

THE DoE LIES AGAIN

The DoE promised to evaluate cold fusion claims fairly, twice. Both times, when given a chance to keep the promise, the DoE failed.

In 2004, the DoE promised to fairly evaluate Cold Fusion claims with an impartial group of experts. Because the DoE placed unreasonable limitations on the review process, the necessary information was not communicated to the assembled experts. Inevitably, this meant the review was riddled with error, misunderstanding, and outright rejection based largely on ignorance. Yet, the Review Summary promised to fairly evaluate any proposal that was properly submitted. But when the DoE is given a chance to fulfill this second promise in 2005, they failed again.

Evidence for the reality of LENR and Cold fusion has been accumulating for 16 years, but it has had practically no effect on the attitude of conventional science or U.S. government agencies. The recent review by the DoE [1] was welcomed as an opportunity to clarify the issue and summarize the many facts. Unfortunately, the review format was inadequate and the review panel did not include enough people who were familiar with the subject. Despite these limitations, the published conclusion promised a fair and objective review of any proposal that met the normal submission standards of the DoE.

“... The nearly unanimous opinion of the reviewers was that funding agencies should entertain individual, well-designed proposals for experiments that address specific scientific issues relevant to the question of whether or not there is anomalous energy production in Pd/D systems, or whether or not D-D fusion reactions occur at energies on the order of a few eV. . . .”

This promise was tested recently by Prof. Melvin Miles. He applied for DoE funding to perform an up-to-date cold fusion research project, which would extend and build upon his years of research at the China Lake Naval Air Warfare Center. [2-9] Miles is one of the world's top electrochemists and he retired from China Lake as a Distinguished Fellow. He is now a professor at the University of La Vern. The DoE flatly rejected his application, without even submitting it to a peer-review process. The rejection was based on the usual collection of false beliefs. Miles described the event in a memo he circulated on February 22, 2005 (shown below).

The question is: Why don't respected reviewers and government officials take the trouble to discover the facts before rendering an opinion?

Cold fusion is especially important now that the U.S. is approaching a drastic energy shortage because of increased consumption by China and India. Oil supplies in the Middle East have peaked. [10] The world may even be approaching the disaster of global warming, yet a potential source of clean and infinite energy is being ignored because of ignorance that can be easily eliminated [11-13]. If cold fusion claims are actually false, the facts will speak for themselves without the need for distortion. If the skeptics are right, a government agency has no need to distort the truth or ignore facts that are easily discovered. [14]

The inadequate DoE review format

The format consisted of a one-day oral secession at which only about one half of the reviewers were present. A 15-page written document was requested as well as six papers chosen to support the claims. Although more written material was submitted than requested, the reviewers did not have an opportunity to debate workers in the field who might have eliminated some of the confusion. This confusion is especially strong in this field and requires considerable discussion before the issues are understood. If learning about the subject were based on a sincere interest, the DoE would have organized a conference to which major workers in the field were invited to present papers and to debate the subject over several days. A comparison between the reviewer's comments [15] and the Response to the DoE review[16] written by Dr. Storms shows the amount of confusion that remained.

Miles Memo

Prof. Miles circulated this memo on February 22, 2005.

On January 24, 2005 I submitted a White Paper Proposal to Dr. James Decker of DoE. Basically, I proposed experiments to optimize the cold fusion excess power effects by going to higher temperatures. For materials, I proposed using Pd-B alloys prepared by NRL and co-deposition materials prepared by the methods of Drs. Stan Szpak and Pam Mosier-Boss.

My proposal was forwarded to Jim Horwitz of DoE (Basic Energy Sciences) who telephoned me on February 17 with his feedback that was mostly negative. Some of his comments are as follows to the best of my memory.

1. Proposals for the optimization of cold fusion nuclear effects cannot be considered because the 18 DoE panel members concluded that such nuclear effects do not exist.
2. Electrochemical cells have been studied to death, for example, by McKubre at SRI. Proposals of further electrochemical studies will likely not be funded by DoE.
3. Any proposed new experiments need an acceptable theory to justify such further studies.
4. More peer-reviewed journal publications are needed before this field can be considered for funding.

Because of these points, Jim Horwitz concluded that he could not justify sending my proposal out for review.

Based on this experience, I think it is unlikely that DoE will fund any research on cold fusion. If anyone has a more positive encounter with DoE please let me know.

- Melvin Miles

This letter imposes impossible Catch-22 conditions. Let us consider each statement:

1. "Proposals for the optimization of cold fusion nuclear effects cannot be considered because the 18 DoE panel members concluded that such nuclear effects do not exist."

First, Horwitz is incorrect. The Review says that about a third of the panel members agreed that nuclear effects were detected. In addition, most panel members concluded that the claims for nuclear energy being the source of measured energy were not convincing. This is a far cry from concluding that "nuclear reactions did not exist".

Second, the Review recommends that proposals for experiments be considered. How could such proposals be considered if the effect does not even exist? Such an attitude condemns all proposals to rejection.

2. “Electrochemical cells have been studied to death, for example, by McKubre at SRI. Proposals of further electrochemical studies will likely not be funded by DoE.”

Studies of heat production have been made by dozens of laboratories with good success and such studies are presently underway in many countries. The reality of anomalous heat production is no longer an issue. The challenge now is to improve reproducibility and to increase the amount of energy produced. In addition, the source of this unexpected energy needs to be discovered, whether it be nuclear or from some other unexpected process.

Miles is one of the few scientists who have had good success and who understands the nature of the novel process so that worthwhile results can be expected. If his work cannot be supported by the DoE, no proposed work can be expected to meet the required standards.

3. “Any proposed new experiments need an acceptable theory to justify such further studies.”

This statement turns the scientific method on its head. Cold fusion is based on experiment, not theory. Theory is never needed to justify or prove experimental results. There is no theory to explain other recently discovered phenomena such as high temperature superconductivity (HTSC), but no one rejects the reality of HTSC on that basis. Furthermore, this imposes another Catch-22: until additional experiments reveal the nature of the reaction, theorists will not have enough data upon which to base their theories.

4. “More peer-reviewed journal publications are needed before this field can be considered for funding.”

This is the most obvious and absurd Catch-22 of all. How will researchers publish peer-reviewed papers unless they first receive funding to perform experiments? Researchers must be funded first, then perform experiments, write papers, and submit the papers to reviewed journals. Without funding none of this can happen. Inadequate funding in the past has been one of the handicaps that has prevented enough measurements from being made to answer the normal questions posed by peer reviewers. Nevertheless, as can be seen in the list of references, much of Prof. Miles’ work has been peer reviewed, yet even this does not appear to be sufficient for the DoE.

References

1. DoE, *Report of the Review of Low Energy Nuclear Reactions*. 2004, Department of Energy, Office of Science: Washington, DC, <http://lenr-canr.org/acrobat/DOEreportofth.pdf>
2. Miles, M.H., M.A. Imam, and M. Fleischmann, *Calorimetric analysis of a heavy water electrolysis experiment using a Pd-B alloy cathode*. Proc. Electrochem. Soc., 2001. **2001-23**: p. 194.
3. Miles, M., *Calorimetric studies of Pd/D₂O+LiOD electrolysis cells*. J. Electroanal. Chem., 2000. **482**: p. 56.
4. Szpak, S., P.A. Mosier-Boss, and M.H. Miles, *Calorimetry of the Pd+D codeposition*. Fusion Technol., 1999. **36**: p. 234.
5. Miles, M., *Reply to 'Examination of claims of Miles et al. in Pons-Fleischmann-type cold fusion experiments'*. J. Phys. Chem. B, 1998. **102**: p. 3642.
6. Miles, M. and K.B. Johnson, *Anomalous Effects in Deuterated Systems, Final Report*. 1996, Naval Air Warfare Center Weapons Division. <http://lenr-canr.org/acrobat/MilesManomaloussea.pdf>
7. Miles, M., K.H. Park, and D.E. Stilwell, *Electrochemical calorimetric evidence for cold fusion in the palladium-deuterium system*. J. Electroanal. Chem., 1990. **296**: p. 241.
8. Miles, M. and B.F. Bush, *Heat and Helium Measurements in Deuterated Palladium*. Trans. Fusion Technol., 1994. **26(4T)**: p. 156.
9. Miles, M.H., B.F. Bush, and J.J. Lagowski, *Anomalous effects involving excess power, radiation, and helium production during D₂O electrolysis using palladium cathodes*. Fusion Technol., 1994. **25**: p. 478.
10. Deffeyes, K., *Hubbert's Peak, The Impending World Oil Shortage*. 2001: Princeton University Press.
11. Beaudette, C.G., *Excess Heat. Why Cold Fusion Research Prevailed*. 2000, Concord, NH: Oak Grove Press (Infinite Energy, Distributor). 365 pages.
12. Krivit, S.B. and N. Winocur, *The Rebirth of Cold Fusion; Real Science, Real Hope, Real Energy*. 2004, Los Angeles, CA: Pacific Oaks Press.
13. Rothwell, J., *Cold Fusion and the Future*. 2005: <http://lenr-canr.org/acrobat/RothwellJcoldfusiona.pdf>.
14. Storms, E., *A Student's Guide to Cold Fusion*. 2003, <http://lenr-canr.org/acrobat/StormsEastudentsg.pdf>.
15. DoE, *U.S. Department of Energy Cold Fusion Review Reviewer Comments*. 2004, DoE: Washington, DC, <http://lenr-canr.org/acrobat/DOEusdepartme.pdf>.
16. Storms, E., *A Response to the Review of Cold Fusion by the DoE*. 2005, Lattice Energy, LLC: Santa Fe, NM, <http://lenr-canr.org/acrobat/StormsEtheusgover.pdf>.