

## Transcript of ABC's Good Morning America Program, February 7, 1996, 8:16 - 8:22 a.m.

Prepared by the staff of *Infinite Energy Magazine*

### A Report on Clean Energy Technology Inc. (CETI) Cold Fusion Device

**Charlie:** "Scientists discover a virtually limitless source of energy." Does it sound too good to be true? Maybe not. Our Science editor Michael Guillen is down in Washington this morning, having an exclusive look at an invention which has the potential of changing our lives. Michael?

**Guillen:** Thanks, Charlie. It's a device that its inventor says produces a hundred times more energy than it consumes. Now let me say right off the bat that lots of ideas come across my desk, that claim to be the energy source of the future, but this one is different. For one thing, the inventor has a distinguished track record. Second, the invention itself has been issued a patent by the US Patent Office. Furthermore, and this is key, independent scientists now claim to have reproduced the results, and major corporations like Motorola are taking a serious interest in it.

So, is this potentially the greatest discovery since electricity? Since fire? Good question! Have a look.

[Brief interviews]

**James Reding**, president Clean Energy Technologies Inc: We've been able to reliably demonstrate a device that produces a thousand times more energy out than you put into it.

**Prof. George Miley**, University of Illinois: What could it do as far as an electric power plant or a water heater in your home? There are so many applications that the mind can run wild.

**Dr. C. Quinton Bowles**, University of Missouri: It would be a true source of power for use by the general public.

**Guillen:** It's hard to believe, but here's what is causing all the commotion. It doesn't look like much - some wires, some salt water, and at the core of it: this container of tiny beads. But these are no ordinary beads, and the man who invented them is no ordinary person.

[Interview with James Patterson in his laboratory]

**Patterson:** I started making beads back in 1953.

**Guillen:** 74-year-old James Patterson looks about as homespun as his device, working out of a large garage in Sarasota,

Florida, with more than a hundred patents to his credit. Patterson had always planned on being a chemistry professor but in 1951, while working for his PhD at Berkeley, Dow Chemical made him an offer he couldn't refuse.

**Patterson:** Dow hired me before I graduated, got my degree. And they paid me more than what I was going to get after I got my degree. So . . .

**Guillen:** It was during his years with Dow that Patterson invented a recipe for making tiny beads, beads so perfectly round that few people in the world can duplicate them.

**Patterson:** If I have a claim to fame, [laughs] I'm a good cook for little beads. Well, this is my storage area, and - it's almost like a library of what I've done.

**Guillen:** Over the years, Patterson's beads have been used in many different ways: in water purifiers, cosmetics, even as the 'talcum powder' inside surgical gloves.

**Patterson:** I'm better than a millionaire.

**Guillen:** Just because of the money you got from . . .

**Patterson:** . . . little beads! [laughs] I have converted alchemy ... little beads into gold!

**Guillen:** Talk about alchemy! In creating his new energy device, Patterson took his regular beads, and coated them with thin layers of copper, nickel and palladium; a metal sandwich Patterson claims works like magic.

**Patterson:** This is the guts of it, this is creating heat.

**Guillen:** So this is water that you have flowing through it. [Feels outlet tube.] Oh, it is hot. Pretty warm! Yeah. And so how much energy is this little cell putting out, compared to what it's consuming?

**Patterson:** One watt. It's consuming only one watt, and it's putting out two hundred watts.

**Guillen:** You know this sounds too good to be true?

**Patterson:** [Laughs] Well, it may sound too good to be true, but if you'll only look, the scientific evidence is here. I mean, you're looking at it. I mean, you can't disavow what you're looking at.

[Cut back to studio]

**Charlie:** Michael, alright, we're looking at it, but how's it working?

**Guillen:** Well, you know, even for a scien-

tist like myself, you can't just tell by looking or even touching it. That's where the other scientists come in, at the University of Missouri, the University of Illinois, and at Motorola. They have tested dozens of these devices, they say they can't get it not to work. Every time you plug it in, the dog-gone thing just produces all this excess heat.

**Charlie:** But what's going on, scientifically?

**Guillen.:** Well, that's the big mystery. It's either, you know, an ordinary chemical reaction that's not behaving the way we expect it to, or some kind of a nuclear reaction. But there is no radioactivity that's evident from this thing so it doesn't appear to be a nuclear reaction. It's neither one nor the other, so it really is just a genuine mystery right now.

**Charlie:** Michael, what you are telling me is you have a scientific experiment that is producing a certain result and you have no idea how it's producing it.

**Guillen:** Yeah, but that's not unusual. I mean, very often times you run across something in the laboratory and you go 'wow! Look what it's doing' long before you understand why it's doing that.

**Charlie:** Michael, this sounds like going back to 19 . . . what? 1989

**Guillen:** 1989

**Charlie:** This sounds like the cold fusion debate again.

**Guillen:** Yeah. Remember the University of Utah, the whole cold fusion thing? Superficially this looks like cold fusion, in the sense that you have electricity passing through an electrode that is emersed in salt water. But there are essential technical differences. First of all the beads make this cell absolutely unique. That wasn't like the original cold fusion device. The other thing is that the original cold fusion device used heavy water, this uses ordinary water. So, it remains to be seen whether this is just a variation of the old cold fusion experiment or whether this is genuinely a new phenomena.

**Charlie:** Is there an anticipation that what is taking place here in microcosm can take place in a macro situation where you can produce a tremendous amount of energy?

**Guillen:** Now \*that\* is going to be the key question. If the scientists at the independent universities and corporations continue to verify that this device seems to work, the next question is going to be: can you scale it up from this laboratory model into something that can be mass produced, and be cost efficient. Because we have heard other alternative energy like wind power and solar power, they also sound

great but they have never become cost efficient. That's going to be the big question in the future.

**Charlie:** You keep saying 'if this works.' You are telling me that a number of scientists have been able to make it work. There are also a bunch of other scientists who are saying this is just crazy.

**Guillen:** Yeah. The scientists are really cautious because of the old cold fusion flap six years ago. They want to be real cautious. The question is here, you have to measure the temperature differences, how much of the heat is putting out . . . is being put out by this device. That requires you to use thermometers of various kinds. They are just double, triple and quadruple checking those thermometers to make sure they are not misreading them. But they are all saying yes, this seems to work as advertised. So it's potentially historic.

**Charlie:** Five seconds: are you a believer or not?

**Guillen:** Uh, talk to me in about two or three months. We're going to be updating this.

**Charlie:** All right. Michael thanks. Michael will have more of this on Nightline, tonight.

## ABC News Nightline Program Features Patterson Cold Fusion Device

by Jed Rothwell

On February 7, 1996, the ABC late night news program "Nightline" was devoted to James Patterson's cold fusion device, which is being commercialized by Clean Energy Technology, Inc. (CETI), of Dallas, Texas. It was titled "Patterson Power Cell: Fact or Fiction?" A shorter, five minute segment about Patterson, with the same film clips, was shown on the morning broadcast "Good Morning America" (see transcript of the latter adjacent to this article). The show was written and narrated by ABC's chief science editor Michael Guillen. The broadcasts included a long interview with Patterson, and brief interviews with Jim Reding, president of CETI; Professor George Miley of the University of Illinois; and Professor Clinton Bowles of the University of Missouri. The Nightline version included a short question and answer style debate between Michael McKubre of SRI and Prof. John Huizenga, retired

from the University of Rochester, who was the head of the DOE ERAB panel that eliminated funding for cold fusion research in the fall of 1989. The program also had brief interviews with Patterson's patent attorney. ON the opposing side were Professor Herman Feshbach of the MIT Department of Physics ( who totally denies the validity of cold fusion evidence), and Professor Howard Birnbaum of the University of Illinois, another negativist and member of the 1989 ERAB Cold Fusion panel.

In recent years, two serious, hour-long documentaries about cold fusion have been broadcast by the BBC in the U.K. and the CBC in Canada: "The Secret Life of Cold Fusion" (June 1993), and "Too Close to the Sun" (April 1994). The latter was a co-production of the BBC in the U.K. (where it is called the "Horizon" series) and the Canadian Broadcasting Corporation.

This ABC Nightline broadcast is, sad to say, the longest and most serious look at cold fusion in the U.S. television since 1989. Guillen did a short segment on Pons and Fleischmann in May 31, 1994, after visiting their IMRA laboratory in Nice, France. NOVA, the main U.S. science documentary program has totally abandoned its responsibility by having a complete blackout on news of cold fusion since 1990, when it broadcast the atrociously negatively biased "Confusion in a Jar." A member of the NOVA staff—Evcian Haddingham— has discussed cold fusion with Eugene Mallove over the years and has told him that "they know they need to update their cold fusion coverage." Still, nothing has been done by NOVA—not even broadcasting "Too Close to the Sun," which NOVA could readily do if it so chose.

The Nightline program was generally positive and informative, although it had little scientific content. It began with a down-home interview with Dr. James Patterson in Sarasota Florida, and tour of his lab, which is, as he put it, "like a library of what I've done." It is filled with old chemicals, obsolete machines and junk. It was messy, but nowhere near as bad as the laboratories I have visited at MIT and the Japanese National Universities. It struck me as an ideal place to do research. Patterson, who is 74, briefly described his career which began at Berkeley and Dow Chemical. He is an expert in manufacturing small, uniform beads for a variety of applications. For example, microscopic beads are used as a man-made replacement

for talcum powder in surgical gloves, and larger beads are used in catalysis. The latter application inspired Patterson to try them out as cold fusion cathode material. Patterson holds more than 100 patents for beads and other innovations, including, he told me once, a new type of fishhook. The bead patents have made him a multi-millionaire.

The shots of Patterson in his lab were fun but frustrating. You see him giving an animated, interesting and apparently informative scientific briefing, describing the instruments and methodology. Unfortunately, you cannot hear him because these segments are used as filler, background shots, with a foreground voice-over vapid script from the television writer. Turn the volume way up, listen and watch closely, and you see Patterson had some interesting things to say. If only the producers would say less and let him talk more we might have had some higher scientific content in this program. Even these short segments, and abbreviated glances at the chart recorder, beads, cell, pumps and other equipment convey a lot of information. Patterson claimed that 1 watt was input and 200 watts were coming out. Look carefully, and you can see the return water splashing into the pump reservoir, indicating a high flow rate. At one point Guillen put his hand on the outlet tube and declared: "It's pretty warm." I felt like shouting: "Okay Mike, now put your hand on the other tube and tell us about it." If they had shown a few more details like the input power supplies we could have worked out a ballpark estimate of the excess for ourselves. With the high flow rate and 1-watt input Guillen could not have felt any palpable difference between the inlet and outlet temperatures unless there was massive excess heat.

The program suffered from a curiously amnesic, dreamlike detachment. It is a story told in a vacuum, with no context, no background, no reference to history or other current research. The morning segment barely mentioned the term "cold fusion," except when Guillen said:

"Remember the University of Utah, the whole cold fusion thing? Superficially this looks like cold fusion, in the sense that you have electricity passing through an electrode that is emersed in salt water. But there are essential technical differences. First of all the beads make this cell absolutely unique."

That would come as a shock to other researchers who have used thin film and nickel cathodes, and especially to Mills, who was the first to publish reports of excess heat from nickel. [1] Piantelli's gas loaded nickel experiments are unique, but Patterson's technique draws on many previous mainstream experiments. [2] There was no mention of the ongoing MITI/NEDO project, no mention of any work after 1989 (except Patterson's), nothing about the international conferences, and no hint that the literature reports widespread replications. Miley is shown working with the CETI thin film device, but Guillen does not mention that Miley published a paper describing his own thin-film cold fusion cathodes. [3]

Miley has independently replicated the CETI beads from scratch, and he has verified the performance of beads provided to him by CETI. He expressed confidence: "We've consistently measured excess energy coming out of it." Bowles has verified the performance of the CETI cells. He is funded by Kansas City Power and Light. He said: "These Patterson cells seem to be unique, and somewhat amazing, in the - in their reproducibility. . . . We have, in fact, had a total of three cells at different stages over the last nine months, and it's fair to say that all three of them appear to be producing excess power." Motorola's involvement was hinted at, just as it was in the *Wall Street Journal* article. [4] Guillen: "Already, says Patterson, Motorola has tested his cells and offered to buy him out." [Ed note: Motorola representatives were there in force at the CETI demo at the Power Gen '95 meeting in December.]

The second half of the program was devoted to a depressing debate between Dr. Michael McKubre of SRI International, one of the leading cold fusion researchers, and Prof. John Huizenga, the "Darth Vader" against the field. I felt sorry for Huizenga, who looked old, tired, and nervous. He began by saying:

" . . . let me simply say that since Pons and Fleischmann's results were shown to be flawed, there have arisen a whole array of exotic phenomena, including the synthesis of precious metals like gold, which would, of course, be the alchemist's dream, and the light water cells, I think, that are discussed . . . that Mr. Patterson is working on have all been shown not to be producing excess reaction products in the past, and I don't think these people have looked for the reaction products either."

Needless to say, from our point of view Pons and Fleischmann have *not*

been shown to be flawed, they have been widely reproduced. But the real issue here is nuclear evidence: neutrons. Whenever the issue of excess heat comes up, Huizenga always evades it and talks about reaction products instead. In point of fact he is incorrect about this particular case. Miley and others are looking for reaction products. But Huizenga claims there are no neutrons and therefore there can be no nuclear reaction, and therefore the calorimetric results must be wrong. When asked for a reason why the calorimetry might be wrong, he always responds as he did here:

"I'm simply saying that what I know about these experiments, they're using an open cell and they're not taking account of recombination . . ."

At that point McKubre, who has heard this as many times as I have, could not help interrupting for a moment to say: "That's completely incorrect, completely incorrect." Huizenga went on to cite "many, many errors that they are making that have not been accounted for." He has often cited these many phantom errors, but he has never actually listed one of them. McKubre is quite right: the CETI results are far too big to be explained by recombination. The best results reported to date are 4,000 times beyond the limits of recombination, and furthermore CETI researchers do take account of recombination, with a precision gas flowmeter, so Huizenga is wrong on both counts. Huizenga was not aware of these facts, because, as he admitted, he has not actually seen or read about the CETI experiments. Herman Feshbach also claimed scientific clairvoyance:

"I don't know the device, so I don't know what's in it and what's not in it. I can only speak in generalities, and the one thing I can say unequivocally, without any concern, is that it's not a nuclear phenomenon."

This brings to mind Feshbach's famous 1991 pronouncement to Eugene Mallove:

"I have had 50 years of experience in nuclear physics and I know what's possible and what's impossible. . . . I don't want to see any more evidence! I think it's a bunch of junk and I don't want to have anything further to do with it."

Evidently, he now decided to make it a rule that he will see no more evidence, and that he can safely pontificate on national television about research he has never heard of.

Huizenga also claimed:

"It turns out that mainline scientists have spent hundreds of millions of dollars looking at all of these claims, and no one has been able to verify the

cold fusion experiments."

He has often said this, but he never specifies which scientists have spend hundreds of millions. Japanese scientists have spent a hundred million (at least), and MITI has budgeted \$100 million more over the next four years, but these examples do not count. The Japanese claim that they have been able to verify the cold fusion experiments. Huizenga is looking for an invisible army of researchers who have spent this kind of money and found nothing.

McKubre closed the debate by justifying continued research:

"Well, there is, in fact, no theoretical objection to the existence of a nuclear process occurring in a solid metal lattice. Given the fact that it is not theoretically impossible - and it's not - given the fact that people are observing it in numerous laboratories around the world, I think it would pay us to pay some attention to it, and the amounts of money that are being spent on this research are very, very small."

**Video Tapes of ABC's news broadcasts can be purchased by dialing 1-800-913-3434. Transcripts are available from 1-800-255-6397. They can be delivered by e-mail for \$10 per copy. This program was "Nightline (ABC) #3838."**

#### Footnotes

1. Randell L. Mills and Steven P. Kneizys, "Excess Heat Production by the Electrolysis of an Aqueous Potassium Carbonate Electrolyte and the Implications for Cold Fusion," *Fusion Technology*, August 1991
2. S. Focardi, R. Habel, G. Piantelli, "Anomalous Heat Production in Ni-H System," *Il Nuovo Cimento*, vol. 107A, no. 1, Jan. 1994, pp 163-167
3. G.H. Miley, E.G. Batyrbekov, H. Hora, R.L. Zich, "Electrolytic Cell with Multilayer Thin-film Electrodes," *Fusion Technology*, Vol. 6, p. 313
4. J. Bishop, "A Bottle Rekindles Scientific Debate About the Possibility of Cold Fusion," *Wall Street Journal*, January 29, 1996

**"The discovery of fission has an uncommonly complicated history; many errors beset it...Above all, it seems to me that the human mind sees only what it expects."**

Emilio G. Segré, 1988  
"The Discovery of Fission," December