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pro se

**IN THE UNITED STATES DISTRICT COURT
DISTRICT OF HAWAII**

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LUIS SANCHO, et al.,)	Civil No. CV08-00136 HG
)	
Plaintiffs,)	AFFIDAVIT OF WALTER L.
)	WAGNER IN SUPPORT OF
vs.)	MOTION FOR PRELIMINARY
)	INJUNCTION; EXHIBITS "A-C"
US DEPARTMENT OF ENERGY,)	
et al.,)	
)	Date:
Defendants.)	Time:
_____)	Court: Hon. Helen Gillmor

**AFFIDAVIT OF WALTER L. WAGNER
IN SUPPORT OF MOTION FOR PRELIMINARY INJUNCTION**

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. I have been informed that defendant CERN intends to engage in collisions of protons as quickly as possible at energies beyond those previously attained at Fermilab's Tevatron, in order to "prove plaintiffs wrong", and that such collisions are scheduled for mid to late October if defendants do not run into further¹ technical problems. However, plaintiffs do not assert that there would be an obvious detection of problems at those initial energies.
3. Rather, plaintiffs contend that if dangerous product is produced during that initial phase, particularly if microblackholes are produced that do not evaporate, that no one at CERN or elsewhere will be able to detect that they were created, as they would simply traverse the particle detector equipment at CERN without interaction. Instead, they would slowly over the course of many decades to many centuries, devour the earth, leaving our grandchildren's grandchildren with the prospect of their planet being destroyed from within centuries hence.
4. The fact that the microblackhole issue has not been resolved in the scientific community is evidenced by my Attachment "A" and my

Attachment “B”. The Attachment “A” article, entitled “*On the Potential Catastrophic Risk from Metastable Quantum-Black Holes Produced at Particle Colliders*” by Dr. Rainer Plaga, was posted at arXiv on August 10, 2008 only one month ago in response to defendants’ LSAG Report of June, 2008. It is expected that more such papers finding fault with the LSAG Report will be posted as the scientific process proceeds forward.

5. The Attachment “A” article, though nominally by a single author, actually acknowledges several other scientists in its concluding paragraph [“Acknowledgments”], who also provided critical comments. Some of the critical assertions of that paper follow:

“Subnuclear “micro” black holes (mBHs) can then be copiously produced at future high-energy particle colliders such as the “Large Hadron Collider” (LHC) at CERN. A production rate of up to about one BH per second could then occur at the nominal LHC luminosity, i.e. the LHC would be a “black-hole factory”. ... The possibility that a collider-produced black hole (BH) – or another exotic object – might catastrophically grow by accretion and thus injure or kill humans deserves careful attention. ... At the present state of knowledge there is a definite risk from mBHs production at colliders. This final conclusion differs completely from the one drawn by G & M [the authors of the LSAG Report].”

[underlining added for emphasis, bracketed insert added for clarity]

¹ A recent thunderstorm caused an interruption in beam commissioning, as detailed in the accompanying Attachment “C”, somewhat slowing the schedule.

6. The author of Attachment “A” actually examined a third scenario that was overlooked by Giddings and Mangano [the LSAG Report authors]. He did not address fully the errors of the two scenarios that had been examined by Giddings and Mangano, finding it sufficient to point out the completely-overlooked third scenario. He also did not discuss the strangelet issue, leaving that for a future paper. This third scenario examined by Dr. Plaga would actually have production of a microblackhole leading to immediate devastating consequences.

7. The authors of Attachment “B”, which science report is entitled “*On the Stability of Black Holes at the LHC*”, also generally conclude that mini black holes might be produced by proton-proton collisions at the LHC, and that they might be stable [non-evaporative]. This is found following an extensive mathematical treatment in which they conclude:

“We conclude that the exterior gravitational field of a Black hole is not native of an AdS_5 bulk and that the black holes produced by proton-proton collision at the LHC may be unstable. Nonetheless, it is possible that in a higher dimensional bulk $D > 5$, the behavior of the black holes is stable. ...”

[underlining added for emphasis]

8. Again, the above science report is from reputable physicists from two different University physics departments, in this case in Brazil, not Germany. Their conclusion of possible stability of microblackholes has also

been previously postulated, but not treated by formal mathematical treatments as herein.

9. The Attachment "C" is a science reporter's report on the recent thunderstorm at the LHC that knocked out transformers and disrupted the beam commissioning for many days. It underscores several more mundane types of problems that might erupt if such disruptions were to cause an errant beam, as happened previously once at the much lower energy Tevatron. This includes another thunderstorm or other outside factor causing a disruption of electrical power, to computer-hacking potentially causing interference with beam control. Such errant beam, for whatever cause, could conceivably trigger a thermonuclear detonation as detailed in my previous affidavit, and as of yet not examined by defendants whatsoever.

10. As mentioned in my prior affidavit, there exists a series of escalating risks for each new uncharted energy regime that the LHC would begin exploring. During the initial commissioning phase in which protons are collided at only their injection energies [about 0.9 TeV² total], plaintiffs do not anticipate any new types of particles, as those energies have routinely been

² As a refresher tutorial: one thousand electron-volts of energy is 1 Kilo eV, or one KeV; one million electron-volts is 1 MeV; one billion electron-volts is 1 BeV [now usually written as 1 GeV, where G = Giga]; and one trillion electron-volts is 1 TeV.

obtained and explored at Fermilab's Tevatron, which routinely obtains about 2 TeV of total energy from their collisions [and hence the name "Tevatron"].

11. Accordingly, the first risk would come when the LHC exceeds the Tevatron's energy capability, and begins exploring the regime beyond 2 TeV. Plaintiffs are informed that defendants seek to immediately begin exploring that regime as soon as they are capable of obtaining such ability, which they have announced as being for the middle of October, 2008, when they anticipate going from their initial 0.9 TeV capability to 10 TeV. Whether any untoward events would be manifested at that first risk is unknown, though believed very possible by plaintiffs, and evidently by numerous other scientists who have expressed concern, such as expressed in Attachment "A", etc.

12. Thereafter, additional risk levels are manifested at increasing energies, if the first risk level is not manifested. This would occur in 2009 when defendants intend to go from 10 TeV to 14 TeV, the design maximum for proton collisions. Thereafter, defendants intend to switch to Lead-Lead collisions, which pose another risk level due to the much higher energy, and the greatly increased likelihood of strangelet production. That risk level is manifested as soon as the LHC engages in Lead-Lead collisions at energies higher than the current Gold-Gold collisions at Brookhaven's RHIC collider,

and continues to the highest risk level when the LHC design maximum is achieved at slightly above 1,000+ TeV, projected for sometime in 2010.

13. A delay in going beyond 2 TeV while the scientific community fully critically analyzes the LSAG Report would not cause any loss of scientific results, but would merely delay obtaining those results for a short period of time while safety was properly reviewed. It would, however, serve to preserve the *status quo*, which is that presently there are no microblackholes being created at low speed here on earth, there are no strangelets [referred to as “mass bombs” by Dr. Sancho due to their ability to convert the mass of the earth into one huge bomb] being created, and no other form of “dark matter” being created which could adversely impact us, or our progeny in future centuries.

14. Previously, when the community of scientists working in the field of DNA technologies, recognized that they were at a critical juncture in their field, and that it was possible that continuing research could conceivably result in disastrous consequences, they voluntarily called for a moratorium and held a major science conference to discuss the issues, resulting in a formal program to preclude unintended disastrous consequences. It would behoove our High Energy Physics community to do likewise, in light of the fact that numerous scientists disagree with the LSAG Report conclusions, and in light of the fact

that this is an evolving scientific field with new articles on the risks being developed. However, defendants appear aloof and obstinate, and accordingly court injunctive relief in lieu of a self-imposed moratorium is necessary.

15. Further, your affiant sayeth naught.

Dated: September 18, 2008

Walter L. Wagner

Subscribed and sworn to before me
this 18th day of September, 2008

Notary Public, State of Hawaii

EXHIBIT "A"
**On the Potential Catastrophic Risk from Metastable Quantum-Black
Holes Produced at Particle Colliders**

EXHIBIT “B”
On the Stability of Black Holes at the LHC

EXHIBIT "C"
The Science of Conundrums