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OFFICE OF THE VICE PRESIDENT FOR RESEARCH Office of Research Administration

Personal and Confidential

December 15, 2006

Dr. Yiban Xu Postdoctoral Research Associate School of Nuclear Engineering NUCL Purdue University

Leah H. Jamieson, Ph.D. Dean College of Engineering ENAD Purdue University

Re: Inquiry Committee Proceedings Under Executive Memorandum No. C-22

Dear Dr. Xu and Dean Jamieson,

I write on behalf of the Inquiry Committee (IC) to provide the Committee's final conclusions regarding allegations of potential misconduct that have been made against you.

The Inquiry Committee has considered the allegations set forth in the communications dated September 12, 2006 by Dr. Martin Lopez de Bertodano and September 5, 2006 by Dr. Lefteri Tsoukalas. The specific allegations considered by the IC were as follows:

That the two publications ("Confirmatory Experiments for Nuclear Emissions During Accoustic Cavitation," Journal of Nuclear Engineering and Design, 235, pp 1317-1324, 2005, Xu, Y., Butt, A.; "Bubble Dynamics and Tritium Emission During Bubble Fusion Experiments," Proceedings of the 11<sup>th</sup> International Tropical Meeting on Nuclear Reactor Thermal-Hydraulics (NURETH-11), Avignon, France, October 2-6, of 'independent confirmation' of sonofusion claims."

"... that Dr. Taleyarkhan participated in the Purdue confirmations reported in the two papers of his sonofusion experiment. The Purdue confirmations are not independent because the tritium measurements were performed with his tritium measuring instrument by a student working for him."

The Committee did not consider these allegations as allegations of fabrication, falsification, or plagiarism.

The Committee determined that the Bertodano and Tsoukalas allegations undertake to allege a serious deviation from practices "that are commonly accepted within the scientific and academic community for . . . reporting research," within the meaning of the definition of "research misconduct" under Executive Memorandum C-22.

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Drs. Bertodano and Tsoukalas submitted no documentary evidence in support of their allegations. The Committee requested and received evidence from Dr. Taleyarkhan, Dr. Xu, and the others named as authors on the referenced publications. The Committee also requested and received evidence from Information Technology at Purdue (ITaP) regarding e-mail communication between Dr. Xu and Dr. Taleyarkhan relating to the manuscripts that are the subject of the allegations. Upon consideration of the evidence received, by unanimous vote, the Committee has concluded that there is insufficient evidence to warrant further pursuit of the Bertodano and Tsoukalas allegations.

As to the first allegation, the IC found no evidence that the scientific process leading to the abovementioned publications was unduly hurried, in light of the potential impact of the work. The IC recognizes that the appearance of Dr. Taleyarkhan's name in the Acknowledgments section of the NED publication undercuts the claim of independence. However, there is no evidence to indicate that Dr. Taleyarkhan played a role in acquiring or analyzing the data. Furthermore, evidence based on computer records shows that the first version of the NED manuscript was indeed authored by Dr. Xu, as reported by the factfinding committee of the School of Nuclear Engineering. The tritium measurements were made using the Beckman LS6500 system. During the time Dr. Xu made the tritium measurements, he was, in fact, paid by the School of Nuclear Engineering. It is true, however, that Xu received advice from Dr. Taleyarkhan (hence, the Acknowledgement). While these facts may undercut the claim of "independent confirmation," the IC does not believe that the evidence points towards intent to mislead the scientific community. Further, available evidence indicates that Mr. Butt was told by Dr. Taleyarkhan, not Dr. Xu, that he would be an author. Being a junior researcher, Dr. Xu was in no position to contest this decision by Dr. Taleyarkhan.

Upon consideration of the evidence received, the Committee concludes that there is insufficient evidence to warrant the formation of an Investigation Committee to further pursue the allegations that have been made by Drs. Bertodano and Tsoukalas with respect to Dr. Xu's aforementioned publications.

Pursuant to Executive Memorandum C-22, this report will be securely stored in the office of the Research Integrity Officer for as long as required by federal regulations, and will then be destroyed. Evidence received and reviewed by the Inquiry Committee in addressing the Bertodano and Tsoukalas allegations will be maintained as an archive with this report and destroyed when the report is destroyed. In keeping with Executive Memorandum C-22, please keep your copy of this report and its contents confidential.

Sincerely,

Peter E. Dunn, Ph.D.

Associate Vice President for Research

Research Integrity Officer