

*Declaration*  
*7/28/03*

**BEFORE THE ARMED SERVICES  
BOARD OF CONTRACT APPEALS**

**APPEAL OF:**

**ASBCA No. 53896**

**WESLEYAN COMPANY, INC.**

**UNDER CONTRACT NOS.:**

**DAAK 6084M116, DAAK  
6084M3573, DAAK  
6085M3337, and  
DAAK 6085M2329**

**DECLARATION OF ROGER W. HUBBARD, Ph.D.**

I, Roger W. Hubbard, Ph.D., do hereby swear and affirm that the following is true and correct to the best of my knowledge, information and belief, that I am over the age of 18 and that I have personal knowledge of the information set forth below:

1. From July 1966 until my retirement in 1995, I was employed by the U.S. Army Research Institute of Environmental Medicine ("USARIEM"), which is co-located with the U.S. Army Soldier Systems Center in Natick, Massachusetts, commonly referred to as "Natick." I began my career at USARIEM as a biologist and after multiple promotions served as the Director of the Environmental Pathophysiology Directorate. I received my Bachelor's degree from Northeastern University and my Ph.D. in Biology (majoring in Physiological Chemistry under Dr. Paul Fenton) from Brown University. I am currently a consultant with Primedica Laboratory in Worcester, Massachusetts.
2. My duties as Director of the Environmental Pathophysiology Directorate involved all types of fundamental research regarding the effects of heat, cold, high altitude, and strenuous physical work on soldier illnesses, including extensive research on dehydration.
3. In my capacity as Director, I served as a member of the Water Resources Management Action Group and the Department of Defense Steering Committee on Field Water Supplies. Based on my performance evaluations over the years, I believe I was considered to be the Army's expert on physiological water requirements and field water issues.
4. I have made numerous presentations, published papers and conducted research studies regarding the cooling and flavoring of field water supplies, work/rest cycles (which formed the basis of the Army Medical Command policy), cooling heat casualties and heat stroke. I also wrote the survival manual for Desert Storm and Desert Shield.
5. I met Mr. Schneider, President of Wesleyan Company, Inc., after he sent me materials about his "on-the-move" soldier hydration concepts in approximately 1984. Mr. Schneider informed me that he had read my article on water intake, saltwater and weapons research and

sought my opinion about his hydration concepts. At that time, I was employed as Chief of the Heat Research Division at USARIEM.

6. On Mr. Schneider's behalf, I sent materials regarding his hydration system, along with a cover letter, to the Department of Army Logistics Headquarters, Water Subgroup in Washington, D.C. These materials contained restrictive legends reading, "patent pending", and "Wesleyan Company proprietary information, confidential."
7. In my cover letter to the Department of Army Logistics Headquarters, I explained that the materials I was forwarding documented the current status of the U.S. military's hydration system and compared that system to Wesleyan Company's FIST/FLEX hydration system. Based on my review of the materials submitted to me by Wesleyan, while I had not yet tested the FIST/FLEX system, I concluded the Wesleyan system appeared to offer significant advantages and enormous improvements over the military's then-current hydration system. I was convinced the FIST/FLEX system had the potential to solve a problem that no one in the military had recognized - the lack of an effective on-the-move soldier hydration system.
8. I suggested to the Department of Army Logistics that review of the materials by the Army's Water Resources Management Action Group ("WARMAG") might expedite the review and consideration of this innovative and potentially lifesaving system. I was fully convinced this office in Washington would think this technology was an extraordinary innovation of great benefit to the military.
9. To my surprise, I never received a response from the Department of Army Logistics. I was never invited to observe the testing of FIST/FLEX system, nor informed of the results of any of the testing.
10. In 1988, Colonel Schnakenberg, Commander, U.S. Army Research Institute of Environmental Medicine (USARIEM), U.S. Army Medical Research and Development Command of the Army Surgeon General's office in Falls Church, Virginia, and I briefed the Commanding General of the Chemical School as well as other General Officers (Command Briefing) that the military was unprepared to fight a war in a chemical environment because soldiers did not have an effective hydration system. The military's existing system involved a 21-step process with the attachment of a hard-wall canteen and blowing through a gas mask into the canteen and taking a drink while unable to see where one was walking.
11. During the briefing, I reported to the Chemical School the findings of a British study published in April 1985 by Drs. Goodinson and Hopkinson concluding that if the only way soldiers could hydrate themselves was to open a canteen while in a potentially chemically contaminated environment. This would lead to "voluntary dehydration."
12. We assessed the military's then-current hydration system during the briefing and compared it to the FIST/FLEX and FIST Fountain systems developed by Wesleyan. It was my belief that the FIST/FLEX system would remedy the deficiencies in the military's current technology. I stressed during the meeting at the Chemical School that without quick improvements in the hydration system soldiers were imperiled.
13. Also, during our presentation to the Chemical School, when I discussed the technology of the FIST Fountain, I learned that the Chemical School had not developed any method for refilling soldier canteens in a chemical environment; the precise solution provided by the FIST Fountain.
14. After our presentation, I concluded that the Army was satisfied with its own antiquated system for field water supply. In addition, I am convinced that my presentation and the flaws

I identified in the Army's current systems angered the officials at the Chemical School who failed to realize the deficiencies with their existing system.

15. Eventually, I received a FIST/FLEX system for which I drafted a testing protocol and tested the system in the USARIEM laboratory. During my testing, men could walk on a treadmill, pump water into their mask and drink, while able to see where they were walking. Both Colonel Schnakenberg and I were impressed by the innovative technology and we saw no reason why the devices would have failed in a testing environment. Based on my analysis, I had every reason to believe the device was a lifesaving item that should be procured immediately for the benefit of soldier's health and safety. I could identify no rational reason for not procuring the device or working with Wesleyan to obtain the technology.
16. At one point in time, I understood that the Army intended to procure the Wesleyan device. Shortly thereafter, however, Natick announced a three-year developmental process for a mask drinking system. In my opinion, Natick was reinventing the wheel since such the technology was already available. It is also my opinion that this change in approach resulted after a meeting between officials from WARMAG and Mr. Schneider in which Mr. Schneider apparently angered some of the WARMAG officials by pointing out the deficiencies in the existing military hydration system. Later, it appeared to me that Mr. Schneider's presentation had so angered officials that no one wanted to discuss the FIST/FLEX technology or deal with Mr. Schneider.
17. In previous discussions with officials from Natick about the FIST/FLEX technology, reference was made several times to the lack of required documentation in order to support the technology. It is my opinion instead that since the technology was developed outside the Natick organization, there was no real interest in pursuing its development at Natick. There was a pervasive, unwritten policy referred to within the organization as the "not invented here syndrome." In my opinion, if a technology was not developed by Natick staff then the technology could not be of any utility. Or, if a beneficial technology was presented to Natick, then, in my opinion, efforts were clearly made to circumvent the outside developer and begin Natick's efforts to develop a like technology. It seemed contrary to Natick "policy" to pay for technologies not developed internally.
18. Due to this unwritten policy, in my opinion, there is little doubt that the contents of Wesleyan's materials were released around the Army and little efforts, from my point of view, were undertaken to safeguard the confidential and proprietary nature of the materials. Upon my first review of the materials it was entirely clear that the sender intended that the materials be safeguarded from disclosure, given the proprietary markings on the documents.
19. In 1989, the USARIEM command was completely restructured and Colonel Schnakenberg was removed from his position after, in my opinion, helping guide USARIEM through its most successful period. I believed Colonel Schnakenberg to be an avid supporter of the FIST/FLEX system and we were both interested in the potential application of this innovative system to distribution of nutritional rations in liquid form to the soldiers in the field.
20. In 1995, I decided to retire from my employment at USARIEM after several institutional reorganizations resulted in the drastic restructuring and de-emphasis of the normal mission area of the Environmental Pathophysiology Directorate, where I had enormous human research responsibilities. The new mission of the Directorate dealt mainly with immunological and ultrastructural research, which did not address my specialty of human research.

21. After much consideration, I believe there to be a direct correlation between my removal from the human research-related mission of the Directorate and my presentation to the Chemical School during the Command briefing and to others in the Army of the innovative "on-the-move" soldier hydration systems developed by Wesleyan Company, Inc. In my opinion, my presentation of these systems put the status of the Army's development efforts into question. Such scrutiny of the Army's efforts was not welcome, particularly when the novel concepts being presented came from a developer outside of the Army.

22. In the 30 years I spent employed at USARIEM, I never knew of a competing hydration system under development by the Army that provided the technology or benefits presented by the FIST/FLEX and FIST Fountain devices.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on: July 28, 2003

Dr. Roger W. Hubbard, Ph.D.  
Signature