

Pertinent Details Associated with Adam Butt Video (“Video”)
Demonstrations to Provost Mason

Purpose of Video and Relationship to LS transmittal of 2.20.08 to Inv.C

The Video, dated February 10, 2005, shows that Adam Butt had significant knowledge of sonofusion experimentation and is not as removed from sonofusion as his testimony would have the Investigation Committee believe.

In his testimony of February 1, 2008, Butt stated that he had no idea of sonofusion experimentation, that he was a casual co-author with Xu on his NED paper, that he was undeserving of that rank with no experience related to sonofusion work presented in that paper and the NURETH-11 paper, and that he did not feel he could represent sonofusion experimentation results at the NURETH-11 conference.

The Butt Video, along with citations from the letter from Larry Selander of February 20, 2008 to the Investigation Committee (“Committee”), and the affidavits of Mize, Webster and Lapinskas provide evidence contrary to the statements made by Butt under oath. We provide the explanation of the Video below in the context of a chronological order of events below:

August 2004 Progress Report of A.Butt (Exh.2.2 of 2.11.08 transmittal from LS to Inv.C)

A key milestone for Butt’s dual MS theses was to him having conducted neutron nucleated sonofusion experiments with acetone by 11/26/2004 (i.e., towards the time Xu’s paper was being contemplated for submission to NED). This documentation shows Butt was already conducting sonofusion experiments and would have been quite accomplished in such work by the time he was invited by Xu. See page 3 of the Aug.3, 2004 and July 23, 2004 thesis work milestones, as stated by Butt himself and reproduced below for convenience:

2. Sonofusion Experimentation – 11/26/04
 - a. Testing using various neutron sources
 - b. Iterative testing based on Femlab results
 - c. High speed photography
 - d. Control System to keep reactor in resonance

This corroborates the statements of Xu, Webster and Lapinskas that Butt was accomplished in sonofusion experimentation research as reported in NED as well as in the NURETH-11 papers and constituted a logical choice for Xu to request partnership with for cross-checks and analyses.

Also, Webster (who worked closely with Butt for developing the reactor’s control system and who has presented several talks at Purdue and elsewhere on this subject) corroborates that Xu and Butt often discussed their NED and NURETH-11 papers during weekly group meeting discussions. This is provided on pages 7 and 8 of the Feb. 20, 2008 additional summation letter to the Inv.C by Selander.

1.26.2005

A. Butt agreed (see Exhibit 2.1 of February 11, 2008 transmittal from Selander to Inv.C) and documented via email to Xu and Taleyarkhan that he had accomplished the agreed upon work and NED paper reviews to become a co-author. He also put his signature on a joint letter with Xu to NED's Editor-in-Chief for publication of their manuscript.

1.31.2005

Soon thereafter, Butt was recruited by Xu on his request, as a natural progression to assist with Xu/Revankar's NURETH-11 manuscript to include additional thermal-hydraulic aspects. This notification to Butt is reproduced below from Exh. 2.1 (transmitted earlier also).

Subject: (no subject)
From: Rusi Taleyarkhan <rusi@ecn.purdue.edu>
Date: Mon, 31 Jan 2005 18:06:25 -0500
To: butt@purdue.edu, yiban@purdue.edu

Adam: You need to work with Dr. Xu tomorrow onwards for starting to conduct SL and microphone shock signal monitoring - for addition to the NURETH-11 paper. Pl. come up to speed with setting up the apparatus and conducting testing as we've discussed. This is part of your thesis work. Thx,

This email log trail should demonstrate that, contrary to what Butt mentioned under oath on February 1, 2008 that the first he heard of the NURETH-11 paper was a week or so before the October 2005 conference in France, Butt indeed knew of his participation in the NURETH-11 paper work about 9 months before, and was already working on various aspects of that work as part of his M.S. thesis – the work, as mentioned earlier, was essentially similar to the NED reported work but included some thermal-hydraulics related work related to high speed imaging which he was to do anyway.

The Video 2.10.2005 – Visit by S. Mason (Provost, Purdue University)

Who organized it?

This visit request was set up by the Provost's office in conjunction with the College of Engineering and the School of Nuclear Engineering. Taleyarkhan's off-campus laboratory was the first or (together with another newly recruited faculty) one of two leased laboratory spaces in the INOK building, that Purdue University had undertaken to put in place to accommodate its strategic goals. From the CoE the main person responsible was Dean Linda Katehi; from the SNE it was (then) Head Lefteri Tsoukalas who asked Taleyarkhan to arrange for demonstrations on what was ongoing at this off-campus leased laboratory.

Goals?

To assess how space was used and what areas of Purdue's strategic efforts in key signature areas such as Energy were being pursued. Taleyarkhan coordinated this activity, and cleared the various areas of demonstration with Tsoukalas on behalf of the SNE. Tsoukalas figured prominently in the entourage which included the Provost, the

CoE Dean, several associate Deans and other faculty members from Purdue. Three showcase experimental areas were to be demonstrated and discussed as focus areas: (1) Sonofusion research being engaged in with acetone and external neutron based nucleation experimentation by graduate student(s), post-doc Xu and with undergraduate students for which Adam Butt (graduate student) and Alex Hagen (sophomore, Jefferson High School, Lafayette, IN) were given the key roles. Butt served as senior graduate student engaged in sonofusion research and Hagen was assisting Butt and working closely with him – as were other undergraduate students like Jeff Webster; (2) Metastable fluid energetics; (3) Ongoing advances in sonofusion research related to self-nucleation experimentation – a pre-recorded video of successful nuclear fusion experimentation was displayed to Provost Mason.

Note: Butt and Hagen received considerable exposure and took up about 50% of time afforded by the Provost's visit.

Key Times/Areas of Note in the Video:

The first minute of footage may be ignored.

1min.20sec. into video:

-A. Butt starts to introduce the sonofusion setup and general workings of the system.

2min. into video:

-Butt describes in limited detail his knowledge of the design of the test reactor system, the process of sonofusion and general operations and nuances of the system as would an accomplished individual.

3min. into video:

- **Butt then specifically points out and ANNOUNCED his research findings/experiences from efforts over the past year “.. find that .. neutron output increases by factors of thousands by merely increasing the drive pressure amplitude from 7bar to 15 bar.” This corresponds with reports of key findings on sonofusion in the Xu/Butt NED manuscript and demonstrates Butt as an accomplished, valid co-author for Xu to invite.**

5min.30sec into video:

- Butt proudly and enthusiastically discusses the virtues of the potential of sonofusion reactor systems for space applications when compared with present-day alternatives.

The video segments (detailed above) demonstrate an individual (Butt) who, only days after having become co-author with Xu on their NED paper and having started out on doing the needed work for their NURETH-11 paper was proudly and enthusiastically speaking of his involvement and achievements in sonofusion to Purdue's Chief Academic

Officer (Provost Mason). These actions are in contrast with Butt's statements given under oath on February 1, 2008. As such, the video segments pointed to above shed key light on the veracity of statements now being made by Butt, as opposed to his actual stance at the time he was actually engaged with the NED and NURETH-11 papers.

Summer-Fall, 2005:

July, 2005 – Press Release comes out

For which, as offered in the Affidavit of J. Webster, Butt and Xu commandeered the sonofusion experiment station which he had set up, to happily pose for pictures depicting the Xu/Butt team working together.

As stated on page 8 of the 2.20.08 transmittal from LS to Inv.C, Webster (who worked closely to assist Butt for reactor control system setup) asserts that both Xu and Butt often brought up the joint work areas associated with the NED and NURETH-11 papers.