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From: "Ken Suslick" <ksuslick@uiuc.edu>
To: "Dr. Peter Dunn" <pedunn@purdue.edu>
Sent: Thursday, June 01, 2006 12:36 PM
Subject: Taleyarkhan Review--CONFIDENTIAL

CONFIDENTIAL

Dear Professor Dunn,

I understand that you are coordinating the internal review of Professor Rusi Taleyarkhan's behavior over his claims to observation of nuclear fusion from bubble cavitation. As a member of the DARPA supported scientists that visiting Taleyarkhan's labs, I thought you might like to see the independent assessment that I made at that time. To that end, please find below my email (sent to Bill Coblenz (DARPA grant officer), Peter Schmidt (the ONR grant officer) and Seth Putterman (the formal PI of the grant from which subcontracts to Taleyarkhan and myself were made). Please share this email from 3/4/06 with your review committee.

Over the period of time from March until now, I can only say that my evaluation of Taleyarkhan's work has hardened further. I am frankly convinced at this point that Taleyarkhan's claims are flat out fraud: my opinion is formed on the basis of our visit to his labs, attempts to reproduce his work in my labs and in Putterman's labs (including the new results from Brian Naranjo that will appear very soon in Phys. Rev. Lett. showing that Taleyarkhan's neutrons are from a Cf source and not DD fusion), the recent "erratum" from Taleyarkhan revealing he didn't even know what his neutron detector was, and new revelations (some not yet published by her) from Eugenie Reich (the Nature reporter).

I realize that this puts you, your committee, and Purdue University in a very difficult position. That position, however, will only get worse should appropriate sanctions not be taken at this time.

I would be completely willing to discuss this matter more fully with you by phone or even at Purdue if the Committee might find that useful.

Sincerely yours,

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Message-Id: <6.2.3.4.2.20060304161442.02e268d0@mail.scs.uiuc.edu>
X-Mailer: QUALCOMM Windows Eudora Version 6.2.3.4
X-Priority: 1 (Highest)
Date: Sat, 04 Mar 2006 17:06:43 -0600
To: "Seth Putterman" <puherman@ritva.physics.ucla.edu>,
"wcoblenz" <wcoblenz@darpa.mil>, ppschmidt@verizon.net
From: Ken Suslick <ksuslick@uiuc.edu>
Subject: Re: FW: confirm sonofusion or give it up
In-Reply-To: <200603041945.k24Jt7Y004490@physics.ucla.edu>
References: <200603041945.k24Jt7Y004490@physics.ucla.edu>
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helios.ecn.purdue.edu
X-Spam-Level:
X-Spam-Status: No, score=-0.8 required=5.0 tests=AWL,BAYES_00,HTML_10_20,
HTML_MESSAGE,MIME_QP_LONG_LINE autolearn=no version=3.0.4

I'll add my thoughts on these issues, too, now that I've caught up on sleep-debt. Unlike my abrasive good friend Seth, I am known for my gentle and well-mannered personality, so please normalize my response below.

Rusi's performance at Purdue was a farce on par with a Uri Geller spoon bending act. I'm not quite decided whether Rusi is also just fooling himself or has actually crossed the line into fraud. I strongly suspect the latter, but only because I give him the benefit of the doubt that he's not a complete moron.

Nothing is repeatable, everything conveniently breaks (e.g., the sonofusion cells that work well are always broken) or stops working (PNG) or isn't working the way it 'usually' does (e.g., the too gassy cavitation shown with the Cf source initiation). Published procedures aren't followed (e.g., the switch from scintillator detection to the plastic qualitative dosimeters), and so confirming his results becomes a moving target (where is Cheney now that we need him?). Procedures that start objectively (e.g., letting me pick the control plastic dosimeter), get corrupted (i.e., they took the plastics away for etching without supervision or asking) or hidden (e.g., not allowing the focus of the microscope to be changed or to turn over the dosimeter). Procedures aren't verified well (e.g., the etching of the plastic dosimeter--why don't they use a magnetic stirrer, how can you get even and reproducible etching without that? or the storage of the Cf source only 15 feet from the neutron detector and the forbidding us to inspect the storage because we didn't have radiation badges!). The cherry-picking of data is evident everywhere: in the choice of what cells supposedly work and which don't, in which scintillator runs are reported, or in the definition of what a good cavitation field looks like!

The critical evaluation of a functional sonofusion cell MUST take place at UCLA not at UIUC. I have no neutron counting instrumentation; that's why Hopkins has spent a

significant fraction of his graduate career at UCLA.

We are way past the point of diplomacy, gentlemen, especially given the inclinations of Nature's freelance reporter Eugenie Reich. I think the memo from DARPA needs to at least outline the consequences of fraud in a Federal contract, so that Rusi is fully informed of the consequences of non-cooperation. Since these consequences would also include refunding of the money from Purdue back to DARPA, his Dept. Head "Lefteri H. Tsoukalas" <tsoukala@purdue.edu> and Purdue's Dean of Engineering (Linda Katehi, katehi@purdue.edu --note--she is about to become our Provost at UIUC and I don't know if an interim dean has been named yet by Purdue) must also be informed NOW of at least a possibility of an investigation.

--Ken

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