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February 20, 2008

VIA E-MAIL

The Investigation Committee in the
Matter of Dr. Rusi Taleyarkhan

Re: Additional Summation

Lady and Gentlemen:

The purpose of this letter is to make additional closing argument on the meaning of documents and testimony put before you during this proceeding. We thank you for your attention.

I include comments on some testimony the Committee has *not seen before.* I do not want to waste your time with irrelevant argument. The goings-on in the School of Nuclear Engineering (SNE) are disturbing (to use the mildest term I can think of), but you might say. . . so what?

Well, allow me to explain the "so what."

As you saw and heard at the hearing, there are *many* witnesses who are willing to testify about the problems within the SNE fomented by Tsoukalas and his group. Most importantly, they show the *linkage* between the actions of Tsoukalas and others to the *Allegations* against Dr. Taleyarkhan which are before this Committee. And while we do not have the burden to prove anything, we believe this evidence does in fact prove the allegations are *false*.

When all of these facts are considered together and put into perspective, a rather unbelievable conspiracy can be seen for what it is. Our guess is that it started out in a small way, but has since exploded and now the conspirators can't take their story back. The story goes like this:

- Tsoukalas hires Taleyarkhan and work on sonofusion starts at Purdue. The Purdue experiments are initially reported as successful. Clikeman's own raw data, his laboratory notes and the Tsoukalas group's original manuscript (submitted to

you) prove this. Xu works with Tsoukalas' group and takes readings on a different, much more sensitive spectrometer than is being used by Clikeman. He analyzes the data under the supervision of Revankar and concludes that it " "confirms" Rusi's original work. The Tsoukalas group includes this separate database with their own positive findings into their initial manuscript.

- A recorded experiment happens in G60 and everyone agrees to the "writing on the wall."

- Over a period of about 5 to 7 months Xu is engaged full-time to conduct separate confirmatory sonofusion experiments of his own which includes not only data acquisition for tritium and neutrons but also thermal-hydraulic aspects.. He finishes his work and concludes that it "confirms" Rusi's original work. There is absolutely no question about the fact that he does all of his own work, his own analysis, and reaches his own conclusions without interference from Taleyarkhan.

- Meanwhile, Tsoukalas' group continues to ponder their results and continues to take *additional* readings from the *same tritium samples*.

- Xu decides to try to publish his own results. Again, there is no question but that this was *Xu's idea*.

- Xu drafts his report and talks with Taleyarkhan who (after consulting with others) recommends that *Science* be approached. The drafts are revised (not in *substance*), and the paper is eventually published in NED. Adam Butt becomes involved in conjunction with a referee's comment made during the publication process that motivates Xu's decision to invite Butt.

- The paper is published in NED. Taleyarkhan thinks it is worthy of publicity because it shows that independent observations were made which tend to confirm his discovery. *Of course* he wants it to be publicized.

- Taleyarkhan first seeks his Head's (Tsoukalas') guidance, help and approval on the press release. Tsoukalas asks Taleyarkhan to inform Purdue's Press Office of this development on behalf of the SNE, after which a release is written during July 2005 in which Tsoukalas asks for and receives credit for direction and sponsorship of research and which also acknowledges Taleyarkhan's connection with the project. Life moves forward.

- Meanwhile, over a period of time, Tsoukalas gets angry with Taleyarkhan. This is the first step during which Tsoukalas and others try to hurt Taleyarkhan and his work by attempting to send "this Indian back to India."

- The March 8, 2006 *Nature* article is the second step, and the downward spiral begins in public

- This *directly* impacts most (if not all) of the allegations in this matter.

- Among the already dismissed allegations originally brought against Taleyarkhan are that he stole some equipment from Tsoukalas's labs, and that he used Cf-252 to fabricate results. The Cf-252 related allegations have already been dismissed. The theft allegation was implausible from the beginning since equipment moves were made at the request of and approval of Tsoukalas himself.

- Rusi did not ask to be kept off of authorship or out of the publicity surrounding it. It was Xu's decision. Rusi *was*, in fact, acknowledged in the article. The issue is *intent* and intent just does not exist here.

- There is also no denying that subsequently several other "independent" confirmatory studies were subsequently done. These non-Purdue researchers either worked in their own facility, or came to Taleyarkhan's lab, he helped them, and they reached their own conclusions based on their own observations. This is exactly the same thing that Xu did. Those researchers, at least one of whom is very prominent in his field, believed their results were "independent." The assistance Taleyarkhan gave them is probably more assistance than he gave Xu. Still, those researchers considered their work independent and did not include Taleyarkhan or Xu as co-authors.

- Then there is the Butt situation. The evidence suggests Butt was abused as a student strong-armed by Tsoukalas into saying he was forced to accept a co-authorship. Tsoukalas had Butt's master's degree hanging over his head. Again, while we don't have to prove this is true, it certainly looks like it is true and, if so, there is no way that research misconduct occurred on Rusi's part (setting aside that research misconduct couldn't happen in this situation anyway).

- Then there is the unbelievably outrageous situation with Walter in relation to what he saw and experienced during the day on 9.19.03. Foremost in all this is the fact that he was not even present during the day as proven from the official log books, coupled with the testimonies of several individuals. First he alleges that no

readings were taken, nor recorded, and that the whole thing was fabricated (never happened). Then the recorded readings are presented by Taleyarkhan directly from the machines themselves. Then somebody says well, maybe the readings were taken, but there is something wrong with them. So Taleyarkhan goes through a whole experimental setup, with his collaborators, to prove that that statement is incorrect. Of importance here is that he together with Block really did not need to do that but they did it, and it proves the data is plausible and is not research misconduct. Even if the data taken on that day had been irregular, it was *never used* by Taleyarkhan's group because they didn't have the appropriate control testing done, nor did they have significant repeat sampling procedures completed. Moreover, the purpose of that testing was not for experimentation, rather, it was to get the new equipment brought from ORNL by J. Cho set up and running for Purdue's future use.

- And then there is the "writing on the wall." There is no argument except that the writing was initiated by Jeremovic and that it was based not only on the testing done that day, but a lot of testing that had gone on in the same lab earlier. It is also interesting to note that neither Walter nor Bougaev signed the "writing on the wall" *because neither one of them were there.*

- Next is the "credit to federal government" issue.

  - DARPA itself has never complained and they know about the whole situation.

  - The work done for the self-nucleated experiments was actually funded by the Department of Energy (DoE) and completed (all of the testing was done) before the DARPA-UCLA monies were even made formally available to Purdue. The first existing draft Taleyarkhan could find of what ultimately became the PRL manuscript is dated in the same month the funds were made available. As has been attested to by several of Taleyarkhan's collaborators (Lahey, Block, West, Nigmatulin, Cho), the required hard core intense work culminating in the discovery of sonofusion from self-nucleated acoustic cavitation was already completed by the time the new DARPA-UCLA funds were put in place, and as Lahey's affidavit points out, it is bizarre to even suggest that the UCLA funds could have played a role in the accomplishment within days of arrival. All that remained was publication related (writing) efforts. Several of the people who worked on the paper have put on their

unrebutted, true testimony that the work they did was actually done by themselves without any funding for the PRL paper. In fact, it was not Taleyarkhan but his co-author Robert Block who corresponded with the PRL editorial board and transmitted the paper to them

- As an added due diligence measure, Rusi communicated with the true federal sponsors (i.e., DoE) and offered to give them credit or whatever they'd like for their sponsorship in 2004 when the discovery was made. They have not taken him up on it and, in fact, formally communicated in writing their approval of Taleyarkhan's sound judgment and actions (which were to not acknowledge DoE's sponsorship due to national security reasons). There can be no research misconduct here.

In the end, Dr. Taleyarkhan is a bright scientist with a bright future, mostly loved and respected by his students, staff, and most of his fellow colleagues. He is the public face of a technology which, we cannot say will or will not have a paradigm-shift type impact on changing the world as has also been testified to by several of his colleagues on 2.3.2008. We hope that the Investigation Committee will see the irony here and look through the lies and the smoke contained in the allegations and conclude that Dr. Taleyarkhan did not commit research misconduct. The testimony of some very reknowned and respected scientists, Drs. Nigmatulin, West, Block, and Lahey, confirm that Dr. Taleyarkhan is a respected ethical scientist, and that his actions/inactions, in their eyes, simply cannot rise to the level of research misconduct.

I comment below on some *specific* testimony contained in some of the affidavits recently presented to you.

Affidavit of Darla Mize

Mize's testimony is, frankly, *unbelievable and outrageous.* Not in the sense that it is not true, but rather that the actions of some leading to the working environment (of blatant violation of process rules, of discrimination, intimidation, swift reprisal and defamation) allowed to develop and persist at Purdue that it portrays are *unbelievable*. This Committee heard her live and has her affidavit, or at least a portion of it, and knows what it means. She is telling the truth and it is at great risk to herself that she does so.

Not only does she have endless examples of Dr. Tsoukalas' behavior, but they directly impact this case. By her own admission, she heard Dr. Tatjana Jevremovic declare to her face that she (Jevremovic) was forced to tell lies to *Nature Magazine* by Dr. Tsoukalas, which

eventually resulted in the March 8, 2006 *Nature* article which discredited Dr. Taleyarkhan and his research. It was this initial, single act by Dr. Tsoukalas that has caused and maintained much of the pain, anguish, and suffering both for Dr. Taleyarkhan and for Purdue in the eyes of the public.

Darla also testified that Dr. Tsoukalas engaged in a scheme to destroy Dr. Taleyarkhan after meetings in the SNE led to their positions being polarized against each other when it came to a particular professor with whom Dr. Tsoukalas was quite close.

Finally, Mize testifies that Butt was called into Dr. Tsoukalas' office to discuss and influence Butt's testimony in the investigation into Dr. Taleyarkhan. Mize felt this meeting was very unusual, and believes that this was all part of the effort to discredit Dr. Taleyarkhan by Dr. Tsoukalas and his camp.

Darla was the person working the closest with Dr. Tsoukalas during his tenure as Head of SNE. She knows what happened, has endless stories of misuse of funds, deceit, abuse of power, and a host of other issues. Her affidavit is the tip of the iceberg.

Affidavit of Erica Timmerman

Erica Timmerman testified that Dr. Tsoukalas "*is absolutely the most untrustworthy person I know*" and, *"I believe Dr. Lefteri Tsoukalas is deceitful and vindictive and in general a jerk."* On many occasions, Dr. Tsoukalas made discriminatory remarks against Indians to her in her presence, directly. These discriminatory remarks were directly aimed at Dr. Taleyarkhan and show part of the motive for a concerted effort to destroy him and his career. She also testified, in line with other staff, that Dr. Taleyarkhan was honest and trustworthy, and that the SNE students (with whom she has probably more contact than anyone else in the Purdue Administration) uniformly admire him.

Affidavit of Jere Jenkins

Jere Jenkins is Director of Radiation Laboratories at Purdue University. He echoes the belief that Dr. Tsoukalas is a "very untrustworthy individual," full of lies and deceit, stating "I would describe him (Tsoukalas) as a snake oil salesman given my interactions with him and his gang of four: Tsoukalas, Mamoru Ishii, Chan Choi and Tatjana Jevremovic." He also testifies, as did the other affiants, that Dr. Taleyarkhan is honest and trustworthy.

Jenkins testifies there was an effort to corral Butt and make him say unwarranted things about the NED and NURETH-11 papers against Dr. Taleyarkhan, as directed by Dr. Tsoukalas. Mize's affidavit also confirms that something unusual was happening between Butt and Dr. Tsoukalas on this issue.

Jenkins also swears that Dr. Tsoukalas and Walter, as we had suspected all along, were in cahoots with Seth Putterman ("Putterman") and Ken Suslick ("Suslick"), two of the other detractors against Dr. Taleyarkhan who have also come out with their own allegations in this proceeding. It is outrageous that Putterman, Suslick, and Tsoukalas would be engaged in an effort together and would speak to each other regularly through weekly e-mails discussing how they could destroy Dr. Taleyarkhan's career. We now have *sworn evidence* to show that this was *actually happening* to the detriment of Dr. Taleyarkhan. This testimony is unrebutted in the record before this Committee, as is all the other testimony of the affiants, with one exception: Dr. Tsoukalas swore that he never accused Dr. Taleyarkhan of any misconduct to any third parties. In light of the number of people who actually swore that his testimony is untrue (and the many more students, faculty and administrators who we offered to bring before the Committee to say similar things), the Committee simply *has to believe* that Tsoukalas was not telling the truth about this and many other things he testified to. I was there. I heard it too. *He was lying.*

Affidavit of [redacted]

[redacted] a student, testifies that he believes Dr. Taleyarkhan is an excellent professor, and that he does not trust Dr. Tsoukalas. He swears that he, too, heard that Butt was called into Dr. Tsoukalas' office to fabricate testimony against Dr. Taleyarkhan to the effect that he was forced to be a co-author. This would implicate Butt in this conspiracy, just as Mize's testimony implicates him as well. (Why did Butt need a *lawyer* and why has he not cooperated in sending his e-mails?) This is yet more confirmatory evidence that this conspiracy, in fact, truly happened.

[redacted] testifies that Butt was happy to be a co-author and expressed no concern about being a co-author until his thesis came up for review in December 2005. He further testifies that Dr. Tsoukalas attended Butt's thesis defense which was highly unusual in the SNE. This confirms even further that there was foul play involved in Butt's thesis which covered aspects of sonofusion despite Butt's unbelievable response that his thesis had nothing to do with sonofusion research as published in the NED and NURETH-11 papers for which he was co-author. (In his own thesis, Butt cites both of his co-authored papers in NED and NURETH-11 as "Supporting Publications" - the only two supporting publications - for his entire thesis work in December 2005.)

Much of this seems a tempest in a teapot anyway. Butt was selected by Xu, Xu asked Taleyarkhan if it was okay, and Butt *agreed* to it. He had worked quite a while on identical sonofusion experiments with Xu. He checked the facts and observations. His real purpose was simply to "confirm" which he did. This is not research misconduct. Nobody suggests he *didn't* check the facts, and nobody suggests they were *incorrect.* Nobody suggests he did not willingly and happily pose for pictures for the Press.

Affidavit of [redacted]

[redacted] a student [redacted] and on the national board of directors – a society which concerns itself with ethics in research), testifies that he does not trust Dr. Tsoukalas, but implicitly trusts and respects Dr. Taleyarkhan as a professor and a mentor after three years of close interactions. He swears that he and others were requested to write information about Dr. Taleyarkhan of their own free will, to the previous Investigation Committee, and that his testimony was not altered, adulterated, or coerced in any way. [redacted] seconds that sentiment. Also, [redacted] identifies Butt as the co-author of the two NED and NURETH-11 papers, and states that Xu and Butt even discussed the papers at regular research meetings in the laboratory during 2005. And according to [redacted] testimony, Butt was quite an expert in sonofusion himself, lending credence to Xu's testimony that Butt was, in fact, a qualified co-author of the paper. Dr. Taleyarkhan, like [redacted] and others, had no reason to believe that Butt was not qualified, and, in fact, Butt was quite excited about the papers, and used them in his thesis, and in a presentation before the Provost Sally Mason. (Please review the video of Adam Butt presenting sonofusion theory and his work in sonofusion with Mason, Tsoukalas and others present. It shows Adam Butt knew what he was doing.)

Affidavit of JaeSeon Cho

Dr. JaeSeon Cho ("Cho") states that he was the main person involved all throughout in the September 18-19, 2003 experimental set-up and experimentation in the G60 Pharmacy Lab. He swears there was no foul play whatsoever. He confirms that Josh Walter, the person making allegations about that experiment, was *not in the Lab* during the time in question. This is, frankly, one of the more shocking facts to me about this whole situation. The official G60 Lab logbook shows both Walter and Anton Bougaev absent for the entire day of experiments, having logged out early that morning. According to the sworn testimony of Jenkins, it is not hard to see how Walter (a known detractor of Dr. Taleyarkhan) and Bougaev were influenced by their professor Dr. Tsoukalas and his camp.

In all, a lot of unbelievable prejudicial actions have been pointed out in relation to Dr. Tsoukalas and others in his camp (both within and outside of Purdue). We feel almost apologetic for the need to bring them to the attention of the Investigation Committee. However, we had no alternative but to discuss these matters because it is our belief that getting to the truth of this matter is part of why Dr. Taleyarkhan should be absolved. The ugly truth of this matter is that Dr. Tsoukalas has trumped up these allegations, along with others, in an effort to discredit Dr. Taleyarkhan. That is not to say that Dr. Taleyarkhan did not have an interest in furthering his sonofusion studies. Of course he did, and he said that. However, he did not attempt to further his sonofusion studies through any type of research misconduct that should be actionable by anybody, including Purdue University.

If you have any questions or need further information, please do not hesitate to call us.

Very truly yours,

Larry Selander

LZS/ral

cc: Dr. P. E. Dunn
Dr. Rusi Taleyarkhan
Neville Bilimoria, Esq.