow the whistle on
13 TEPCO’S data tampering, stated that he was not surprised by what happened. In a
14 letter to the Japanese government, dated 28 June, 2000, he warned that TEPCO
15 continued to operate a severely damaged steam dryer in the plant 10 years after he
16 pointed out the problem. “I always thought it was just a matter of time,” he says of
17 the disaster. “This is one of those times in my life when I’m not happy I was
18 right.”¹⁴

19 43. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
20 coast of Fukushima prefecture, TEPCO was negligent as explained by Katsunobu
21 Onda, author of TEPCO: The Dark Empire. Mr. Onda explains it this way: A
22 government or industry admission “raises suspicions about the safety of every
23 reactor they run. They are using a number of antiquated reactors that have the same
24

25
26 ¹³ [http://www.independent.co.uk/news/world/asia/the-explosive-truth-behind-](http://www.independent.co.uk/news/world/asia/the-explosive-truth-behind-fukushimas-meltdown-2338819.html)
27 [fukushimas-meltdown-2338819.html](http://www.independent.co.uk/news/world/asia/the-explosive-truth-behind-fukushimas-meltdown-2338819.html)

28 ¹⁴ Id.

1 systematic problems, the same wear and tear on the piping.” Earthquakes, of
2 course, are commonplace in Japan.¹⁵

3 44. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
4 coast of Fukushima prefecture, TEPCO’s negligence was uncovered by Mr.
5 Onda’s research. Mr. Onda spoke with several engineers who worked at the
6 TEPCO plants. One told him that often piping would not match up to the
7 blueprints. In that case, the only solution was to use heavy machinery to pull the
8 pipes close enough together to weld them shut. Inspection of piping was often
9 cursory and the backs of the pipes, which were hard to reach, were often ignored.
10 Repair jobs were rushed.¹⁶

11 45. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
12 coast of Fukushima prefecture, TEPCO was negligent because Mr. Onda adds:
13 “When I first visited the Fukushima Power Plant it was a web of pipes. Pipes on
14 the wall, on the ceiling, on the ground. You'd have to walk over them, duck under
15 them-sometimes you'd bump your head on them. The pipes, which regulate the
16 heat of the reactor and carry coolant, are the veins and arteries of a nuclear power
17 plant; the core is the heart. If the pipes burst, vital components don't reach the heart
18 and thus you have a heart attack, in nuclear terms: meltdown. In simpler terms, you
19 can't cool a reactor core if the pipes carrying the coolant and regulating the heat
20 rupture - it doesn't get to the core.”¹⁷ This is precisely what happened when the
21 earthquake struck the FNPP.
22

23 46. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
24 coast of Fukushima prefecture, TEPCO was negligent, as admitted by Tooru
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26 ¹⁵ Id.

27 ¹⁶ Id.

28 ¹⁷ Id.

Hasuike, a TEPCO employee from 1977 until 2009 and former general safety manager of the Fukushima plant, who stated: “The emergency plans for a nuclear disaster at the Fukushima plant had no mention of using seawater to cool the core. To pump seawater into the core is to destroy the reactor. The only reason you'd do that is that no other water or coolant was available.”¹⁸

47. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the coast of Fukushima prefecture, TEPCO was negligent because before dawn on March 12, 2011, as the water levels at the reactor began to plummet and the radiation began rising, a TEPCO press release published just past 4:00 am stated: “The pressure within the containment vessel is high but stable.” This was willfully false information.¹⁹

48. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the coast of Fukushima prefecture, TEPCO was negligent as evidenced by the fact that at 9:51 pm, under the chief executive's orders, the inside of the reactor building was declared a no-entry zone. At around 11 pm, radiation levels for the inside of the turbine building, which was next door to the reactor, reached levels of 0.5 to 1.2 mSv per hour. In other words, the meltdown was already underway.²⁰ The reactors were already melted or deeply involved in melting down.

49. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the coast of Fukushima prefecture, TEPCO was negligent because seawater was not pumped in until hours after a hydrogen explosion occurred, at roughly 8 pm. Sometime between 4 and 6 am on March 12, Masao Yoshida, the plant manager,

¹⁸ Id.

¹⁹ Id.

²⁰ Id.

1 decided it was time to pump seawater into the reactor core. By then, it was already
2 too late.²¹

3 50. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
4 coast of Fukushima prefecture, TEPCO was negligent because Naomi Hirose,
5 president of TEPCO, admitted negligence: "After I became president [in 2012], we
6 formed a nuclear safety review committee. We focused mainly on what we could
7 do, what we could learn. We had a lot of data by then. Three other reports, one
8 from the Diet [Japan's parliament], one from government. We had a lot of
9 information. TEPCO'S own report, too. We concluded that we should have
10 avoided that catastrophic accident, and we could have. We could see what we
11 should have done. Preventative measures included fitting waterproof seals on all
12 the doors in the reactor building, or placing an electricity-generating turbine on the
13 facility's roof, where the water might not have reached it. In addition, wrong
14 assumptions were made."²²

15
16 51. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
17 coast of Fukushima prefecture, TEPCO was negligent because they failed to have
18 12-volt batteries on the premises at FNPP to provide auxiliary power. TEPCO and
19 GE negligently failed nuclear power plant operation LESSON NO. 1: Emergency
20 generators should be installed at high elevations or in watertight chambers. The
21 Isolation Condenser (IC), which relied on convection and gravity to perform its
22 cooling function, should have helped keep the water level high in Unit 1's core
23 through the crisis. But operators had turned off the system just before the tsunami
24 by closing its valves. Thereafter, the electrical outage prevented the operators from
25

26 ²¹ Id.

27 ²² [http://www.theguardian.com/environment/2013/nov/19/uk-government-new-](http://www.theguardian.com/environment/2013/nov/19/uk-government-new-plant-fukushima-nuclear-disaster-warning)
28 [plant-fukushima-nuclear-disaster-warning](http://www.theguardian.com/environment/2013/nov/19/uk-government-new-plant-fukushima-nuclear-disaster-warning)

1 re-opening them to allow for the release of steam and the flow of cooling water.
2 Workers struggled to manually open the valves on the IC system.²³. Nuclear-power
3 plants must continuously cool their unstable, radioactive fuel. These cooling
4 systems run on electricity, which the plants ordinarily pull from the nation's power
5 grid. If the grid fails, on-site diesel generators kick on to keep the cooling systems
6 running. If the diesel generators don't kick on, the plant is in danger of melting
7 down. "There's no doubt TEPCO should have applied new designs" throughout
8 Fukushima, says Masatoshi Toyota, 88 years old and a retired top TEPCO
9 executive who helped oversee the building of the reactors. Because TEPCO's first
10 reactor buildings were too small, the generators had to be located somewhere else.
11 Therefore, engineers located them in neighboring structures which housed turbines.
12 The reactor buildings were fortress-like, with thick concrete walls and dual sets of
13 sturdy doors, but the turbine buildings were far less sturdy, especially their doors.
14 "Backup power generators are critical safety equipment, and it should've been a
15 no-brainer to put them inside the reactor buildings," Mr. Toyota says. "It's a huge
16 disappointment that nobody at TEPCO -including me- was sensitive enough to
17 notice and do something about this discrepancy."²⁴

19 52. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
20 coast of Fukushima prefecture, TEPCO was negligent because TEPCO was not
21 prepared with backup power. In the plant's parking lots, workers raised car hoods,
22 grabbed their car batteries, and lugged them back to the control rooms. They found
23 cables in storage rooms and studied diagrams. They were vainly hoping if they

25 ²³ <http://spectrum.ieee.org/energy/nuclear/24-hours-at-fukushima>

26 ²⁴

27 <http://online.wsj.com/news/articles/SB10001424052702304887904576395580035>
28 481822

could connect the batteries to the instrument panels, they could at least determine the water levels in the pressure vessels.²⁵

53. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the coast of Fukushima prefecture, TEPCO and GE were negligent because DEFENDANTS, and each of them, failed nuclear power plant operation LESSON NO. 2: If a cooling system is intended to operate without power, make sure all of its parts can be manipulated without power. TEPCO did have a backup for the emergency generators: power supply trucks outfitted with high-voltage dynamos. That afternoon, emergency managers at TEPCO's Tokyo headquarters sent 11 power supply trucks racing toward Fukushima Daiichi, 250 km distant. They promptly got stuck in traffic. The roads that were not damaged by the earthquake or tsunami were clogged with residents fleeing the disaster sites.²⁶

54. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the coast of Fukushima prefecture, TEPCO and GE negligently designed, maintained, managed, and prepared the reactor buildings, designing and building them too small to accommodate emergency equipment. In addition, this emergency equipment was not stored close by, but rather more than 55KM away from the plant,²⁷ and therefore TEPCO and GE failed nuclear power plant operation LESSON NO. 3: Keep power trucks, generators, and batteries on or very close to the power plant site, a rule so basic and vital that it should not even have been an issue. The containment vessel, which surrounds the pressure vessel, is a crucial line of defense: It is a thick steel hull meant to hold in any tainted materials that have escaped from the inner vessel. At 11:50 p.m., operators in the control room finally

²⁵ <http://spectrum.ieee.org/energy/nuclear/24-hours-at-fukushima>

²⁶ Id.

²⁷ <http://m.youtube.com/results?q=nhk%20fukushima%20documentary&sm=1>

1 connected car batteries to the pressure gauge for the primary containment vessel.
2 But the gauge revealed that the containment vessel had already exceeded its
3 maximum operating pressure, increasing the likelihood that it would leak, crack, or
4 even explode.²⁸

5 55. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
6 coast of Fukushima prefecture, TEPCO was negligent because TEPCO failed
7 nuclear power plant operation LESSON NO. 4: Install independent and secure
8 battery systems to power crucial instruments during emergencies. In their initial,
9 improvised response, the fire crew pumped water into the trucks' storage tanks,
10 then drove close to the side of the reactor building and injected the water into the
11 fire protection system's intake lines. It was 5:46 a.m. on March 12 when the first
12 drops of water sprayed across the molten fuel. Then the workers drove back to the
13 water tanks and began the slow, arduous operation all over again. Eventually
14 workers managed to use the fire engines' hoses to connect the water tanks directly
15 to the intake lines and established a steady flow of water. By mid-afternoon, they
16 had injected 80,000 liters of water into the pressure vessel using this makeshift
17 system. But it was too little, too late.²⁹

18 56. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
19 coast of Fukushima prefecture, TEPCO and GE were negligent because
20 DEFENDANTS, and each of them, failed nuclear power plant operation LESSON
21 NO. 5: Ensure that catalytic hydrogen re-combiners (power-free devices that turn
22 dangerous hydrogen gas back into steam) are positioned at the tops of reactor
23 buildings where gas would most likely collect. The workers in charge of the
24 venting operation took iodine tablets. It was a feeble attempt at protection against
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27 ²⁸ <http://spectrum.ieee.org/energy/nuclear/24-hours-at-fukushima>

28 ²⁹ Id.

1 the radiation they'd soon encounter, but it was better than nothing. They gathered
2 protective head-to-toe suits and face masks connected to air tanks. At 3:45 a.m.,
3 the vent crew tried to measure the radiation dose inside the reactor building, which
4 had been off limits for 6 hours. Armed with handheld dosimeters, they opened the
5 air lock, only to find a malevolent white cloud of some "gaseous substance"
6 billowing toward them. Fearing a radiation steam bath, they slammed the door
7 shut. They did not get their reading, but they had a good indication that things had
8 already gone seriously wrong inside the reactor.³⁰

9 57. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
10 coast of Fukushima prefecture, TEPCO and GE were negligent, because
11 DEFENDANTS, and each of them, failed nuclear power plant operation LESSON
12 NO. 6: Install power-free filters on vent lines to remove radioactive materials and
13 allow for venting that won't harm nearby residents. The failure of reactor 1 made
14 efforts to stabilize the other reactors exponentially more difficult: Now workers
15 would be laboring in a radioactive hot zone littered with debris. In addition, when
16 work crews returned to the power truck sometime after the explosion, they couldn't
17 get the power flowing. So the disaster continued.³¹

18 58. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the
19 coast of Fukushima prefecture, TEPCO was negligent because TEPCO had a
20 history of negligently causing other nuclear accidents including, but not limited to,
21 the following:
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27 ³⁰ Id.

28 ³¹ Id.

- a. 1981: almost 300 workers were exposed to excessive levels of radiation after a fuel rod ruptured during repairs at the Tsuruga Nuclear Power Plant.³²
- b. December 1995: the fast breeder Monju Nuclear Power Plant sodium leak. State-run operator Donen was found to have concealed videotape footage that showed extensive damage to the reactor.³³
- c. March 1997: the Tokaimura nuclear reprocessing plant fire and explosion, northeast of Tokyo. 37 workers were exposed to low doses of radiation. Donen later acknowledged it had initially suppressed information about the fire.³⁴
- d. In 1999: A fuel loading system malfunctioned at a nuclear plant in the Fukui Prefecture and set off an uncontrolled nuclear reaction and explosions.³⁵
- e. September 1999: the critical accident at the Tokai fuel fabrication facility. Hundreds of people were exposed to radiation; three workers received doses above legal limits, two of whom later died.³⁶
- f. In 2000: Three Tokyo Electric Power Co. executives were forced to quit after the company in 1989 ordered an employee to edit out footage showing cracks in nuclear plant steam pipes in a video being submitted to regulators.³⁷

³² http://en.wikipedia.org/wiki/Nuclear_power_in_Japan

³³ Id.

³⁴ Id.

³⁵ Id.

³⁶ Id.

³⁷ Id.

- 1 g. August 2002: a widespread falsification scandal started, which led to
2 the shutdown of all Tokyo Electric Power Company's 17 nuclear
3 reactors; Tokyo Electric's officials had falsified inspection records and
4 attempted to hide cracks in reactor vessel shrouds in 13 of its 17
5 units.³⁸
- 6 h. In 2002: Two workers were exposed to a small amount of radiation
7 and suffered minor burns during a fire at Onagawa Nuclear Power
8 Station in northern Japan.³⁹
- 9 i. In August 2004: four workers were killed after a steam explosion at
10 the Mihama-3 station; the subsequent investigation revealed a serious
11 lack in systematic inspection in Japanese nuclear plants, which led to
12 a massive inspection program.⁴⁰
- 13 j. In 2006: A small amount of radioactive steam was released at the
14 Fukushima Daiichi plant and it escaped the compound.⁴¹
- 15 k. On July 16, 2007: a severe earthquake (measuring 6.8 on the Richter
16 scale) hit the region where Tokyo Electric's Kashiwazaki-Kariwa
17 Nuclear Power Plant is located and radioactive water spilled into the
18 Sea of Japan; as of March 2009, all of these reactors remain shut
19 down for damage verification and repairs; the plant with seven units
20 was the largest single nuclear power station in the world.⁴²
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24 ³⁸ Id.

25 ³⁹ Id.

26 ⁴⁰ Id.

27 ⁴¹ Id.

28 ⁴² Id.

DESIGN DEFECTS IN MARK 1 BOILING WATER REACTORS

59. The Fukushima Daiichi nuclear power plant consists of six reactors. All six reactors were designed by GENERAL ELECTRIC (GE). Units 1 through 5 are based on the flawed Mark I design by GE. GE supplied the reactors for Units 1, 2, 3 and 6 and collaborated with the design of the reactors for Units 4 and 5. DEFENDANTS TEPCO and GE, have been involved in maintenance and servicing of the nuclear power plant during the past decades.

60. DEFENDANT GE negligently and defectively designed, engineered and constructed the Mark 1 Boiling Water Reactors ("BWR"), creating several manufacturing and design defects. One design and manufacturing defect of the Mark 1 Boiling Water Reactors is that the containment vessel, which is supposed to contain radioactive material, was designed, manufactured and built too small for its purpose. As a result, the first attempt to ameliorate this defect by the DEFENDANTS in 1976 was to attach large straps to hold the Torus down against inevitable uplift forces. The torus is the doughnut shaped structure at the bottom of the containment. The defectively designed Torus-a water-filled vessel encircling the primary containment vessel that is used to prevent reactor water from slamming directly into the reactor core-could potentially jump off the floor when reactor water rushes back from the steam turbines. Thus, the Torus prevents reactor water from rushing from the steam turbines directly into the reactor core under high pressure⁴³. The reactor water returning from the steam turbines has a much lower temperature than the steam leaving at the top of the reactor, and this much cooler water could cause thermal damage and actual cracking of the reactor fuel rods if it were to impinge directly onto the reactor core. An additional design

⁴³ <http://www.nytimes.com/2011/03/16/world/asia/16contain.html>

defect: the Mark 1 containment is insufficient to contain radioactive leaks by allowing radioactive materials to leak into the ground water and into the Pacific Ocean. This reactor was designed to contain these radioactive materials, and it has failed to do that. This is a fatal design defect.

61. In 1989, due to the likelihood of hydrogen generation, DEFENDANTS attempted a second Band-Aid fix. They installed vents on the side of the containment vessel to prevent over-pressurization. This installation was another negligent and defective design and construction since the purpose of the containment is to contain radiation releases in the event of an accident, yet these vents allow for the release of such radiation. Additionally, once open there is a risk that they will not be able to be closed. These vents failed catastrophically three times at Fukushima Daiichi.

62. The Second design and manufacturing defect of the Mark 1 Boiling Water Reactors is that their control rods^{44,45} enter through holes in the floor of the reactor vessel, presenting a myriad of opportunities for melted core materials to leak directly onto the containment floor. This is exactly what happened at Fukushima Daiichi. The BWR design is uniquely prone to melt through because it is built in a containment that is already inadequate by being too small to contain normal reactive forces.

⁴⁴ Control rods are used for rapid changes to the reactor power (e.g. shutdown and startup). http://en.wikipedia.org/wiki/Control_rod.

⁴⁵ Control rods are used for maintaining the desired state of fission reactions within a nuclear reactor. They constitute a real-time control of the fission process, which is crucial for both keeping the fission chain reaction active and preventing it from accelerating beyond control.

<http://large.stanford.edu/courses/2011/ph241/grayson1/> themselves.

63.A Third design and manufacturing defect of the Mark 1 Boiling Water Reactor is the positioning of the spent fuel pools at the top of the reactor buildings. Three reactor buildings blew up at Fukushima. The reactor buildings have their fuel pools more than 100 ft in the air, exposing them and releasing radioactive material directly into the atmosphere.⁴⁶ As a result of the hydrogen explosions, there was no more available containment, directly exposing the spent fuel rods and making them highly susceptible to an explosion. This scenario was especially dangerous in the case of reactor 4, as it contained fuel rods equivalent to those of all the other reactors combined.⁴⁷

**SAFETY RELEASE (“SR”) VALVE DESIGN DEFECT CAUSED CHAIN OF
MELTDOWNS**

64.At Fukushima Daiichi there was a “chain of meltdowns”, with Hydrogen explosions at reactors 1 and 3, and then in 2 and 4, one after another. The explosion in reactor 1 occurred on Saturday March 12, 2014 at 3:36 PM; the next explosion in reactor 3 took place on Monday March 14, 2014 at 11:01; the third explosion in reactor 2 was on Tuesday March 15, 2014 at 6:10 and was followed by the final explosion in reactor 4 later that same day, Tuesday March 15, 2014 at 9:38. This is the first time in history that a meltdown of multiple reactor cores in succession has occurred.

65. A Fourth design and manufacturing defect of the Mark 1 Boiling Water Reactor that contributed to the chain meltdown was a pipe connecting reactor 3 and 4. Even though the core had been completely unloaded from reactor 4, the last

⁴⁶ <https://www.youtube.com/watch?v=GTTNKTThFQ8>

⁴⁷ <https://www.youtube.com/watch?v=JMaEjEWL6PU>

1 explosion was due to a build-up of hydrogen, which entered the reactor via this
2 joint pipe from reactor 3.

3 66.A Fifth design and manufacturing defect of the Mark 1 Boiling Water
4 Reactor was the failure of the SR valves, each of which failed to open in each of
5 the reactors, largely contributing to “the chain of meltdowns”. The SR valves are
6 used to release steam from a reactor when the cooling system breaks down. There
7 are eight SR valves attached to the outside of each reactor. Had the opportunity
8 existed of opening even one of these valves, the internal pressure would have been
9 lowered enough to allow for the necessary and urgent injection of water as a
10 coolant. Instead, each of the 32 SR valves failed to open.

11 67.The SR valves are located in the primary containment vessel that houses the
12 reactor, where no one is allowed access, and therefore they must be opened
13 remotely from the main control room. If the pressure in the containment vessel
14 surges, the pressure inside the SR valve also goes up, which, in effect, prevents the
15 valve from opening. The nitrogen pressure line must be greater than the pressure
16 inside the SR valve in order for it to be able to open the SR valve. Unless the
17 pressure in the nitrogen valve increases, the pressure from above (inside the SR
18 valve) will keep the valve from opening. If the SR valves remain closed, there is no
19 way to prevent a meltdown, and the situation will deteriorate as the meltdown
20 progresses. This is because the temperature will keep surging, and the pressure
21 within the primary containment vessel will also continue to rise. The purported
22 safety mechanism was supposed to prevent a meltdown, and yet it became less
23 effective as the meltdown worsened. Due to the increase of heat from the melting
24 fuel, the higher pressure within the primary containment vessel prevented the SR
25 valves from opening.
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1 68.A Sixth design and manufacturing defect of the Mark 1 Boiling Water
2 Reactor is the failure to design a periodic testing of the SR valves to insure they
3 would open under different emergent conditions. TEPCO and GE never tested the
4 SR valves under these circumstances. The failure of the SR Valves caused the
5 Drywell and Suppression Chamber pressures to go down to zero, resulting in a
6 massive release of radioactive materials.

7 69.A Seventh design and manufacturing defect of the Mark 1 Boiling Water
8 Reactors is the failure to build into the design of the power plant a storage facility
9 for auxiliary electric power, including 12-volt batteries, which are highly portable
10 and weigh as little as 10 kilograms. Ten batteries provide enough power to open an
11 SR valve. In addition to this failure and omission in design by GE, TEPCO failed
12 to prevent a meltdown even though time was on their side. Operators thought they
13 had the time to prevent a crisis, but they did not. Two (2)-volt batteries were
14 delivered rather than the desperately needed 12-volt batteries which had been
15 requested at the onset of the disaster.

16 70. Atsufumi Yoshizawa, TEPCO's senior official in charge of procurement,
17 brought forth the excuse that he and his team were not able to prioritize the request
18 for 12 volt batteries. Such conduct glaringly displays TEPCO's recklessness and
19 negligence in the training, preparation and response to a foreseeable disaster such
20 as a nuclear meltdown: "People responding to the disaster needed all kinds of
21 things, we were trying to juggle all of the requests at the same time trying to get
22 them delivered as quickly as we could, we didn't have time to prioritize. We just
23 tried to grab whatever was on the list regardless of quantity...I believe we were in
24 a situation where screening each request according to priority was very difficult."
25 This chaotic and ill-designed approach to providing essential materials worsened
26 the disaster. The workers at Fukushima were left without the necessary batteries to
27
28

1 prevent a meltdown. On March 13, 2011, the day after the USS Reagan and the
2 PLAINTIFF Sailors arrived, the radiation rate at the main gate rose to 281
3 microSieverts/hour, at which rate the annual exposure rate would be reached in
4 four hours, at this dangerous and inappropriate level. The 12-volt batteries TEPCO
5 had procured were at a stock plant more than 55KM away from the plant...there
6 were over 1,000 of them, unavailable when desperately needed. There were also
7 small generators and pumps stranded at the distribution center, but no plan or
8 adequate training existed to ensure their transport to the contaminated plant.⁴⁸

9
10 71. An Eighth design and manufacturing defect of the Mark 1 Boiling Water
11 Reactor is the failure to build into the design Isolation Condensers which will
12 operate continuously. The Reactors were equipped with two isolation condensers
13 for cooling. They were designed to continue cooling without power, once engaged.
14 Hot steam from the reactor cools and condenses as it passes through a tank of
15 water. At the time of the meltdown, TEPCO workers had been operating the
16 machinery at intervals: That is, turning the machinery on and off, repeatedly. The
17 machinery happened to be in the idle position when the plant lost power. From that
18 point on, the reactor (#1) headed into meltdown, about 4 hours after the quake and
19 tsunami. Rapid cooling could damage the reactor, so they turned the cooling
20 system on and off at intervals. In the confusion, the operators forgot that they had
21 turned the isolation condensers off before the loss of power. When the power went
22 out, the operators in the main control center could not tell if the cooling system
23 was operating or not, since the indicators are lights powered by electricity, with no
24 back up or auxiliary power-another design defect. Operators mistakenly and
25 negligently assumed that the Isolation Condensers were operating and providing
26 cooling after the power outage. TEPCO communicated falsely to the public that

28 ⁴⁸ <http://m.youtube.com/results?q=nhk%20fukushima%20documentary&sm=1>

1 reactor 1 was safe and that the Isolation Condensers were operating 5.5 hours after
2 the power loss.

3 72.A Ninth design and manufacturing defect of the Mark 1 Boiling Water
4 Reactors is the failure to build into the design a periodic testing of the Isolation
5 Condensers.⁴⁹ None of the DEFENDANTS had ever tested the Isolation
6 Condensers in 40 years. TEPCO operators twice missed obvious signs that the
7 Isolation Condensers were not working: (1) One hour after the power outage, the
8 water level gauges came back online and it became apparent that the water level
9 had dropped two meters in one hour. The operators in the quake proof room
10 calculated that it was only going to take another hour until the water dropped down
11 to the top of active fuel. Failing to verify that the condensers were on, and indeed
12 cooling the reactor without power as they are designed to do was a major design
13 and manufacturing defect in training and preparation for emergency situations as
14 presented. (2) Operators observed only “faint” steam coming out of the “pig nose”,
15 the two release valves of the condensers. This phenomenon indicates that the
16 condensers are failing, compared to the blast of a major rush/cloud of steam when
17 they are functioning properly and provide cooling to the reactor. Faint steam
18 emerges two to three hours after the condensers have been turned off. This
19 indicates that the condensers had not been working for a full three hours. Each one
20 of the DEFENDANTS negligently failed to activate and test the Isolation
21

22
23 ⁴⁹ An Isolation Condenser is a heat exchanger located above containment in a pool
24 of water open to atmosphere. In operation, decay heat boils steam, which is drawn
25 into the heat exchanger and condensed; then it falls by weight of gravity back into
26 the reactor. This process keeps the cooling water in the reactor, making it
27 unnecessary to use powered feed-water pumps.

28 http://en.wikipedia.org/wiki/Boiling_water_reactor_safety_systems

1 Condensers in Reactor 1 for about 40 years. Consequently, none of the operators
2 had ever seen or even been briefed on what kind of steam should be visible when
3 the condensers are turned on. In comparison, at the Nine Mile Point Nuclear Plant
4 in the U.S., located in the Town of Scriba, approximately five miles northeast of
5 Oswego, New York, the Mark 1 reactors are put through a start-up test every four
6 years. Additionally, even if the Isolation Condensers had been online and
7 functioning, they would not have prevented the meltdowns because there were
8 ruptures in the reactor piping, which was draining all the reactor water out of the
9 reactor vessel. The Isolation Condensers can only function properly when there is
10 proper water-tight integrity within the reactor piping system; but with leaks in the
11 reactor piping and the operators unable to keep sufficient water in the reactor
12 vessels, the Isolation Condensers are rendered ineffective.

13
14 73.A Tenth design and manufacturing defect of the Mark 1 Boiling Water
15 Reactors was that GE reduced the height of the cliff on which the plant was built.
16 The DEFENDANTS failed to understand and consider this most devastating and
17 egregious oversight: Originally, in 1960, the cliff at Fukushima Daiichi was 35
18 meters high (about 115 feet), a buffer from the sea. The engineers at GE reduced
19 this natural barrier to 10 meters, making it a 30-foot cliff. “Tsunami” is a Japanese
20 word derived from “Tsu” meaning harbor; and “Nami” meaning waves. The entire
21 ocean rises up. On a boat at sea one is not aware of a tsunami because the entire
22 ocean rises up. However, when a tsunami hits a harbor, it travels at close to the
23 speed of sound and has enormous destructive power.

24 74.DEFENDANTS knew that tsunamis, all through history, have periodically
25 hit the coast of Japan. In 1896, there was a 40-meter high tsunami. In 1923, there
26 was a 13-meter tsunami. In 1933, there was a 28-meter tsunami, the most deadly
27 before the Daiichi tsunami. In 1944, there was a 12-meter tsunami. In 1946, there
28

1 was another 12-meter tsunami. In 1954 and 1955, 10 years before Fukushima
2 Daiichi was designed, there were 3 tsunamis, and all of them were over 13 meters.
3 None of the DEFENDANTS could claim ignorance of the height of previous
4 tsunamis.

5 75.The tsunami that hit Fukushima Daiichi in 2011 was just a middle-of-the-
6 road tsunami compared to the hundred years of history before it. Yet, in spite of
7 that history and knowledge, the tsunami wall was built by the DEFENDANTS at a
8 mere 4 meters, and later raised to a barely higher 5.7 meters. The 14 meter (46 ft)
9 high tsunami overwhelmed the plant's 5.7 meter high seawall. The tsunami water
10 flooded the low-lying rooms in which the emergency generators were housed. The
11 diesel generators were quickly flooded and then began to fail soon, their job being
12 taken over by emergency battery-powered systems. When the batteries for the
13 emergency system ran out the next day, on March 12, the active cooling systems
14 stopped, and the reactors began to heat up. The power failure also initiated the
15 failure of many of the vital reactor control instruments.
16

17 76.DEFENDANTS defectively reasoned that the lowered height of the sea wall
18 would keep the operating costs of the seawater pumps low. And lowering the bluff
19 was to allow the base of the reactors to be constructed on solid bedrock in order to
20 mitigate the threat posed by earthquakes. The DEFENDANTS' defective design of
21 lowering the site's elevation increased the reactor's vulnerability to a tsunami
22 larger than anticipated in the design of the reactor. This was a catastrophic and
23 preventable design defect since there had clearly been many tsunamis far higher,
24 evidence the DEFENDANTS completely ignored in their planning.

25 77.An Eleventh design and manufacturing defect of the Mark 1 Boiling Water
26 Reactors is that GE designed and placed the emergency power diesel generators in
27 the basement, and not even within any sort of waterproof container. Consequently,
28

1 when the tsunami hit, the emergency power diesel generators were flooded. The
2 emergency pumps, also called service water pumps, were placed in a location
3 where they ended up under water. And finally, the diesel tanks were placed in a
4 location where they too were flooded. In addition, the service water pumps had to
5 be at the water, but they were so badly designed that in any tsunami they would be
6 flooded.

7 78.A Twelfth design and manufacturing defect of the Mark 1 Boiling Water
8 Reactors is that GE failed to design and build a fraud-proof system that oversees
9 inspection and repair reports in order to ensure compliance with safety standards
10 and guidelines. On Feb 28, 2011, TEPCO submitted a report to the Japanese
11 Nuclear and Industrial Safety Agency, admitting that the company had previously
12 submitted fake inspection and repair reports. The report revealed that TEPCO
13 failed to inspect more than 30 technical components of the six reactors, including
14 power boards for the reactor's temperature control valves, as well as components of
15 the cooling systems such as water pump motors and emergency power diesel
16 generators. In 2008, the IAEA (International Atomic Energy Agency) warned
17 TEPCO that the FNPP was built using outdated safety guidelines and could be a
18 “serious problem” during a large earthquake.
19

20 79.A Thirteenth design and manufacturing defect is the failure by GE to design
21 an emergency back-up manual cooling system in order to allow fresh water to be
22 pumped directly into the reactors by fire hoses. TEPCO’s workers attempted to
23 inject water from fire trucks into piping leading to the reactor, only to discover,
24 after hours into this failed effort, that 55 percent of the water they injected was
25 being diverted into auxiliary pipes. Consequently, the meltdown raged unabatedly
26 because the injected water never reached the targeted reactor as it was actively
27 melting down. This design defect was also magnified by the failure of TEPCO and
28

1 GE to provide adequate training at periodic intervals. The workers who were
2 attempting to inject water from the fire trucks had an utter lack of understanding of
3 the piping system, as well as a lack of training. None of the workers had ever
4 practiced any of these emergency procedures.

5 **DEFENDANTS' PRIOR KNOWLEDGE OF DESIGN DEFECTS**
6

7 80.DEFENDANTS, and each of them, at all times before the PLAINTIFFS
8 arrived off the coast of Fukushima Prefecture to provide rescue and humanitarian
9 assistance, knew of the design and manufacturing defects and intentionally,
10 recklessly and negligently failed to take corrective and remedial action for the
11 protection of the public, including the PLAINTIFF U.S. Sailors, foreseeable
12 rescuers. Mitsuhiro Tanaka, a former engineer with HITACHI, says the company
13 covered up faults in the pressure vessel it produced for Fukushima's reactor 4.
14 When Tanaka tried to make this information public after the Chernobyl disaster in
15 1986, HITACHI threatened him, warning, "Think of your family." Tanaka says
16 other engineers in Japan were also concerned about the reactor's safety.⁵⁰
17

18 81.GE and TEPCO, and each of them, knew that FNPP, like the other oldest
19 nuclear plants in operation today, the GE Mark 1 boiling water reactors, was
20 vulnerable to catastrophic accidents due to a flawed reactor containment structure.
21 GE and TEPCO, and each of them, have known since the early 1970s that the
22 Mark 1 BWR could likely explode during a meltdown, releasing massive quantities
23 of toxic radiation and radioactive particles, endangering the lives of millions of
24 people and making large areas of land uninhabitable for generations to come.
25

26 ⁵⁰ [http://www.greenpeace.org/canada/en/campaigns/Energy/end-the-nuclear-
threat/Resources/Background-documents/QA-GE-Hitachis-role-in-the-Fukushima-
disaster-in-Japan/](http://www.greenpeace.org/canada/en/campaigns/Energy/end-the-nuclear-
27 threat/Resources/Background-documents/QA-GE-Hitachis-role-in-the-Fukushima-
28 disaster-in-Japan/)

1 82.GENERAL ELECTRIC, whose motto in the 1960's was, "Progress is our
2 most important product", announced in 1961: "We're going to ram this nuclear
3 thing through". Their chairman is quoted as saying that, and ram it through they
4 did. GE threatened to go out of business unless the Mark 1 design was continued.
5 Scientists in the United States, in 1965, recognized that this Mark 1 design had
6 flaws, and as Dr. Okrent, a scientist, said, "I think it was kind of a threat".
7 Engineers at GE resigned because they "didn't have the power to stop GE's faulty
8 design in 1966!" The turmoil that GE willfully chose to avoid in 1972 became the
9 turmoil Fukushima Daiichi experienced 40 years later. Essentially the fuse was lit
10 on Fukushima Daiichi in 1970, and it exploded on March 11, 2011.

11 83.Thirty-five years ago, Dale G. Bridenbaugh and two of his colleagues at
12 General Electric resigned from their jobs after becoming increasingly convinced
13 that the nuclear reactor design they were reviewing-the Mark 1-was so flawed that
14 it could lead to a devastating accident. Questions persisted for decades about the
15 ability of the Mark 1 to handle the immense pressures that would result if the
16 reactor lost cooling power. As early as the 1970s, its own engineers, e.g. Dale G.
17 Bridenbaugh, warned GE about critical flaws in the design of some reactors when
18 they were being built in Fukushima. These are the same flaws in the design of the
19 reactor Mark I, the same defects which have contributed to the radioactive
20 contamination after the tsunami. GE built five Mark I reactors at Fukushima
21 Daiichi, and 4 of them failed on March 11, 2011.

23 84.GE never made any serious effort to revise the design and tackle the safety
24 flaws of those reactors. In addition, GE did not even bother to properly incorporate
25 Japanese anti-seismic standards to the Mark I construction. Dale G. Bridenbaugh
26 stated: "The problems we identified in 1975 were that, in planning the design of
27 the containment, they did not take into account the dynamic loads that could be
28

1 experienced with a loss of coolant. “The impact loads the containment would
2 receive by this very rapid release of energy could tear the containment apart and
3 create an uncontrolled release.” In addition, the Mark 1 included an absolutely
4 insane design element: storing huge quantities of radioactive fuel rods 100 feet up
5 in the air.⁵¹

6 85. In 1972, Stephen H. Hanauer, then a safety official with the Atomic Energy
7 Commission, recommended that the Mark 1 system be discontinued because it
8 presented unacceptable safety risks. Among the concerns cited was the smaller
9 containment design, which was more susceptible to explosion and rupture from a
10 build-up in hydrogen: the exact situation that unfolded at the Fukushima Daiichi
11 plant. Later that same year, Joseph Hendrie, who would later become chairman of
12 the Nuclear Regulatory Commission, a successor agency to the Atomic
13 Commission, said the idea of a ban on such systems as the Mark I was attractive.

14 86. In 1986, Harold Denton, then the NRC's top safety official, told an industry
15 trade group, “The Mark I containment, especially being smaller with lower design
16 pressure, in spite of the suppression pool, if you look at the WASH 1400 safety
17 study, you'll find something like a 90% probability of that containment failing.”

18 **DESIGN DEFECTS WERE COST CUTTING**

19 87. Interviews with a dozen current and former senior Tokyo Electric Power
20 engineers, including several who were intimately involved when the fateful design
21 decisions were made in the 1960's and 1970's, reveal that GE and TEPCO had
22 many opportunities over the decades to retrofit the oldest reactors. The engineers
23 blame a combination of complacency and cost-cutting pressures. All the Reactors
24

25
26 ⁵¹ [http://www.globalresearch.ca/fukushima-general-electric-knew-its-nuclear-
27 reactor-design-was-unsafe-so-why-isnt-ge-getting-any-heat-for-
28 fukushima/5361300?print=1](http://www.globalresearch.ca/fukushima-general-electric-knew-its-nuclear-reactor-design-was-unsafe-so-why-isnt-ge-getting-any-heat-for-fukushima/5361300?print=1)

1 in the Fukushima plant were based on GE designs. GE maintained lucrative
2 contracts to service GE reactors in Japan.

3 88.To keep the reactor compact and economical, engineers from Defendant
4 GE's partner company EBASCO made the reactor building too small, said Mr.
5 Toyota, the engineer who helped to oversee the construction. "Backup power
6 generators are critical safety equipment, and it should've been a no-brainer to put
7 them inside the reactor buildings," Mr. Toyota says. "It's a huge disappointment
8 that nobody at TEPCO- including me-was sensitive enough to notice and do
9 something about this discrepancy."

10 89.Another TEPCO engineer who visited the Fukushima Daiichi plant many
11 times, starting in the 1970's, says the cramped reactor buildings barely allowed
12 room to install a valve during routine work. "It was super-inefficient," this
13 engineer says. "Some of us knew all along and were concerned about the
14 inconsistent placements of diesel generators at Fukushima Daiichi between reactor
15 No. 6 and the older reactors 1 through 5, and their potential vulnerability," says
16 one of TEPCO's top engineers who has guided the company's nuclear division.
17 The engineer says that when he was preparing for a regularly scheduled
18 government inspection in 1987, the inconsistent placement of the backup
19 generators "stood out like a sore thumb."
20

21 90.Says Mr. Toyota, the former TEPCO executive: "Over the years, a lot of
22 engineers have come up with different ideas to improve safety. But my guess is
23 that they couldn't come forward and point their ideas out to management because
24 of the high costs associated with back-fitting older reactors with new designs."

25 91.Warnings and design critique: In 1990, the U.S. Nuclear Regulatory
26 Commission (NRC) ranked the failure of the emergency electricity generators and
27 subsequent failure of the cooling systems of plants in seismically very active
28

regions as one of the most likely risks. The Japanese Nuclear and Industrial Safety Agency (NISA) cited this report in 2004. According to Jun Tateno, a former NISA scientist, TEPCO did not react to these warnings and did not respond with any measures.

92. Safety is a non-delegable duty. GE is responsible for each and every design and manufacturing defect and all design flaws at the Fukushima reactors, including the design defect of the location of emergency diesel generators at the Fukushima Nuclear-power plants which must continuously cool their unstable, radioactive fuel. These cooling systems run on electricity, which the plant ordinarily pulls from the nation's power grid. If the grid fails, on-site diesel generators kick on to keep the cooling systems running. If these generators don't work, the plant is then in immediate danger of melting down. Because TEPCO's first reactor buildings were designed and built too small, the generators had to be stored somewhere else. Engineers put them into neighboring structures that house turbines and are neither sturdy nor water-tight.

93. In the case of Fukushima's Unit 1, during the loss of coolant on March 11, 2011, the pressure inside the containment vessels exceeded their design capacity almost up to twice. In 1976, GE and TEPCO knew that the Mark 1 system had not been designed to withstand the accident it was supposed to contain. In 2011, reactors 1, 2, and 3 were operating at the time and blew up, spewing radiation worldwide. Radioactive cesium, strontium, iodine, and hot particles including molten uranium, from the four reactors spread all over Northern Japan, and the resulting radioactive plume blew across the ocean and was measured around the world.

RADIOACTIVE CANCER-CAUSING RELEASES PREVENTABLE

1 94. This is the worst industrial accident in the history of the world, and is largely
2 due to inherent design flaws, inaccurate risk assumptions, and the failure of every
3 safety system designed to operate in such an event. This tragedy WAS preventable.
4 Corporate financial goals, world politics and engineering hubris put money and
5 power before the lives and health of people who farm, fish, and live... affecting
6 them and foreseeable rescuers, including the U. S. Sailors-for hundreds of years.
7 The areas around the plant, including the Pacific Ocean, are contaminated to a
8 point that could not be imagined; no method of mitigation exists. The Fukushima
9 Daiichi site will continue to bleed radiation into the Pacific for 100 years or
10 longer.⁵²

11 95. The initial nuclear meltdown from the Fukushima reactors released several
12 radioactive isotopes, such as iodine-131, cesium-134 and cesium-137 and
13 strontium-90. Cesium-137 has a half-life of 30 years and remains in the
14 environment for decades. Nuclear fuel is loaded with noble gases. The noble gases,
15 such as xenon or krypton, are called noble because they don't react with anything.
16 All the noble gases were released. The data indicates that the concentration of
17 xenon in Chiba-which is a noble gas-was 400,000 times more than normal
18 immediately after the accident. Also, that the concentration of xenon in Chiba was
19 1,300 Becquerels per cubic meter for 8 days. A cubic meter is 3 feet by 3 feet by 3
20 feet, and inside every cubic meter of air over Chiba, there were 1,300
21 disintegrations emitting radioactivity every second, for 8 days and each and every
22 disintegration releases a radiation particle or gamma ray.

24 96. This data was just recently released by FNPP. There were 4 radiation
25 detectors that continued to work after the Daiichi accident. Almost all of them

27 ⁵² [http://investigations.nbcnews.com/_news/2011/03/13/6256121-general-electric-](http://investigations.nbcnews.com/_news/2011/03/13/6256121-general-electric-designed-reactors-in-fukushima-have-23-sisters-in-us)
28 [designed-reactors-in-fukushima-have-23-sisters-in-us](http://investigations.nbcnews.com/_news/2011/03/13/6256121-general-electric-designed-reactors-in-fukushima-have-23-sisters-in-us)

1 didn't have power, but a couple of them were battery powered, and TEPCO just
2 recently discovered the data. Normal background on these radiation detectors was
3 about 0.04 microsieverts. At 5 o'clock in the morning, right after the accident, the
4 radiation in the detectors was 10 times greater than background. At 6 o'clock, 60
5 times background. At 9 o'clock, 150 times background. 10 o'clock, 700 times
6 background. This means that people in the vicinity of these radiation detectors
7 were getting a yearly dose in 12 hours. Then the vents were open. So this is a clear
8 indication that the containments were leaking well before the vents were open. At
9 3 o'clock, the same detectors were measuring 30,000 times background. That
10 means a yearly dose in ten minutes for the people near FNPP. It is also important
11 to realize this may not have been the worst. This happens to be where the detector
12 was. But it doesn't mean that the main plume chose to go to the detector and get
13 that reading.

14
15 97. Five (5) soil samples and a piece of pavement from a children's park right
16 next to a school were analyzed by Marco Kaltofen at Worcester Polytech. Each of
17 the samples exceeded 7,000 Becquerels per kg. This means that in a two pound
18 box of sample there were 7,000 disintegrations per second of cesium in Tokyo-
19 more than a hundred miles away from the accident. 7,000 becquerels/kg qualifies
20 as radioactive waste in the United States.

21 98. When compared to Chernobyl, the total available cesium at Chernobyl was
22 2.9 petabecquerels or pbecquerels, with 17 zeros behind it, of cesium
23 (290,000,000,000,000,000 counts per minute of cesium). There was almost three
24 times more cesium available to be released at Daiichi 1, 2 and 3. The releases of
25 noble gases at Fukushima were 3 times the releases of Chernobyl, and the
26 containment leak rate was 300% per day, that's an NRC number, and the
27 decontamination for cesium was zero. Nothing was getting filtered out, or scrubbed
28

1 out in the suppression pool, recombiners, or vent stack filters. “TEPCO says a
2 groundwater sample taken from a well at the Fukushima No. 1 nuclear plant last
3 July contained a record high 5 million becquerels per liter of radioactive strontium-
4 90.”⁵³ PLAINTIFF U. S. Sailors were trapped in the prevailing wind blowing out
5 to sea, carrying the deadly plume of all these radioactive particles.

6 99. The radioactive liquid releases will continue for years and years into the
7 future. The liquid releases are 10 times the amounts of Chernobyl. On July 11,
8 2014, Environmental Science & Technology, an authoritative source of
9 information for professionals in a wide range of environmental disciplines,
10 published: The Novel Insights into Fukushima Nuclear Accident from Isotopic
11 Evidence of Plutonium Spread along Coastal Rivers. The results of this
12 organization’s study “indicated the presence of Plutonium (“Pu”) from FNPP, in
13 slight excess compared to the Pu background from global fallout.... These results
14 demonstrate that this radionuclide has been transported relatively long distances (~
15 45 km) from FNPP and has been deposited in rivers, representing a potential
16 source of Pu to the ocean.”⁵⁴

17 100. In a leaked TEPCO report dated June 2011, it was revealed that
18 plutonium-238, -239, -240, and -241 were released "to the air" from the site during
19 the first 100 hours after the earthquake, the total amount of plutonium said to be
20 120 billion becquerels (120 GBq)-perhaps as much as 50 grams. The same paper
21 mentioned a release of 7.6 trillion becquerels of neptunium-239-about 1 milligram.
22 As neptunium-239 decays, it becomes plutonium-239. TEPCO made this report for
23
24

25 ⁵³ [http://www.japantimes.co.jp/news/2014/02/07/national/record-strontium-90-](http://www.japantimes.co.jp/news/2014/02/07/national/record-strontium-90-level-in-fukushima-groundwater-sample-last-july/#.U_ONilh0yM8The)
26 [level-in-fukushima-groundwater-sample-last-july/#.U_ONilh0yM8The](http://www.japantimes.co.jp/news/2014/02/07/national/record-strontium-90-level-in-fukushima-groundwater-sample-last-july/#.U_ONilh0yM8The)

27 ⁵⁴ <http://pubs.acs.org/doi/abs/10.1021/es501890n>, (Environ.
28 Sci. Technol., Article ASAP, DOI: 10.1021/es501890n)

1 a press conference on 6 June 2011. Plutonium-239 is particularly long-lived and
2 toxic with a half-life of 24,000 years and remains hazardous for tens of thousands
3 of years. The isotope iodine-131 is easily absorbed by the thyroid. Persons exposed
4 to releases of I-131 from any source have a higher risk for developing thyroid
5 cancer or thyroid disease, or both. Iodine-131 has a short half-life at approximately
6 8 days. Caesium-137 is also a particular threat because it behaves like potassium
7 and is taken up by cells throughout the body. Additionally, it has a long, 30-year
8 half-life. Cs-137 can cause acute radiation sickness, and increases the risk for
9 cancer because of exposure to high-energy gamma radiation. Internal exposure to
10 Cs-137, through ingestion or inhalation, allows the radioactive material to be
11 distributed in the soft tissues, especially muscle tissue, exposing these tissues to the
12 beta particles and gamma radiation and increasing cancer risk.

13
14 101. Strontium-90 behaves like calcium, and tends to deposit in bone and
15 blood-forming tissue (bone marrow). 20–30% of ingested Sr-90 is absorbed and
16 deposited in the bone. Internal exposure to Sr-90 is linked to bone cancer, cancer
17 of the soft tissue near the bone, and leukemia. The risk of cancer increases with
18 increased exposure to Sr-90.⁵⁵

19 102. The radioactive isotopes from the FNPP have already reached North
20 America. Two radioactive cesium isotopes, cesium-134 and cesium-137, have been
21 detected offshore Vancouver, British Columbia⁵⁶

24 ⁵⁵

25 http://en.wikipedia.org/wiki/Radiation_effects_from_the_Fukushima_Daiichi_nuclear_disaster

26
27 ⁵⁶ <http://www.scientificamerican.com/article/radioactive-isotopes-from-fukushima-meltdown-detected-near-vancouver/>

DESIGN CONTENT OF THE MARK 1 BOILING WATER REACTOR:

103. The Fukushima Daiichi reactors are GE boiling water reactors (BWR) of an early (1960s) design supplied by DEFENDANT GE with what is known as a Mark I containment. Reactors 1-3 came into commercial operation from 1971-75. Reactor power is 460 MWe for unit 1, 784 MWe for units 2-5, and 1100 MWe for unit 6. The fuel assemblies are about 4 m long, and there are 400 fuel rods in unit 1; 548 in units 2-5; and 764 in unit 6. Each assembly has 60 fuel rods containing the uranium oxide fuel within zirconium alloy cladding. Unit 3 has a partial core of mixed-oxide (MOX) fuel (32 MOX assemblies, 516 LEU). They all operate normally at 286°C at core outlet under a pressure of 6930 kPa and with 115-130 kPa pressure in dry containment. The four reactors all began operation in the 1970s. Units 1, 3 and 4 were built by DEFENDANT GE in collaboration with other contractors, while Unit 2 was a GE project with a different partner.

<u>Reactor</u>	<u>Design</u>	<u>Size</u>	<u>Commercial Operation</u>
Fukushima I-1	General Electric Mark I BWR	439MW	March 1971
Fukushima I –2	General Electric Mark I BWR	760 MW	July 1974
Fukushima I - 3	General Electric Mark I BWR	760 MW	March 1976
Fukushima I - 4	General Electric Mark I BWR	760 MW	October 978
Fukushima I - 5	General Electric Mark I BWR	760 MW	April 1978
Fukushima I - 6	General Electric Mark II BWR	1067 MW	October 979 ⁵⁷

DEFENDANTS PLACED MARK 1 INTO STREAM OF COMMERCE

104. Today, in the United States, there are 23 aging Mark 1 reactors identical to Fukushima, including Vermont Yankee on the Connecticut River in

⁵⁷ <http://www.scribd.com/doc/50550192/NIRS-Fact-Sheet-on-Fukushima-Nuclear-Power-Plant>

Vermont. These plants pose a particular hazard with their over-crowded, high-level nuclear waste spent fuel pools that are not in hardened containment structures, making them vulnerable to natural disasters and terrorist attacks. These highly poisonous nuclear waste materials need to be kept out of the environment for 250,000 years.⁵⁸ There are 23 BRW Nuclear Power Plants in the United States and 10 additional around the world, similar in design to those at FNPP.

105. The NRC database of nuclear power plants shows that 23 of the 104 nuclear plants in the U.S. are GE boiling-water reactors with GE's Mark I systems for containing radioactivity, the same containment system used by the Reactors at the Fukushima Daiichi plant. The location of the U.S. GE Mark 1 reactors are as follows:

1. Browns Ferry 1, Athens, Alabama, operating license since 1973, reactor type GE 4.
2. Browns Ferry 2, Athens, Alabama, 1974, GE 4
3. Browns Ferry 3, Athens, Alabama, 1976, GE 4.
4. Brunswick 1, Southport, North Carolina, 1976, GE 4.
5. Brunswick 2, Southport, North Carolina, 1974, GE 4.
6. Cooper, Brownville, Nebraska, 1974, GE 4.
7. Dresden 2, Morris, Illinois, 1970, GE 3.
8. Dresden 3, Morris, Illinois, 1971, GE 3.
9. Duane Arnold, Palo, Iowa, 1974, GE 4.
10. Fermi 2, Monroe, Michigan, 1985, GE 4.
11. FitzPatrick, Scriba, New York, 1974, GE 4.
12. Hatch 1, Baxley, Georgia, 1974, GE 4.
13. Hatch 2, Baxley, Georgia, 1978, GE 4.

⁵⁸ <http://www.fairewinds.org/japan-friends-tv-documentary-10-pm-june-1-japan/>

14. Hope Creek, Hancock's Bridge, New Jersey, 1986, GE 4.
15. Monticello, Monticello, Minnesota, 1970, GE 3.
16. Nine Mile Point 1, Scriba, New York, 1969, GE 2.
17. Oyster Creek, Forked River, New Jersey, 1969, GE 2.
18. Peach Bottom 2, Delta, Pennsylvania, 1973, GE 4.
19. Peach Bottom 3, Delta, Pennsylvania, 1974, GE 4.
20. Pilgrim, Plymouth, Massachusetts, 1972, GE 3.
21. Quad Cities 1, Cordova, Illinois, 1972, GE 3.
22. Quad Cities 2, Moline, Illinois, 1972, GE 3.
23. Vermont Yankee, Vernon, Vermont, 1972, GE 459

HOW BWR PRODUCES ELECTRICITY:

106. In a Boiling Water Reactor (BWR for short) the nuclear fuel heats water, the water boils and creates steam, the steam then drives turbines that create the electricity, and the steam is then cooled and condensed back to water, and the water returns to be heated by the nuclear fuel. The reactor operates with the nuclear fuel that is uranium oxide. Uranium oxide is a ceramic with a very high melting point of about 2800 °C. The fuel is manufactured in pellets (cylinders that are about 1 cm tall and 1 cm in diameter). These pellets are then put into a long tube made of Zircaloy (an alloy of zirconium) with a failure temperature of 1200 °C (caused by the auto-catalytic oxidation of water), and sealed tight. This tube is called a fuel rod. These fuel rods are then put together to form assemblies, several hundred of which make up the reactor core. The solid fuel pellet (a ceramic oxide matrix) is the first barrier that retains many of the radioactive fission products produced by the fission process. The Zircaloy casing is the second barrier to

⁵⁹ http://investigations.nbcnews.com/_news/2011/03/13/6256121-general-electric-designed-reactors-in-fukushima-have-23-sisters-in-us

release that separates the radioactive fuel from the rest of the reactor. The core is then placed in the pressure vessel. The pressure vessel is a thick steel vessel that operates at a pressure of about 7 MPa⁶⁰(1000 psi), and is designed to withstand the high pressures that may occur during an accident. The pressure vessel is the third barrier to radioactive material release.

107. The entire primary loop of the nuclear reactor-the pressure vessel, pipes, and pumps that contain the coolant (water)-are housed in the containment structure. This structure is the fourth barrier to radioactive material release. The containment structure is a hermetically (air tight) sealed, very thick structure made of steel and concrete. This structure is designed, built and tested for one single purpose: To contain, indefinitely, a complete core meltdown. To aid in this purpose, a large, thick concrete structure is poured around the containment structure and is referred to as the secondary containment. Both the main containment structure and the secondary containment structure are housed in the reactor building. The reactor building is an outer shell that is supposed to keep the weather out, but nothing in. (this is the part that was damaged in the explosions).

108. **Fundamentals of nuclear reactions:** The uranium fuel generates heat by neutron-induced nuclear fission. Uranium atoms are split into lighter atoms (aka fission products). This fission process generates heat and more neutrons (one of the particles that forms an atom). When one of these neutrons hits another uranium atom, that atom can split, generating more neutrons and so on. That is called the

⁶⁰ Megapascal (MPa) is a metric pressure unit and equals to 1 000 000 force of newton per square meter which is known as a Pascal. Pound-per-square-inch (abbreviated as PSI) is a unit of pressure, which measures the quantity of pressure per square inch of area. It is defined as the pressure of a force of 1 pound applied homogeneously above an area of 1 sq inch. Pound or pound force per square inch (psi, pfsi, lb/in², or lbf/in²) is a commonly used British plus American unit of measurement for pressure. (1 psi = 6,894.76 Pascal)

<http://convertmpatopsi.com/Pound-per-square-inch-psi.html>

1 nuclear chain reaction. During normal, full-power operation, the neutron
2 population in a core is stable (remains the same) and the reactor is in a critical
3 state. There is a multitude of fission products that are produced in a reactor,
4 including cesium and iodine. Others decay more slowly, like some cesium, iodine,
5 strontium, and argon.

6 **FOUR (4) HYDROGEN EXPLOSION RELEASES**

7 109. What happened at Fukushima (as of March 11, 2011): The earthquake
8 which hit Japan was several times more powerful than the worst earthquake the
9 nuclear power plant was designed and built to withstand. This was a design defect.
10 When the earthquake hit, the nuclear reactors all automatically shut down. Within
11 seconds after the earthquake started, the control rods had been inserted into the
12 core and the nuclear chain reaction stopped. At this point, the cooling system was
13 supposed to carry away the residual heat, about 7% of the full power heat load
14 under normal operating conditions. The earthquake destroyed the external power
15 supply of the nuclear reactor, and is referred to as a “loss of offsite power.” For the
16 first hour, the first set of multiple emergency diesel power generators started and
17 provided the electricity that was needed. However, when the tsunami arrived, it
18 flooded the diesel generators, causing them to fail. One of the fundamental tenets
19 of nuclear power plant design is “Defense in Depth.” This approach leads
20 engineers to design a plant that can withstand severe catastrophes, even when
21 several systems fail. DEFENDANTS, and each of them, failed to design a Defense
22 in Depth system, resulting in a core meltdown. Since the cooling cannot be
23 restored, the core eventually melts. Since hydrogen gas is extremely combustible,
24 when enough hydrogen gas is mixed with air, it reacts with oxygen. If there is
25 enough hydrogen gas, it will react rapidly, producing an explosion. At some point
26 during the venting process enough hydrogen gas built up inside the containment
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(there is no air in the containment), so when it was vented to the air, an explosion occurred in four of the six (6) reactors-Reactors 1-4. These hydrogen explosions destroyed the top and some of the sides of the reactor buildings.

110. ON AND BEFORE MARCH 11, 2011, before the PLAINTIFFS arrived off the coast of Fukushima prefecture, TEPCO was negligent because TEPCO's spokesman, Masayuki Ono, admitted that “up to 300 tons of highly contaminated water from the FNPP site were seeping into the sea and had been leaking radioactive matter since the plant suffered a triple meltdown on 11 March 2011.” One PLAINTIFF declared: “ship was still taking in sea water - but obviously the ship can't filter out the radiation. Water we all showered with, drank, brushed our teeth, and had our food cooked with...”

111. ON AND BEFORE MARCH 11, 2011, before the PLAINTIFFS arrived off the coast of Fukushima prefecture, TEPCO was negligent because Minister Yoshihiko Noda is admitting that TEPCO created a man-made disaster, admitting liability and fault: “TEPCO must compensate those affected with sincerity and generosity as well as carry out a thorough reorganization,” and he wants TEPCO to “speedily” pay compensation to victims of the Fukushima nuclear disaster.”⁶¹

112. On March 14, 2011, the Navy published: “The U.S. 7th Fleet has temporarily repositioned its ships and aircraft away from the Fukushima Dai-Ichi Nuclear Power Plant after detecting contamination in the air and on its aircraft operating in the area. The source of this airborne radioactivity is a radioactive plume released from the Fukushima Dai-Ichi Nuclear Power Plant. Using sensitive instruments, precautionary measurements of three helicopter air crews returning to

⁶¹ <http://www.nuc.berkeley.edu/node/5833>

1 USS Ronald Reagan after conducting disaster relief missions near Sendai
2 identified [measureable] levels of radioactivity on 17 air crew members.”⁶²

3
4 **FIRST CAUSE OF ACTION**
5 **(Negligence)**
6 **Against ALL DEFENDANTS**

7 113. PLAINTIFFS hereby incorporate the allegations contained in the
8 preceding paragraphs as though fully set forth herein.

9 114. California Code of Civil Procedure, Section 1714 provides, in
10 pertinent part, the following: “Everyone is responsible, not only for the result of his
11 or her willful acts, but also for an injury occasioned to another by his or her want
12 of ordinary care or skill in the management of his or her property or person, except
13 so far as the latter has, willfully or by want of ordinary care, brought the injury
14 upon himself or herself.”

15 115. At all times herein mentioned, DEFENDANT TEPCO and TEPCO’s
16 servants, agents and/or employees owed PLAINTIFFS the same duty of care it
17 owed to those in the vicinity of FNPP by reasonably and safely operating FNPP.
18 DEFENDANT GE and its servants, agents and/or employees, owed PLAINTIFFS
19 the same duty of care they owed to those in the vicinity of FNPP to reasonably and
20 safely design, maintain, manage and control the BWR at FNPP in a safe and
21 suitable condition, and in good repair. The facts above make abundantly clear that
22 DEFENDANT TEPCO’S acts and omissions and the acts and omissions of
23 DEFENDANT GE and its servants, agents and/or employees, clearly breached the
24 duties owed to people in the vicinity of FNPP and breached the duties owed to
25 PLAINTIFFS. The breach of the duties owed by DEFENDANT TEPCO and by
26 DEFENDANT GE directly resulted in FNPP’s radioactive releases, causing the
27

28 ⁶² http://www.navy.mil/submit/display.asp?story_id=59065

1 PLAINTIFFS, along with the general public in Fukushima and surrounding areas,
2 to incur severe, life-threatening harm.

3 116. DEFENDANT TEPCO negligently maintained, managed, and
4 controlled FNPP, and these negligent actions and omissions caused direct and
5 proximate harm to PLAINTIFFS. DEFENDANT GE negligently designed,
6 maintained, managed, and controlled FNPP and these negligent actions and
7 omissions caused direct and proximate harm to PLAINTIFFS.

8 117. Prior to March 12, 2011, TEPCO knew that the U.S. Navy rescue
9 mission personnel were in danger of being irradiated by spreading radiation from
10 Unit 1 at the six-reactor Fukushima-Daiichi nuclear complex. At least three other
11 Units were in danger of failing, including the spent fuel pool of reactor Unit 4,
12 holding 1,535 bundles of irradiated fuel.

13 118. On March 11, 2011, before the USS Ronald Reagan and Carrier Strike
14 Group 7 arrived two miles off the coast, Fukushima Unit 1 blew up. Then Unit 3
15 exploded, releasing plums of hydrogen gases migrating through a shared vent,
16 which destroyed the containment building at Unit 4, exposing the spent fuel pool to
17 the air. Unit 2 followed suit. TEPCO announced that most of the fuel rods in Units
18 1, 2, and 3 were intact. They were not intact. This was a false, misleading,
19 consciously negligent act and omission. The true facts were that the fuels in Units
20 1, 2, and 3 had fused into a molten mass and were oozing through the bottom of
21 their destroyed reactors. PLAINTIFFS suffered harms, damage and suffered, and
22 continue to suffer, life-threatening injuries as a result of TEPCO's negligence, and
23 the negligence of all DEFENDANTS.
24

25 119. At all relevant times, DEFENDANT TEPCO was aware that the U.S.
26 Navy and its personnel would provide rescue and humanitarian relief operations,
27 including performance of their efforts to provide humanitarian assistance during its
28

1 relief mission to ferry food, blankets and water to the inhabitants of the ravaged
2 city of Sendai, located within the prefecture of Fukushima, Japan, following the
3 earthquake and tsunami on March 11, 2011.

4 120. At all relevant times herein mentioned, the radiation produced at the
5 FNPP does not occur naturally. Rather, the radiation releases were admittedly
6 DEFENDANT’S negligent “man-made disaster.”

7 121. The radiation, which was produced as a result of nuclear fission, was
8 utilized to boil water in order to produce steam-generated power.

9 122. At all relevant times all of the DEFENDANTS were aware that
10 exposure to even a low dose of radiation creates grave danger to people’s health.
11 DEFENDANT TEPCO was also aware of the importance of accurately reporting
12 actual radiation release levels.⁶³

13 123. As a direct and proximate consequence of the negligence of all the
14 DEFENDANTS, the reactors were damaged, and power to the cooling mechanism
15 of the FNPP was interrupted, resulting in a meltdown of the fuel and reactors
16 themselves, thereby triggering the release of high levels of ionizing radiation,
17 including radioactive cesium.⁶⁴

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20 ⁶³ Numerous studies indicate that even low dose radiation poses a severe danger to
21 health; see eg., “No Safe Dose - Japan’s Low -Dose Radiation Disaster,”
22 <http://rense.com/general95/no-safe-dose.htm>; “Even Low-level radioactivity is
23 damaging. Broad analysis of many radiation studies finds no exposure threshold
24 that precludes harm to life,”

25 <http://www.sc.edu/news/newsarticle.php?nid=5214#.UKljmkvma6X>; Meta-
26 Review of 46 Studies: Even the Lowest-Level Radiation is Damaging to Human
27 Health,

28 [http://www.washingtonsblog.com/2012/11/meta-review-of-42-studies-even-the-
lowest-level-radiation-is-damaging-to-human-health.html](http://www.washingtonsblog.com/2012/11/meta-review-of-42-studies-even-the-lowest-level-radiation-is-damaging-to-human-health.html)

⁶⁴ At Fukushima, large releases of radioactivity apparently came from the concrete
pools, where spent fuel rods, clad with a special alloy, were placed to cool down
after their use in the reactors. These spent fuel rods were extremely hot – up to

124. Nuclear radiation is a known human carcinogen that is linked to many human health problems. The U.S. Environmental Agency (“EPA”) classifies it as a human carcinogen.⁶⁵

125. When radiation from a reactor is spilled or leaks, it contaminates the environment and poses a serious health threat to humans and other species. The greater the concentration of radiation that escapes from the reactor or fuel rods, the higher the risk to humans, creating an enhanced threat to human health.

126. Radiation does not readily break down and does not biodegrade in the ground or water or apparatus exposed to it. Research shows that it will persist in the environment for decades, since it has a half-life in excess of 77 years, far longer than the life expectancy of humans exposed to it.

2,000 degrees Fahrenheit – and needed a constant circulation of cold water to keep them from burning up.

⁶⁵ According to experts, “[t]here is a near universal acceptance that epidemiological data demonstrates an excess risk of delayed cancer incidence above a dose of 0.1 sieverts. All who met with Fukushima’s radioactive fallout are probably to have some problem with the thyroid.” See <http://enenews.com/watch-all-people-met-fukushimas-radioactive-fallout-problem-thyroid-many-tokyo-already-developing-problems-video>;

Nuclear expert Claudia French, who was professor emeritus of molecular and cell biology at UC Berkeley, who worked on the “Manhattan Project” on uranium effects, and established the Biomedical Research Division of the Lawrence Livermore National Laboratory, wrote in his 1990 book that “by any reasonable standard of biomedical proof” there is no threshold level (no harmless dose) of ionizing radiation with respect to radiation mutagenesis and carcinogenesis – a conclusion supported in 1995 by a government-funded radiation committee.

“The results of surveys and biological monitoring of children and adults of Chernobyl point unambiguously to a steady, rapid and dramatic deterioration of health of all victims of the impact of the Chernobyl accident,” wrote Drs. E.B.

1 127. The FNPP was constructed at Fukushima more than 40 years ago.
2 According to a local labor commission, low-skilled workers, illegally recruited in
3 Japan's poorest areas, were used in building the nuclear power plant in the 1960s.
4 The poor quality of construction, as well as structural defects, negligent
5 maintenance and personnel negligence eventually triggered the disastrous
6 consequences on March 11, 2011.

7 128. During their lifetimes before March 12, 2011, the PLAINTIFFS, and
8 each of them, had never been exposed to harmful levels of radiation, including the
9 time they served aboard the U.S.S. Ronald Reagan (CVN-76), aboard other vessels
10 within the strike force, on land or air or sea, or at any other times or places.

11 129. As a direct and proximate result of the wrongful acts and negligence
12 of DEFENDANTS, and each of them, as described above, PLAINTIFFS suffered
13 damages as alleged herein.

14 130. DEFENDANTS, and each of them, controlled all of the activities at
15 the FNPP, and therefore are responsible for the enhanced threat of radiation
16 exposure and for causing the damages alleged in this Complaint.

17 131. The intentional and tortious conduct of the DEFENDANT TEPCO
18 was aimed at and encompassed the entire area surrounding the FNPP, including the
19 waters, land and air adjacent to the Fukushima FNPP, where the PLAINTIFFS
20 were employed and operating.

21 132. DEFENDANT TEPCO knew, or in the exercise of due care should
22 have known, that the PLAINTIFFS, among several thousand other crewmen
23 aboard the U.S.S. Ronald Reagan (CVN-76), as well as others, would be directly
24 and harmfully impacted by DEFENDANT TEPCO's conduct. In the aftermath of a
25 natural disaster, it is foreseeable that foreign military and aid-workers would be
26 among those in the vicinity.
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1 133. This is further substantiated by the Japanese Independent
2 Commission's determination that TEPCO negligently created a "man-made
3 disaster" by failing to adequately prepare and respond to a nuclear accident. Such
4 conduct included a failure to inspect and repair vital components of the coolant
5 system, and failing to have emergency backup power sources to measure and
6 monitor temperatures inside the reactors. The Independent Commission concluded
7 that "the direct causes of the accident were all foreseeable prior to March 11,
8 2011."

9 134. Upon information and belief, based upon currently available data,
10 through their conduct, DEFENDANTS, and each of them, rendered the
11 PLAINTIFFS infirm and poisoned their bodies.

12 135. The PLAINTIFFS must now endure a lifetime of radiation poisoning
13 and suffering which could have and should have been avoided. PLAINTIFFS must
14 now fear, as any reasonable person who has been irradiated would, for their future
15 health and the health of their children, born and unborn.

16 136. Upon information and belief, DEFENDANT TEPCO failed to timely
17 and adequately test the water to which the PLAINTIFFS were exposed in order to
18 detect contamination.

19 137. Upon information and belief, DEFENDANT TEPCO, its agents,
20 servants and/or employees failed to perform proper and adequate testing within the
21 theater of their operation of the radiation levels to which the PLAINTIFFS and/or
22 their vessels would be exposed, to the PLAINTIFFS' detriment.

23 138. Upon information and belief, each and all DEFENDANTS
24 constructed and operated the FNPP with the knowledge that the nuclear fuel had a
25 potential to leak, or in reckless disregard of the knowledge as to whether or not the
26 FNPP could leak radiation into the environment.
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1 139. DEFENDANT TEPCO breached its duty of reasonable care in
2 operating its facilities, and by creating a “man-made” disaster, causing radioactive
3 contamination of PLAINTIFFS’ bodies, resulting in life threatening consequences
4 to their physical and emotional well-being.

5 140. All DEFENDANTS also knew, or should have known, that the system
6 they were using for storing spent fuel rods and for the containment of radiation and
7 utilization of nuclear material at the FNPP was faulty, inadequate and leaking.

8 141. DEFENDANTS, and each of them also knew or should have known
9 that the radiation released at the FNPP is remarkably recalcitrant to natural
10 degradation and, once dispersed into the environment, it is extremely difficult to
11 clean up.

12 142. According to data existing at that time, and uniquely known to
13 DEFENDANT TEPCO at the time, the PLAINTIFFS’ consequent exposure to
14 radiation within their zone of operation indicated that radiation levels had already
15 reached levels exceeding the levels of exposure which the people living the same
16 distance from Chernobyl experienced, and who subsequently developed cancer.⁶⁶

17 143. Consequently, the potential for the development of cancer in the
18 PLAINTIFFS has also been dangerously heightened, due to the levels of exposure
19 experienced by them during “Operation Tomodachi.”
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21
22 ⁶⁶ The nuclear community has now created a special rating system for Fukushima –
23 assigning it to a new category, above Chernobyl, as a no. 8 level nuclear disaster.
24 Fukushima is a “[m]ulti-source major nuclear accident requiring international
25 assistance and monitoring. See Nuclear incident scales:
26 <http://www.coasttocoastam.com/pages/portzline-images>;
27 Measured as quadrillions or petabecquerels (10 to the 15th Power) See, Becquerel:
28 <http://www.wikipedia.org/wiki/Becquerel> , the radiation was comparable to
Chernobyl, being well over half, if not equivalent in volume. See, Chernobyl:
Assessment of Radiological and Health Impact 2002 Update of Chernobyl: Ten
Years On, <http://www.oecd-nea.org/rp/chernoble/c02.html>

1 144. DEFENDANTS' negligence proximately caused widespread
2 contamination of PLAINTIFFS' environs, including their air and water supply.

3 145. PLAINTIFFS have suffered and been damaged, all as described above
4 and herein, as a direct and proximate result of DEFENDANTS' negligence.

5 146. Upon information and belief, as a further direct and proximate result
6 of DEFENDANTS' negligence, PLAINTIFFS have been and will be required to
7 undergo further medical testing, evaluation and medical procedures, including but
8 not limited to chelation therapy, bone marrow transplants and/or genetic re-
9 programming for leukemia, in an effort to seek cure, and will be required to
10 employ extraordinary means to achieve cure.

11 147. As a further direct and proximate result of DEFENDANTS'
12 negligence, the PLAINTIFFS incurred losses and damages for personal injury and
13 property damage, loss of use and enjoyment of life and their property, the need for
14 periodic medical examination and treatment, and economic losses, including wage
15 loss, and the expenditure of time and money, and will continue to incur losses and
16 damages in the future.

17 148. PLAINTIFFS also face additional and irreparable harm to their life
18 expectancy, which has been shortened and cannot be restored to its prior condition.

19 149. Solely as a result of the DEFENDANTS' negligence, carelessness and
20 recklessness, the PLAINTIFFS suffered severe and serious personal injuries to
21 mind and body, and further, the PLAINTIFFS were subjected to great physical
22 pain and mental anguish.

23 150. By reason of the foregoing, the PLAINTIFFS were severely injured
24 and damaged, sustained severe nervous shock and mental anguish, great physical
25 pain and emotional upset, some of which injuries are believed to be permanent in
26 nature and duration, and the PLAINTIFFS will permanently suffer pain,
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1 inconvenience and other effects of such injuries; the PLAINTIFFS incurred and in
2 the future will necessarily incur further hospital and/or medical expenses in an
3 effort to be cured of said injuries; and the PLAINTIFFS will be unable to pursue
4 their usual duties with the same degree of efficiency as prior to this incident, all to
5 the PLAINTIFFS' great damage.

6 151. The DEFENDANTS' conduct was willful, wanton, reckless,
7 malicious and/or exhibited a gross indifference to, and a callous disregard for
8 human life, safety and the rights of others, and more particularly, the rights, life
9 and safety of the PLAINTIFFS; and was motivated by consideration of profit,
10 financial advantage, monetary gain, economic aggrandizement and/or cost
11 avoidance, to the virtual exclusion of all other considerations.

12 152. Due to DEFENDANTS' negligence, each of the PLAINTIFFS is
13 entitled to compensatory damages in a sum to be determined by the jury.

14 Wherefore, PLAINTIFFS request relief as hereinafter provided.
15

16
17 **SECOND CAUSE OF ACTION**
18 **(Strict Liability--Manufacturing Defect)**
19 **Against DEFENDANT GE**

20 153. PLAINTIFFS hereby incorporate the allegations contained in the
21 preceding paragraphs as though fully set forth herein.

22 154. DEFENDANT GE manufactured, distributed, and sold the subject
23 defective Mark 1 Boiling Water Reactors ("BWR"), an unreasonably dangerous
24 product.

25 155. The Boiling Water Reactors, which malfunctioned, melted down,
26 exploded, and released copious quantities of radiation at the Fukushima Daiichi
27 Power Plant on March 11, 2011, contained manufacturing defects when each of the
28 subject reactors left the possession of GE.

1 156. As manufacturer, designer, distributor, supplier, seller and marketer,
2 DEFENDANT GE breached this duty by manufacturing, distributing, selling and
3 marketing the Boiling Water Reactors with the actual and constructive knowledge
4 that the product posed a high degree of risk to the safety and well-being of all
5 persons within the vicinity of the FNPP, including PLAINTIFFS.

6 157. The DEFENDANT GE had actual and constructive knowledge of the
7 properties of radiation that would ensure that, once released into the environment,
8 radiation would spread further and in concentrations that would cause injury to all
9 persons within the vicinity of the FNPP, including PLAINTIFFS.

10 158. DEFENDANT GE'S conduct was unreasonable in the circumstances.
11 As set forth above, available scientific data, of which the DEFENDANT GE had
12 actual and constructive knowledge, gives rise to the reasonable inference that the
13 manufacturing defects created foreseeable dangers to all persons within the vicinity
14 of the FNPP, including PLAINTIFFS.

15 159. The Boiling Water Reactor's manufacturing defects were substantial
16 factors in causing PLAINTIFFS' injuries, damages, and harm. The Boiling Water
17 Reactor's manufacturing defects proximately caused reasonably foreseeable
18 damages to the PLAINTIFFS.

19 160. At all times herein mentioned, DEFENDANT GE acted with malice,
20 fraud and oppression, and engaged in despicable conduct that should not be
21 tolerated in a civilized society, displaying a conscious, willful and intentional
22 disregard for the health, safety and welfare of the public, the environment and the
23 PLAINTIFFS. As a result of DEFENDANT GE'S conduct, PLAINTIFFS are
24 entitled to punitive damages as a means of protecting the public by deterring such
25 wanton, callous and intentionally injurious conduct.

26 Wherefore, PLAINTIFFS request relief as hereinafter provided.
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28

THIRD CAUSE OF ACTION
(Strict Liability for Design Defect)
Against DEFENDANT GE,

161. PLAINTIFFS hereby incorporate the allegations contained in the preceding paragraphs as though fully set forth herein.

162. DEFENDANT GE, during the relevant time period, were the designers, manufacturers, distributors, sellers, and creators of the BWRs.

163. DEFENDANT GE had a duty of due care to design and manufacture reasonably safe Nuclear Power BWRs.

164. DEFENDANT GE had a duty of care to test the Nuclear Power BWRs to determine the risks posed to all persons within the vicinity of the FNPP, including the PLAINTIFFS, the environment, water, and the air in the surrounding vicinity. The BWRs did not perform as safely as an ordinary consumer would have expected it to perform when used or misused in an intended or reasonably foreseeable way.

165. DEFENDANT GE had a duty not to put on the market an unsafe and defectively designed product that posed a serious danger to all persons within the vicinity of the FNPP, including the PLAINTIFFS.

166. DEFENDANT GE breached said duties of due care when they manufactured a defectively designed product, namely the BWRs, with actual or constructive knowledge of the defects.⁶⁷ Due to the design and manufacturing

⁶⁷ There exists an accumulation of evidence that the earthquake itself was not the primary cause of the meltdowns, something [TEPCO] does not want to admit—that there are other inherent flaws in the way the power plant was built and operated. See Report on Nuclear Disaster Holds Key to Reactor's Fate,

<http://online.wsj.com/article/SB1000142405270230444140577482113658775518.html>

defects, the FNPP was not reasonably safe and protective of the environment generally and of PLAINTIFFS', among others, health and well-being.⁶⁸

167. DEFENDANT GE's defective design BWRs, as alleged herein, actually and proximately caused reasonably foreseeable damages to the PLAINTIFFS. The BWRs' failure to perform safely was a substantial factor in causing PLAINTIFFS harm.

168. GE's conduct in the design, manufacture, and maintenance of the BWRs, a defective or unreasonably dangerous product, makes each of DEFENDANT GE strictly liable to the PLAINTIFFS.

Wherefore, PLAINTIFFS request relief as hereinafter provided.

Nuclear expert Gundersen points out that the service pumps failed because they were positioned in such a way that they were flooded by the tidal wave on 311. These pumps send water from the ocean to cool the back-up diesel generators. "There could have been 14 meltdowns and not three. If you look at the data, there were six units at Fukushima Daiichi (Power Station No. 1), there are four at Fukushima Daini (Station No. 2), three at Onagawa and one at Tokai. The net affect is that there were 37 diesel generators between those plants. 24 of those diesels were knocked out by the tsunami. You need the diesels to cool the plant." At FNPP no. 1 the tsunami flooded the actual diesel generators, but at the other plants, the "tsunami knocked out the cooling water to the diesels, something called service water. So, Japan narrowly missed 14 meltdowns and not three because the cooling water to 24 of 37 diesels was destroyed." See Gundersen, July 6, 2012, Pacifica Radio Host Ian Masters and Fairewinds' Arnie Gundersen: Lessons Not Learned From Fukushima Daiichi, <http://www.fairewinds.com/radio>; SolarilMG Podcast with Arnie Gundersen–Aug 10/2012, <http://solarimg.org/?p=3021>

⁶⁸ The FNPP site is fraught with danger, with constant reports of highly toxic water leaking from this pipe or that, or this reactor or that. For example, water in Unit 2 turbine basement was found to have 47 million becquerals per liter. Unit 2 Water 10 Times More Radioactive than Unit 1,

<http://enenews.com/unit-2-10-times-more-radioactive-than-unit-1-47000000-Becquerals-per-liter-in-turbine-room-basement>

COMPLAINT FOR DAMAGES

FOURTH CAUSE OF ACTION
(Strict Liability for Ultrahazardous Activities)
Against ALL DEFENDANTS

169. PLAINTIFFS hereby incorporate the allegations contained in the preceding paragraphs as though fully set forth herein.

170. DEFENDANTS, and each of them, engaged in an ultra-hazardous activity that caused harm, damages, losses, injuries, including fear of contracting cancer, birth defects for their children, born and unborn, and economic and non-economic damages.

171. DEFENDANTS, and each of them, are responsible for that harm, injuries, damages, both economic and non-economic because DEFENDANTS engaged in producing nuclear power, an ultra-hazardous activity, at FNPP.

172. PLAINTIFFS' injuries, damages, losses and harm are the kind of harm that would be anticipated as a result of the risk created by exposure to a radiation release as the nature and kind that was released at Fukushima.

173. DEFENDANTS' acts proximately caused harm and damage to the PLAINTIFFS, including personal injury, property damage, loss of enjoyment of their property and life, the need for periodic examination and treatment, as well as economic losses including loss of earnings, stigma damages, the cost of obtaining potential cure, and other needless expenditures of time and money. PLAINTIFFS will continue to incur losses and damage in the future. Based on PLAINTIFFS' repeated exposure to ionizing radiation, PLAINTIFFS have a reasonable fear that said exposure more likely than not increases their risk of developing cancer in the future.

174. DEFENDANTS, and each of them, intended to cause or acted with conscious disregard of the probability of causing injury to PLAINTIFFS, and therefore, are liable for punitive damages.

COMPLAINT FOR DAMAGES

Wherefore, PLAINTIFFS request relief as hereinafter provided.

FIFTH CAUSE OF ACTION
(Negligence per se: Res Ipsa Loquitur)
Against ALL DEFENDANTS

175. PLAINTIFFS hereby incorporate the allegations contained in the preceding paragraphs as though fully set forth herein.

176. PLAINTIFFS' harm was caused by a release of radiation from the FNPP, which only DEFENDANTS controlled.

177. PLAINTIFFS' voluntary actions did not cause or contribute to the events which harmed them.

178. PLAINTIFFS' harm, injuries, damages and losses ordinarily would not have happened unless someone was negligent.

179. PLAINTIFFS' injuries, damages, losses and harm are the kind of harm that would be anticipated as a result of the risk created by exposure to a radiation release of the nature and kind that was released at Fukushima.

180. DEFENDANTS' acts actually and proximately caused harm and damage to the PLAINTIFFS, including personal injury, property damage, loss of enjoyment of their property and life, the need for periodic examination and treatment, as well as economic losses including loss of earnings, stigma damages, the cost of obtaining potential cure, and other needless expenditures of time and money. PLAINTIFFS will continue to incur losses and damage in the future. Based on PLAINTIFF'S repeated exposure to ionizing radiation, PLAINTIFFS have a reasonable fear that said exposure more likely than not increased their risk of developing cancer in the future.

Wherefore, PLAINTIFFS request relief as hereinafter provided.

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SIXTH CAUSE OF ACTION
(Presumption of Negligence Per Se)
Against ALL DEFENDANTS

181. PLAINTIFFS hereby incorporate the allegations contained in the preceding paragraphs as though fully set forth herein.

182. DEFENDANTS' illegal, intentional, reckless and negligent conduct as herein above alleged, violated several State, Federal, and International laws, regulations, and statutes, which were enacted to protect the public, the communities and the environment, including the class of individuals to which PLAINTIFFS belong: Good Samaritans, rescue workers, indeed, the "TOMODACHIS" (friends), who offered help to the victims of the Fukushima earthquake and tsunami. The 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, to which Japan is a signatory, bans the dumping of pollution at sea.

183. The Inter-Governmental Conference on the Convention on the dumping of Wastes at Sea, which met in London in November 1972 at the invitation of the United Kingdom, adopted this instrument, generally known as the London Convention. The London Convention, one of the first international conventions for the protection of the marine environment from human activities, came into force on August 30, 1975.

184. The London Convention contributes to the international control and prevention of marine pollution by prohibiting the dumping of certain hazardous materials. In addition, a special permit is required prior to dumping of a number of other identified materials and a general permit for other wastes or matter.

185. "Dumping" has been defined as the deliberate disposal at sea of wastes or other matter from vessels, aircraft, platforms or other man-made

1 structures, as well as the deliberate disposal of these vessels or platforms
2 themselves. Annexes list wastes which cannot be dumped and others for which a
3 special dumping permit is required.

4 186. Amendments adopted in 1993 (which entered into force in 1994)
5 banned the dumping into sea of low-level radioactive wastes. In addition, the
6 amendments phased out the dumping of industrial wastes by 31 December, 1995
7 and banned the incineration at sea of industrial wastes.

8 187. DEFENDANT TEPCO engaged in intentionally dumping in excess of
9 11,500 tons of radioactive water into the Pacific Ocean during and following the
10 meltdown of the FNPP.

11 188. PLAINTIFFS' injuries, damages, losses and harm are the kind of
12 harm that would be anticipated as a result of the risk created by exposure to a
13 radiation release of the nature and kind that was released at Fukushima.
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15 189. DEFENDANTS' acts proximately caused harm and damage to the
16 PLAINTIFFS, including personal injury, property damage, loss of enjoyment of
17 their property and life, the need for periodic examination and treatment, as well as
18 economic losses including loss of earnings, stigma damages, the cost of obtaining
19 potential cure, and other needless expenditures of time and money. PLAINTIFFS
20 will continue to incur losses and damage in the future. Based on PLAINTIFFS'
21 repeated exposure to ionizing radiation, PLAINTIFFS have a reasonable fear that
22 said exposure more likely than not has increased their risk of developing cancer in
23 the future.

24 Wherefore, PLAINTIFFS request relief as hereinafter provided.
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SEVENTH CAUSE OF ACTION
(Loss of Consortium)
Against ALL DEFENDANTS

108. PLAINTIFFS hereby incorporate the allegations contained in the preceding paragraphs, as though fully set forth herein.

109. Each spouse of each PLAINTIFF herein alleges he/she has been harmed by the injury to his/her husband/wife/domestic partners. Each spouse/domestic partner of each Plaintiff seeks to be reasonably compensated for the loss of his/her husband/wife's/domestic partner's companionship and services, past and future, including:

1. The loss of love, companionship, comfort, care, assistance, protection, affection, society, moral support; and
2. The loss of the enjoyment of sexual relations and/or the ability to have children.

EIGHTH CAUSE OF ACTION
(Survival Action--Wrongful Death)
By TERESA READY Individually And As The Administrator Of The Estate
Of JESSE READY deceased
Against All Defendants

109. PLAINTIFFS hereby incorporate the allegations contained in the preceding paragraphs as though fully set forth herein.

110. Plaintiff The Estate Of JESSE READY, By TERESA READY as Personal Representative brings this "Survival Action", pursuant California Code of Civil Procedure Section 377.30.

111. DEFENDANTS' negligent and intentional conduct cause JESSE READY to be exposed to excessive radiation during Operation Tomodachi, causing his injuries, illness, damages and harms, and his death.

112. DEFENDANTS' negligent and intentional conduct are the actual and proximate cause of the decedent's damages, injuries, losses and harms, including the following: ALL loss or damage that the decedent sustained or incurred before death, including any penalties or punitive or exemplary damages that the decedent would have been entitled to recover had the decedent lived, and including medical expenses and lost wages, as well as penalties, punitive or exemplary damages.

Wherefore, PLAINTIFFS request relief as hereinafter provided.

NINTH CAUSE OF ACTION
(Wrongful Death)

**By TERESA READY Individually And As The Administrator Of The Estate
Of JESSE READY deceased
Against ALL DEFENDANTS**

110. PLAINTIFFS hereby incorporate the allegations contained in the preceding paragraphs as though fully set forth herein.

111. TERESA READY individually and as the Administrator Of The ESTATE OF JESSE READY alleges that JESSE READY is survived by wife TERESA READY.

112. PLAINTIFF TERESA READY has sustained two categories of damages, economic and noneconomic. PLAINTIFF has lost the financial support that her husband, JESSE READY, would have contributed to her during either the life expectancy that JESSE READY had before his death or the life expectancy of his last remaining heirs.

113. PLAINTIFF TERESA READY has also sustained the loss of gifts and benefits that she would have expected to receive from JESSE READY.

COMPLAINT FOR DAMAGES

1 PLAINTIFF TERESA READY has also sustained the loss of funeral and burial
2 expenses; and the reasonable value of household services that JESSE READY
3 would have provided.

4 114. PLAINTIFF also claims the following noneconomic damages:

5 1. The loss of JESSE READY's love, companionship, comfort, care,
6 assistance, protection, affection, society, moral support;

7
8 2. The loss of JESSE READY the loss of the enjoyment of sexual
9 relations.

10 Wherefore, PLAINTIFFS request relief as hereinafter provided.

11
12 **TENTH CAUSE OF ACTION**
13 **(Survival Action--Wrongful Death)**

14 **By ANNETTE LUCKEY Individually And As The Administrator Of The Estate**
15 **Of DANYELLE LUCKEY deceased**
16 **Against All Defendants**

17 113. PLAINTIFFS hereby incorporate the allegations contained in the
18 preceding paragraphs as though fully set forth herein.

19 114. Plaintiff The Estate Of DANYELLE LUCKEY, By ANNETTE
20 LUCKEY as Personal Representative brings this "Survival Action", pursuant
21 California Code of Civil Procedure Section 377.30.

22 115. DEFENDANTS' negligent and intentional conduct caused
23 ANNETTE LUCKEY to be exposed to excessive radiation during Operation
24 Tomodachi, causing her injuries, illness, damages and harms, and her death.
25 DANYELLE LUCKEY died on October 10, 2016.

26 116. DEFENDANTS' negligent and intentional conduct are the actual and
27 proximate cause of the decedent's damages, injuries, losses and harms, including
28 the following: ALL loss or damage that the decedent sustained or incurred before

1 death, including any penalties or punitive or exemplary damages that the decedent
2 would have been entitled to recover had the decedent lived, and including medical
3 expenses and lost wages, as well as penalties, punitive or exemplary damages.

4 Wherefore, PLAINTIFFS request relief as hereinafter provided.
5

6 **ELEVENTH CAUSE OF ACTION**
7 **(Wrongful Death)**

8 **By ANNETTE LUCKEY Individually And As The Administrator Of The Estate**
9 **Of DANYELLE LUCKEY deceased and DERRICK LUCKEY**
10 **Against All Defendants**

11 115. PLAINTIFFS hereby incorporate the allegations contained in the
12 preceding paragraphs as though fully set forth herein.

13 116. ANNETTE LUCKEY individually and as the Administrator Of The
14 Estate Of DANYELLE LUCKEY and Derrick Luckey allege that Annette Luckey
15 is survived by her parents ANNETTE LUCKEY and DERRICK LUCKEY.

16 117. PLAINTIFFS have sustained the loss of funeral and burial expenses;
17 and the reasonable value of household services that DANYELLE LUCKEY would
18 have provided.

19 118. PLAINTIFFS also claim the following noneconomic damages: The
20 loss of Annette Luckey 's love, companionship, comfort, care, assistance,
21 protection, affection, society, moral support;

22 Wherefore, PLAINTIFFS request relief as hereinafter provided.
23

24 **EIGHTH CAUSE OF ACTION**
25 **(Survival Action--Wrongful Death)**

26 **By GRACE EUNAE PARK Individually And As The Administrator Of The**
27 **Estate Of JOSH PARK**
28 **Against All Defendants**

117. PLAINTIFFS hereby incorporate the allegations contained in the
preceding paragraphs as though fully set forth herein.

COMPLAINT FOR DAMAGES

1 118. Plaintiff The Estate Of **JOSH PARK**, By **GRACE EUNAE PARK**
2 as Personal Representative brings this “Survival Action”, pursuant California Code
3 of Civil Procedure Section 377.30.

4 119. DEFENDANTS’ negligent and intentional conduct cause **JOSH**
5 **PARK** to be exposed to excessive radiation while in the area of Fukushima power
6 plant, causing his injuries, illness, damages and harms, and his death.

7 120. DEFENDANTS’ negligent and intentional conduct are the actual and
8 proximate cause of the decedent’s damages, injuries, losses and harms, including
9 the following: ALL loss or damage that the decedent sustained or incurred before
10 death, including any penalties or punitive or exemplary damages that the decedent
11 would have been entitled to recover had the decedent lived, and including medical
12 expenses and lost wages, as well as penalties, punitive or exemplary damages.

13 Wherefore, PLAINTIFFS request relief as hereinafter provided.
14

15 **NINTH CAUSE OF ACTION**
16 **(Wrongful Death)**

17 **By GRACE EUNAE PARK Individually And As The Administrator Of The**
18 **Estate Of JOSH PARK**
19 **Against ALL DEFENDANTS**

20 119. PLAINTIFFS hereby incorporate the allegations contained in the
21 preceding paragraphs as though fully set forth herein.

22 120. **GRACE EUNAE PARK Individually And As The Administrator**
23 **Of The Estate Of JOSH PARK** alleges that **JOSH PARK** is survived by wife
24 **GRACE EUNAE PARK**.

25 121. PLAINTIFF **GRACE EUNAE PARK** has sustained two categories
26 of damages, economic and noneconomic. PLAINTIFF has lost the financial
27 support that her husband, **JOSH PARK**, would have contributed to her during
28

1 either the life expectancy that **JOSH PARK** had before his death or the life
2 expectancy of his last remaining heirs.

3 122. PLAINTIFF **GRACE EUNAE PARK** has also sustained the loss of
4 gifts and benefits that she would have expected to receive from **JOSH PARK**.
5 PLAINTIFF **GRACE EUNAE PARK** has also sustained the loss of funeral and
6 burial expenses; and the reasonable value of household services that **JOSH PARK**
7 would have provided.

8 123. PLAINTIFF also claims the following noneconomic damages:

- 9 1. The loss of **JOSH PARK** 's love, companionship, comfort, care,
10 assistance, protection, affection, society, moral support;
11
12 2. The loss of **JOSH PARK** the loss of the enjoyment of sexual
13 relations.

14
15 Wherefore, PLAINTIFFS request relief as hereinafter provided.

16
17 **TWELFTH CAUSE OF ACTION**
(Survival Action--Wrongful Death)

18 **By KIRK GODAIR** Individually And As The Administrator Of The Estate Of
19 **RUBY PEREZ deceased**
20 **Against All Defendants**

21 121. PLAINTIFFS hereby incorporate the allegations contained in the
22 preceding paragraphs as though fully set forth herein.

23 122. Plaintiff The Estate Of RUBY PEREZ, By KIRK GODAIR as
24 Personal Representative brings this “Survival Action”, pursuant California Code of
25 Civil Procedure Section 377.30.

26 123. DEFENDANTS’ negligent and intentional conduct caused RUBY
27 PEREZ to be exposed to excessive radiation during Operation Tomodachi, causing
28

his injuries, illness, damages and harms, and her death from ovarian cancer. Ruby Perez died on December 7, 2016 in San Diego CA.

124. DEFENDANTS' negligent and intentional conduct are the actual and proximate cause of the decedent's damages, injuries, losses and harms, including the following: ALL loss or damage that the decedent sustained or incurred before death, including any penalties or punitive or exemplary damages that the decedent would have been entitled to recover had the decedent lived, and including medical expenses and lost wages, as well as penalties, punitive or exemplary damages.

Wherefore, PLAINTIFFS request relief as hereinafter provided.

THIRTEENTH CAUSE OF ACTION
(Wrongful Death)

**By KIRK GODAIR Individually And As The Administrator Of The Estate Of
RUBY PEREZ deceased, RACHEL MENDEZ and C. G.
Against All Defendants**

124. PLAINTIFFS hereby incorporate the allegations contained in the preceding paragraphs as though fully set forth herein.

125. KIRK GODAIR Individually And As The Administrator Of The Estate Of RUBY PEREZ alleges that RUBY PEREZ is survived by her husband KIRK GODAIR, her daughter C. G. (a minor through her guardian ad litem Kirk Godair) and her mother RACHEL MENDEZ.

126. PLAINTIFFS have sustained two categories of damages, economic and noneconomic. PLAINTIFF C. G. and KIRK GODAIR have lost the financial support that their Mother and spouse, RUBY PEREZ, would have contributed to during either the life expectancy that Ruby Perez had before her death or the life expectancy of his last remaining heirs.

127. PLAINTIFFS have also sustained the loss of gifts and benefits that her heirs would have expected to receive from Ruby Perez. PLAINTIFFS have

COMPLAINT FOR DAMAGES

also sustained the loss of funeral and burial expenses; and the reasonable value of household services that Ruby Perez would have provided.

128. PLAINTIFFS also claims the following noneconomic damages:

1. The loss of Ruby Perez 's love, companionship, comfort, care, assistance, protection, affection, society, moral support;

2. The loss of **Ruby Perez** 's training, guidance and the loss as a role model for adulthood; and the loss of the enjoyment of sexual relations.

Wherefore, PLAINTIFFS request relief as hereinafter provided.

FOURTEENTH CAUSE OF ACTION
(Survival Action--Wrongful Death)

By JANETH. MASINDE Individually And As The Administrator Of The Estate
Of BRENDA DOWNING deceased
Against All Defendants

125. PLAINTIFFS hereby incorporate the allegations contained in the preceding paragraphs as though fully set forth herein.

126. Plaintiff The Estate Of BRENDA DOWNING, By JANETH. MASINDE as Personal Representative brings this "Survival Action", pursuant California Code of Civil Procedure Section 377.30.

127. DEFENDANTS' negligent and intentional conduct caused JANETH. MASINDE to be exposed to excessive radiation during Operation Tomodachi, causing his injuries, illness, damages and harms, and her death. BRENDA DOWNING died on February 23, 2016.

128. DEFENDANTS' negligent and intentional conduct are the actual and proximate cause of the decedent's damages, injuries, losses and harms, including the following: ALL loss or damage that the decedent sustained or incurred before

1 death, including any penalties or punitive or exemplary damages that the decedent
2 would have been entitled to recover had the decedent lived, and including medical
3 expenses and lost wages, as well as penalties, punitive or exemplary damages.

4 Wherefore, PLAINTIFFS request relief as hereinafter provided.
5

6 **FIFTEENTH CAUSE OF ACTION**
7 **(Wrongful Death)**

8 **By JANETH. MASINDE Individually And As The Administrator Of The Estate**
9 **Of BRENDA DOWNING deceased**
10 **Against All Defendants**

11 129. PLAINTIFFS hereby incorporate the allegations contained in the
12 preceding paragraphs as though fully set forth herein.

13 130. JANETH. MASINDE individually and as the Administrator Of The
14 ESTATE OF BRENDA DOWNING alleges that BRENDA DOWNING is
15 survived by her mother JANETH. MASINDE.

16 131. PLAINTIFF has sustained the loss of funeral and burial expenses; and
17 the reasonable value of household services that BRENDA DOWNING would have
18 provided.

19 132. PLAINTIFF also claims the following noneconomic damages: The
20 loss of BRENDA DOWNING 's love, companionship, comfort, care, assistance,
21 protection, affection, society, moral support;

22 Wherefore, PLAINTIFFS request relief as hereinafter provided.
23

24 **PRAYER FOR RELIEF**

25 1. For a judgment ordering, requiring and compelling the DEFENDANTS to
26 establish a fund in an amount not less than FIVE BILLION
27 (\$5,000,000,000.00) DOLLARS as to each DEFENDANT available to
28 advance and pay all costs and expenses for each of the PLAINTIFFS for

COMPLAINT FOR DAMAGES

1 medical examination, medical monitoring, and treatment by physicians of
2 PLAINTIFFS' choice; And for the payment of costs and expenses for each
3 of the PLAINTIFFS for medical examination, medical monitoring, and
4 treatment by physicians of PLAINTIFFS' choice for their offspring who are
5 at risk for birth defects caused by genetic gene mutation.

- 6 2. For special and economic damages, including lost wages, for all Causes of
7 Action;
8 3. For general and non-economic damages for all Causes of Action;
9 4. For punitive damages for all Causes of Action;
10 5. For prejudgment interest at the prevailing legal rate;
11 6. For costs of the suit including reasonable attorneys' fees; and
12 7. For such other and further relief, including injunctive relief, as the Court
13 may deem proper.
14

15 **Dated: August 18, 2017**

16 **RESPECTFULLY SUBMITTED,**

17 By: /S/ PAUL C. GARNER
18 PAUL C. GARNER, ESQ.
19 Attorney for Plaintiffs
20

21 **Dated: August 18, 2017**

22 **RESPECTFULLY SUBMITTED,**
23 **LAW OFFICES OF BONNER & BONNER**

24 By: /S/CHARLES A. BONNER
25 CHARLES A. BONNER
26 Attorney for Plaintiffs
27
28

1 **Dated: August 18, 2017**

2 **RESPECTFULLY SUBMITTED,**
3 **EDWARDS KIRBY**

4 By: /S/JOHN EDWARDS
5 JOHN EDWARDS
6 Attorney for Plaintiffs

7 **DEMAND FOR JURY TRIAL**

8
9 The PLAINTIFFS hereby demand a jury trial of all issues as provided by
10 Rule 38(a) of the Federal Rules of Civil Procedure.
11

12 **Dated: August 18, 2017**

13 **RESPECTFULLY SUBMITTED,**

14 By: /S/ PAUL C. GARNER
15 PAUL C. GARNER, ESQ.
16 Attorney for Plaintiffs

17 **Dated: August 18, 2017**

18 **RESPECTFULLY SUBMITTED,**
19 **LAW OFFICES OF BONNER & BONNER**

20 By: /S/CHARLES A. BONNER
21 CHARLES A. BONNER
22 Attorney for Plaintiffs

23 **Dated: August 18, 2017**

24 **RESPECTFULLY SUBMITTED,**
25 **EDWARDS KIRBY**

26 By: /S/JOHN EDWARDS
27 JOHN EDWARDS
28 Attorney for Plaintiffs

COMPLAINT FOR DAMAGES