Department of Energy
Office of Scientific and Technical Information
Post Office Box 62
Oak Ridge, Tennessee 37831

August 10, 2016

Re: OSTI-2016-01064-F

Dear Mr. Ravnitzky:
This is in final response to the request for information you sent to the Department of Energy (DOE), Office of Scientific and Technical Information (OSTI) under the Freedom of Information Act (FOIA), 5 U.S.C. 552 on June 22, 2016.

You requested a "copy of records, electronic, or otherwise, of each letter TO and FROM universities, companies, and organizations, from the OSTI 'cold fusion' documents collection." On July 11, 2016, you were emailed an interim response letter informing you of the need for OSTI to obtain release authorization from the Department of Energy. OSTI received notification to release the letters to you in their entirety on August 8, 2016. As a result, OSTI is releasing 72 cold fusion letters in this mailing on a CD-ROM because of the volume and file size of the PDFs.

In addition, there are approximately 13 letters that are currently being reviewed by the DOE's General Counsel Office (GC) for release or redaction. Upon receipt of guidance from GC, OSTI will release in whole or in part.

This decision, as well as the adequacy of the search, may be appealed within **90** calendar days from your receipt of this letter pursuant to 10 C.F.R. § 1004.8. Appeals should be addressed to Director, Office of Hearings and Appeals, HG-1, L'Enfant Plaza, U.S. Department of Energy, 1000 Independence Avenue, S.W., Washington, D.C. 20585-1615. The written appeal, including the envelope, must clearly indicate that a FOIA appeal is being made. You may also submit your appeal to OHA.filings@hq.doe.gov, including the phrase "Freedom of Information Appeal" in the subject line. The appeal must contain all of the elements required by 10 C.F.R. § 1004.8, including a copy of the determination letter. Thereafter, judicial review will be available to you in the Federal District Court either: 1) in the district where you reside; 2) where you have your principal place of business; 3) where DOE's records are situated; or 4) in the District of Columbia.

You may contact OSTI's FOIA Public Liaison, Charlene Luther, Office of Preservation and Technology at 865.576.1138 or by mail at the Department of Energy, Office of Scientific and Technical Information, 1 Science.gov Way, Oak Ridge, TN 37830 for any further assistance and to discuss any aspect of your request. Additionally, you may contact the Office of Government Information Services (OGIS) at the National Archives and Records Administration to inquire about the FOIA mediation services they offer.

The contact information for OGIS is as follows: Office of Government Information Services, National Archives and Records Administration, 8601 Adelphi Road-OGIS, College Park, Maryland 20740-6001, e-mail at ogis@nara.gov; telephone at 202-741-5770; toll free at 1-877-684-6448; or facsimile at 202-741-5769.

If you have any questions about the processing of the request or about this letter, please contact Madelyn M. Wilson at

Sincerely,

Madelyn M. Wilson
FOIA Officer
DOE OSTI
1 Science.gov Way
Oak Ridge, TN 37830

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File - "Cold Fusion"

MPI Magnetic Power Incorporated

The Honorable James B. Watson
Office of the Secretary, Room 7A 257
U.S. Department of Energy
1000 Independence Avenue
Washington, D.C. 20585

April 30th, 1990
PERSONAL AND CONFIDENTIAL

Dear Secretary Watson:

I am writing to you at the suggestion of Gregory Reck at NASA, and because you have indicated an open-minded interest in exploring new approaches to nuclear power.

Dr. Robert Carroll, now 80 years of age, has spent his entire life pursuing such an alternative based on a process that can be described technically as induced nuclear disruption.

The enclosed U.S. Patent, #3,364,143, recently expired, covers a key part of the technology. Two other invention disclosures, submitted at about the same time, were denied patents in 1971 on the grounds of inoperability. Recent developments suggest these inventions can now be shown to have a very reasonable possibility of functioning. If so, they may open the way to a radically new approach to nuclear power.

If Carroll is correct regarding induced nuclear disruption there are three important consequences:

1. A most powerful electric power generating system that is comparatively simple and inexpensive to build. Radioactivity produced is likely to be confined to the reaction chamber. Neither the fuel or waste products are expected to be radioactive.

2. A space propulsion system that could obsolete rocketry with dramatic reductions in propulsion system weight requirements.

3. And unfortunately, a weapons system of unparalleled destructive power, that one USAF scientist familiar with Carroll's published writings suggested has very ugly implications if it ever became a terrorist weapon.

The first of the recent developments that lend credibility is independent verification of Carroll's prediction regarding a method of achieving ambient temperature hyper/superconductivity.

As a consequence of a discussion with me in January of last year, Dr. Barry Johnson at the University of Alabama had a team reproduce ambient temperature hyperconductivity in extremely thin filaments of elemental bismuth over the past several months.

The work was originally done by Ronald Bourgoin and is covered by U.S. Patent # 4,325,795 issued April 20th, 1982. Current carrying capacity appears larger than any known superconductor. The name hyperconductor is employed because the Meissner effect, the classic test for superconductivity, cannot be used on such thin filaments (less than 1,000 angstroms in diameter).

6876 Sebastopol Ave. • P.O. Box 880 • Sebastopol, CA 95473 • (707) 829-9391 • FAX (707) 829-1002

For various reasons, including the desire to avoid the hoopla that resulted from the Cold Fusion announcement, Johnson will probably not make an announcement until later this year. I understand that current density at Alabama is 6 amperes through a filament calculated to be 1,000 angstroms in diameter. Bourgoin claims similar samples he has made in North Carolina pass 10 amperes for several hours and 30 amperes for 5 minutes. Dr. Johnson has been performing this work in connection with funding by the SDIO. One of our consultants recently speculated that perhaps a single filament is not present, but rather that the fine powder used can be considered a "fractal" powder producing a current path that may meander, without loss, from filament to filament.

Bourgoin was a graduate student of Dr. Carroll's before the latter retired some years ago as Chair of the Physics Department of the Baptist College near Charleston, South Carolina. The work with bismuth was a reduction to practice of a theory concerning ambient temperature superconductivity developed by Dr. Carroll and reflected in the enclosed patent which issued during 1972.

While the Carroll patent is entitled A Low Temperature Heat Transfer Device, and it has important potential as an alternative to the CFCs for air conditioning and refrigeration, a variation constructed with concentric cylinders is described as a Resonance Absorber. It is the key component of two systems of controlled nuclear disruption which Carroll believes have the potential for inducing total mass to energy conversions.

Independent verification of Bourgoin's work by Johnson's group, and the recent findings by a few well qualified laboratories indicating that the work in cold fusion confirms Carroll's theoretical prediction that fusion can be achieved in a solid, make it entirely possible that the technology described in these earlier patent applications can be realized. (See enclosed paper by M. Rabinowitz). Only experiments can determine whether that is indeed the case. Dr. Carroll plans to resubmit the patent applications.

With the success in reproducing Bourgoin's work at Alabama, the Resonance Absorber can easily and inexpensively be tested. If Carroll is correct, it would make possible the simplest, most powerful, alternative electric power generating system of which we are aware.

Alabama will at some point publicize the Bourgoin verification, triggering a closer look at Carroll's work throughout the world.

Carroll's life long argument with much of relativity theory appears subsidiary to the most important question, namely, will these devices function as predicted in experiments?

Carroll began his analysis while employed at the old Bureau of Standards during WWII. He noted a Physical Review article by

Millikan et al, speculating that spontaneous nuclear disruption might explain the origin of certain cosmic rays. (Unknown to Carroll until last year, the Millikan group performed experiments, reported in two later Physical Review articles later in WWII, suggesting their earlier speculation might be valid).

Carroll later noticed that experiments at Lawrence Berkeley Laboratory in 1947 demonstrated that proton-antiproton annihilation yields highly energetic pi mesons (pions). Both of his designs attempt to produce neutrons in the resonance absorber by means of k capture.

In the first system, using helium as a fuel, a resulting total mass to energy transform is expected to yield a copious supply of highly energetic pions which can either spin turbines to produce electricity, or drive a spacecraft at phenomenal speeds with a light, compact, fuel load.

In the second design, using hydrogen as the fuel, the neutrons cause fusion to take place interior to a spongy metal such as platinum (other metals appear workable). This is, of course, "fusion in a solid". As with cold fusion, no radioactive fuel is involved.

It is now possible to release single atoms of these gases into a Resonance Absorber allowing Carroll's designs to be tested.

I hope you will agree that an urgent investigation should begin immediately, with suitable security restrictions, to determine if Carroll's nuclear disruption ideas are sound. The implications of ignoring this work any longer are far too dangerous, since once widely publicized (Alabama is planning to report their verification at some point in Physical Review Letters), it is possible induced disruption will be tried by nations anxious to enter the "nuclear club". The cost is trivial compared to systems employing fission or fusion as weapons.

A single-stage of the heat transfer device can be used to develop solid state refrigerators and air conditioning systems. We intend to move this potential forward rapidly, for obvious commercial, electric power and social policy reasons.

I would appreciate your comments and cooperation.

Sincerely,

Mark Goldes
Chief Executive Officer