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26 **ATTORNEYS FOR PLAINTIFFS**

27 **UNITED STATES DISTRICT COURT**

28 **SOUTHERN DISTRICT OF CALIFORNIA**

29 **SAN DIEGO DIVISION**

30 **DUSTIN BARTEL; NOLAN R ALLEN;**  
31 **ANDREW ANDERSON; JEFFREY**  
32 **ARMSTRONG; CHARLIE MAGNE**  
33 **ATERRADO; JESSICA BARLOW;**  
34 **BEATRICE BARTHELEMY; JENNIFER**  
35 **BOYLE; SAMATHAN BREGANT;**

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

37 **COMPLAINT FOR DAMAGES**

- 38 **1. NEGLIGENCE**
- 39 **2. STRICT LIABILITY FOR**  
**MANUFACTURING DEFECT**
- 40 **3. STRICT LIABILITY FOR**

41 **COMPLAINT FOR DAMAGES**

1 JONATHAN BURBACH; ADRIANA  
2 CABARCAS; DEREK CAMBRIDGE;  
3 CAMRY CAMPBELL; ALEXANDRA  
4 CAMPOS ; CHRISTOPHER CARR ;  
5 ASHLEY CHITTY; ASHLEY COCHRAN;  
6 CHRISTOPHER COLEMAN; PATRICK  
7 CRESPO; BRIAN CROSS; DONALD H.  
8 DELLINGER; OLIVIA DIMAS;  
9 MATTHEW DONALDSON; BRIAN  
10 DRAWLINS; COREY DREWELL;  
11 ANDREA EISENHOWER; ERIC I. EPPS;  
12 JASON FERGUSON; JUSTINE FRALEY;  
13 RUTH FREEMAN; CYRINTHIA  
14 HAMBLEY; MICHAEL HARVEY;  
15 JOSEPH KYLE HENRY ; MARTY HILL;  
16 MITCHELL HODGES; JOHN WESLEY  
17 HYATT; KEVIN JACOBSON; JUSTIN  
18 JAEHNIG; NICHOLAS KOVACHEV;  
19 MELISSA LESTER; LAWRENCE LEVAN  
20 ; JOE LEWIS; SCOTT LIENG; ARNULFO  
21 LIMON; ALVIN MAGNO; FRANCISCO  
22 JR. MARIGUNDO; CHAD MARTINS;  
23 EDWARD MELLO; BRANDON  
24 MONTGOMERY; CHRISTOPHER  
25 MORIN; JONATHAN MULDOWNEY;  
26 EION NELSON; ROBERT OCHOA;  
27 GLENN OFORI; LUKE OPYD; TIM  
28 PALMER; JOSHUA PEOPLES;  
ALEJANDRO PEREZ; CLINTON  
RAMSIARE; JACOB REED;  
BALTHAZAR REFORSAZO; 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**

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 RITCHHEY;  
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  
Administrator Of The Estate Of **JESSE**  
4 **READY deceased; DERRICK LUCKEY;**  
5 **ANNETTE LUCKEY** Individually And As  
The Administrator Of The Estate Of  
6 **DANYELLE LUCKEY deceased;**  
7 **GRACE EUNAE PARK** Individually And  
As The Administrator Of The Estate Of  
8 **Josh Park; RACHEL MENDEZ; KIRK**  
9 **GODAIR** Individually And As The  
Administrator Of The Estate Of **RUBY**  
10 **PEREZ deceased; C. G. (a minor through**  
her guardian ad litem Kirk Godair);  
11 **JANETH. MASINDE** Individually And As  
The Administrator Of The Estate Of  
12 **BRENDA DOWNING** deceased;

14 Plaintiffs,

15 VS.

17 TOKYO ELECTRIC POWER COMPANY,  
18 INC. aka TEPCO, GENERAL ELECTRIC,  
and Does 5 through 200, inclusive

19 Defendants

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

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

28 COMPLAINT FOR DAMAGES

1

## JURISDICTION

2

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

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

17 3. The jurisdiction of this Court over the subject matter in this action is  
18 predicated upon Diversity Jurisdiction, 28 U.S.C. §1332. The amount in  
19 controversy exceeds \$75,000, exclusive of interest and costs.<sup>1</sup>  
20

21

## PARTIES

22

23 4. The PLAINTIFFS:

24 1.) Dustin Bartel;  
25 2.) Nolan R Allen;  
26 3.) Andrew Anderson;  
27 4.) Jeffrey Armstrong;  
28 5.) Jessica Barlow;

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

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

COMPLAINT FOR DAMAGES

1           40.) Lawrence Levan ;  
2           41.) Joe Lewis;  
3           42.) Scott Lieng;  
4           43.) Arnulfo Limon;  
5           44.) Alvin Magno;  
6           45.) Francisco Jr. Marigundo;  
7           46.) Chad Martins;  
8           47.) Edward Mello;  
9           48.) Brandon Montgomery;  
10          49.) Christopher Morin;  
11          50.) Jonathan Muldowney;  
12          51.) Eion Nelson;  
13          52.) Robert Ochoa;  
14          53.) Glenn Ofori;  
15          54.) Luke Opyd;  
16          55.) Tim Palmer;  
17          56.) Joshua Peoples;  
18          57.) Alejandro Perez;  
19          58.) Clinton Ramsiare;  
20          59.) Jacob Reed;  
21          60.) Balthazar Reforsado;  
22          61.) Angelina Reyna;  
23          62.) Quentin Richardson;  
24          63.) William E. Rigby;  
25          64.) Lydia Salgado;  
26          65.) Jerrid Sevart;  
27          66.) Quincy Shepherd;  
28          67.) Carl Slaubaugh;  
29          68.) Gregory Smith;  
30          69.) Mellony Snyder;  
31          70.) Justin Steinmetz;  
32          71.) Amanda Stemen;  
33          72.) Ronald Stemen;  
34          73.) Lowell Stewart;

COMPLAINT FOR DAMAGES

1           74.) Janice Stewart;  
2           75.) Daniel Strohl;  
3           76.) Jose Suero;  
4           77.) Randy Valentin;  
5           78.) Gabriel Vasquez;  
6           79.) Shawn Velasquez;  
7           80.) Robert Venable;  
8           81.) Robert Venable;  
9           82.) Patrick Walton;  
10          83.) Bridget Waters;  
11          84.) Tim White;  
12          85.) Christopher Woods;  
13          86.) Derek Yoda;  
14          87.) Edward Zimmerman;  
15          88.) Alexander Tidd;  
16          89.) Contrail Allen;  
17          90.) Matthew Anderson;  
18          91.) Matthew Ayres;  
19          92.) Daniel Barbiero;  
20          93.) Logan Black;  
21          94.) Shanee Brown;  
22          95.) Carissa Clark;  
23          96.) Jaime Clavito;  
24          97.) Jistine Clayton ;  
25          98.) Jeff Cook;  
26          99.) Michael Cross;  
27          100.) Joshua Cunningham ;  
28          101.) Lawrence Edwards;  
1           102.) Edward Eluere;  
2           103.) Ramon Jr. Enciso;  
3           104.) Marlon Francis;  
4           105.) Steven Gardner;  
5           106.) Rodolfo Guerra;  
6           107.) Tymeshia Guidry;

COMPLAINT FOR DAMAGES

1 108.) Cecilia Gutierrez;  
2 109.) Haldane Hamilton;  
3 110.) Darren Hanson;  
4 111.) Martin Hitson;  
5 112.) William Holt;  
6 113.) Nancy Jackson;  
7 114.) Roderick Jessamy;  
8 115.) Matthew Knaust;  
9 116.) Ryan Kunin;  
10 117.) Rene Landeros;  
11 118.) Michael Leland;  
12 119.) Stewart Lowell;  
13 120.) Adrian Lucina;  
14 121.) Edwin Maher;  
15 122.) Francis Marlon;  
16 123.) Ryan McLaughlin;  
17 124.) Jeremy Michaud;  
18 125.) Garrett Nelson;;  
19 126.) Trang Pham ;  
20 127.) Brian Rawley;  
21 128.) Devin Ritchey;  
22 129.) Cesar Salgado;  
23 130.) Tiffany Schad;  
24 131.) Brett Schmidt;  
25 132.) Michelle Scott;  
26 133.) Joshua Segree;  
27 134.) Gregory Smith;  
28 135.) Crystal Souder;  
136.) James Souder;  
137.) Kyle Spurlock;  
138.) Ronald L. Stemen;  
139.) Nicholas Swann;  
140.) Luis Torres;  
141.) Casey Tucker;

COMPLAINT FOR DAMAGES

1 142.) Donald Vorhees;  
2 143.) Brittney Wachner;  
3 144.) Carolyn Felix White;  
4 145.) Eloi Whiteman;  
5 146.) Brandon Zacharie;  
6 147.) Monty Jr Barham;  
7 148.) Esmeralda Kopka;  
8 149.) Byron Sy;  
9 150.) Annette Luckey Individually And As The Administrator Of  
10 The Estate Of Danyelle Luckey deceased;  
11 151.) Derrick Luckey;  
12 152.) Grace Eunae Park Individually And As The Administrator  
13 Of The Estate Of Josh Park;  
14 153.) Kirk Godair Individually And As The Administrator Of The  
15 Estate Of RUBY PEREZ deceased;  
16 154.) Rachel Mendez  
17 155.) C. G. (a minor through her guardian ad litem Kirk Godair)  
18 156.) Teresa Ready Individually And As The Administrator Of  
19 The Estate Of Jesse Ready deceased;  
20 157.) Janeth. Masinde Individually And As The Administrator Of  
21 The Estate Of Brenda Downing deceased

22 at all times herein mentioned were among the members of the U.S. Navy crews of  
23 the U.S.S. RONALD REAGAN (CVN-76), with its home port in San Diego,  
24 California, the crews of other vessels participating as part of the Reagan Strike  
25 Force, 7<sup>th</sup> Fleet, land-based service personnel, and/or their dependents. All of the  
26 Plaintiffs were repeatedly exposed to ionizing radiation on or after March 11,  
27 2011, due to the release of radioisotopes from the Fukushima Nuclear Power Plant  
28 (hereinafter, “FNPP”). All of the PLAINTIFFS were exposed during the mission  
known as “Operation Tomodachi.”<sup>2</sup>

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<sup>2</sup> On March 14, 2011, the U.S. 7<sup>th</sup> 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.  
14

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

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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.S.  
Sed.

COMPLAINT FOR DAMAGES

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

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

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

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

24 10. GENERAL ELECTRIC (GE) is an American multinational conglomerate  
25 corporation incorporated in New York. The company operates through the  
26  
27

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,  
15 derived substantial revenue from interstate or international commerce.

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

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

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

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

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 COMPLAINT FOR DAMAGES

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

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

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

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

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

## DOE DEFENDANTS

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

## RESPONDEAT SUPERIOR

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

## COMPLAINT FOR DAMAGES

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 12<sup>th</sup> [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  
COMPLAINT FOR DAMAGES

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.”<sup>3</sup>

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

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<sup>3</sup> <http://www.theguardian.com/environment/2012/jul/05/fukushima-meltdown-manmade-disaster>

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

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."<sup>5</sup>

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."<sup>6</sup>

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"<sup>7</sup>

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.<sup>8</sup>

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."

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26           <sup>5</sup> Id

27           <sup>6</sup> Id.

28           <sup>7</sup> Id.

<sup>8</sup> 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."<sup>9</sup>

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".<sup>10</sup>

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  
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26<sup>9</sup> Id.  
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28<sup>10</sup> <http://www.theguardian.com/world/2012/may/29/fukushima-inquiry-naoto-kan?guni=Article:in%20body%20link>

1 than once in Japan's recent history.<sup>11</sup> 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.<sup>12</sup>

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

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26 <sup>11</sup> <http://www.theguardian.com/world/2012/may/29/fukushima-inquiry-naoto-kan?guni=Article:in%20body%20link>

27  
28 <sup>12</sup> 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.<sup>13</sup>

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.”<sup>14</sup>

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

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26<sup>13</sup> <http://www.independent.co.uk/news/world/asia/the-explosive-truth-behind-fukushimas-meltdown-2338819.html>

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28<sup>14</sup> Id.

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

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.<sup>16</sup>

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.”<sup>17</sup> This is precisely what happened when the  
21 earthquake struck the FNPP.

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

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24  
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26<sup>15</sup> Id.

27<sup>16</sup> Id.

28<sup>17</sup> Id.

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

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

12 48. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the  
13 coast of Fukushima prefecture, TEPCO was negligent as evidenced by the fact that  
14 at 9:51 pm, under the chief executive's orders, the inside of the reactor building  
15 was declared a no-entry zone. At around 11 pm, radiation levels for the inside of  
16 the turbine building, which was next door to the reactor, reached levels of 0.5 to  
17 1.2 mSv per hour. In other words, the meltdown was already underway.<sup>20</sup> The  
18 reactors were already melted or deeply involved in melting down.

19 49. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the  
20 coast of Fukushima prefecture, TEPCO was negligent because seawater was not  
21 pumped in until hours after a hydrogen explosion occurred, at roughly 8 pm.  
22 Sometime between 4 and 6 am on March 12, Masao Yoshida, the plant manager,  
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24  
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26<sup>18</sup> Id.

27<sup>19</sup> Id.

28<sup>20</sup> Id.

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

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."<sup>22</sup>

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

27<sup>22</sup> <http://www.theguardian.com/environment/2013/nov/19/uk-government-new->  
28 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.<sup>23</sup> 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."<sup>24</sup>

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

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

26 <sup>24</sup>

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

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1 could connect the batteries to the instrument panels, they could at least determine  
2 the water levels in the pressure vessels.<sup>25</sup>

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

13 54. On and before MARCH 11, 2011, before the PLAINTIFFS arrived off the  
14 coast of Fukushima prefecture, TEPCO and GE negligently designed, maintained,  
15 managed, and prepared the reactor buildings, designing and building them too  
16 small to accommodate emergency equipment. In addition, this emergency  
17 equipment was not stored close by, but rather more than 55KM away from the  
18 plant,<sup>27</sup> and therefore TEPCO and GE failed nuclear power plant operation  
19 LESSON NO. 3: Keep power trucks, generators, and batteries on or very close to  
20 the power plant site, a rule so basic and vital that it should not even have been an  
21 issue. The containment vessel, which surrounds the pressure vessel, is a crucial line  
22 of defense: It is a thick steel hull meant to hold in any tainted materials that have  
23 escaped from the inner vessel. At 11:50 p.m., operators in the control room finally  
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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.<sup>28</sup>

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.<sup>29</sup>

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

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27 <sup>28</sup> <http://spectrum.ieee.org/energy/nuclear/24-hours-at-fukushima>

28 <sup>29</sup> 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.<sup>30</sup>

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.<sup>31</sup>

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 <sup>30</sup> Id.

28 <sup>31</sup> Id.

1 a. 1981: almost 300 workers were exposed to excessive levels of  
2 radiation after a fuel rod ruptured during repairs at the Tsuruga  
3 Nuclear Power Plant.<sup>32</sup>

4 b. December 1995: the fast breeder Monju Nuclear Power Plant sodium  
5 leak. State-run operator Donen was found to have concealed videotape  
6 footage that showed extensive damage to the reactor.<sup>33</sup>

7 c. March 1997: the Tokaimura nuclear reprocessing plant fire and  
8 explosion, northeast of Tokyo. 37 workers were exposed to low doses  
9 of radiation. Donen later acknowledged it had initially suppressed  
10 information about the fire.<sup>34</sup>

11 d. In 1999: A fuel loading system malfunctioned at a nuclear plant in  
12 the Fukui Prefecture and set off an uncontrolled nuclear reaction and  
13 explosions.<sup>35</sup>

14 e. September 1999: the critical accident at the Tokai fuel fabrication  
15 facility. Hundreds of people were exposed to radiation; three workers  
16 received doses above legal limits, two of whom later died.<sup>36</sup>

17 f. In 2000: Three Tokyo Electric Power Co. executives were forced to  
18 quit after the company in 1989 ordered an employee to edit out  
19 footage showing cracks in nuclear plant steam pipes in a video being  
20 submitted to regulators.<sup>37</sup>

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23 <sup>32</sup> [http://en.wikipedia.org/wiki/Nuclear\\_power\\_in\\_Japan](http://en.wikipedia.org/wiki/Nuclear_power_in_Japan)

24 <sup>33</sup> Id.

25 <sup>34</sup> Id.

26 <sup>35</sup> Id.

27 <sup>36</sup> Id.

28 <sup>37</sup> 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.<sup>38</sup>

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.<sup>39</sup>

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.<sup>40</sup>

13 j. In 2006: A small amount of radioactive steam was released at the  
14 Fukushima Daiichi plant and it escaped the compound.<sup>41</sup>

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.<sup>42</sup>

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24 <sup>38</sup> Id.

25 <sup>39</sup> Id.

26 <sup>40</sup> Id.

27 <sup>41</sup> Id.

28 <sup>42</sup> 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 pressure<sup>43</sup>. 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

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

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

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

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

21  
22 44 Control rods are used for rapid changes to the reactor power (e.g. shutdown and  
23 startup).[http://en.wikipedia.org/wiki/Control\\_rod](http://en.wikipedia.org/wiki/Control_rod).

24 45 Control rods are used for maintaining the desired state of fission reactions within  
25 a nuclear reactor. They constitute a real-time control of the fission process, which  
26 is crucial for both keeping the fission chain reaction active and preventing it from  
27 accelerating beyond control.

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

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

10  
11       **SAFETY RELEASE (“SR”) VALVE DESIGN DEFECT CAUSED CHAIN OF**  
12       **MELTDOWNS**

13       64. At Fukushima Daiichi there was a “chain of meltdowns”, with Hydrogen  
14       explosions at reactors 1 and 3, and then in 2 and 4, one after another. The  
15       explosion in reactor 1 occurred on Saturday March 12, 2014 at 3:36 PM; the next  
16       explosion in reactor 3 took place on Monday March 14, 2014 at 11:01; the third  
17       explosion in reactor 2 was on Tuesday March 15, 2014 at 6:10 and was followed  
18       by the final explosion in reactor 4 later that same day, Tuesday March 15, 2014 at  
19       9:38. This is the first time in history that a meltdown of multiple reactor cores in  
20       succession has occurred.

21       65. A Fourth design and manufacturing defect of the Mark 1 Boiling Water  
22       Reactor that contributed to the chain meltdown was a pipe connecting reactor 3 and  
23       4. Even though the core had been completely unloaded from reactor 4, the last  
24  
25

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

28       <sup>47</sup> <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.  
26

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.

17      70. Atsufumi Yoshizawa, TEPCO's senior official in charge of procurement,  
18      brought forth the excuse that he and his team were not able to prioritize the request  
19      for 12 volt batteries. Such conduct glaringly displays TEPCO's recklessness and  
20      negligence in the training, preparation and response to a foreseeable disaster such  
21      as a nuclear meltdown: "People responding to the disaster needed all kinds of  
22      things, we were trying to juggle all of the requests at the same time trying to get  
23      them delivered as quickly as we could, we didn't have time to prioritize. We just  
24      tried to grab whatever was on the list regardless of quantity...I believe we were in  
25      a situation where screening each request according to priority was very difficult."  
26      This chaotic and ill-designed approach to providing essential materials worsened  
27      the disaster. The workers at Fukushima were left without the necessary batteries to  
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.<sup>48</sup>

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

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27  
28<sup>48</sup> <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 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.<sup>49</sup> 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

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23 <sup>49</sup> 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.

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

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

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

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. Mitsuhiko 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.<sup>50</sup>  
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.

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

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.

22      84. GE never made any serious effort to revise the design and tackle the safety  
23      flaws of those reactors. In addition, GE did not even bother to properly incorporate  
24      Japanese anti-seismic standards to the Mark I construction. Dale G. Bridenbaugh  
25      stated: "The problems we identified in 1975 were that, in planning the design of  
26      the containment, they did not take into account the dynamic loads that could be  
27  
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.<sup>51</sup>

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.”

#### **DESIGN DEFECTS WERE COST CUTTING**

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

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24  
25  
26 <sup>51</sup> <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 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 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 Says Mr. Toyota, the former TEPCO executive: "Over the years, a lot of  
21 engineers have come up with different ideas to improve safety. But my guess is  
22 that they couldn't come forward and point their ideas out to management because  
23 of the high costs associated with back-fitting older reactors with new designs."

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

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

5 92. Safety is a non-delegable duty. GE is responsible for each and every design  
6 and manufacturing defect and all design flaws at the Fukushima reactors, including  
7 the design defect of the location of emergency diesel generators at the Fukushima  
8 Nuclear-power plants which must continuously cool their unstable, radioactive  
9 fuel. These cooling systems run on electricity, which the plant ordinarily pulls  
10 from the nation's power grid. If the grid fails, on-site diesel generators kick on to  
11 keep the cooling systems running. If these generators don't work, the plant is then  
12 in immediate danger of melting down. Because TEPCO's first reactor buildings  
13 were designed and built too small, the generators had to be stored somewhere else.  
14 Engineers put them into neighboring structures that house turbines and are neither  
15 sturdy nor water-tight.  
16

17 93. In the case of Fukushima's Unit 1, during the loss of coolant on March 11,  
18 2011, the pressure inside the containment vessels exceeded their design capacity  
19 almost up to twice. In 1976, GE and TEPCO knew that the Mark 1 system had not  
20 been designed to withstand the accident it was supposed to contain. In 2011,  
21 reactors 1, 2, and 3 were operating at the time and blew up, spewing radiation  
22 worldwide. Radioactive cesium, strontium, iodine, and hot particles including  
23 molten uranium, from the four reactors spread all over Northern Japan, and the  
24 resulting radioactive plume blew across the ocean and was measured around the  
25 world.  
26

#### **RADIOACTIVE CANCER-CAUSING RELEASES PREVENTABLE**

27  
28  
COMPLAINT FOR DAMAGES

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

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

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

<sup>52</sup> [http://investigations.nbcnews.com/\\_news/2011/03/13/6256121-general-electric-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 97. Five (5) soil samples and a piece of pavement from a children's park right  
15 next to a school were analyzed by Marco Kaltofen at Worcester Polytech. Each of  
16 the samples exceeded 7,000 Becquerels per kg. This means that in a two pound  
17 box of sample there were 7,000 disintegrations per second of cesium in Tokyo-  
18 more than a hundred miles away from the accident. 7,000 becquerels/kg qualifies  
19 as radioactive waste in the United States.

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

#### COMPLAINT FOR DAMAGES

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."<sup>53</sup> 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."<sup>54</sup>

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

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24  
25 <sup>53</sup> [http://www.japantimes.co.jp/news/2014/02/07/national/record-strontium-90-level-in-fukushima-groundwater-sample-last-july/#.U\\_ONlh0yM8The](http://www.japantimes.co.jp/news/2014/02/07/national/record-strontium-90-level-in-fukushima-groundwater-sample-last-july/#.U_ONlh0yM8The)

26  
27 <sup>54</sup> <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.<sup>55</sup>

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 Columbia<sup>56</sup>

22  
23  
24 55  
25 [http://en.wikipedia.org/wiki/Radiation\\_effects\\_from\\_the\\_Fukushima\\_Daiichi\\_nuclear\\_disaster](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 I 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 <sup>57</sup>

## REFERRANTS 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

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

1 Vermont. These plants pose a particular hazard with their over-crowded, high-level  
2 nuclear waste spent fuel pools that are not in hardened containment structures,  
3 making them vulnerable to natural disasters and terrorist attacks. These highly  
4 poisonous nuclear waste materials need to be kept out of the environment for  
5 250,000 years.<sup>58</sup> There are 23 BRW Nuclear Power Plants in the United States and  
6 10 additional around the world, similar in design to those at FNPP.

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

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

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27  
28<sup>58</sup> <http://www.fairewinds.org/japan-friends-tv-documentary-10-pm-june-1-japan/>  
COMPLAINT FOR DAMAGES

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

11 **HOW BWR PRODUCES ELECTRICITY:**  
12

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

26  
27 <sup>59</sup> [http://investigations.nbcnews.com/\\_news/2011/03/13/6256121-general-electric-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)  
28

1 release that separates the radioactive fuel from the rest of the reactor. The core is  
2 then placed in the pressure vessel. The pressure vessel is a thick steel vessel that  
3 operates at a pressure of about 7 MPa <sup>60</sup>(1000 psi), and is designed to withstand the  
4 high pressures that may occur during an accident. The pressure vessel is the third  
5 barrier to radioactive material release.

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

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

23 <sup>60</sup> Megapascal (MPa) is a metric pressure unit and equals to 1 000 000 force of  
24 newton per square meter which is known as a Pascal. Pound-per-square-inch  
25 (abbreviated as PSI) is a unit of pressure, which measures the quantity of pressure  
26 per square inch of area. It is defined as the pressure of a force of 1 pound applied  
27 homogeneously above an area of 1 sq inch. Pound or pound force per square inch  
28 (psi, pfsi, lb/in<sup>2</sup>, or lbf/in<sup>2</sup>) 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  
27  
28

1 (there is no air in the containment), so when it was vented to the air, an explosion  
2 occurred in four of the six (6) reactors-Reactors 1-4. These hydrogen explosions  
3 destroyed the top and some of the sides of the reactor buildings.

4 110. ON AND BEFORE MARCH 11, 2011, before the PLAINTIFFS  
5 arrived off the coast of Fukushima prefecture, TEPCO was negligent because  
6 TEPCO's spokesman, Masayuki Ono, admitted that "up to 300 tons of highly  
7 contaminated water from the FNPP site were seeping into the sea and had been  
8 leaking radioactive matter since the plant suffered a triple meltdown on 11 March  
9 2011." One PLAINTIFF declared: "ship was still taking in sea water - but  
10 obviously the ship can't filter out the radiation. Water we all showered with, drank,  
11 brushed our teeth, and had our food cooked with..."

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

19 112. On March 14, 2011, the Navy published: "The U.S. 7th Fleet has  
20 temporarily repositioned its ships and aircraft away from the Fukushima Dai-Ichi  
21 Nuclear Power Plant after detecting contamination in the air and on its aircraft  
22 operating in the area. The source of this airborne radioactivity is a radioactive  
23 plume released from the Fukushima Dai-Ichi Nuclear Power Plant. Using sensitive  
24 instruments, precautionary measurements of three helicopter air crews returning to  
25  
26  
27

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

USS Ronald Reagan after conducting disaster relief missions near Sendai identified [measureable] levels of radioactivity on 17 air crew members.<sup>62</sup>

**FIRST CAUSE OF ACTION**  
**(Negligence)**  
**Against ALL DEFENDANTS**

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

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

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

<sup>62</sup> [http://www.navy.mil/submit/display.asp?story\\_id=59065](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 plumes 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.

24 119. At all relevant times, DEFENDANT TEPCO was aware that the U.S.  
25 Navy and its personnel would provide rescue and humanitarian relief operations,  
26 including performance of their efforts to provide humanitarian assistance during its  
27  
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.<sup>63</sup>

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.<sup>64</sup>

19  
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  
that precludes harm to life,"

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

27 <http://www.washingtonsblog.com/2012/11/meta-review-of-42-studies-even-the-lowest-level-radiation-is-damaging-to-human-health.html>

28 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

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

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

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

13  
14 2,000 degrees Fahrenheit – and needed a constant circulation of cold water to keep  
15 them from burning up.

16 <sup>65</sup> According to experts, “[t]here is a near universal acceptance that  
17 epidemiological data demonstrates an excess risk of delayed cancer incidence  
18 above a dose of 0.1 sieverts. All who met with Fukushima’s radioactive fallout are  
19 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>;

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

28 “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.

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

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

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

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

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

132. DEFENDANT TEPCO knew, or in the exercise of due care should have known, that the PLAINTIFFS, among several thousand other crewmen aboard the U.S.S. Ronald Reagan (CVN-76), as well as others, would be directly and harmfully impacted by DEFENDANT TEPCO's conduct. In the aftermath of a natural disaster, it is foreseeable that foreign military and aid-workers would be among those in the vicinity.

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.

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.<sup>66</sup>  
17

18 143. Consequently, the potential for the development of cancer in the  
19 PLAINTIFFS has also been dangerously heightened, due to the levels of exposure  
20 experienced by them during “Operation Tomodachi.”

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  
assistance and monitoring. See Nuclear incident scales:

25 <http://www.coasttocoastam.com/pages/portzline-images>;  
26 Measured as quadrillions or petabecquerals (10 to the 15<sup>th</sup> Power) See, Becquerel:  
27 <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/chernobyl/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,

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.

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

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

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

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

28 COMPLAINT FOR DAMAGES

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

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

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

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

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

Wherefore, PLAINTIFFS request relief as hereinafter provided.

**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.<sup>67</sup> Due to the design and manufacturing

<sup>67</sup> 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>

1 defects, the FNPP was not reasonably safe and protective of the environment  
2 generally and of PLAINTIFFS', among others, health and well-being.<sup>68</sup>

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

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

10 Wherefore, PLAINTIFFS request relief as hereinafter provided.  
11  
12  
13

14 Nuclear expert Gundersen points out that the service pumps failed because they  
15 were positioned in such a way that they were flooded by the tidal wave on 3/11.  
16 These pumps send water from the ocean to cool the back-up diesel generators.  
17 "There could have been 14 meltdowns and not three. If you look at the data, there  
18 were six units at Fukushima Daiichi (Power Station No. 1), there are four at  
19 Fukushima Daini (Station No. 2), three at Onagawa and one at Tokai. The net  
20 affect is that there were 37 diesel generators between those plants. 24 of those  
21 diesels were knocked out by the tsunami. You need the diesels to cool the plant."  
22 At FNPP no. 1 the tsunami flooded the actual diesel generators, but at the other  
23 plants, the "tsunami knocked out the cooling water to the diesels, something called  
24 service water. So, Japan narrowly missed 14 meltdowns and not three because the  
25 cooling water to 24 of 37 diesels was destroyed." See Gundersen, July 6, 2012,  
26 Pacifica Radio Host Ian Masters and Fairewinds' Arnie Gundersen: Lessons Not  
27 Learned From Fukushima Daiichi, <http://www.fairewinds.com/radio>; Solarimg  
28 Podcast with Arnie Gundersen—Aug 10/2012, <http://solarimg.org/?p=3021>

25 <sup>68</sup> The FNPP site is fraught with danger, with constant reports of highly toxic water  
26 leaking from this pipe or that, or this reactor or that. For example, water in Unit 2  
27 turbine basement was found to have 47 million becquerals per liter. Unit 2 Water  
28 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

1

**FOURTH CAUSE OF ACTION**

2

**(Strict Liability for Ultrahazardous Activities)**

3

**Against ALL DEFENDANTS**

4

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

5

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.

6

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.

7

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.

8

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.

9

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.

1 Wherefore, PLAINTIFFS request relief as hereinafter provided.  
2

3

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

6

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

9

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

12

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

15

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

18

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

22

23 180. DEFENDANTS' acts actually and proximately caused harm and  
24 damage to the PLAINTIFFS, including personal injury, property damage, loss of  
25 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.

26

27 181. Wherefore, PLAINTIFFS request relief as hereinafter provided.  
28

COMPLAINT FOR DAMAGES

**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.

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

23  
24 Wherefore, PLAINTIFFS request relief as hereinafter provided.  
25  
26  
27  
28

COMPLAINT FOR DAMAGES

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**SEVENTH CAUSE OF ACTION**  
**(Loss of Consortium)**  
**Against ALL DEFENDANTS**

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

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

12

13 1. The loss of love, companionship, comfort, care, assistance,  
14 protection, affection, society, moral support; and

15 2. The loss of the enjoyment of sexual relations and/or the ability to  
16 have children.

17

18

19

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21

**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**

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

24 110. Plaintiff The Estate Of JESSE READY, By TERESA READY as  
25 Personal Representative brings this "Survival Action", pursuant California Code of  
26 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 2. The loss of JESSE READY the loss of the enjoyment of sexual  
8 relations.

9 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  
Against All Defendants**

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

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

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

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

COMPLAINT FOR DAMAGES

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  
preceding paragraphs as though fully set forth herein.

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

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

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

21 Wherefore, PLAINTIFFS request relief as hereinafter provided.  
22

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

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

28 117. 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

14 Wherefore, PLAINTIFFS request relief as hereinafter provided.

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;

12 2. The loss of **JOSH PARK** the loss of the enjoyment of sexual  
13 relations.

14 Wherefore, PLAINTIFFS request relief as hereinafter provided.

16 **TWELFTH CAUSE OF ACTION**  
17 **(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

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

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

9 Wherefore, PLAINTIFFS request relief as hereinafter provided.  
10

11 **THIRTEENTH CAUSE OF ACTION**  
12 **(Wrongful Death)**

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

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

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

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

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

COMPLAINT FOR DAMAGES

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

3 128. PLAINTIFFS also claims the following noneconomic damages:

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

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

9  
10 Wherefore, PLAINTIFFS request relief as hereinafter provided.  
11

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

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

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

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

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

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

COMPLAINT FOR DAMAGES

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  
Against All Defendants**

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

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

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

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

21 Wherefore, PLAINTIFFS request relief as hereinafter provided.  
22

23 **PRAYER FOR RELIEF**

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

28  
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.

15 **Dated: August 18, 2017**

16 **RESPECTFULLY SUBMITTED,**

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

21 **Dated: August 18, 2017**

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

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

28  
COMPLAINT FOR DAMAGES

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                  **Dated: August 18, 2017**

12                  **RESPECTFULLY SUBMITTED,**

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

16                  **Dated: August 18, 2017**

17                  **RESPECTFULLY SUBMITTED,**  
18                  **LAW OFFICES OF BONNER & BONNER**  
19                  By: /S/CHARLES A. BONNER  
20                  CHARLES A. BONNER  
21                  Attorney for Plaintiffs

22                  **Dated: August 18, 2017**

23                  **RESPECTFULLY SUBMITTED,**  
24                  **EDWARDS KIRBY**

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

28                   **COMPLAINT FOR DAMAGES**