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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,)	SUPPLEMENTAL
)	AFFIDAVIT OF WALTER L.
vs.)	WAGNER IN SUPPORT OF
)	MOTION FOR PRELIMINARY
US DEPARTMENT OF ENERGY,)	INJUNCTION; EXHIBITS "A-B"
et al.,)	
)	Date:
Defendants.)	Time:
_____)	Court: Hon. Helen Gillmor

SUPPLEMENTAL 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. Since my prior affidavit of September 18, 2008, defendant CERN has caused serious damage to its Large Hadron Collider [LHC] during its commissioning testing, with such damage occurring Thursday evening Hawaii time, September 18, 2008 at about 11:17 PM [Friday morning, September 19, 2008; 11:17 AM Geneva time].
3. During testing of electrical circuits for powering the LHC magnets, it is reported by CERN [see Exhibit "A"] that in its preparation for accelerating beam to energies higher than ever attained previously, in their attempt to create novel types of matter never before seen on our planet, a superconducting electrical connection is reported to have lost superconductivity, entered into electrical resistance heating, and melted, for unknown cause.
4. The initial problem is reported to have triggered numerous other failures. Approximately 1 ton of liquid Helium, the superconducting coolant, is reported to have thereafter spilled onto the floor due to mechanical damage, and subsequently evaporated into the atmosphere.
5. Additionally, approximately 100 consecutive superconducting magnets, not directly connected to the failed electrical circuit, lost

superconductivity, “quenched”, and were rapidly heated from 2 degrees K to approximately 100 degrees K [this is equivalent energy deposition as for water at just above freezing, or zero degrees Celsius, being raised to boiling, or 100 degrees Celsius, in a fraction of a second]. This constituted approximately 1.5 Kilometers [0.93 miles] of magnets, or almost half the length of magnets in the affected sector [Sector 3-4, one of the eight sectors that comprise the 27 kilometer ring of magnets]. This is seen in the Attachment “B”, page 2, in which most of the 100 magnets simply have no value being reported, save for one temperature gauge about in the middle of the affected section of magnets, reporting at 100 K.

6. Those approximately 100 magnets all reached approximately 100 degrees Kelvin simultaneously when they quenched and their stored energy was released into the coolant. Each has its own independent cooling system and temperature gauge. The temperature gauges for all of them thereafter failed, save for one, which is reporting a reading of 100 degrees K, though now apparently ‘stuck’ at that reading, and no longer a reliable indicator of current temperature.

7. It is not presently known the severity of the damage to the temperature gauges, or whether the heating and quenching of the magnets caused permanent damage to some of the magnets.

8. Additionally, at the far end of the Sector 3-4 tunnel, approximately 1.5 kilometers away from the last of the quenched magnets, the Radio Frequency [RF] cavities began overheating. Approximately 9 hours after the accident they were at 60 degrees K, and they are still slowly warming and on September 23 they were at 180 degrees K and rising. Likewise, the LSS magnets at the far end have been slowly rising in temperature from 4.5 K at the time of the accident, to 40-70 K on September 23.

9. The damage is still presently being assessed, and cannot fully be assessed until the sector is warmed to room temperature [about 300 K] and physically accessed. That process has not yet started while the situation is still being evaluated.

10. If the temperature gauges are readily repairable, and the quenched magnets suffered no permanent damage, then repairs to the sector would likely be completed in about 2-3 months from now, followed by about 1 month of cooling back down to operating temperature of 2 K. If the quenched magnets were damaged during their rapid heating from 2 degrees K to 100 degrees K, their repair could take 1-2 years, and might call into question the engineering design of all of the magnets running the full 27 kilometer circumference. The problem with the RF cavities and LSS magnets is likely

not as severe, though good information is not presently available about that either.

11. Because there was no beam in the beam-pipes at the time of the accident, there was no loss of beam control or errant beam, so there was no ability to cause a thermonuclear explosion from an errant beam.

12. Consequently, this Court may calendar a hearing on the motion for preliminary injunction without plaintiffs' need for a temporary restraining order [TRO] pending that hearing, as previously requested.

13. Further, your affiant sayeth naught.

Dated: September 23, 2008

Walter L. Wagner

Subscribed and sworn to before me
this 23rd day of September, 2008

Notary Public, State of Utah

EXHIBIT "A"
Incident in LHC sector 34 – CERN Press Release

EXHIBIT "B"
LHC Cooldown Status – September 23, 2008