Luis Sancho
Walter L. Wagner
PO Box 411
Honomu, HI 96728
808-964-5535
pro se

IN THE UNITED STATES DISTRICT COURT

DISTRICT OF HAWAII

--oo0oo--

LUIS SANCHO, et al.,	)	Civil No. CV08-00136 HG
	)	
Plaintiffs,	)	**AFFIDAVIT OF WALTER L. WAGNER IN SUPPORT OF REPLY MEMORANDUM**
	)	
vs.	)	
	)	
US DEPARTMENT OF ENERGY, et al.,	)	
	)	Date: October 14, 2008
Defendants.	)	Time: 10:00 A.M.
_____	)	Court: Hon. Kevin S.C. Chang

AFFIDAVIT OF WALTER L. WAGNER
IN SUPPORT OF REPLY MEMORANDUM

I, Walter L. Wagner, after first being duly sworn, affirm, state and declare under penalty of perjury of the laws of the State of Hawaii as follows:

1. I recall and repeat all of my prior affidavits.

2. In addition to the attachment of my prior affidavit pertaining to accidental detonation of Earth's atmosphere, I attach herewith as Exhibit "A" to this affidavit a science article that was published three decades later, in 1979[1], pertaining to both the accidental detonation of Earth's atmosphere, as well as to accidental detonation of Earth's oceans, which had not been treated in the earlier science article by Dr. Teller. Dr. Teller was also a contributor to this attachment, but not as an author, but rather as a person acknowledged in the closing paragraph under "Acknowledgements".

3. Exhibit "A" modifies the earlier treatise of such accidents by Dr. Edward Teller, essentially confirming [by an after-the-fact[2] analysis] that the earth's atmosphere is too thin to engage in a thermonuclear detonation of its Nitrogen, and likewise concludes the earth's oceans[3] have too little Deuterium [Heavy Hydrogen, or H-2] to engage in a thermonuclear detonation. The

[1] This was published just a few months after I began work in nuclear safety.

[2] By the time this article was published in 1979, atmospheric and underground weapon testing had already long been banned by the US and the then USSR, though France continued such underground testing thereafter. Since such testing had already shown that neither the Earth's atmosphere, nor its oceans, had detonated, the conclusion of this report that such accidental detonations were not possible was already known, though it was not known how close we were to such accidental detonations.

[3] Section VIII of the article, "Prospects for the Nuclear Detonation of the Oceans"

authors concluded that at a minimum the earth's oceans would need a concentration of Deuterium of 1/300 atoms in order to detonate, instead of the actual concentration of 1/6000[4].

4. The authors also conclude that if the Deuterium in hydrogenous materials [Water, Ammonia, Methane, etc.] present on the surface of other planets/moons were to have become sufficiently enriched in Deuterium[5] by natural processes, then it would be possible to ignite those planets in a thermonuclear detonation.

5. Essentially, those authors concluded in 1979 exactly the same as Dr. Teller, et al. did in 1946; namely that the low concentration of fusible materials in earth's atmosphere [Nitrogen] or oceans [Deuterium, or heavy-hydrogen] preclude an accidental thermonuclear detonation, but that if the concentration were increased, a thermonuclear detonation is possible if the ignition temperature is reached. That increased concentration necessary for Nitrogen detonation was only about a two-fold increase, and the increased concentration necessary for Deuterium detonation was about a 20-fold

[4] Section VIII, page 327, third paragraph reads: "If, for instance, the terrestrial oceans contained deuterium at any atom fraction greater than 1:300 (instead of the actual value of 1:6000), the ocean could propagate an equilibrium thermonuclear-detonation wave …"

[5] Section VIII, page 327, fourth paragraph reads: "It is thus quite conceivable that hydrogenous matter (e.g. CH_4, NH_3, H_2O, or just H_2) relatively rich in deuterium (…) could accumulate at its normal, zero-pressure density in substantial thicknesses on planetary surfaces … . If thereby highly enriched in deuterium (…), thermonuclear detonation of such layers could be initiated artificially …"

increase, at the highest ignition temperatures, and somewhat greater in concentration for lower ignition temperatures.

6. I have had several lengthy, hours-long discussions with Dr. Richard Webb concerning the thermonuclear detonation potential of the various fusible materials in high concentration at the LHC, which consist primarily of fusible C-12 in the one-ton graphite collimators and multi-ton graphite beam-dump, the fusible N-14 in cylinders of compressed air at 100 atmosphere concentration, and the fusible liquid He-4 utilized as the coolant of the superconducting magnets that ring the full 27 kilometer circumference of the beam pipes of the LHC. He is likewise agreed that the potential for an accidental thermonuclear detonation of those fusible materials from an errant beam might be present, and needs to be examined in detail.

7. Dr. Webb is an expert in nuclear physics, and in particular authored a treatise on the accident hazards of nuclear power plants, and has served as a consultant in reactor accident mitigation following the Three-Mile-Island nuclear reactor accident. He obtained his Ph.D. in Nuclear Engineering from Ohio State University, and was formerly employed under Admiral Hyman Rickover with the Atomic Energy Commission's *Division of Naval Reactors*. The back cover of his treatise regarding such nuclear accident potentials

contained the following endorsement from Dr. Henry Kendall, a shared Nobel recipient for his discovery of quarks:

> "Dr. Webb raises questions that I believe have not been responsibly answered by the nuclear industry … grave enough so that they should be set out in public as a prelude to their consideration and, hopefully, prompt resolution by the nuclear industry."

8. Because of the newness of the issue [it has never been examined by CERN, it was completely overlooked], and the intricacy of the evaluation that would be required, it is not possible at present to give any accurate estimate as to the likelihood of such an accident. All that can be presently stated by either Dr. Webb or myself is that that particular accident scenario was completely overlooked by defendants herein, never examined at all, and will require an extensive evaluation to determine whether such accidental detonation of those concentrated fusible materials, gathered in bulk at the LHC, is plausible, along the lines of the examination given in the Attachment "A" herein, and the previous attachment involving the work of Dr. Teller in examining the potential for accidental detonation of earth's atmosphere.

9. In the event that such fusible materials were to detonate, I would be impacted here in Hawaii as the resultant thermonuclear blast would be potentially larger than conventional H-bomb blasts, leading to an extensive cloud of radioactive fallout which would ultimately drift over Hawaii.

10. Consequently, I believe the serious issues of safety raised by myself and many others far outweigh any claims to sovereignty that might be sought to be raised by defendant CERN, or its partner government defendant DOE, or any claims to lack of actual notice and an opportunity to appear herein.

11. Should the LHC accidentally create a strangelet that engages in runaway fusion, the result would be somewhat similar to the runaway fusion contemplated by the authors of Exhibit "A" for distant moons/planets that have higher concentrations of fusible materials than earth's oceans or atmosphere, but in that case all of the atoms of earth would be fusible fuel, and not just the more readily fusible materials such as Deuterium.

12. I routinely monitor the operations of defendant CERN, and it is now estimated that they plan to attempt to engage in collisions to create new kinds of matter in mid to late October, unless they run into additional difficulties with commissioning.

13. The risks associated with this operation are at several levels. The first risk is obtained when they first exceed the energy capability of the lower-energy Tevatron of about 2 TeV. The second risk is obtained when they seek to go beyond that energy to an estimated 10 TeV in late 2008. The third risk is obtained when they seek to go beyond that energy to an estimate 14 TeV design maximum for proton collisions. The fourth risk is obtained then they

seek to go beyond the RHIC collision energies for Gold-Gold collisions in their Lead-Lead collisions. The final risk is obtained when they seek to obtain design maximum energies for Lead-Lead collisions at about 1,000 TeV. These risks run the full spectrum in between those energy levels, and it is not possible to exactly quantify which is the greater, or even if the risk was materialized, but not noticed. Under various scenarios for microblackhole production, they would be essentially undetectable until decades to millennia later, when they grew large enough to destroy the planet.

1. Further, your affiant sayeth naught.

Dated: September 12, 2008

_____
Walter L. Wagner

Subscribed and sworn to before me
this 15th day of September, 2008

_____
Notary Public, State of Hawaii

EXHIBIT “A”

Necessary Conditions for the Initiation and Propagation of Nuclear-Detonation Waves in Plane Atmospheres