

Originally Processed With FOIA(s):
2005-0336-F

FOIA Number:
2005-0336-F

FOIA MARKER

**This is not a textual record. This is used as an
administrative marker by the George Bush Presidential
Library Staff.**

Record Group/Collection: George H.W. Bush Presidential Records
Collection/Office of Origin: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: General Science Files

OA/ID Number: 62043
Folder ID Number: 62043-007

Folder Title:
Energy [1 of 2] [1992]

Stack:	Row:	Section:	Shelf:	Position:
	0	0	0	0

"Document Control"

DEC 2 1992

TYPE: ACTION
ORIGINATOR: 02

STATUS I

DOCUMENT NUMBER: 9203495
DIRECTORATE STATUS

FROM: CRONIN, James J.: MURRAY UNITED DEVELOPMENT CORPORATION

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 11/10/92

SUBJECT: HE IS ASKING FOR INTRODUCTIONS FROM OSTP TO PARTIES
INTERESTED IN HIS COMPANY.

DIRECTORATE
ASSIGNED: PHYSICAL SCIENCES

STAFF
ASSIGNED:

ACTION
REQUIRED: AS/IF NECESSARY

STAFF
ACTION:

*circulate enclosures to Schroeder
Beason
Andrews*

OSTP DUE DATE: 12/10/92
DATE COMPLETED:

SENDER'S DUE DATE:
STAFF DUE DATE
DATE COMPLETED/DEPT: 12/3/92

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #:

CONTACT PERSON:
PHONE:

EXT:

REMARKS: *Dear Mr Cronin*

*Thank you for bringing the Murray Rotorcam
engine to our attention. Dr Bromley and I wish
you well as you continue your prototype
tests, and we hope (the tests show that) you have ~~another~~ another winner*

OSTP RECEIVED: 11/30/92
FILE: P-PHYSICAL SCIENCES

DEPT RECEIVED:

CENTRAL FILES: *on your hands.*
ENERGY.

*Sincerely
KJE*

MURRAY UNITED DEVELOPMENT CORPORATION

10 Orben Drive • Landing, N. J. 07850

(201-770-3201)

November 10, 1992

The Honorable D. Allan Bromley
Assistant to the President for
Science & Technology
Old Executive Building
17th & Pennsylvania Avenue, NW
Washington, D.C. 20500

Dear Dr. Bromley,

Murray United is successfully testing the prototyped principles of a new internal combustion engine, the Rotorcam Engine (RE). Developed by its founder, Jerome L. Murray, the Rotorcam addresses many of the engineering and societal issues confronting the design of internal combustion engines.

Originally conceived to reduce emissions, the design's flexibility has assumed a number of other characteristics that now rival the original design goal. Paramount to emission abatement are multiplicity of fuel sources, operational simplicity, component reduction, exceptionally high power-to-weight ratio and scalability. These salient aspects qualify the RE as a very unique innovation.

Indeed to make the assertion that the RE simultaneously transcends the technical performance hurdles across the broad spectrum of industrial and transportation applications is a bold statement. Nevertheless, the first prototype is generating test cell data that clearly points in that direction. We believe we are breaching previous world class performance benchmarks for torque.

We have our work cut out for us in the days ahead. However, the dramatic readings we are recording argue in our favor that we have not only proven the scientific hypothesis imbedded in the original drawings but have unveiled a true technological breakthrough in engine construction. Such invention will represent the turning point for domestic manufacturing and return Americans to working with their hands again.

Our note to you was composed with the forethought that every major technological introduction required the serendipitous interplay of complimentary technological forces and effective endorsement of influential members of the Fourth Estate, Industry and, of course, Government. Introductions by your office to interested parties would be most beneficial to our company.

Enclosed are materials that will highlight our corporate background. What is not clear is the definite potential for the company to assume a stature equivalent to that of its founder. Such metamorphosis is currently in progress.

Sincerely,

MURRAY UNITED DEVELOPMENT CORPORATION

James J. Cronin, CFA
Treasurer

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

December 3, 1992

Dear Mr. Cronin:

Thank you for bringing the Murray Rotorcam engine to our attention. Dr. Bromley and I wish you well as you continue your prototype tests, and we hope the tests show that you have another winner on your hands.

Sincerely,

A handwritten signature in dark ink, appearing to read "Karl A. Erb", with a long horizontal flourish extending to the right.

Karl A. Erb
Associate Director
for Physical Sciences and Engineering

Mr. James J. Cronin
Treasurer
Murray United Development Corporation
10 Orben Drive
Landing, NJ 07850

TYPE: ACTION
ORIGINATOR: 02

DOCUMENT NUMBER: 9203124
DIRECTORATE STATUS

STATUS I

FROM: RICHTER, Burton: STANFORD LINEAR ACCELERATOR CENTER

OCT 20

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 10/13/92

SUBJECT: HE IS WRITING TO EXPRESS HIS CONCERNS ABOUT THE
FACILITIES BUDGET FROM THE DEPARTMENT OF ENERGY.

DIRECTORATE STAFF
ASSIGNED: PHYSICAL SCIENCES ASSIGNED:

ACTION
REQUIRED: AS NECESSARY *None* STAFF
ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: 11/02/92 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT: 12/22/92

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #: CONTACT PERSON:
PHONE: EXT:

REMARKS: The incoming letter is a response to a
previous (outgoing) letter. We have nothing to add
to our previous response
KTE 12/22/92

OSTP RECEIVED: 10/16/92
FILE: P-PHYSICAL SCIENCES

DEPT RECEIVED:

CENTRAL FILES: ENERGY



STANFORD LINEAR ACCELERATOR CENTER

Office of the Director

Mail Bin 80 • P. O. Box 4349 • Stanford, CA 94309

To D. Allan Bromley	From Burton Richter
Inst/Facility Science & Technology Advisor - Presidential Staff	Inst/Facility SLAC
Dept.	Phone No. (415) 926-2601
Fax No. (202) 395-3719	Fax No. (415) 926-4500
Number of Pages: Total of Three	Date: October 15, 1992

Karl Gorb
Comment & draft a
reply please

STANFORD LINEAR ACCELERATOR CENTER

OFFICE OF THE DIRECTOR

P. O. Box 4349
Stanford, CA 94309
(415) 926-2601
Telefax: (415) 926-4500
Bitnet Address:
BRICHTER at SLACVM

October 13, 1992

Dr. D. Allan Bromley
Assistant to the President for Science and Technology
358 Old Executive Office Building
17th Street and Pennsylvania Avenue, N.W.
Washington, D.C. 20500

Dear Allan:

Ed Zschau has sent me a copy of your response to his letter about funding for an upgrade of the SLAC PEP colliding beam storage ring to turn it into a *B*-meson factory. I fully appreciate the fiscal constraints on the government's science programs because of the deficit and the general state of the economy, but I do wish to comment on some of the statements in your letter.

The high energy physics community has indeed assigned as top priority for the field the completion of the SSC. The HEPAP subpanel that functioned as the voice of the community in making recommendations on the base program for the rest of this decade took that as a given. However, there were two other budgetary constraints imposed on the panel that were unexpected by the community at large. These were the requirement that \$144 million (integrated over the rest of this decade) be set aside for the SSC Physics Division from the base program in addition to the construction funding, and that the Fermilab Main Injector was a Presidential Initiative. In its deliberations, the subpanel was told to consider three scenarios — a 2% real increase, a constant purchasing power, and a constant dollar budget which thus eroded the program by inflation. The subpanel unambiguously stated the importance of the work that could be done with the *B*-Factory, including it in their recommendations for both the increased and constant purchasing power scenarios, while being unable to fit it into the lowest scenario. There is no way that anyone can tell whether the recommendations of the panel might have been different with different input constraints, but those constraints were real and played an important part in determining the conclusions of the panel. I was pleased that because of its scientific importance the *B*-Factory was included in the panel's recommendations in all except the lowest scenario.

Looking broadly at the budget for Energy Research in the Department of Energy, I personally feel that increased resources are warranted in many fields including the high energy physics base program. The entire scientific community hoped that with the Administration's success in arms reduction negotiations the amount of funding going to defense programs

real, never the less
KE

page 2

October 13, 1992

in DOE might come down significantly, allowing increased funding for civilian programs within the Administration's overall constraints. However, the guidance given to the Assistant Secretaries by Admiral Watkins last spring in the preparation of the DOE initial budget submission to OMB made it clear that that was not to be.

From my more narrow perspective, as the Director of the DOE's leading laboratory in high energy electron physics, I am even more regretful at what seems to be coming in the FY94 budget. I have learned that the SLAC budget is down for a sharp decrease from FY93 which has the danger of severely compromising the long-term future of the laboratory. Our physics program is going very well (a recent DOE review involving eight outside consultants said that), the *B*-Factory addresses a critical unanswered question in particle physics and many laboratories in the world are relying on us for R&D leading to future high energy linear colliders (after all, we have the only operating one). In addition, we have produced a great deal of technology important to industry and other sciences, including such things as high-power klystrons, high-intensity radiation sources for therapy, the modern synchrotron light source, etc.

Our proposal to construct the *B*-Factory out of the constant level of effort budget at the President's FY93 budget submission level still seems to be to be a very responsible proposal to advance science and technology, while recognizing the financial constraints on all programs in Washington. The amount of money we need above the DOE's recommendation to the OMB is not large and I very much hope that your office could look again at the balance between civilian, military and environmental programs in DOE to find such funds. While my problem is small compared to the broader problems that you face, I hope that you can help for I think that the SLAC program is important to science, to the nation, and to California.

Sincerely,



Burton Richter
Director of SLAC

BR:bjf

CC: E. Zschau

"Document Control"

TYPE: ACTION DOCUMENT NUMBER: 9203098
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: HELFTER, David

OCT 14 1992

TO: OSTP

DATE OF
CORRESPONDENCE: 10/01/92

SUBJECT: HE IS WRITING REGARDING INFORMATION ON FUEL
EFFICIENCY.

DIRECTORATE STAFF
ASSIGNED: PHYSICAL SCIENCES ASSIGNED:

ACTION
REQUIRED: DIRECT REPLY

STAFF
ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: 10/29/92 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT: 11/20/92

COPIES TO:

WHITE HOUSE TRACKING #:

CONTACT PERSON:

PHONE:

EXT:

REMARKS:

Dr. Erb responded.

OSTP RECEIVED: 10/14/92 DEPT RECEIVED:
FILE: PHYSICAL SCIENCES-ENERGY

CENTRAL FILES:



3098

1014 North 26 Street
Fargo, ND 58102

October 1, 1992

Office of Science and Technology Policy
Old Executive Office Building
Washington, D.C. 20506

Dear Sirs:

This letter is the result of a court case I have been made aware of some time ago.

I have enclosed a copy of the summary of the court case. The important parts are HI-LITED. Is it possible to operate a motor vehicle and get 400 miles to the gallon? According to the court cases Weeks v. Pratt, it is. This was back in 1930, where is the technology now?!?!?

I sure would like to have a fuel saving device like this in my car, and so would everybody else if they knew about it. Why is it not available? I have a pretty good guess. Oil barons. They know that fuel is the blood of the nation. We cannot function without it. The Empires of the mighty oil barons would topple if this technology would fall into the hands of commoners like myself.

Imagine what would happen if every car would have this fuel saving device, or operated on the alternative fuel that Weeks discovered.

1. The average person would have about \$10-\$20 extra per week. Economy starts going again.
2. We stop burning our natural resources at the rate we are now. Environment helped, maybe saved.
3. Production of this device would employ many people. Some hope restored.
4. Convenience stores keep claiming they lose money whenever there is a gas war. If they sold less gas, they lose less money.

Vital technology is being withheld. This Technology MUST be made available to all. This is what Charles J. Weeks wanted.

Sincerely yours,


David Helfter, enraged consumer

by them of the original contract, and the defendant has discharged its obligation under the new and modified contract.

The appellants applied for a rehearing, and affidavits were filed on both sides. The grounds urged were that the trial court misconstrued the facts, and drew an erroneous conclusion as to the legal effect of the assignments, the two tracts while carried separately by plaintiffs were joint property, the assignments constituted one transaction, the plaintiffs had contracted to share equally in the oil runs, the separate assignments were induced by the defendant, and it was not the intention of the parties that they should be contractual but were employed to convey the title to the lease.

The application was not well founded, with respect to the facts or the law of the case. The transactions are properly considered together, but the actual assignments were the later and the final acts of the parties, evidenced complete contracts in writing, and conclusively expressed their intention. We regard it as quite immaterial that these assignments may have been suggested or requested by the appellee as long as they were voluntarily executed, or that the appellants owned the royalty interests jointly, or that the defendant may have approved their plans by its letter. The effort was to obtain a second trial without any showing of newly discovered evidence, surprise, or other tenable ground. Furthermore, there was a proposal to contradict the terms of the assignments by parol evidence that would be inadmissible at another hearing. The application was properly refused.

The bill was dismissed on the ground that the defendant had tendered the \$7,500 due Wiley and it owed nothing more. The decree is affirmed, on the condition that that sum shall be paid promptly to Wiley; otherwise, the District Court is directed to render judgment in Wiley's favor and against the defendant for \$7,500, without costs.

Affirmed.

WEEKS v. PRATT et al. (two cases).
Nos. 5729, 5795.

Circuit Court of Appeals, Fifth Circuit.
Sept. 5, 1930.

Rehearing Denied Sept. 27, 1930.

1. Appeal and error ¶1175(7).

On appeal in equity case, reviewing court may render such decree as is just and proper.

2. Specific performance ¶8.

Equity court has discretion to grant or withhold specific performance.

3. Specific performance ¶49(1), 51.

Equity will not lend its aid to enforcement of contract unless contract is fair and just and based on adequate consideration.

4. Specific performance ¶51.

Plaintiffs contracting with defendant for acquisition through corporate form of 49 per cent. interest in defendant's fuel-saving device in return for payments into corporation should, under evidence, be denied specific performance on ground contract was unconscionable.

Defendant's inventions related to fuel-saving device in internal combustion engines and a new automobile fuel which would effect a tremendous saving in the cost of operating automobiles. There was testimony in the record that the inventions were worth from \$40,000,000 to \$1,000,000,000. Under the contract, the plaintiff merely paid into the corporation \$100,000 in cash for preferred stock and performed certain engineering and other services and made other expenditures which were to be reimbursed by the corporation. Defendant was to receive 51 per cent. of the common stock so as to give him control, but the contract provided that two-thirds of the directors must concur in any important administrative act, and further required defendant to perform personal services. The court found the contract not fair to defendant, and that the consideration to him was so grossly inadequate as to render the contract unconscionable.

5. Specific performance ¶49(2).

Gross inadequacy of consideration will prevent specific performance of contract, regardless of actual fraud.

6. Specific performance ¶10(1).

Equity will not enforce part of contract alone unless it can be separated from remainder without changing contract in any essential particular.

7. Specific performance ¶73.

Contract for personal services may not be enforced by compelling rendition of such services.

Appeal from the District Court of the United States for the Southern District of Florida; Lake Jones, Judge.

Suit by Nathaniel P. Pratt and another against Charles J. Weeks. From a judgment for plaintiffs granting injunctive relief and damages and from a judgment holding defendant in contempt of the final decree, defendant appeals.

Reversed and remanded, with instructions.

James H. Bunch, of Jacksonville, Fla., for appellant.

Mac Asbill and Edgar Watkins, both of Atlanta, Ga., and Walter F. Rogers, of Jacksonville, Fla. (Edgar Watkins, Jr., and Watkins, Asbill & Watkins, all of Atlanta, Ga., on the brief), for appellees.

Before BRYAN and FOSTER, Circuit Judges, and SIBLEY, District Judge.

FOSTER, Circuit Judge.

These two appeals have the same title, involve the same parties, and arise from the same transactions. They may be disposed of by one opinion:

Appellees, Nathaniel P. Pratt and George L. Pratt, filed a suit in equity against Charles J. Weeks, appellant, to compel specific performance of a contract dealing with the patenting and exploiting of certain inventions of the defendant, to be enforced by prohibitory and mandatory injunctions, and for damages. Judgment was entered for plaintiffs, granting injunctive relief as prayed for, and their damages were fixed at \$81,026.68, with interest. The defendant failed to procure a supersedeas, and his interest in the inventions was sold under order of court, and was bought in by plaintiffs for some \$38,000, which was allowed to be credited on the judgment. The appeal in No. 5729 is from this judgment.

In No. 5795 the appeal is from a judgment holding the defendant in contempt of the final decree, under which he served some thirty-three days in jail before obtaining a supersedeas and bail. As a decision on this appeal will follow the disposition made of the appeal in No. 5729, no more need be said about it.

The material facts are these: Charles J. Weeks is a retired locomotive engineer, some 65 years of age. He had invented a device designed to increase the mileage of automobiles operated by internal combustion engines. Part of this apparatus, called an oil-cooling device, had been patented. He had also discovered or invented a new automobile fuel. Nathaniel P. Pratt and George L. Pratt are brothers engaged in a general en-

gineering and financing business. In July, 1927, Weeks demonstrated his fuel-saving device, which he had installed on a Hudson automobile, to the Pratts and others. The car ran a distance of 49.2 miles on one pint of ordinary gasoline, an average of nearly 400 miles to the gallon.

Weeks also demonstrated his fuel to plaintiffs by mixing with one quart of water a small quantity of other liquids taken from five different bottles. The mixture burned like ordinary gasoline.

Weeks stated to plaintiffs that he had had negotiations with representatives of the Reo Motor Company and the Ford Motor Company, and had received an offer of \$1,350,000 from one oil company and \$1,000,000 from another company for his inventions; that he feared the object of these negotiations and offers was to prevent the use of his inventions and that he wanted the public to have the benefit of them; that his fuel had not been perfected; that some of the ingredients had been put in simply to prevent analysis; that it was composed of 99 per cent. water, and could be manufactured for about 1 cent per gallon; and that he would not give any information whatever as to it until he had entered into a written contract.

The plaintiffs were convinced of the efficiency of defendant's inventions, and entered into negotiations with him to finance and develop them. Weeks insisted upon retaining control of his inventions, and they agreed to give him 51 per cent. interest and have 49 per cent. interest for themselves. It was decided to apply for patents on the fuel-saving device, but it was not decided whether to apply for a patent on the fuel or to keep the formula secret.

A patent attorney, Mr. Parry, was engaged by plaintiffs, and he visited Jacksonville and examined Weeks' device, first taken apart and then reassembled, and witnessed a successful demonstration of the car. He prepared applications for patents with the assistance of Weeks, and they were filed. Negotiations for a contract continued, but were not successful until Weeks had changed his attorney. A written contract was then drawn up and entered into on September 13, 1927. It is rather lengthy, but its material features may be somewhat briefly stated.

The contract, in substance, provided that a corporation should be organized under the laws of Florida, to be known as the Weeks-Pratt Corporation, with a capital stock of 25,000 shares of preferred stock, par value

of \$100, and 1,000,000 shares of common stock having no par value. The preferred stock was to be divided 12,500 shares to defendant and 2,500 shares to plaintiffs, full paid and nonassessable. In addition, the plaintiffs were to pay into the corporation \$100,000 in cash, for which they were to receive 1,000 shares of preferred stock, and they might be required to purchase up to 9,000 additional shares of preferred stock at par if and as needed for additional capital. The voting power was vested entirely in the common stock, and this was to be divided 510,000 shares to the defendant and 490,000 shares to the plaintiffs. The corporation was to have a board of directors composed of seven, nine, or eleven members, the number to be later agreed upon. If it should be decided to have seven members, the defendant should name four, if nine, he should name five, and if eleven, he should name six; the remaining directors to be named by the plaintiffs. It was further provided that none of the assets of the corporation should be sold, mortgaged, or licensed without the affirmative vote of at least two-thirds of the number of directors at the time; and that a similar affirmative vote of two-thirds should be required to purchase other property, organize other corporations, to develop or exploit any of the assets of the corporation, to fix salaries, elect officers, pay dividends, or change the by-laws as they might originally have been adopted. It was provided that defendant might be the chairman of the board if he so desired, but that a good business man should be selected as president. The defendant was obligated to transfer a one-half interest in his existing patents for an automatic fire door, the oil-cooling device, the inventions of the fuel-saving device, and the new fuel, to the plaintiffs, they in turn to transfer the said undivided one-half interest to the corporation to be formed and he also to transfer his remaining undivided one-half in said patents and inventions to the corporation. The contract provided that the plaintiffs should pay to Weeks \$10,000 upon its execution and should pay him a salary of \$1,000 per month until the corporation was organized, after which Weeks was to receive the same salary from the corporation for his services, including those as chairman of the board. Weeks had expended \$8,000 on his inventions prior to the making of the contract. This and all sums paid him by plaintiffs were to be reimbursed to the respective parties by the corporation. Weeks was obligated to continue his studies and experiments as an inventor and to assign any

future discoveries or inventions to the corporation. No definite term was fixed for his services. The plaintiffs agreed to use their skill, learning, and energy in the study, discovery, development, and exploitation of the processes and inventions of defendant. The contract contained a clause that, if it should develop there was no reasonable prospect of making the inventions commercially successful, the plaintiffs might serve notice on Weeks, and he would be discharged of his obligations, and they would be under no obligation to make further payments or advances, but they would retain a one-fourth interest in any of the patents that had been theretofore obtained or inventions or discoveries that had been made. Weeks was given an option for one week after their delivery to him to sell 1,000 shares of his preferred stock to plaintiffs. There was no obligation expressed for them to buy. The contract contained this clause: "This is an entire contract. Each part shall be dependent on every other part." Weeks was obligated to disclose the formula of his fuel to plaintiffs within sixty days after the contract was signed. Other provisions of the contract are comparatively immaterial.

On the day the contract was signed, Weeks demonstrated his new fuel in a Nash six-cylinder automobile, in the presence of plaintiffs and others. The car ran a distance of 19.8 miles, at a speed of approximately 25 miles an hour, on one gallon of the fuel, and only 7.8 miles on a gallon of ordinary gasoline.

After the applications had been made for patents, George Pratt installed an apparatus on a Jordan eight automobile, belonging to him, in accordance with the specifications and plans forming part of the patent application. On testing the car, it did not develop nearly as much mileage as had been obtained in Weeks' Hudson car but it did run 37.5 miles on one gallon of gasoline. The testimony is conflicting as to whether this installation was made with the consent of Weeks, but he had no part in its installation, and it is reasonably certain that the apparatus was not identical with that used by Weeks on his own car. Weeks told plaintiffs and the patent attorney that he got his results from low vacuum and high compression and that he had planed off the head of the motor on his car until he got a compression of 140. It is not shown that any attempt was made to coordinate the cylinder capacity with the device installed on the Jordan automobile.

The patent attorney sought further infor-

mation from Weeks for the purpose of prosecuting the applications for patents, and Weeks was either unable or unwilling to give it. At any rate, the patent attorney could not understand his explanations. Weeks testified he told him all he knew about the device.

Weeks delivered to plaintiffs a five-gallon jug of what he said was his fuel, but on being tested it developed no more power than ordinary gasoline, and on analysis it was shown that it would cost between 35 cents and 50 cents a gallon to manufacture. He declined to give any further information as to the formula for his fuel.

A draft of the proposed charter was drawn up and submitted to Weeks on October 20, 1927, and he declined to sign it because it provided for organization with two shares of preferred stock and two shares of common stock to himself and two shares of each to both of the plaintiffs, which he thought would give them an interest of $66\frac{2}{3}$ per cent. and control of the corporation, and, further, because he had discovered the clause in the contract which allowed the plaintiffs to recede from it on giving notice, which he contended he had not known about at the time of signing. The corporation was not organized. The draft of the charter is not in the record. We may assume it complied with the provisions of the contract.

The plaintiffs alleged in the bill that their damages amounted to \$10,000,000. They testified that the fuel-saving device and the fuel were each worth at least \$20,000,000. Expert witnesses introduced by plaintiffs fixed the value of these inventions at from \$20,000,000 to \$1,000,000,000.

[1] We may put aside any discussion of whether defendant was guilty of a breach of contract warranting a judgment for plaintiffs in a suit at law. This is an appeal in equity. The whole case is before us, and we may render such decree as may be just and proper in the premises. *Ridings v. Johnson*, 128 U. S. 212, 9 S. Ct. 72, 32 L. Ed. 401.

[2] The granting or withholding of the relief of specific performance is within the discretion of a court of equity, and is not a matter of right. *Clarke v. Aiken* (C. C. A.) 276 F. 21.

[3] It is fundamental that equity will not lend its aid to the enforcement of a contract unless it is fair, equal, and just and based upon adequate consideration. *Pomeroy's Specific Performance* (3d Ed.) para. 175-192.

[4, 5] There is no doubt that Weeks wanted the public to have the benefit of his inventions and therefore would not sell them to any one who would suppress them. Plaintiffs clearly so understood. It was this intention that animated Weeks in entering into the contract with plaintiffs, and he did so only because he was assured that he would have control of the corporation to be formed to exploit his inventions. The provisions that he should own a majority of the shares of voting stock and have the right to name a majority of the board of directors, standing alone, would give him such control, but other provisions of the contract completely nullified them. Weeks could be chairman of the board, but that term is indefinite and has no significance in law. He was not to be president; therefore he could not manage the business nor direct its policies personally. He derived no power through the right to name a bare majority of the directors because of the clause requiring two-thirds of the directors to concur in any important administrative act. The proportion of the directors to be named by Weeks, four, five or six, did not constitute two-thirds. Directors cannot be divided into fractional parts. A practical application of the clause would require action to be taken by either five, six, or eight directors, according to the number selected. It is unnecessary to impugn the good faith of the plaintiffs in considering this feature of the contract. The fact remains, through their right to name more than one-third of the directors, that they had it within their power to veto any action Weeks desired and to create the very condition of inactivity that he wanted to avoid. The contract therefore was not fair and just to Weeks.

An analysis of the evidence shows that the contract was not based upon adequate consideration. Plaintiffs proved up their damages of approximately \$81,000, by including items amounting to \$50,000 for their own engineering and other services. It is doubtful that these services were worth any such amount. Their other expenditures, except their own counsel fees, were to be reimbursed by the corporation. They were obligated to pay into the corporation \$100,000, for which they would receive stock and might have been called upon to buy additional preferred stock up to 9,000 shares. It is extremely unlikely that any additional capital would have been needed. It is highly probable that the business of the corporation would have consisted in granting licenses instead of manufacturing, owing to the necessity of adapting the fuel-saving device to

each engine to which it would be applied. There is no doubt that the inventions had a market value of over \$1,000,000 at the time the contract was first discussed. The undisputed testimony in the record conclusively shows that Weeks had discovered something revolutionary as applied to internal combustion engines. The results testified to are no greater tax on credulity than were the initial inventions of the automobile and the aeroplane. Evidence is hardly necessary to show that the inventions had enormous value, and the testimony in the record that they were worth from \$40,000,000 to \$1,000,000,000 cannot be disregarded. The conclusion is inescapable that the consideration moving to Weeks for entering into the contract and transferring 49 per cent. interest of the inventions to plaintiffs was so grossly inadequate as to be unconscionable. In such case the inadequacy of the consideration would prevent the specific enforcement of the contract, regardless of whether actual fraud be shown. *Marks v. Gates* (C. C. A.) 154 F. 481, 14 L. R. A. (N. S.) 317, 12 Ann. Cas. 120, and authorities therein cited.

[8, 7] Furthermore, by the terms of the contract each part was dependent upon every other part. It is apparent that the services of Weeks were necessary to secure the allowance of patents for the existing inventions. Perhaps the plaintiffs believed Weeks to be a mechanical genius who had discovered a method of achieving that dream of scientists, perfect combustion. At any rate, there is no doubt they wanted his services to invent new and useful appliances. The clause providing for his personal services was an essential part of the contract. Equity will not enforce part of a contract unless it can be separated from the rest without changing the contract in any essential particular. A contract for personal services will not be enforced in equity by compelling the rendition of the services. *Roller v. Weigle*, 49 App. D. C. 102, 261 F. 251; *Karrick v. Hannaman*, 168 U. S. 328-336, 18 S. Ct. 135, 42 L. Ed. 484.

It is unnecessary to discuss other provisions of the contract. For the reasons above given we conclude that the bill was without equity and plaintiffs were not entitled to the decree rendered in either case. The judgment in each case will be reversed and the cause remanded, with instructions to set aside the sale of defendant's assets, to recall the rule for contempt, and to dismiss the bill without prejudice, and for such other orders and de-

crees as may be just and equitable in the premises.

Reversed and remanded.

SIBLEY, District Judge (concurring specially).

I agree to the result reached, that the appellees should be left to another bill for rescission and accounting, or to an action at law for damages. The refusal of specific performance ought, I think, to be rested on the nature of the contract and the impossibility of a court of equity supervising its performance, rather than the inadequacy of consideration. The subject-matter of the contract was undeveloped inventions of undemonstrated value. I think the contract was not unconscionable, but reasonable.

PRIEST v. WEAVER, Sheriff.

WEAVER, Sheriff, et al. v. PRIEST et al.

Nos. 8856, 8881.

Circuit Court of Appeals, Eighth Circuit.
Aug. 18, 1930.

1. Bankruptcy $\S$ 288(5).

Bankruptcy court has jurisdiction to determine whether it had possession of property sought to be subjected to turnover order (Bankr. Act $\S$ 67f, 11 USCA $\S$ 107(f)).

Cited statute provides that all levies, judgments, attachments, or other liens, obtained through legal proceedings against insolvent any time within four months prior to filing bankruptcy petition, shall be void in case of adjudication and that property shall pass to trustee as part of bankrupt's estate.

2. Bankruptcy $\S$ 288(5).

Bankruptcy court can determine summarily controversies involving substantial adverse claims to property in its possession, but if it lacks possession it cannot make summary adjudication (Bankr. Act $\S$ 67f, 11 USCA $\S$ 107(f)).

3. Bankruptcy $\S$ 288(5).

Bankrupt's property held in possession of sheriff under state court attachment, precluding summary proceeding in bankruptcy court (Bankr. Act $\S$ 67f, 11 USCA $\S$ 107(f)).

Prior to filing of petition in bankruptcy, sheriff, in executing writ of attachment issued in aid of suit in state court,

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

November 20, 1992

Dear Mr. Helfter:

I am writing in response to your letter, in which you brought to our attention Mr. Weeks' inventions and subsequent 1930 court case.

Mr. Weeks' contention, that he had discovered a means of achieving automobile gas mileage of nearly 400 miles per gallon, is riveting. Unfortunately, time seems to have proved him wrong. If you have information to the contrary you should bring it to the attention of the U.S. Department of Energy, Office of Fossil Fuel Technology, Forrestal Building, Washington, D.C. 20585.

Thank you for your interest in the important issue of auto fuel economy.

Sincerely,



Karl A. Erb

Associate Director
for Physical Sciences and Engineering

Mr. David Helfter
1014 North 26 Street
Fargo, ND 58102

TYPE: ACTION

DOCUMENT NUMBER: 9202923

ORIGINATOR: 02

STATUS I

DIRECTORATE STATUS

FROM: BEERS, John C.

SEP 29

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 09/19/92

SUBJECT: HE IS WRITING URGING THE U.S. TO EXPLORE RENEWABLE
ENERGY SOURCES.

DIRECTORATE

STAFF

ASSIGNED: PHYSICAL SCIENCES

ASSIGNED:

ACTION

STAFF

REQUIRED: AS NECESSARY

ACTION:

SENDER'S DUE DATE:

OSTP DUE DATE: 10/12/92

STAFF DUE DATE

DATE COMPLETED:

DATE COMPLETED/DEPT: 10/13/92

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #:

CONTACT PERSON:

PHONE:

EXT:

REMARKS:

Dr. Bromley responded.

OSTP RECEIVED: 09/28/92

DEPT RECEIVED:

FILE: P-PHYSICAL SCIENCES-ENERGY

CENTRAL FILES:

X

The White House - Attn: D. Allen Bromley
 1600 Pennsylvania Ave., N.W.
 Washington, D.C. 20500

Dear Mr. Bromley:

As a concerned American Citizen I am writing you to convince the President to encourage Congress about America's high interest in the greater use of renewable energy sources like wind, solar and biomass to supply more of our national energy needs.

Are you aware that renewable energy sources are RIGHT NOW ready to supply a significant portion of our nation's energy needs?

Strong presidential leadership is necessary to promote greater renewable energy use. Some relatively simple policy changes will have a great impact: for example, allocating more research and development funds to renewables, revising our tax structure to remove the penalties against renewables, and legislative incentives or regulations to encourage utilities, businesses and developers to incorporate in their planning

Sincerely,

John C. Beers - John C Beers

240 S. Anza St, Apt. P

El Cajon, Cal 92020 (phone 619-442-384

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

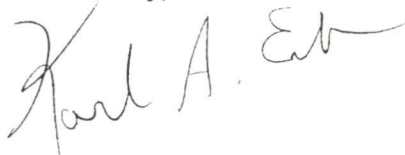
October 13, 1992

Dear Mr. Beers:

Thank you for your letter to the Office of Science and Technology Policy concerning renewable energy sources.

I agree with you that renewable sources are important, and I wish only to point out that they are an important element--together with conservation and with improvements in fossil fuel, transportation, and nuclear energy technologies--in our national energy strategy. Primarily, but not exclusively through the Department of Energy, we are supporting research and development in all of the above areas, in order to ensure that we can meet the nation's future needs for energy. We believe that renewable sources will play an expanded role in the future but that other technologies will continue to be required, especially to ensure the availability of the large blocks of electricity generating capability that will be required.

Sincerely,

A handwritten signature in dark ink, appearing to read "Karl A. Erb". The signature is fluid and cursive, with the first name "Karl" being the most prominent.

Karl A. Erb
Associate Director
for Physical Sciences and Engineering

Mr. John C. Beers
240 S. Anza Street, Apt. P
El Cajon, CA 92020

"Document Control"

TYPE: ACTION DOCUMENT NUMBER: 9202840
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: KENNEDY, Art

TO: DR. D.A. BROMLEY

SEP 24 1992

DATE OF
CORRESPONDENCE: 09/03/92

SUBJECT: HE IS FORWARDING A COPY OF HIS PROPOSAL REGARDING
THE ELECTRICAL NATURE OF THE UNIVERSE.

DIRECTORATE STAFF
ASSIGNED: PHYSICAL SCIENCES ASSIGNED: Lee Schroeder

ACTION
REQUIRED: AS NECESSARY or symmth STAFF
ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: 10/06/92 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT: 11/24/92

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #: CONTACT PERSON: ✓
PHONE: EXT:
REMARKS: PLEASE NOTE: DR. SCHROEDER ATTEMPTED TO REPLY TO AN EARLIER
LETTER FROM MR. KENNEDY, BUT DID NOT HAVE THE RETURN ADDRESS.

Dr. Schroeder responded.

OSTP RECEIVED: 09/22/92 DEPT RECEIVED:
FILE: P-PHYSICAL SCIENCES

CENTRAL FILES:



7:40

Sept. 3, 92

Mr. D. Allan Bromley,

I'm amazed at the broad scope of your key roles in science and technology, in addition to being science advisor to President George Bush.

In the past 12 months I've sent letters to the heads of a few government agencies, communicating my views on the electrical nature of the universe.

When I didn't get replies, it didn't disappoint me much. I know big agencies like NASA, D.O.E, etc. must get hundreds of proposals. By not answering, they will soon find out how persistent and dedicated the proposers are. In this way, the proposals will tend to sort themselves out.

Also they figure if the proposal is good, then try getting it published, and run the gamut of your peers, etc. All of which, with your experience you know much more about than I do.

About 1967, I told my relatives and a few friends about my efforts in cosmology. I wish I had waited at least one more year - then I'd be ahead a year, instead of constantly trying to make schedule. You must run into that and more so, I'm enclosing a copy of the information mailed out to government agencies and universities.

Sincerely,

A. T. Kennedy

The following information was obtained from the points
of view of the various individuals who have been in
contact with the person in question and the attached
work program of the investigation.

Background- Six years in the U.S. Air Force (1940-46), the
last two years as a navigator in a B-24 bomb group based in
England. This was followed by six years with the U. S. Weather
Bureau (1946-52). Also in Baker Field. Started out as a 555 weather
observer, and observer in the 577 and 578 squadrons of pilots.
Then followed 22 years in retired status with United Air Lines.

He was a member of (CNC) about 1950 and enjoyed a strong
interest in physics and physiology. He is mostly as it
applied to biology, chemistry and physics in the early stages of
the 1950s.

One of the first things he did was to develop a
method of measuring the temperature of the stars.

He was a member of the "Scientific Method" group of the "E. B. Day"

He was a member of the "Scientific Method" group of the "E. B. Day"
and was a member of the "Scientific Method" group of the "E. B. Day"
and was a member of the "Scientific Method" group of the "E. B. Day"

He was a member of the "Scientific Method" group of the "E. B. Day"
and was a member of the "Scientific Method" group of the "E. B. Day"
and was a member of the "Scientific Method" group of the "E. B. Day"

He was a member of the "Scientific Method" group of the "E. B. Day"
and was a member of the "Scientific Method" group of the "E. B. Day"
and was a member of the "Scientific Method" group of the "E. B. Day"

He was a member of the "Scientific Method" group of the "E. B. Day"
and was a member of the "Scientific Method" group of the "E. B. Day"
and was a member of the "Scientific Method" group of the "E. B. Day"

He was a member of the "Scientific Method" group of the "E. B. Day"
and was a member of the "Scientific Method" group of the "E. B. Day"
and was a member of the "Scientific Method" group of the "E. B. Day"

The first three hypotheses are: (1) the universe is finite and unbounded, (2) the universe is infinite and unbounded, and (3) the universe is finite and bounded. The first two hypotheses are based on the assumption that the universe is homogeneous and isotropic. The third hypothesis is based on the assumption that the universe is inhomogeneous and anisotropic.

A few years ago, the first two hypotheses were considered to be the only possibilities. However, the discovery of the cosmic microwave background radiation in 1964 provided strong evidence for the third hypothesis. The radiation is not uniform in all directions, but shows small fluctuations that are consistent with a universe that is inhomogeneous and anisotropic.

Hughston, Fuller, and Newkirk's "Synergistic" model states that the above three are the hypotheses, geometrical forms of the universe, and finds the tetrahedron to be the most structural system of the universe. If we add the tetrahedron to the other three, then we will have four other geometrical forms and result in the universe.

Exercises. It is well known that the tetrahedron is a very common shape in nature. It is found in the structure of many crystals, in the arrangement of atoms in a molecule, and in the shape of many biological structures. The tetrahedron is also a common shape in art and architecture.

The tetrahedron is a three-dimensional shape with four triangular faces. It is one of the five Platonic solids. The tetrahedron is a very simple shape, but it has many interesting properties. For example, it is the only Platonic solid that is self-dual, meaning that its dual is also a tetrahedron.

The tetrahedron is also a very important shape in mathematics. It is used in many areas of mathematics, including geometry, algebra, and calculus. The tetrahedron is also a very important shape in physics. It is used in many areas of physics, including quantum mechanics and relativity.

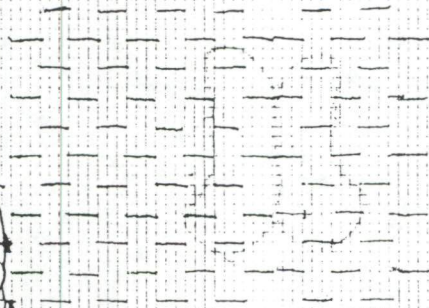
The tetrahedron is a very simple shape, but it has many interesting properties. For example, it is the only Platonic solid that is self-dual, meaning that its dual is also a tetrahedron. The tetrahedron is also a very important shape in mathematics. It is used in many areas of mathematics, including geometry, algebra, and calculus.

The tetrahedron is a very simple shape, but it has many interesting properties. For example, it is the only Platonic solid that is self-dual, meaning that its dual is also a tetrahedron. The tetrahedron is also a very important shape in mathematics. It is used in many areas of mathematics, including geometry, algebra, and calculus.

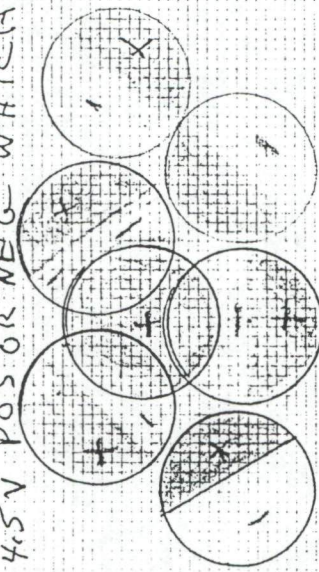
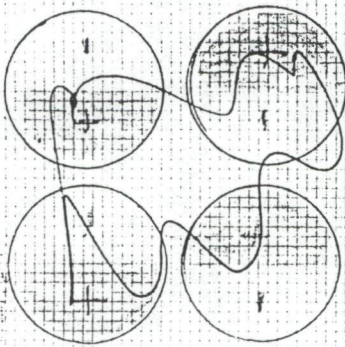
The universe was the first to understand a sphere will contain the most volume for the least surface area when compared to any other shape.



2B



The First 4POO AND 4 NEG MONOPOLES
WOULD PRODUCE THE TETRAHEDRON AT SAME INSTANT
ONE MONOPOLE, EITHER POS OR NEG COULD JOIN ~~ONE~~ OF
THE 4 VERTEXES AND INSURE THE CHARGED TETRAHEDRON
4.5V POS OR NEG WHICH



~~THE~~ WOULD LATER INSURE
OTHER CHARGED PARTICLES.

With neutrinos easily assembled, the universal computer knew it
had to create the tetrahedron. As backminster Fuller noted: The tetrahedron was
strongest of the three primary geometrical forms. It would be, made stronger
when becoming and dominating the charged tetrahedron, which would be needed
by the many millions in creating just one proton.

It appears we are in the Northern hemisphere of the universe. We have won-
dered about the dearth of anti-particles, of matter-antimatter. The proton
as theorists figured would be negative and a positron would orbit the
anti-proton.

There is a ~~best~~ possibility this did occur in the Bang - a matter
and anti-matter universe born simultaneously "and never the twain
shall meet."

"Document Control"

TYPE: ACTION

DOCUMENT NUMBER: 9203442

ORIGINATOR: 02

STATUS I

DIRECTORATE STATUS

FROM: KENNEDY, ART

TO: D.A. BROMLEY

DATE OF
CORRESPONDENCE: 11/14/92

SUBJECT: ENVIRONMENTAL ISSUES

DIRECTORATE

STAFF

ASSIGNED: PHYSICAL SCIENCES

ASSIGNED:

ACTION

STAFF

REQUIRED: AS NECESSARY

ACTION:

SENDER'S DUE DATE:

OSTP DUE DATE: 12/03/92

STAFF DUE DATE

DATE COMPLETED:

DATE COMPLETED/DEPT:

11/24/92

COPIES TO:

WHITE HOUSE TRACKING #:

CONTACT PERSON:

PHONE:

EXT:

REMARKS: ASSIGNMENT TO PHYSICAL SCIENCES (LEE SCHROEDER) BECAUSE HIS LAST LETTER WAS ASSIGNED TO PSE AND WAS NOT RESPONDED TO BECAUSE MR. KENNEDY DID NOT HAVE A RETURN ADDRESS.

Dr. Schroeder requested.

OSTP RECEIVED: 11/19/92

DEPT RECEIVED:

FILE: PHYSICAL SCIENCES

CENTRAL FILES:



Nov 14-1992

Mr. Bromley:

Didn't expect to be writing again this soon. Upon rereading my last letter to you, I realized the last couple paragraphs were vague, partly because I don't have much idea on what you may be thinking about in the way of a small team in Northern?

ILLINOIS.

I mentioned I would be able to put out a paper on the electrical nature of the universe about 60-75 days after a paper was completed on Greenhouse and ozone effects.

I could head up a small team on the electrical, and you might want someone else to head up some other science area.

I'm in a quandary about this. We see where the government has authorized a group to study earth temps for a few months. It should correlate well with the average temps near 59°F .

We read where well paid consultants to the D.O.E., NASA, etc., sometimes earn 100-120 thousand per year range. I'm sure they do fine work in some areas, but what did they provide in the areas of the electrical nature of cosmology? or how to show the value of eleven yr cycles in long range 10-20 yr forecasts? or the real meaning of greenhouse warming? - not as much as they should - I think you would agree.

Didn't realize it at first when I stumbled upon the monopole theory, but it turned out to be a blessing in disguise.

Then I realized the universe or the power behind it, was the first to create that old maxim of physics - "Keep it simple - keep it symmetrical."

What could be more simple than the most simple formula $= 1 + 1 \text{ monopoles} = \text{universe}$.

Speaking of monopoles, it is mind boggling to realize that if our bodies are literally made up of monopoles, then our monopoles are destined to exist for all eternity, whether the universe is open or closed.

I know how busy you are, but I hope to hear from you by Nov. 23, I will exercise another avenue.

Sincerely,

Art Kennedy

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

November 24, 1992

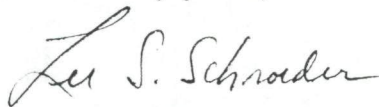
Dear Mr. Kennedy:

Dr. Bromley has requested that I respond to your recent letters. I apologize for the delay of this note. Your original letter arrived without a return address, but this was remedied by your later letters.

Cosmology and the nature of the various interactions that are observed in the physical world today, are, as you are aware, exciting topics being actively pursued by scientists around the world. Research in the area of cosmology and related subjects is generally funded by several agencies in the U.S. including (as you mentioned in your letter) DOE, NASA and the National Science Foundation. However, the Office of Science and Technology Policy does not, itself, fund such research activities. In addition, I must point out that the process of granting research support is generally subject to a substantial review process--even when the science is deemed of interest, funds may still not be available to support it.

I appreciate the obvious interest and enthusiasm that you are putting into your studies and wish you ever success in this endeavor.

Sincerely yours,



Lee S. Schroeder
Assistant Director
Physical Science and Engineering

Mr. Arthur Kennedy
1063 N. Williams
Palatine, IL 60067

"Document Control"

TYPE: ACTION DOCUMENT NUMBER: 9202371
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: MANDRILLON, P.: CENTRE ANTOINE LACASSAGNE

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 08/30/92

SUBJECT: HE IS WRITING REGARDING THE BEVALAC FACILITY.

DIRECTORATE STAFF
ASSIGNED: PHYSICAL SCIENCES ASSIGNED:

ACTION
REQUIRED: DIRECT REPLY STAFF
ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: 08/27/92 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT: 9/4/92

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #: CONTACT PERSON:
PHONE: EXT:

REMARKS: Dr. Erb responded.

OSTP RECEIVED: 08/14/92 DEPT RECEIVED: 8/17/92
FILE: P-PHYSICAL SCIENCES

CENTRAL FILES: Doe

CENTRE ANTOINE LACASSAGNE
LABORATOIRE DU CYCLOTRON
227 AV. DE LA LANTERNE
F-06200 NICE

☎ : (33) 93-18-03-09

Fax : (33) 93-18-04-33

Nos réf. : PM/72.07.92

Nice, 30 July 1992

MAIL ROOM

Dr Allan BROMLEY
Assistant to the President for Science and
Technology,
Director, Office of Science and
Technology Policy
Room 360, Old Executive Office Building
17th & Pennsylvania Avenue, NW
WASHINGTON, DC 20500 - U.S.A.

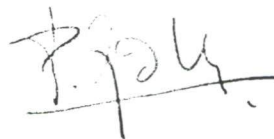
Dear Dr Bromley,

The Bevalac under the leadership of Dr Joseph Castro has for more than 15 years undertaken superb pioneering work in the treatment of malignant tumours with charged particle beams. This is the first and only facility for these studies and the work of the team is world famous.

Most promising results have been obtained for combatting one of the most serious diseases.

In the interests of humanity I urge you to keep the Bevalac running until an alternative source of these beams is available.

Yours sincerely,



P. MANDRILLON
Head of the Medical
Cyclotron Laboratory

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

September 4, 1992

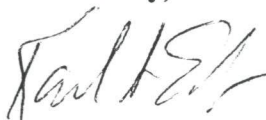
Dear Dr. Mandrillon:

I am writing in response to your letter to Dr. Bromley concerning plans by the Department of Energy to terminate BEVALAC operations. I was interested to read your account of the contributions the BEVALAC has made in this area.

The DOE is responding to the fact that its nuclear physics research program, which has provided most of the funding to operate the BEVALAC, is increasingly turning its attention to other facilities. Given this declining nuclear physics interest, the Department has attempted to ascertain whether other users of the BEVALAC find the facility sufficiently important to their activities to provide funds to sustain BEVALAC operation. To date, no other science community or funding agency has expressed that degree of interest.

If the situation changes and funds from medical or other programs become available to support the BEVALAC, the DOE will reevaluate its plans to close the facility. Thank you for your letter and the information it contains.

Sincerely,



Karl A. Erb

Associate Director for
Physical Sciences and Engineering

Dr. P. Mandrillon
Centre Antoine Lacassagne
Laboratoire du Cyclotron
227 Av. de la Lanterne
F-06200 NICE
FRANCE



AUG 7 1992

"Document Control"

TYPE: ACTION

ORIGINATOR: 02

STATUS I

DOCUMENT NUMBER: 9202237

DIRECTORATE STATUS

FROM: HIRAO, Yasuo: NATIONAL INSTITUTE OF RADIOLOGICAL SCIENCES

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 07/27/92

SUBJECT: HE IS WRITING REGARDING THE SHUTDOWN OF THE BEVALAC
FACILITY.

DIRECTORATE

STAFF

ASSIGNED: PHYSICAL SCIENCES

ASSIGNED:

ACTION

STAFF

REQUIRED: FOR DAB'S SIGNATURE

ACTION:

SENDER'S DUE DATE:

OSTP DUE DATE: 08/20/92

STAFF DUE DATE

DATE COMPLETED:

DATE COMPLETED/DEPT: 9/14/92

COPIES TO: D. Allan Bromley
INTERNATIONAL/POLICY

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

PHONE:

EXT:

Dr. E. H. Reynolds

OSTP RECEIVED: 08/06/92
FILE: P-PHYSICAL SCIENCES

DEPT RECEIVED:

CENTRAL FILES:

DOE



National Institute of Radiological Sciences

Address: 9-1, Anagawa-4-chome
Inage-ku, Chiba-shi 263, JAPAN

Telephone: 043(251)2111
Telex: 03722205 NIRS J
Cable address: HOIKEN CHIBA (Japan)
Fax: 81-43-256-9616

Dr. Allan Bromley
Assistant to the President for Science and Technology,
and Director, Office of Science and Technology Policy
Room 360, Old Executive Office Building
17th & Pennsylvania Avenue, NW
Washington, DC 20500

July 27, 1992

Dear Dr. Bromley:

I met you once in Japan more than 20 years ago, may be during Nuclear Structure Conference in Tokyo. At that time I was nuclear physicist. I am now in charge of the project of heavy-ion medical accelerator at National Institute of Radiological Sciences.

Now, I am writing about the shutdown of Bevalac facility which has given very important and unique results on the heavy-ion therapy.

Our medical accelerator project is mostly based on the brilliant results of cancer treatment using Bevalac beams.

It is very serious among radiotherapy groups in the world that the shutdown of Bevalac has been decided. I must express my sincere hope for keeping farther its operation for biomedical use.

Sincerely yours,

Yasuo Hirao
Director
Division of Accelerator Research
TEL FAX No : +81-43-287-0417

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

September 14, 1992

Dear Dr. Hirao:

I am writing in response to your letter to Dr. Bromley concerning plans by the Department of Energy to terminate BEVALAC operations.

The DOE is responding to the fact that its nuclear physics research program, which has provided most of the funding to operate the BEVALAC, is increasingly turning its attention to other facilities. Given this declining nuclear physics interest, the Department has attempted to ascertain whether other users of the BEVALAC find the facility sufficiently important to their activities to provide funds to sustain BEVALAC operation. To date, no other science community or funding agency has expressed that degree of interest.

If the situation changes and funds from medical or other programs become available to support the BEVALAC, the DOE will reevaluate its plans to close the facility. Thank you for your letter and the information it contains.

Sincerely,



Karl A. Erb
Associate Director for
Physical Sciences and Engineering

Dr. Yasuo Hirao
Director
Division of Accelerator Research
National Institute of Radiological Sciences
9-1, Anagawa-4-chome
Inage-ku, Chiba-shi 263,
JAPAN

"Document Control"

TYPE: ACTION DOCUMENT NUMBER: 9202382
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: OJSERKIS, Maurice

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 07/27/92

SUBJECT: HE IS FORWARDING HIS IDEAS FOR A NEW DESIGN FOR
COMBUSTION ENGINES, AND HE SEEKS OSTP'S ASSISTANCE
WITH GETTING THIS PROGRAM TO THE MARKET PLACE.

DIRECTORATE STAFF
ASSIGNED: PHYSICAL SCIENCES ASSIGNED: *Lee Schaefer*

ACTION *Direct Reply, if*
REQUIRED: AS NECESSARY STAFF ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: 08/27/92 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT: *01/24/92*

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #: CONTACT PERSON:
PHONE: EXT:

REMARKS: *Dr. Schaefer responded.*

OSTP RECEIVED: 08/14/92 DEPT RECEIVED: *AUG 11*
FILE: P-PHYSICAL SCIENCES

CENTRAL FILES:

Dr. D. Allan Bromley
Science Advisor to the President
CARLSON CH. BOHANNON & TECHNOLOGY
Old Executive Office Building
17th Street, Pennsylvania Avenue, N.W.
Washington, D.C. 20506

27-July-1992

11:53

Dear Dr. Bromley:

MAIL ROOM

They say that Detroit automotive makers are not truly innovating and competing against the foreign Japanese competitors.

For enclosed two page memorandum, I wish to perfect and place into volume production a new and revolutionary INTERNAL COMBUSTION ENGINE which will be very high-horsepower, be of low-pollution, be very efficient and be CHEAP to manufacture using American workers.

The engine will be Air-Cooled, 100% all aluminum and die-cast for low-labor-cost of manufacture. Besides the U.S. automotive industry, it should find excellent application to the Department of Defence, U.S. Army use in TANKS and combat vehicles.

My engine consists of a NEW combination of WELL-PROVEN concept and is based primarily on the Burt-MacCullum Single Sleeve Valve as was so successfully perfected and used in Bristol HERCULES and CENTAURUS aero engines before and during World-War-II. They made some 131,000 of these 1,200 h.p. engines using some 71,000 workers. With the advent of the JET ENGINE, this technology was shelved and forgotten till now. With the 1886 admonition of Sir Dugald Clerk, inventor of the Outboard motor two-cycle engine, for the first time in modern days, my engine will use BOTH SIDES OF THE PISTON to make power, and I will RECOVER the exhaust gases which are normally wasted, and make an additional 20% free power or more miles per gallon by using a power-recovery turbine to send this power DIRECTLY geared to the engine crankshaft.

They say that "Every one talks about the Weather, but no one does anything about it." I am an ex-World-War II Bomber & Test Pilot who is an Aeronautical Engineer. I sincerely believe that with GOVERNMENT support such as the British had, that perfecting my engine can truly allow our U.S. auto industry to attain their former leadership and engineering superiority.

Now can you and your office help me and this project? The patents are in progress with the patent office.

Thanking you for your early attention and reply, I beg to remain

Sincerely yours,

Maurice J. Ojserkis

Maurice J. Ojserkis
OJSERKIS CONSULTANT ENGINEERS
RD6 115E Ocean Heights Av. #205D
Pleasantville, N.J. 08232
(609) 927-6593.

ENC: 2 22: 2-pg Memo.

Maurice J. Ojserkis
OJSERKIS CONSULTING ENGINEERS
RD6 115E Ocean Heights Av#205
Bargaintown, N.J. 08232
(609) 927-6593.

A PROJECT TO GIVE BIRTH TO A REVOLUTIONARY NEW INTERNAL COMBUSTION ENGINE WHICH SHOULD ALLOW THE AMERICAN AUTOMOTIVE INDUSTRY TO TRULY INNOVATE & COMPETE ON DOMESTIC & WORLD MARKETS.

For the last one hundred years the gasoline burning automobile engine has hardly changed, apart from band-aid anti-pollution devices. The automotive industry talks of meaningless MILES PER GALLON rating and ignores true engine efficiency by ^{NOT} stating pounds of fuel per horsepower hour in order to evaluate one engine over another.

The Public is mislead and does not realize that in most cases the auto manufacturer reduced car weight (and in many cases car Safety) of a vehicle ~~and~~ thereby claimed more Miles per gallon, instead of making his car engines more efficient and using less fuel per power output. Instead of designing an engine to reduce Nitrogen Oxides and unburnt HydroCarbons, he adds on costly gadgets AFTER-THE-FACT, to reduce pollution after it has been generated instead of designing to prevent ~~sa~~ in the first place.

Almost all auto vehicles utilize four stroke engines which use only one of the four strokes to make power, while allowing the other three strokes to WASTE power in one form or another. Seventy-five percent wastage is not very efficient.

While two stroke engines are used in some heavy-duty trucks and in small appliances, they have virtually no usage in the world auto industry due mostly to poor fuel utilization and excessive air pollution.

In 1886 before hardly any autos existed on the roads, the inventor of the Outboard Motor 2-cycle engine, Sir Dugald Clerk, in one of the first of his long line of his-authored textbooks, mandated that the auto industry and industry in general must avoid shortages of Petroleum; avoid polluting of the air; and he said that engines must use BOTH SIDES of the piston (as in Steam engine usage.)

A New Jersey Inventor, Maurice J. Ojserkis, founder of the new Minicord Motors Corporation, has heeded Dugald Clerk's admonitions and has patents in progress on an engine which utilized BOTH SIDES OF THE PISTON, and also COMPOUNDS and recuperates some 20% extra power or lower fuel consumption by gearing the exhaust energy back into the engine crankshaft while internally self-supercharging the engine for superior breathing and power output of the engine. It does this without needing external mechanically or exhaust driven superchargers to compress the mixture.

At the Flick-of-a-Switch, the Minicord engine changes from six cylinder mode to Twelve cylinders. The power increase is instantaneous and dramatic. It uses three of the four strokes to make power.

The basic MINICORD engine is of six cylinder flat-opposed format and air-cooled looking not unlike the old VOLKSWAGEN Beetle engine from the outside. The interior is radically different. It is smaller than conventional engines, has less weight, lower pollution, higher power and is of substantially lower cost to the auto manufacturer. It lasts longer with less care needed than conventional engines and debunks the misleading present car buyer advertising which touts the advantages of sixteen, twenty-four and thirty-two valve engines, when in truth, this just results in higher cost, more parts to clack around inside the engine, earlier and higher engine repair and replacement of parts.

For those who remember the old Willys-Knight silent six engine of the late 1920's, the Minicord engine is substantially more quiet despite being air-cooled.

The MINICORD engine utilizes well proven technology of the Burt-McCollum single sleeve valve as was so successfully used before and during World-War II in the British BRISTOL-HERCULES aero engines of some one thousand two hundred horsepower each. The British mass-produced some 131,000 of these engines which lasted about 3½-times longer than American Pratt & Whitney and Wright engines before needing overhaul. With the advent of the Jet Age, this technology was shelved and forgotten till now.

With active support of the British Air Ministry, they employed some 71,000 workers making Hercules engines, and this is a goal towards which MINICORD hopes to reach in the State of North Carolina.

The MINICORD engines will be 100% all-aluminum and will require the new utilization of thousands of tons of aluminum per year whilst employing thousands of new workers to make same to satisfy domestic and world-wide market requirements. This engine has the potential to rejuvenate American industry and make America more competitive while demonstrating true innovation.

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

November 24, 1992

Dear Mr. Ojserkis:

Thank you for your recent letter regarding high-horsepower, energy-efficient, and low-pollution, internal combustion engines. The two-page description of your project provided interesting reading. Unfortunately, this office does not provide funds for pursuing research and development activities--that capability resides in other Federal agencies.

I wish you every future success with your project.

Sincerely yours,

A handwritten signature in cursive script, reading "Lee S. Schroeder".

Lee S. Schroeder
Assistant Director
Physical Sciences and Engineering

Mr. Maurice J. Ojserkis
RR 6 Box 115E Ocean Heights Ave.
Pleasantville, N.J. 08232

"Document Control"

DOCUMENT NUMBER: 9202407

TYPE: ACTION

ORIGINATOR: 02

STATUS I

DIRECTORATE STATUS

FROM: HABRAND, J.L., ROSENWALD, J.C. and MAZAL, A.: CENTRE DE
PROTONTHERAPIE D'ORSAY

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 07/24/92

SUBJECT: THEY ARE WRITING TO EXPRESS THEIR CONCERN OVER THE
CLOSING OF THE BEVELAC FACILITY.

DIRECTORATE

ASSIGNED: PHYSICAL SCIENCES

STAFF

ASSIGNED:

ACTION

REQUIRED: FOR DAB'S SIGNATURE

STAFF

ACTION:

SENDER'S DUE DATE:

OSTP DUE DATE: 09/01/92

STAFF DUE DATE

DATE COMPLETED:

DATE COMPLETED/DEPT: 9/4/92

COPIES TO: D. Allan Bromley
INTERNATIONAL/POLICY
LIFE SCIENCES

WHITE HOUSE TRACKING #:

CONTACT PERSON:

PHONE:

EXT:

REMARKS:

Dr. EKB Responded

OSTP RECEIVED: 08/18/92

DEPT RECEIVED:

FILE: P-PHYSICAL SCIENCES Doc

CENTRAL FILES:

CPO

CENTRE DE PROTONTHERAPIE D'ORSAY

SYNDICAT INTERHOSPITALIER POUR L'UTILISATION MEDICALE DU SYNCHROCYCLOTRON D'ORSAY

CENTRE UNIVERSITAIRE - BAT. 101 - 15, rue Georges Clémenceau - F 91400 ORSAY

TELEPHONE : (33-1) 69 41 71 65 - TELECOPIE : (33-1) 69 41 71 66

SECRETARIAT MEDICAL : (33-1) 69 41 62 43

Dr Allan BROMLEY

Assistant To the President For
Science and Technology Policy

Room 360, Old Executive Office Building
17th & Pennsylvania Avenue, NW
Washington, DC 20500

Paris, 24 July 1992

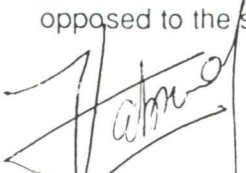
Dear Sir,

We have been strongly shocked after having heard about the intention of the US Department of Energy to shut down the Berkeley's Bevalac in the near future.

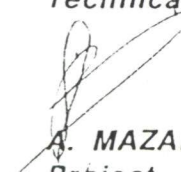
This information arrives at a time when the use of high energy heavy particles for radiotherapy is expanding, with initiation of several projects based on beams made of protons or heavier ions. A unique experience has been acquired by the group at Lawrence Berkeley Laboratory during the past 35 years. Further developments are still expected from this group, leading to an improvement of the therapeutic results, due in particular to the progress of radiobiology, medical imaging and computerized treatment planning and to the availability of deeply penetrating heavy ions.

Our center has just started a programme of protontherapy using a 200 MeV proton beam generated by a synchrocyclotron. A collaboration has been initiated between our group and the group at LBL concerning radiation protection and dose computation. In addition, we are all very interested in exploring, beyond the protons, the therapeutic capabilities of heavier particles.

Considering all these reasons we want to stress the need to continue the biomedical programme in LBL and, in this respect, to keep the Bevalac open. There is still much to do, for the benefit of scientific research and patient cure. We therefore give our full support to all those who are opposed to the shut down of the Bevalac


J.L. HABRAND, MD
Medical Coordinator


J.C. ROSENWALD, PhD
Technical Coordinator


A. MAZAL, PhD
Project Manager

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

September 4, 1992

Gentlemen:

I am writing in response to your letter to Dr. Bromley concerning plans by the Department of Energy to terminate BEVALAC operations. I was interested to read your account of the contributions the BEVALAC has made in this area.

The DOE is responding to the fact that its nuclear physics research program, which has provided most of the funding to operate the BEVALAC, is increasingly turning its attention to other facilities. Given this declining nuclear physics interest, the Department has attempted to ascertain whether other users of the BEVALAC find the facility sufficiently important to their activities to provide funds to sustain BEVALAC operation. To date, no other science community or funding agency has expressed that degree of interest.

If the situation changes and funds from medical or other programs become available to support the BEVALAC, the DOE will reevaluate its plans to close the facility. Thank you for your letter and the information it contains.

Sincerely,



Karl A. Erb

Associate Director for
Physical Sciences and Engineering

Dr. J.L. Habrand
Dr. J.C. Rosenwald
Centre de Protontherapie D'Orsay
Centre Universitaire
Bat. 101-15
rue Georges Clemenceau
F 91400 Orsay
FRANCE

bcc: D.A. Henderson

"Document Control"

TYPE: ACTION

DOCUMENT NUMBER: 9202583

ORIGINATOR: 02

STATUS I

DIRECTORATE STATUS

FROM: SUNDERMAN, Duane N.: NATIONAL RENEWABLE ENERGY LABORATORY

TO: DR. D.A. BROMLEY

JUL 30 1992

DATE OF
CORRESPONDENCE: 07/21/92

SUBJECT: HE IS FORWARDING INFORMATION REGARDING RENEWABLE
ENERGIES IN RESPONSE TO DR. BROMLEY'S ARTICLE IN
"POPULAR SCIENCE" MAGAZINE. HE OFFERS TO BRIEF DR.
BROMLEY ON THE SUBJECT.

DIRECTORATE

STAFF

ASSIGNED: PHYSICAL SCIENCES

ASSIGNED:

ACTION

STAFF

REQUIRED: FOR DAB'S SIGNATURE

ACTION:

SENDER'S DUE DATE:

OSTP DUE DATE: 08/07/92

STAFF DUE DATE

DATE COMPLETED:

DATE COMPLETED/DEPT: 11/30/92

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #:

CONTACT PERSON:

PHONE:

EXT:

REMARKS:

Dis. Encl + J. Schaefer met w/ him on 11/30/92.

OSTP RECEIVED: 07/27/92

DEPT RECEIVED:

FILE: P-PHYSICAL SCIENCES-ENERGY

CENTRAL FILES:



2582

National Renewable Energy Laboratory

1617 Cole Boulevard
Golden, Colorado 80401-3393
(303) 231-1000



July 21, 1992

MAIL ROOM
JUL 27 AM 11:28
RECEIVED

Dr. D. Allan Bromley
National Science Advisor
New Executive Office Building
Washington, D.C. 20506

Dear Dr. Bromley:

I have just finished reading, with great interest, your interview comments regarding environmental and energy concerns in the July issue of *Popular Science*. I was impressed not only with your environmental concern, but also the depth of your commitment regarding the problems of ozone depletion and global warming. It is reassuring to see this type of care and energy being devoted to these problems by the President's Science Advisor.

I was also gratified by your generally complimentary views on solar energy. As you may be aware, at NREL we share your view of renewables not as the single solution for the future, but as one component of a broad-based energy supply strategy. We may be biased toward renewables, but we also like to think we are realistic about their potential.

Some of your specific comments on renewables--particularly wind energy--were disappointing, however. As you accurately pointed out in the interview, there has been a failure (until quite recently) to get the word out on the real advantages and disadvantages of the various alternative energy sources. There are several reasons for this failure, but whatever the reason for the information not getting out, lack of accurate information was reflected in your comments on wind energy.

In the interview, you made three points regarding wind energy: 1) its reduced value because of the lack of adequate storage, 2) excessive noise emissions from wind turbine rotors, and 3) unacceptable safety hazards and human costs associated with the wind turbine life cycle. I'd like to discuss these points in turn, in the spirit of your call elsewhere in the interview to "get the message out" about alternative energy sources.

THE VALUE OF WIND ENERGY WITHOUT STORAGE

The wind turbines operating in Hawaii and in four areas of California (the Altamont, Tehachapi and San Geronio passes and the Suisun Bay) have shown that wind technology does not need storage to be attractive to utilities. Pacific Gas & Electric has learned that the value of the energy produced by wind turbines is not its steadiness, but rather its statistical predictability. The diurnal pattern of energy output of the Altamont and Suisun Bay wind farms coincides fairly closely with periods of peak energy use. Carl Weinberg of PG&E has said that these wind farms "provide a proven concept for how to operate wind plants efficiently and economically." There are many other areas where similar resource and load matches occur. In still other areas, fuel-saving, reductions in emissions, or even its ability to create jobs will make wind energy very valuable. Of course, an economical electrical storage technology would enhance the value of wind and photovoltaics even further.

EXCESSIVE NOISE

Modern wind turbines do not create excessive amounts of noise. One or two of the large experimental machines tested 10 to 12 years ago did have severe noise problems because the rotors were located downwind of the tower. The low frequency sound created when the blades passed through the tower wake was objectionable to people whose homes were located in areas where terrain and atmospheric effects amplified the noise. As a result, designers have learned to locate the rotors of large wind turbines upwind of the tower. The typical modern 300-500 kW wind turbine is not noisy. At distances of 100 yards from such a wind turbine operating in high winds, a typical measurement would be 60 to 65 dBA, about the noise level of a busy office. At distances of a mile, even the "noisiest" machines are barely audible.

The subjective experience of being in the middle of a wind farm operating in high winds is much quieter than standing next to a busy commuter highway. Our wind engineers do not think it is wise to locate wind farms immediately adjacent to residential areas, but there is really no reason to do so. Recent surveys by Pacific Northwest Laboratory indicate that there is an abundance of usable, non-residential land with good wind resource.

Despite the lack of a real noise problem, we do have the perception of a noise issue. Because of this, we have been working with the American Wind Energy Association and with the International Energy Agency to create domestic and international noise standards for wind turbines. These standards are being closely coordinated with siting standards also under development. The International Electrotechnical Commission is presently adopting U.S. acoustics standards documents as working papers for new international standards.

SAFETY HAZARDS AND ENVIRONMENTAL FACTORS

We are extremely concerned by the occasional injuries (and even deaths) associated with the wind industry's operation of wind farms in California. These incidents are usually falls and electrical accidents. We have been working closely with U.S. and European industry and research groups to develop internationally recognized safety standards that will help eliminate these unfortunate incidents. But we are aware of no scientific study that would rate the danger of wind farms as higher than other types of

Dr. D. Allan Bromley
July 21, 1992
Page 3

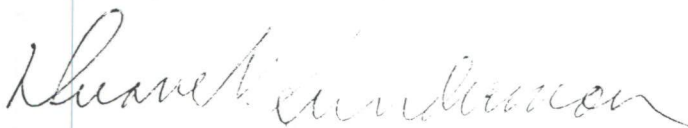
power plants. In fact, the industry is so new that a statistical study (favorable or unfavorable) would probably be misleading. Certainly, there is risk involved with all mechanical appurtenances of modern life. However, our recent experience with the DOE ES&H Tiger Team has reinforced our conviction that all accidents involving electrical and mechanical power systems are avoidable if the proper operating procedures and an active safety culture are in place. This would include the identification and analysis of safety hazards, education and training, safety-oriented design, appropriate use of safety equipment, and a "safety first" philosophy.

In addition, the environmental costs of wind energy are very low. The "energy payback period" of a wind turbine is between 6 months and a year, one of the lowest among all modern energy sources. The only metal used in modern wind turbines is in the tower and drive train components. There is no need to mine, transport and store fuel; or to dispose of spent fuel, tailings, or residue. Wind turbines directly offset hydrocarbon emissions (an estimated 2.7 billion pounds of CO₂ in 1991 alone). Wind farms are compatible with farming, ranching, and other low-intensity land uses. When they are removed from the land, they leave only superficial, easy-to-heal marks. Recently, we have been concerned about evidence that wind turbines are causing deaths of avian raptors in Altamont Pass. However, cooperative studies by industry and people from the State of California are indicating that this may be a largely avoidable, site-specific problem.

The foregoing is not to say that wind energy does not have problems (real or perceived) in the areas you discussed in the interview. However, we are convinced that these problems are solvable, given a positive policy environment that views the energy source in a fair and realistic manner. For a while, renewables like wind energy may be "niche" energy sources in isolation, but taken together they can have a real impact. In the near future, our analysts think that wind energy can be attractive to utilities in most areas of the U.S. If they're right, wind plants can help eliminate the negative effects that CO₂ reduction may have on the Western economies.

We would be more than happy to discuss these issues with you in more detail or to provide additional information on wind energy and other renewables. We would be most happy to provide a personal briefing if your travels take you close to NREL.

Very truly yours,



Duane N. Sunderman
Director

cc R. Stokes
 R. Thresher
 D. Dodge
 M. Davis
 P. Kearns
 J. McKelvey

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

T
11/30
NLS
10/16
11/10
11/10

August 4, 1992

MEMORANDUM FOR D. ALLAN BROMLEY

FROM: KARL A. ERB *KAE*

SUBJ: WIND ENERGY

I think it would be interesting for both of us to have a briefing from Mr. Sunderman on renewable energy sources, particularly on wind energy.

If you agree, perhaps Ralph could call Mr. Sunderman in response to the attached incoming letter to arrange such a briefing.

Attachment

*OK. But I think that
at least I will remain a niche source!*

815
Ralph —
Please schedule
at Dr. Bromley's
convenience. I will
attend. Dan Pryor
also should attend — if
he's here — and Lee
Schroeder too — Karl

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

T
8/10

August 4, 1992

MEMORANDUM FOR D. ALLAN BROMLEY

FROM: KARL A. ERB 

SUBJ: WIND ENERGY

I think it would be interesting for both of us to have a briefing from Mr. Sunderman on renewable energy sources, particularly on wind energy.

If you agree, perhaps Ralph could call Mr. Sunderman in response to the attached incoming letter to arrange such a briefing.

Attachment

"Document Control"

TYPE: ACTION
ORIGINATOR: 02

DOCUMENT NUMBER: 9202581
DIRECTORATE STATUS

STATUS I

FROM: KAWACHI, Kiyomitsu: NATIONAL INSTITUTE OF RADIOLOGICAL SCIENCES

TO: DR. D.A. BROMLEY

JUL 30 1992

DATE OF
CORRESPONDENCE: 07/20/92

SUBJECT: HE IS WRITING REGARDING THE SHUTDOWN OF THE BEVALAC
OPERATION.

DIRECTORATE

ASSIGNED: PHYSICAL SCIENCES

STAFF

ASSIGNED:

ACTION

REQUIRED: DIRECT REPLY

STAFF

ACTION:

SENDER'S DUE DATE:

OSTP DUE DATE: 08/07/92

STAFF DUE DATE

DATE COMPLETED:

DATE COMPLETED/DEPT: 8/31/92

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #:

CONTACT PERSON:

PHONE:

EXT:

REMARKS:

Dr. Ent. regarded.

OSTP RECEIVED: 07/27/92

DEPT RECEIVED:

FILE: P-PHYSICAL SCIENCES

CENTRAL FILES:

Joe

NATIONAL INSTITUTE OF RADIOLOGICAL SCIENCES
Division of Accelerator Research

9-1, Anagawa 4-chome, Inage-ku, Chiba-shi 263, Japan

Dr. Allan Bromley
Assistant to the President for Science and Technology, and
Director, Office of Science and Technology Policy
Room 360, Old Executive Office Building
17th & Pennsylvania Avenue, NW
Washington, DC 20500
U. S. A.

MAIL ROOM

JUL 20 11:28

RECEIVED

July 20, 1992

Dear Dr. Bromley:

I am writing this letter to entreat you to reconsider the decision of the shutdown of BEVALAC operation. It is deplorable that US DOE has decided to shutdown the BEVALAC in next January. The BEVALAC is not only used for nuclear science research, it is also a very important facility for clinical trials of heavy ion cancer therapy. The decision of the shutdown of the BEVALAC will be a great disappointment for all the patients for whom this therapy is the best hope of cure.

The BEVALAC, which was formerly used as Bevatron, may have finished to perform its function as a nuclear science research, but it still plays an important role in the clinical trials of cancer therapy. The use of heavy ions, as compared to conventional radiation techniques, has several significant advantages in the cancer treatment. The heavy particles are expected to be very effective in treating radiation resistant tumors, due to their high biological effectiveness. They are also expected to reduce the radiation complications and hazards, due to their excellent physical dose localization, compared to conventional radiation therapy. Therefore, here in Japan, the Heavy Ion Medical Accelerator in Chiba (HIMAC) is now under construction. This construction is based on the health and welfare policy, "Comprehensive 10 years strategy for cancer control", of the Japanese government.

The research works about medical application of heavy ions, and the clinical trials, are very important. We have designed the devices of the HIMAC irradiation system, such as multileaf collimator for shaping an irradiation field to treat a patient, based on the experimental result using the heavy ion beams from the BEVALAC. At this moment, the BEVALAC is the only machine in the world which can provide the heavy ion beams needed for medical use. I am very worried about your untimely decision, and I would strongly ask you that US DOE will reevaluate the shutdown of the BEVALAC operation.

Sincerely yours,

河内清光

Kiyomitsu Kawachi, Ph.D.
Head of Heavy Ion Medical Physics
Fax No. : Int.+81-43-287-0417

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

August 31, 1992

Dear Dr. Kawachi:

I am writing in response to your letter to Dr. Bromley concerning plans by the Department of Energy to terminate BEVALAC operations.

The main consideration is that the nuclear physics research program, which provides most of the funding to operate the BEVALAC, is increasingly turning its attention to other facilities. With the declining nuclear physics interest, the Department has been assessing whether the other users of the BEVALAC find the facility sufficiently important to their activities to contribute funds from their programs for its operation. To date, no other science community expressed that degree of interest, which led to DOE's decision to phase out this facility.

If the situation changes and funds from medical or other programs become available to support the BEVALAC, the DOE will reevaluate its plans to close the facility. Thank you for your letter and the information it contains.

Sincerely,



Karl A. Erb

Associate Director for
Physical Sciences and Engineering

Dr. Kiyomitsu Kawachi
Head of Heavy Ion Medical Physics
National Institute of Radiological Sciences
9-1, Anagawa 4-chome
Inage-ku, Chiba-shi 263
JAPAN

TYPE: ACTION DOCUMENT NUMBER: 9202572
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: BLATTMANN, H., MUNKEL, G. and PEDRONI, E.: PAUL SCHERRER
INSTITUTE

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 07/14/92

SUBJECT: THEY ARE WRITING TO ASK DR. BROMLEY TO DO WHAT HE
CAN TO PREVENT THE CLOSING OF THE BEVALAC IN BERKLEY
CALIFORNIA.

DIRECTORATE STAFF
ASSIGNED: INTERNATIONAL/POLICY ASSIGNED:

ACTION STAFF
REQUIRED: AS NECESSARY ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: 08/07/92 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley
PHYSICAL SCIENCES → Dr Ratchford
LIFE SCIENCES

WHITE HOUSE TRACKING #: CONTACT PERSON:
REMARKS: PHONE: EXT:

Tom,
Let me know if you need info on the
Bevalac funding issue - I've spent some time on it over
the last 2 years. (D.A. Henderson can address the
medical issues better than I, though.)
OSTP RECEIVED: 07/24/92 DEPT RECEIVED:
FILE: INTERNATIONAL
CENTRAL FILES:

Karl
7/30



RECEIVED

92 JUL 24 11 06

PAUL SCHERRER INSTITUT

Würenlingen and Villigen
CH-5232 Villigen PSI
Switzerland

MAIL ROOM

Telephone Exchange 056 / 99 21 11
Direct 056 / 99 35 24
Telefax Central 056 / 98 23 27
Local 056 / 99 32 94
E-mail: bitnet:Blattmann@CAGEIR5A

Dr. Allan Bromley
Assistant to the Pres. for Science & Technol.
Director, Office of Science &
Technology Policy
Room 360, Old Executive Office Building
17th & Pennsylvania Avenue, NW
WASHINGTON, DC 20500
USA

Your ref.

Our ref.

Würenlingen/Villigen, July 14, 1992

Dear Doctor Bromley:

we have been informed that the BEVALAC in Berkeley, CA, may be shut down in January 1993 and that this would be the end of the heavy ion biomedical program. At the Paul Scherrer Institute in Switzerland we are working since many years at a related program using pions for large deep seated tumors and protons for ocular melanoma, and now developing protons for conformal radiotherapy. We can therefore appreciate the enormous scientific contribution of Berkeley in developing techniques and treatment of patients in this field.

Heavy charged particles are predestinated for a precision radiotherapy and Berkeley has pioneered this field since many years. The BEVALAC is at the present time the only accelerator with a running therapy program and the group of Dr. Castro and Dr. Chu is on the verge of an important step in further improving this therapy by applying the raster scanning for conformal treatment. While Japan is investing enormous amounts of money to start a corresponding facility, Berkeley has all the application techniques, the treatment planning and patient preparation procedures already developed. Furthermore, at a time when it is crucial to increase the acceptance of the large accelerators for physics, it is certainly of utmost importance to continue one of the few outstanding programs which demonstrate how directly basic research can be used to the benefit of human beings.

The fact that today photon therapy is trying hard too, to develop a true target-volume-conform treatment is a clear indication that dose reduction to surrounding normal tissues is considered more and more a clue to increase uncomplicated control in tumor therapy. The obvious choice for such a therapy are heavy charged particles, they are expected to contribute substantially in the future to routine therapy. Several centers are exploiting protons but except Chiba in Japan no other facility

will offer light ion radiotherapy in the next years. This is of great scientific interest to evaluate the importance of densely ionizing particles for the treatment of radioresistant tumors, as well as to offer a significant number of patients a superior treatment. It would be a shame and a great loss for the charged particle therapy community, if now Berkeley with its outstanding experience and its unparalleled technical possibilities would not be able to continue.

We would sincerely hope that you would find a way to let this valuable program continue to run.

Yours sincerely,

PAUL SCHERRER INSTITUTE
Division of Radiation Medicine



Dr. H. Blattmann, PhD



Dr. G. Munkel, MD

Dr. E. Pedroni, PhD



AUG 3 1992

"Document Control"

TYPE: ACTION DOCUMENT NUMBER: 9202572
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: BLATTMANN, H., MUNKEL, G. and PEDRONI, E.: PAUL SCHERRER
INSTITUTE

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 07/14/92

SUBJECT: THEY ARE WRITING TO ASK DR. BROMLEY TO DO WHAT HE
CAN TO PREVENT THE CLOSING OF THE BEVALAC IN BERKLEY
CALIFORNIA.

DIRECTORATE STAFF
ASSIGNED: PHYSICAL SCIENCES ASSIGNED:

ACTION STAFF
REQUIRED: AS NECESSARY ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: 08/07/92 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT: 8/31/92

COPIES TO: D. Allan Bromley
LIFE SCIENCES

WHITE HOUSE TRACKING #: CONTACT PERSON:
PHONE: EXT:
REMARKS: REASSIGNED TO PHYSICAL SCIENCES 7/31/92 PER INTERNATIONAL. -

Dr. Eib reported.

OSTP RECEIVED: 07/24/92
FILE: PHYSICAL SCIENCES

DEPT RECEIVED:

CENTRAL FILES:

Doc



PAUL SCHERRER INSTITUT

92 JUL 24 AM 10 06

Würenlingen and Villigen
CH-5232 Villigen PSI
Switzerland

Telephone Exchange 056 / 99 21 11
Direct 056 / 99 35 24
Telefax Central 056 / 98 23 27
Local 056 / 99 32 94
E-mail: bitnet:Blattmann@CAGEIR5A

MAIL ROOM

Dr. Allan Bromley
Assistant to the Pres. for Science & Technol.
Director, Office of Science &
Technology Policy
Room 360, Old Executive Office Building
17th & Pennsylvania Avenue, NW
WASHINGTON, DC 20500
USA

Your ref.

Our ref.

Würenlingen/Villigen, July 14, 1992

Dear Doctor Bromley:

we have been informed that the BEVALAC in Berkeley, CA, may be shut down in January 1993 and that this would be the end of the heavy ion biomedical program. At the Paul Scherrer Institute in Switzerland we are working since many years at a related program using pions for large deep seated tumors and protons for ocular melanoma, and now developing protons for conformal radiotherapy. We can therefore appreciate the enormous scientific contribution of Berkeley in developing techniques and treatment of patients in this field.

Heavy charged particles are predestinated for a precision radiotherapy and Berkeley has pioneered this field since many years. The BEVALAC is at the present time the only accelerator with a running therapy program and the group of Dr. Castro and Dr. Chu is on the verge of an important step in further improving this therapy by applying the raster scanning for conformal treatment. While Japan is investing enormous amounts of money to start a corresponding facility, Berkeley has all the application techniques, the treatment planning and patient preparation procedures already developed. Furthermore, at a time when it is crucial to increase the acceptance of the large accelerators for physics, it is certainly of utmost importance to continue one of the few outstanding programs which demonstrate how directly basic research can be used to the benefit of human beings.

The fact that today photon therapy is trying hard too, to develop a true target-volume-conform treatment is a clear indication that dose reduction to surrounding normal tissues is considered more and more a clue to increase uncomplicated control in tumor therapy. The obvious choice for such a therapy are heavy charged particles, they are expected to contribute substantially in the future to routine therapy. Several centers are exploiting protons but except Chiba in Japan no other facility

will offer light ion radiotherapy in the next years. This is of great scientific interest to evaluate the importance of densely ionizing particles for the treatment of radioresistant tumors, as well as to offer a significant number of patients a superior treatment. It would be a shame and a great loss for the charged particle therapy community, if now Berkeley with its outstanding experience and its unparalleled technical possibilities would not be able to continue.

We would sincerely hope that you would find a way to let this valuable program continue to run.

Yours sincerely,

PAUL SCHERRER INSTITUTE
Division of Radiation Medicine



Dr. H. Blattmann. PhD



Dr. G. Munkel, MD

Dr. E. Pedroni, PhD



EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

August 31, 1992

Gentlemen:

I am writing in response to your letter to Dr. Bromley concerning plans by the Department of Energy to terminate BEVALAC operations. I was pleased to read your account of the contributions the BEVALAC has made in this area.

The main consideration is that the nuclear physics research program, which provides most of the funding to operate the BEVALAC, is increasingly turning its attention to other facilities. With the declining nuclear physics interest, the Department has been assessing whether the other users of the BEVALAC find the facility sufficiently important to their activities to contribute funds from their programs for its operation. To date, no other science community expressed that degree of interest, which led to DOE's decision to phase out this facility.

If the situation changes and funds from medical or other programs become available to support the BEVALAC, the DOE will reevaluate its plans to close the facility. Thank you for your letter and the information it contains.

Sincerely,



Karl A. Erb
Associate Director for
Physical Sciences and Engineering

Dr. H. Blattmann
Dr. G. Munkel
Dr. E. Pedroni
Paul Scherrer Institute
Division of Radiation Medicine
Wurenlingen and Villigen
CH-5232 Villigen PSI
SWITZERLAND

"Document Control"

TYPE: ACTION DOCUMENT NUMBER: 9202518
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: CANNON, Ralph S.

TO: DR. D.A. BROMLEY

JUL 21 1992

DATE OF
CORRESPONDENCE: 07/06/92

SUBJECT: HE IS WRITING THE USE OF FOSSIL FUELS IN THE U.S.
AND HIS PLAN FOR USING NATURAL GAS.

DIRECTORATE STAFF
ASSIGNED: PHYSICAL SCIENCES ASSIGNED: *Don Pryor* 8/3/92

ACTION STAFF
REQUIRED: DIRECT REPLY, *if appropriate* ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: 08/04/92 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT: *9/18/92*

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #: CONTACT PERSON:
PHONE: EXT:
REMARKS: *Dr. Ent responded.*

OSTP RECEIVED: 07/21/92 DEPT RECEIVED:
FILE: P-PHYSICAL SCIENCES-ENERGY

CENTRAL FILES:

Dr. Allan Bromley
Office of Science & Technology Policy
Washington, DC 20506

July 6, 1992

Dear Allan Bromley: I want to share with you this conviction:

WE SHOULD BE FUELING ALL OUR CARS, TRUCKS & BUSES WITH NORTH AMERICAN NATURAL GAS
INSTEAD OF DIRTY GASOLINE & DIESEL OIL MADE FROM CRUDE OIL IMPORTED FROM OVERSEAS!

A trifling notion? No! Neglected? Yes! I've been a mineral industries professional for more than 60 years, and an amateur environmentalist longer than that. Therefore I'm prejudiced on both sides of the fence. And I am keenly aware that this conversion that is slowly starting to happen to our highway transport, is unique - unique because it is beneficial both to the economy and to the environment! Beneficial to cleaning up our polluted air, soil & groundwater. Beneficial to our ailing balance of trade! Beneficial to our national energy security! Beneficial to the industrial economy - a jump-start on the long road back to making USA once again an industrial producing nation! Beneficial to pocketbooks of individual users of the highways! And beneficial to the jobless who will prosper from the creation of millions of new jobs!

What has this country been waiting for? Why didn't we start to make this transition when OPEC lowered the boom on us in 1973? This conversion fits right in with the National Energy Strategy which President Bush & Secretary of Energy Adm. James Watkins announced February 20, 1991. How could we miss this God-given chance to lead the world at Rio with a vow to revamp our transportation regimen with this conversion which will dramatically reduce carbon dioxide and other pollutant emissions?

The benefits of converting from dirty fuels made from crude oil bought overseas to much cleaner natural gas from wells here in North America came to my attention about 10 months ago. Learning more continues to fire my interest. At last I've been able to learn that industry has been inching toward this transition - very slowly - since about 1989. By year 2020 industry will have us fueling our vehicles with compressed natural gas (CNG). Too late - 20 years too late! We need to convert now to CNG, just as rapidly as we can, but only as a temporary stopgap until cleaner fuels for our cars can be provided cheaper. Younger folks will be smart enough to make even cleaner transportation fueling feasible and available by 2020!

What is the agenda of the major auto makers for the next 10 years? To this outsider it appears they are preparing the public for exotic electric sports cars. Yet I learn they are very quietly manufacturing & selling a few natural gas vehicles (NGVs) to be used as workhorses for duty in urban commercial fleets. Cart before the horse! We do not yet have the clean electricity to recharge batteries of electric cars. But we do have relatively clean natural gas figuratively flaring out of our ears!

The average citizen is not being alerted that he is going to have to convert or trade his gasoline wheels for an NGV. My goal is to try to find ways to get the word out to the people. One way: inform and convince the youth of this country - they will take care of reeducating their parents! But how to funnel this knowledge to millions of school kids K-12? Here in gas-poor North Carolina, Piedmont Natural Gas has just announced their plan to help Charlotte convert their fleet of school buses to NGVs. When all school buses nationwide run on natural gas, kids will be asking why we don't fuel all cars & trucks with CNG!

How to encourage the administration to give priority to this matter? I mentioned this issue in a letter to President Bush addressed to The White House Jan. 29. Since then, I've been able to learn a lot. Now I'm ready to go public, and I hope to spread our message wherever it may be heard. Enclosed are two alternative 'press releases' with a 'cover sheet'.

Ralph S Cannon
Retired Economic Geologist
309 Sunrise Ridge Drive
Spruce Pine, NC 28777
704/765-7513

Most sincerely,



A few years back The White House rewrote energy history in a single day. On his first day in office President Reagan abolished wellhead price controls on domestically produced crude oil and terminated the 'Carter energy crisis'. Now once again The White House has the opportunity to rewrite energy history.

Memo: TO ALL

June 1, 1992

Whom It Concerns!

"PUBLIC PERCEPTION DRIVES THE MARKET FOR MOTOR FUELS."
That sentence jumped out at me from a recent trade journal. Nine months ago my perception of motor fuels - and yours? - was 'gasoline & diesel'. Except for some publicity about the hope to clean up Los Angeles smog with electric cars - some day. Then I began to learn that compressed natural gas (CNG) and propane (LPG) are alternative motor fuels that are superior to gasoline and diesel. My continuing education reveals that lots of lobbying goes on at both federal and state levels to educate government officials about the need to convert our transportation system to using CNG or LPG to fuel our vehicles. Yet I fail to detect evidence that this information is trickling down to drivers on the streets and highways. As a test, I tried it out on a successful automobile dealer. No glimmer of perception there.

We must recognize the chicken & egg syndrome. You can't afford to build the new cars until there is a ready supply of fuel. And you can't afford to build the new fueling stations until there are vehicles to use the fuel. We also must understand that the practical place to start is for industry and government to convert their fleets of vehicles used in compact areas. But it's going to take a lot of learning before the average guy is eager to give up his gasoline-fueled wheels. Or the truck driver his diesel rig.

Yet public perception is what drives the market! When enough people learn why they need to be driving CNG or LPG-fueled wheels, then lots of people will be clamoring for the new cars & fueling stations. Until then, we the people are the squeaky wheels that aren't getting the grease!

Sent with ² samples of the sort of messages waiting to be broadcast nationwide.

anonymous

a retiring economic geologist

Add this thought. CNG as transportation fuel will demand near-level prices nationwide. Pipeline prices today appear to vary, by factors of 2 or more, with distance from gas-field sources. Here in North Carolina we could use gas wells of our own. And we'll need miles of new pipelines, into every county, as recommended by Gov. Jim Martin. NC has two unexplored prospects for natural gas resources: our continental shelf, and a postulated target deep beneath our western NC mountains. I am told authorization for deep test wells has been blocked. If we do have a major undiscovered gas resource in either of these environments, we need to know about it now - not 50 years hence!

rsc

GET GOING AMERICA!
HIGHWAY FUEL FOR THE 1990'S

The oil we buy from overseas is bankrupting our economy and polluting our air, land & groundwater. An alternative resource is at hand right here in America that can benefit our economy and our environment. Our abundant domestic reserves of natural gas! More than 750,000 cars, trucks & buses run on natural gas on highways worldwide -- only 30,000 of these run on our roads in USA. This nation has an opportunity for a major revolution in transportation. Right now. Probably the most important change in surface transportation since Henry Ford started to mass produce his Model T.

We need to fuel our cars, and all other machinery driven by combustion engines, with compressed natural gas (CNG) instead of gasoline and diesel fuels made from imported crude oil. A transition is starting now. Some urban fleets are already being converted to CNG. But it's going to take lots more Research & Development! CNG will greatly diminish emissions contributing smog, acid rain & global warming! Existing autos can be modified by adding new high-pressure fuel tanks & carburetion. Meanwhile get on with inventing, designing & producing more innovative CNG vehicles! High octane fuel = high compression ratios = high efficiency! Develop a brand new refueling infrastructure! Just when we learn that many older underground gasoline storage tanks are leaking and contaminating our precious groundwater! Jump-start our sluggish economy!

These days the USA spends \$60 billion or more a year for foreign oil. We make our trade imbalance worse by \$60 billion, and rob our domestic economy of \$24 billion that we should have paid domestic producers to buy natural gas and enhance our GDP. The negative impact on our economy adds up to more than \$84 billion a year. How long are we going to shortchange our kids, grandchildren and great grandchildren?

And how would the individual driver on our highways - you and I - fare if we fuel our cars with CNG? We'd expect to get nearly twice as many miles to the dollar! We might have to get an oil change after 50,000 miles! And a new engine after 500,000 miles! And based on European experience with CNG, we might travel the highways (and the race tracks) with greater safety. Let's do it!

Pipelines are the arteries that distribute our domestically produced natural gas. The pipeline network and matching production facilities are the bottlenecks that impede increased utilization. We need to enlarge these distribution systems to funnel more natural gas from gas fields or other sources to energy-hungry sites. Many more electric power plants can be converted from burning dirty oil or coal to cheaper & cleaner natural gas. Development of electric automobiles needs a helpful boost. Cheaper electric power from non-polluting power stations can fuel emission-free electric autos. A branching pipeline network can be developed to feed natural gas directly to stations that refuel CNG vehicles. Maybe a lot of obsolete service stations will be revived.

A statement attributed to oilman George Bush pointed out the way to go:
"Because domestic natural gas is abundant and significantly less expensive than oil on an energy-equivalent basis, its increased use could boost the gross national product, reduce oil imports, and improve the Nation's trade balance."

- President George Bush, February 1991 -

Let's add one more sentence:

'Therefore we should immediately implement a program to convert our highway vehicles to run on CNG instead of gasoline and diesel fuels'.

Such a program contributes immeasurably to national economic & environmental welfare and to national energy security - the three principal goals of the National Energy Strategy which President Bush and Secretary of Energy Admiral James Watkins announced on February 20, 1991. If it gets done without delay, everybody wins!

GET GOING AMERICA - THE BEST HIGHWAY FUEL - NATURAL GAS

This nation has a unique opportunity to launch a major revolution in transportation - NOW! Probably the most important change in surface transportation since Henry Ford started to mass produce his Model T. A change we should have welcomed at the time of the OPEC oil embargo in 1973!

All cars, trucks, and buses, as well as tractors and off-highway heavy equipment, should be fueled with compressed natural gas (CNG)! Electric-power generating facilities should be converted from oil or coal to natural gas! Let natural gas take the place of gasoline and diesel fuels made from imported crude oil! The transition demands accelerated Research & Development! It will greatly diminish industrial and vehicular contributions to smog, acid rain and global warming! Modify existing autos to run on CNG instead of gasoline by adding new high-pressure fuel tank and carburetion. Then we can get on with the job of inventing, designing, and producing more innovative CNG vehicles! And developing a radically new refueling infrastructure! Just at a time when our 30-50 year-old service stations must dig up their leaking underground storage tanks that are contaminating our precious groundwater! Can you think of a more appropriate way to jump-start our stalled economy? Let's do it! We can't afford to underrate the power of public opinion! And we can't afford delay!

We need to enlarge the pipeline distribution system throughout the country to distribute more natural gas from gas-field sources. We need to convert polluting oil-fed power stations into cleaner natural-gas power plants. Cheaper power! The development of electric automobiles already underway needs a helpful technological boost. Cheaper electric power from cleaner natural-gas power stations can fuel totally clean electric cars. And we need to develop a branched distribution network of natural gas to feed CNG-powered transportation vehicles, comparable to yesterday's gasoline service stations.

Has enough Research & Development already been done to get the ball rolling? Indeed yes! Some government fleets and industrial fleets are already being converted to CNG; for example United Parcel Service and Coca Cola. But an industrial revolution of such magnitude will require much, much more Research & Development. This is perhaps where government must help by sponsoring aggressive research to reduce atmospheric emissions and oil consumption. In a recent article Engineer Enoch Durbin proposes that an agency named TERRA be set up to sponsor and oversee research applied to reducing oil consumption and atmospheric emissions.

An important statement attributed to President George Bush pointed out the way we should go: "Because domestic natural gas is abundant and significantly less expensive than oil on an energy-equivalent basis, its increased use could boost the gross national product, reduce oil imports, and improve the Nation's trade balance." - February 1991.

A challenging statement indeed. But it stops short of getting down to the real nitty gritty. A next sentence might add: "Therefore we should immediately begin a program to convert our highway vehicles to run on CNG instead of gasoline and diesel fuels". For nearly a year I have been waiting for this other shoe to drop! Too few US citizens have even heard of using compressed natural gas to fuel our highway vehicles instead of the polluting gasoline and diesel fuels which account for about 2/3 of the crude oil we now consume. Is this some kind of 'trade secret'?

Every time we shell out 165 million hard bucks to buy about 8 million barrels of crude oil from overseas to make gasoline and diesel fuel, just for example, we increase our trade deficit by that amount. That's going to be tough on our kids, and generations to come. But that's only part of the financial handicap we are inflicting on our national economy. Instead of buying oil from overseas we should have been pumping 65 million dollars into our economy, buying 60 billion cubic feet of energy-equivalent natural gas produced in the US. So the negative impact on our US economy

adds up to 230 million dollars at the start, with a lot more additional dollars in related fallout.

But that is just a fraction of what we are really wasting. That is roughly what we are doing each day of the year. So we are actually spending about 60 billion dollars a year for foreign oil, worsening our trade imbalance by that amount, and robbing our domestic economy of 24 billion dollars that we should have paid domestic producers for energy equivalent natural gas. The negative impact on our economy adds up to more than 84 billion dollars per year. How long can this nation afford to shortchange itself like this?

How would the individual driver on our highways - you and I - fare if we were fueling our cars with compressed natural gas? We'd get nearly twice as many miles to the dollar. We might need an oil change after 50,000 miles, new spark plugs at 75,000, and a new engine after more than 500,000 miles. And based on European experience with CNG, we might travel the highways in greater safety. In time, some inventor will figure out a safe way to refuel a car right at our own garage from our own residential gas service. An added incentive to convert our home heating from oil to gas!

What effect would all this have on the global environment? CNG-fueled highway vehicles would help us reach the goals of the Clean Air Act by reducing atmospheric pollution: no sulfur dioxide emissions, far less nitrogen oxides, 99% less carbon monoxide, 18-30% less carbon dioxide, no particulate hydrocarbons and far less ozone-forming hydrocarbons. The rate of global warming could be slowed by 50% or so, allowing time needed to devise an even better way of fueling our vehicles. We would also gradually phase out the pollution of our groundwater by gasoline and diesel oil leaking from underground storage tanks.

If these paragraphs are not a wild pipedream, how come we haven't been hearing that CNG vehicles have been used successfully in Italy for more than 40 years. We cannot count on government to lead the way. And any great industry by its inertia likewise tends to resist change. If an industry is reaping profits, who wants change? If a once-great industry is losing money on a grand scale, who has the guts or the capital to try a radically new approach? The auto and oil industries are dominated by industrial giants, even though they may not be as profitable as they once were. Innovations are usually introduced by entrepreneurs. Where are our US innovators today? More than 750,000 natural gas vehicles operate on highways worldwide. Only about 30,000 of these cars, trucks, and buses run on roads in the US. Nevermind, if we wait long enough, the Japanese will solve the problem for us. They don't have our advantage of vast domestic resources of natural gas. But the Japanese must have some use in mind for the CNG they are already shipping home from the Middle East.

I have never been an industrialist, entrepreneur, politician, lobbyist, financier, PR person, or investigative reporter for the media. But recently I happened to read several wholly independent eye-opening documents on this topic. One is an article comparing the merits and disadvantages of the available alternative transportation fuels by Engineer Enoch J. Durbin. Others gave me additional facts used in this script and let me know that there already is an active Natural Gas Vehicle Coalition. These inconspicuous publications bothered me that I could be so ignorant this late in the Twentieth Century. And I was troubled to think that probably many of my fellow citizens likewise had not previously discovered this important information. I am angry. I need to share this information and anger with you. Demand this solution of our growing problems now! Everyone will win!

May 1992

A Concerned Citizen,
now better informed,
at last!

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

September 18, 1992

Dear Mr. Cannon:

I am writing in response to your letter of July 6 to Dr. Bromley. Please accept my apology for our late response.

As you correctly note, the President's National Energy Strategy calls for R&D on alternative transportation fuels, including natural gas. In fact, the Department of Transportation has funded the purchase of approximately 800 alternative fuel bases since 1988, which are now being operated by more than 50 local transit authorities. These bases operate on compressed natural gas, methanol and other clean-burning fuels. The Department also has provided \$900,000 for alternative-fuel data collection activities. And in 1991, the Department of Energy established an Alternative Fuels Data Center at its National Renewable Energy Laboratory.

I am sure the Departments of Energy and Transportation would be happy to provide you with additional information on these activities. Our office appreciates your interest in this subject and your suggestion that the public should be better informed of the potential benefits of alternative fuels.

Sincerely,



Karl A. Erb
Associate Director
for Physical Sciences and Engineering

Mr. Ralph S. Cannon
309 Sunrise Ridge Drive
Spruce Pine, NC 28777

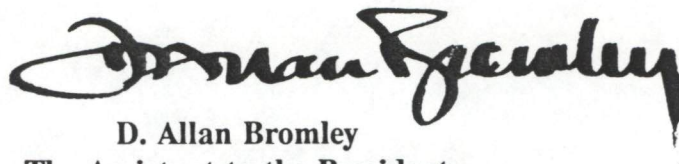
THE WHITE HOUSE
WASHINGTON

April 21, 1992

Dear Mr. Madison:

Thank you for your letter to President Bush concerning your firm's evaluation of shortcomings in the efficacy of gasoline vapor recovery systems.

Sincerely yours,

A handwritten signature in black ink, appearing to read "D. Allan Bromley". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

D. Allan Bromley
The Assistant to the President
for
Science and Technology

Mr. Kevin Madison
P.O. Box 339
Ridgewood, NJ 07451

STAFFING SHEET

EXTERNAL COORDINATION:

ACTION REQUESTED:

[illegible]

16/ GSTP
P.O. Box 339
Ridgewood, NJ 07451



RECEIVED

92 APR 14 A10 21
1-800-322-0106
Phone: 201-444-3013
Fax: 201-612-0326

GSTP
MAIL ROOM

March 27, 1992

President George Bush
President of the United States
The White House
Washington, DC 20500

Dear Mr. President,

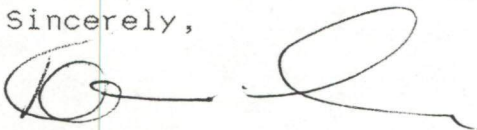
After hearing your speech recently, several of our customers suggested that I write to you in reference to the vapor recovery system that is now in use in the United States.

I have enclosed for your review letters I have written to various government agencies and public groups. I have also enclosed my original statement on the disadvantages of vapor recovery.

I hope this information will make you aware of the seriousness of this situation.

Thank you for your time and consideration.

Sincerely,



Kevin Madison

KM:sbc

Enclosures

THE DISADVANTAGES OF VAPOR RECOVERY

December 15, 1991

The introduction of vapor recovery was to immediately reduce the escape of gasoline vapors into the atmosphere. However, its initial goal has had the reverse effect, causing more gas spills. This has happened more so in the past two years than in the previous five years with the old system.

The design of vapor recovery used in California and the present coax system, is not a thought out system which makes it improper for fueling automobiles.

The new coax design was to help improve usability by being lightweight. But these hoses being so thin, more often than not will rip or tear unknown to the attendant, allowing gasoline and vapors to escape. Regardless of the manufacturer, the skins of the coax vapor recovery hoses were originally designed as vacuum cleaner hoses.

Violations to the vapor recovery system of hoses and nozzles cannot always be seen, even by trained eyes and even with daily inspections. Usually, damage is noticed only after large amounts of gasoline have been spilled. Because of the poor design of the hose and its components, unsafe amounts of gasoline can be contained within the vapor hose due to the easy breakdown of the fuel line hose.

Many hoses are not replaced when they should be because there is no evidence to the naked eye that damage has occurred. Also, the expense to hire a trained technician to dismantle and check the hoses can be financially draining as well resulting in hoses being allowed to dispense fuel in an unsafe condition.

For some unknown reason the normal life expectancy of a coax hose, which has been quoted recently by Dayco, as of 1988-89 is approximately two years. Just recently within the past year of 1991 Thunder Nozzles, Inc. has determined that this estimate is diminishing to less than one year. Our findings have confirmed this with repeated on hands inspections, by our own technicians. The frightening part is that this condition has gone unchecked since the later part of 1989 leading us to believe that the problems of massive leaking of gasoline was really deteriorating hoses. For all practical purposes, any coax hose older than this is unsafe to dispense fuel. For whatever the cause of this hose problem, because of the design of coax hosing, prolific amounts of gasoline have splashed on unexpecting attendants and customers with a hazardous future to people and the environment.

@copyright, 1991 Thunder Nozzles, Inc.

Disadvantages of Vapor Recovery

December 15, 1991

Page 2

Due to the small size of the fuel line and the manner in which the manufacturer has designed the connections, this type of connection that must be made for coax hose dispensing and vapor recovery, it is possible that the grounding connections at any point from the pump to the nozzle will not make contact. No ground at the nozzles/hose and gas tank will cause an explosion while dispensing fuel into a car or container such as anyone checking for calibration in a 5 gallon test can. This design of the "coax hose connections" render the ground wire unable to achieve consistent connection due to the "O" rings that must seal off the fuel line from the vapor recovery.

The previously used non vapor 3/4" single or double braid hoses were much heavier and bulkier therefore safer. Any leaks, breaks, or cracks in the fuel line could be observed almost immediately. This stronger hose has a life expectancy of approximately five to seven years under all conditions.

As of December, 1990 a random survey of Daco hoses revealed no ground in as little as twenty percent (20%) to as high as fifty percent (50%) per station. As of December, 1991 using the same equipment, these figures have increased to a minimum of fifty percent (50%) to as high as eighty percent (80%) per station. (See attached survey).

NOZZLES:

Due to their design by manufacturers the vapor recovery nozzles inhibit instant observance of damage to the nozzle or spout.

The original nozzles were troublesome enough and now with the introduction of vapor recovery, the nozzle is not allowed to dispense fuel unless the bellow or boot is firmly fit to the gas tank fill pipe. This function is necessary for vapor recovery as it is designed in theory, yet its design all but complicates and creates malfunctions, resulting in gas spills and leaks.

Therefore...coax vapor recovery sometimes does the following:

Due to the confinement of the system and its process in recovering vapors, a device is installed in the nozzle which detects backpressure going back into the ground tanks. This device protects the gas tank from being ruptured in the event that a vapor return line is blocked, for example, a valve stuck or the vapor return line full

Disadvantages of Vapor Recovery

December 15, 1991

Page 3

of gasoline. Because of its design, this sensor has failed and possibly could not function on a greater scale with age which may result in ruptured or damaged car tanks. Vehicles could be driving away with this damage and spilling gasoline on the highways, unknown to the dealer or driver. Currently, there is no safety check for this device, nor could there be!

The vapor recovery bellow or boot covers over the spout connection. This inhibits the dealer or service technician to visibly or quickly identify a broken or cracked spout. If this is the case, the spout on the nozzle will still function and shut off when the tank is full, but will allow gasoline to flood the vapor return hose. If then on the following dispensing, the sensor for blockage proves defective, this will cause a rupture to the gas tank within 30 seconds. If the sensor is working correctly, it will cause the nozzle to click off. This problem can be bypassed by releasing the bellow from the edge of the fill pipe, which in turn will release the pressure. This defeats the whole purpose of vapor recovery.

Usually when a problem like this occurs, the station attendant will insert a rag between the bellow and the fill pipe so that gas can be pumped without interruption. This practice causes vapors to be released into the atmosphere instead of being returned to the underground tank. This is a very common occurrence!

Because the fuel line is covered, it may rupture and cause leaking into the vapor return line, which will cause the nozzle to turn off. Therefore, vapors will escape into the atmosphere because attendants will find other ways to get the equipment to work so he may complete the sale.

On multi-product dispensers, a venturi is installed in the fuel hose approximately 29 to 35 inches from the nozzle. This device removes any gasoline that could possibly block the vapor return and puts it back into the fuel line. Due to its design, this function sometimes fails. And furthermore, any defect or malfunction with the venturi will also cause the vapor return line to fill up with gas. On the Emco Wheaton System, there is a separate valve that is installed at the point where the hose connects to the pump. This valve keeps the vapors in the system when fuel is not being dispensed. This valve opens the vapor system when fuel is being pumped. It is this external valve separate from the nozzle that corrodes and jams in the closed or open position, leaving vapors to be released or blocked depending on several conditions.

Some vapor recovery nozzles have valves built into them and others do not. It is this ability to mix and match same-threaded nozzles on different systems that causes dangerous vapors to escape from the bellows when they are not in use and just sitting on the pump. This is very dangerous because an unsuspecting motorist receiving fuel at another pump can be exposed to the vapors being released from another nozzle. If the motorist is smoking, this will cause a catastrophic fire.

Everyday this vapor recovery system operates, it becomes increasingly older and unreliable. The simple process of recovering 12 to 20 gallons of vapor per car could cost anywhere from \$15.00 to \$30.00 per vehicle with on board canisters. Instead this process is burdened by a unreliable \$25,000 to \$75,000 system per station which just might result in the loss of a life or the horrible mutilation of a man, women or child.

THE INFORMATION PRESENTED HERE-IN IS OF A DESCRIPTIVE NATURE ONLY - AND IS BASED UPON THE UNDERSIGNEES KNOWLEDGE AND EXPERIENCE AND OBSERVATION. NOTHING CONTAINED HERE IN THIS MEMORANDUM IS TO BE USED DISCRIMINATINGLY OR REPRODUCED WITHOUT THE EXPRESS WRITTEN PERMISSION OF THUNDER NOZZLES, INC.

THUNDER NOZZLES, INCORPORATED
Kevin Madison

DISADVANTAGES OF VAPOR RECOVERY

December 15, 1991
Temperature 33 degrees
THUNDER NOZZLES, INC.

EQUIPMENT NO-GROUND

SHELL
220 Rt. 4 East
Paramus, New Jersey

Trim-line Type Pumps
12 Hoses

Nozzle 34% Hose 100%

EXXON
214 Rt. 4 East
Paramus, New Jersey

Trim-line Type Pumps
6 Hoses

Nozzle 66% Hose 84%

MOBIL
137 Rt. 17 South
Paramus, New Jersey

MPD Pumps
12 Hoses

Nozzle 58% Hose 50%

HESS
Rt. 17 South
Maywood, New Jersey

MPD Pumps
30 Hoses

Nozzle 43% Hose 86%

AMOCO
455 Rt. 17 South
Hackensack, New Jersey

MPD Pumps
30 Hoses

Nozzle 53% Hose 67%

EXXON
423 Rt. 17 South
Hasbrouck Hts., N.J.

MPD Pumps
18 Hoses

Nozzle 44% Hose 67%

SHELL
220 Rt. 17 South
Hasbrouck Hts., N.J.

MPD Pumps
18 Hoses

Nozzle 34% Hose 68%

GETTY
123 Rt. 17 South
Hasbrouck Hts., N.J.

Time-line Type Pumps
18 Hoses

Nozzle 23% Hose 99%

GULF
Rt. 17 South
Carlstadt, New Jersey

MPD Pumps
12 Hoses

Nozzle 59% Hose 85%

EXXON
Rt. 17 & Meadow
Rutherford, New Jersey

MPD Pumps
18 Hoses

Nozzle 50% Hose 38%

EXXON
563 Rt. 3 West
Clifton, New Jersey

MPD Pumps
18 Hoses

Nozzle 38% Hose 73%

TOTAL % WITH NO-GROUND: 45.63% 74.27%

FILE

THUNDER NOZZLES, INC.
P.O. BOX 339
RIDGEWOOD, NEW JERSEY 07450

(201) 444-3013

COPY

December 18, 1991

State of New Jersey
Department of Environmental Protection
300 Horizon Center
CN 407
Trenton, NJ 08625-0407

Attention: Mr. Richard Janiak
Supervisor, Region 1

Re: The Dangers of Vapor Recovery

Dear Rich:

Please find enclosed the information we spoke about with Exxon at our meeting on Friday. Over the weekend I updated the original test we spoke about in December of 1990, I was surprised to see how much more this equipment has deteriorated in one year approximately 25%. At this rate of deterioration who is to say what could happen very shortly.

I appreciate your interest in my conversation with you about these flaws in vapor recovery and again feel free to contact me at any time regarding this issue as well as I will contact you if more information becomes relevant to this issue.

Respectfully Submitted,



Kevin Madison

KM/cmm
Enclosures

FILE

THUNDER NOZZLES, INC.
P.O. BOX 339
RIDGEWOOD, NEW JERSEY 07450

COPY

(201) 444-3013

December 18, 1991

State of New Jersey
Department of Environmental Protection
300 Horizon Center
CN 407
Trenton, NJ 08625-0407

CERTIFIED MAIL
CERTIFIED #P 281 201 962
RETURN RECEIPT REQUESTED

Attention: Mr. David C. Volz
Regional Supervisor

Re: The Dangers of Vapor Recovery

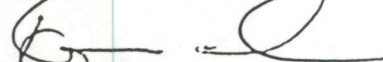
Dear David:

I am sending you at this time as per your request and conversation on Friday regarding the hazards that our company has discovered relating to vapor recovery in the State of New Jersey. As you know, I spoke in great detail with Rich Janiak from your department and Bill Bianco of Exxon in which they were quite surprised that these dangerous pumping devices for automobiles was so prevalent. . .

I appreciated very much your quick response after our discussion in your immediate request for as much information regarding this issue. As you told me on Friday how important this issue was and this had to be given to other people so as to discover for yourselves how great an issue this is. Over the weekend I updated the information and was completely taken back by how much more this system has deteriorated within one year using the same equipment and testing procedures. As you will see in the paperwork the average ground at the hose was 74% and that is with one of the stations having new hoses only 3 months ago, with this station removed the average station is at 80%. Keep in mind that this is only one facet of the system being used to dispense gasoline.

I eagerly await your response and the response of your superiors in working out a safe solution for all people receiving gasoline in the State of New Jersey...and the whole Country for that matter.

Respectfully Submitted,



Kevin Madison

KM/cmm
Enclosures

FILE

THUNDER NOZZLES, INC.
P.O. BOX 339
RIDGEWOOD, NEW JERSEY 07450

COPY

(201) 444-3013

December 18, 1991

State of New Jersey
Department of Environmental Protection
300 Horizon Center
CN 407
Trenton, NJ 08625-0407

CERTIFIED MAIL
CERTIFIED #P 167 880 942
RETURN RECEIPT REQUESTED

Attention: Mr. Robert Akle
Supervisor, Region 11

Re: The Dangers of Vapor Recovery

Dear Bob:

I was disappointed that you were unable to make the meeting on Friday due to circumstances beyond your control, yet the information we discussed was very important and is necessary for you to review the information we discussed. I would appreciate a call from you regarding your response to this information and your input.

As I have conveyed to both David and Rich, please feel free to call me anytime regarding this issue. I look forward to meeting with you shortly.

Respectfully Submitted,



Kevin Madison

KM/cmm
Enclosures

COPY

Thunder Nozzles Inc.
P.O. Box 339
Ridgewood, NJ 07451-0339

January 23, 1992

Underwriters Laboratories Inc.
333 Pfingsten Road
Northbrook, IL 60062-2096

Attention: Leon Walker

Dear Mr. Walker

As per our conversation on January 16, 1992, I am returning to you a number of internal fuel line coax hoses. The hoses you will be receiving were tested yesterday in front of the New Jersey State Department of Environmental Protection in accordance with your standard for gasoline hose #UL 330, 7.1 and 10.3. This procedure easily determined the hoses not to have ground.

Also, as you will see on some of the hoses, the grounding wire has penetrated the outside skin of the fuel line. My question to you here is that in accordance with #UL 330, 16.2, is this the type of cracking that you are referring to?

I would very much appreciate your response and/or comments on this issue. Thunder Nozzles, as well as myself, is very willing to work with you on this in hopes to be better informed and improve the situation.

I enjoyed talking with you about the problems I have been finding out in the field. I deeply appreciate all of your assistance with these issues.

If there is anything else you need, please do not hesitate to contact me as I am very interested in seeing this problem be resolved.

Thank you very much for your kindness and consideration.

Sincerely

Kevin Madison

KM:sb

COPY



Underwriters Laboratories Inc. "

February 5, 1992

RECEIVED

FEB 11 1992

Ans'd.....

333 Pfingsten Road
Northbrook, Illinois 60062-2031
(708) 272-8800
FAX No. (708) 272-8129
MCI Mail No. 254-3343
Cable ULINC NORTHBROOK, IL
Telex No. 6502543343

Thunder Nozzles, Inc.
Mr. Kevin Madison
P. O. Box 339
Ridgewood, NJ 07451-0339

Our Reference: Subject 330

Subject: Coaxial Vapor Recovery Hose Assemblies

Dear Mr. Madison:

This will acknowledge receipt of your letter dated January 23, 1992 and the hose samples you sent to us.

The samples you sent to us make no reference to UL, but you indicated that they are the inner hoses of Listed Coaxial Vapor Recovery Hose Assemblies. During our telephone conversation on February 4, 1992, you indicated that you can send us complete assemblies with similar problems and which bear the UL Listing Mark. You also indicated that you have some Listed nozzles and breakaway fittings that have failed in the field that you can send us. Please send these samples to the attention of the Andy Eilers at our Northbrook Office. He will then refer this matter to the proper personnel, who will take appropriate action, as necessary.

We appreciate receiving any samples of products that make reference to UL and that have failed in the field, and any reports on these products. We also thank you for your interest and concerns in these matters.

Very truly yours,

LEON M. WALKER (Ext. 2627)
Senior Project Engineer
Engineering Services, 416D

KNW:rl6

P.O. Box 339
Ridgewood, NJ 07451



COPY

1-800-322-0106
Phone: 201-444-3013
Fax: 201-612-0326

February 4, 1992

Center for Auto Safety
2001 S Street N.W.
Washington, DC 20009

Attention: Mr. Clarence Ditlow
Executive Director

Dear Mr. Ditlow

I recently spoke with Mr. Macon Cowles, an attorney in Boulder, CO, who is currently involved with the Class Action suit against Dayco Hose Company. I have informed him of a situation that is growing more severe every day. This issue involves the coax vapor recovery system. It has escalated from just being a system without electrical ground to a gasoline nightmare.

I have enclosed copies of letters and all correspondence regarding this issue and I would very much appreciate your response to this situation. Feel free to use this information and pass it on to whoever you think may help in rectifying the situation at hand. If you do release it to anyone, I would appreciate it if you would keep a record of who you give it to and also inform me of that same information so I can keep track of all who may become involved.

I would like to thank you in advance for your anticipated cooperation and look forward to any response or input you may have about this.

Sincerely

Kevin Madison

KM:abc

Enclosures

P.O. Box 339
Ridgewood, NJ 07451



COPY

1-800-322-0106
Phone: 201-444-3013
Fax: 201-612-0326

February 4, 1992

Intercity Service Station Dealers Association
929 Yonkers Avenue
Yonkers, NY 10704

Attention: Mr. Mickey Carbone
Executive Director

Dear Mickey

Once again, the issue of the electrical grounding situation has surfaced and unfortunately for all of us, it has gotten worse. Since I spoke with you over a year ago, the problems occurring from this situation have increased from 50% to 75%. This is a 25% increase in static spark over a one year period.

We have received documented reports of attendants being shocked while pumping gas. The oil company, at the request of the dealer, replaced the hoses at no charge in order to solve this problem. Two days after the incident, the dealer called us because attendants were still receiving shocks from a few nozzles. In going out to the site, we discovered that the nozzles also were not grounding. To temporarily solve the problem, we had to replace the spouts on the nozzles.

Please find enclosed a copy of the original memo we wrote describing the disadvantages of vapor recovery. I sincerely believe that if more people know about this, more evidence of the dangers of this system will come into light. I also believe that there are more incidents happening out there that are not known by the dealers or us because information is being held back.

Please feel free to do what you feel is necessary with this information I have provided. We feel it is of the utmost importance that all who are involved in the dispensing of gasoline be aware of these unattractive truths about vapor recovery.

I would like to meet with you as soon as possible to show you first hand what I am talking about and educate you as to the dangerous situation that exists for anyone pumping gasoline.

Continued...

COPY



P.O. Box 339
Ridgewood, NJ 07451

1-800-322-0106
Phone: 201-444-3013
Fax: 201-612-0326

February 4, 1992

Public Citizen
2000 P Street N.W.
Washington, DC 20036

Attention: Joan Claybrook

Dear Miss Claybrook

I recently spoke with Mr. Macon Cowles in regards to a very serious situation involving the coax vapor recovery system. In following his advice, I am giving you this information that pertains to the dangers to everyone involved in the dispensing or consumption of gasoline under this system.

Over a year ago, an incident occurred in which a gas nozzle caught on fire while dispensing gasoline. Since then, many things have transpired with the manufacturers and our own testing. At this time, I have notified the State of New Jersey Department of Environmental Protection and Exxon Oil Company. Other than minor conversations, nothing has been done. We believe that if this situation is not corrected, the result will be serious injury or possible death to anyone within close proximity to a coax vapor recovery system. Innocent lives may be lost because of a poorly designed system.

Please find enclosed information that we have compiled in reference to the dangers of vapor recovery. I have been in this business since 1978 and have never seen at any time such disregard for safety as I have seen now in the design of coax vapor recovery. It is my belief that the manufacturers know about this situation. But because of the amount of money that is involved, they have categorically on every level tried to discredit and eliminate any suspicion of dangers involved with vapor recovery. It has been expressed to me that the new gasoline being produced to have low volatility will eliminate the need for a system of recovering vapors. Such vapors would be virtually non-existent in this new fuel.

I feel this issue to be very important. It involves my livelihood, but more importantly, it involves the safety of every man, woman, and child that comes close to any gasoline dispenser that has this vapor recovery system.

Continued...

COPY



P.O. Box 339
Ridgewood, NJ 07451

1-800-322-0106
Phone: 201-444-3013
Fax: 201-612-0326

February 4, 1992

Mr. Kieron Quinn
113 West Document Street
Baltimore, MD 21201

Dear Mr. Quinn

I have recently spoken with Mr. Macon Cowles and he agrees that it would be advantageous for you to receive the information I have regarding the dangers of vapor recovery.

The situation regarding static electricity, which ultimately started the suit against Dayco Hose over a year ago, has escalated to a very dangerous level at this time.

We have received reports of gas attendants being shocked while pumping gasoline. This has been partially solved by replacing the hose and/or components on the nozzle.

Please find enclosed all letters that we have written about this issue. We would appreciate any input or information you might have about this. You have our permission to pass this information on to whoever you feel necessary, but must ask that you forward to us a record of who you release it to for our own records.

Thank you for your much anticipated cooperation.

Sincerely

A handwritten signature in black ink, appearing to be "KM" followed by a large, stylized "D" or "Q" shape.

Kevin-Madison

KM:sbc

Enclosures

DAYCO

Dayco Products, Inc.
Springfield Technical Center
P.O. Box 3258
Springfield, MO 65808-3258

Telephone: (417) 881-7440
Fax: (417) 881-2367
Telex: 436-420

December 14, 1990

RECEIVED
DEC 24 1990
Ans'd.....

Mr. Kevin Madison
Thunder Nozzles, Inc.
P.O. Box 339
Ridgewood, New Jersey 07450

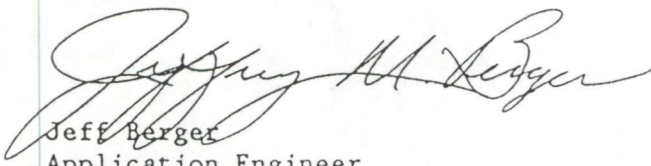
Dear Mr. Madison

Since our last conversation we have been in the lab testing more samples of our 7574 coaxial vapor recovery hose. We have tested the electrical continuity with several parameters. Electrical continuity has been obtained in every test. Our next step is a trip to St. Louis next week to test our product in the field. A wide range of variables have been set for our testing.

I will call you with the results. I would also like to test the hose which you stated was in a fire. Could you also send a copy of the video of the fire which included the hose. We have never seen an actual dispenser fire and our curiosity is great!

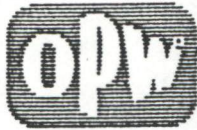
I certainly appreciate your concern and your assistance in this important issue.

Sincerely,


Jeff Berger
Application Engineer
Dayco Technical Center

JB/plp

cc: Bruce Gelle



Fueling Components Group

P.O. BOX 405003 • CINCINNATI, OHIO 45240-5003
TELEPHONE (513) 870-3219
OR 1-800-422-2525

December 17, 1990

RECEIVED
DEC 24 1990
Ans'd.....

Mr. Kevin Madison
Thunder Nozzles, Inc.
P.O. Box 339
Ridgewood, New Jersey 07451

Dear Mr. Madison:

During the week of December 3rd, 1990, we received the 11VF Vapor Recovery Nozzle and accompanying video tape from a service station security camera of a fire that you allege occurred due to the presence of static electricity.

As mentioned during our telephone conversation, the nozzle in question was tested by our Engineering Department and was found to meet the requirement of conductivity described in Underwriters Laboratories 842.

It was further stated that both of our Vapor Recovery Nozzles, 111V and 11VF are Underwriters listed.

Please be informed that we have notified Exxon in the New Jersey area that there is no evidence of a problem with our nozzle. We, therefore, are requesting that you cease and desist in advising our customers to the contrary.

Further evidence that indicates to us that you have not complied to our request will force us to pursue legal remedies, including recovery of any damages from expenses or lost sales.

Yours,

Paul Anderson
Manager, Product Engineering

cc: Carl Stich

729ltr90.rja

DAYCO

Dayco Products, Inc.
Springfield Technical Center
P.O. Box 3258
Springfield, MO 65808-3258

Telephone: (417) 881-7440
Fax: (417) 881-2367
Telex: 436-420

December 4, 1990

Thunder Nozzles, Inc.
P.O. Box 339
Ridgewood, New Jersey 07450

ATTN: Kevin Madison

Dear Mr. Madison:

John Sanders, Jack Hargus, and I have thoroughly inspected the sample of 7574 hose that you sent us. According to your letter, the hose had no electrical continuity at the dispenser. We tested the outer hose, the inner hose, and the assembly for electrical continuity. We also pressurized the assembly and ran petroleum through the inner hose while checking the resistance. Our results showed electrical continuity with a resistance of 9,000 to 10,000 ohms. This is only 1.8 to 2.0 percent of the maximum of 500,000 ohms allowed by the Underwriters Laboratories, Inc.

I would be happy to inspect any additional coaxial vapor recovery hose for electrical continuity that you feel is questionable. If I can be of further assistance, please call me.

Sincerely,



Jeff Berger
Application Engineer
Dayco Technical Center

JB/plp

CC: Bruce Gelle
Joe LePone
John Sanders

FILE

THUNDER NOZZLES, INC.
P.O. BOX 339
RIDGEWOOD, NEW JERSEY 07450

(201) 444-3013

COPY

December 18, 1991

Exxon Company, U.S.A.
339 Jefferson Road
Parsipany, New Jersey 07054

Attention: Mr. Bill Bianco

Re: Information on Vapor Recovery with State of New Jersey

Dear Bill:

Please find enclosed a copy of the information that was requested by the State of New Jersey Department of Environmental Protection last Friday.

I updated some of the information and I am at this time forwarding this to you and I eagerly await your response as well as Exxon Oil Company.

I appreciate your concern regarding these problems with vapor recovery and your eagerness to learn as much as you can regarding safety. Please feel free to call me at any time or anyone else from Exxon that has any questions.

Respectfully Submitted,



Kevin Madison

KM/cmm
Enclosures

P.O. Box 339
Ridgewood, NJ 07451



COPY

1-800-322-0106
Phone: 201-444-3013
Fax: 201-612-0326

February 4, 1992

American Trucking Association
2200 Mill Road
Alexandria, VA 22314-4677

Attention: Lisa Beal
Environmental Specialist

Dear Miss Beal

I am writing to you at the request of your uncle, Charlie Beal of Newark, NJ. This is in regards to a situation in which Charlie deals with everyday and unfortunately he is not the only one. The situation involves static electricity and the hazards of coax vapor recovery. It has been our experience for over a year, that the equipment now being used in this system falls short of the specifications set forth by Underwriters Laboratories. There have been incidents of attendants getting shocked while pumping gas and as you know, the last thing you would want at the point of fueling is a spark.

Please find enclosed the information that has been received by the oil companies and the State of New Jersey D.E.P.. At this point there has been no formal response. My objective here in this letter to you is to inform as many people as possible to these dangers caused by coax vapor recovery. Hopefully this may lead to the much needed reversal and removal of this system.

Since 1978 I have been involved in the business of servicing gasoline dispensing equipment. At no other time have I ever seen anything as dangerous as this system by way of design or manufacturing.

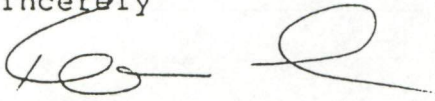
This is a very important situation and one that merits immediate response by all of us. I eagerly await your response or input regarding this situation.

Continued...

-2-

Thank you in advance for your anticipated cooperation.

Sincerely

A handwritten signature in black ink, appearing to be 'Kevin Madison', written over the word 'Sincerely'.

Kevin Madison

KM:sbc

Enclosures

P.O. Box 339
Ridgewood, NJ 07451



COPY

1-800-322-0106
Phone: 201-444-3013
Fax: 201-612-0326

February 4, 1992

Mr. Macon Cowles
1680 Wilson Court
Boulder, CO 80304

Dear Mr. Cowles

Thank you very much for taking a few moments out of your day to speak with me about this issue with the coax vapor recovery system. Since speaking with you, this issue has escalated from the static problem in the Dayco hose to what we feel is a very dangerous level, due to overall hose design by all manufacturers.

You will find enclosed my original written statement entitled "The Disadvantages of Vapor Recovery". I will probably change the title to "The Dangers of Vapor Recovery" as this whole scenario unfolds.

After our conversation last week, I received another phonecall from the gas station that we spoke about. It was then that the dealer reported to our office that attendants were receiving static shock from a few of the nozzles and asked me to come out and explain what might be the cause of it. Upon my arrival, I administered a continuity check and the nozzle clearly failed this test. In replacing the spout on the nozzle, the immediate problem was corrected.

This situation amplifies the need for a very high level examination of this entire system. From this, the result should be the removal of the coax vapor recovery system in the interest of general public safety to consumers and gas attendants.

Also find enclosed copies of the letters I have written to the oil companies and to the State of New Jersey. Please note the date on which Exxon received the letter and the fact that to this date I have not received any type of official response from them about this situation. This also includes the situation in which Exxon replaced the hoses for free.

I believe that this is a blatant admission on Exxon's part that my demonstration regarding the vapor recovery system has been accepted. However, I am still awaiting an official reply.

Continued...

P.O. Box 339
Ridgewood, NJ 07451



1-800-322-0106
Phone: 201-444-3013
Fax: 201-612-0326

-2-

If I can be of any assistance to you at all, please do not hesitate to contact me. If you choose to pass this information on to anyone else, I would appreciate it if you would document to whom you are releasing it and forward that to me.

Thank you for your much anticipated cooperation.

Sincerely

A handwritten signature in black ink, appearing to read "Kevin Madison", with a large, stylized flourish at the end.

Kevin Madison

KM:sbc

Enclosures

COPY



P.O. Box 339
Ridgewood, NJ 07451

1-800-322-0106
Phone: 201-444-3013
Fax: 201-612-0326

January 31, 1992

Star Enterprises/Texaco
303 Fellowship Road
CS 18
Morristown, NJ 08057

Attention: Mr. Michael Mattingly

Dear Mr. Mattingly

I am writing to you at this time as a customer and vendor of your company; but more importantly, as one person to another with information that pertains to the safety and well-being of other individuals. The issue involves the pumping of gasoline by way of the coax vapor recovery system. It has been our finding for over one year that the safety of individuals pumping gasoline and the consumers receiving it is life-threatening.

It is our firm belief and our concern that the manufacturers will not bring this information to the public. Even though most problems eventually work themselves out, the vapor recovery system here on the East Coast (since its installation three years ago) has progressively deteriorated. We feel confident that you will also agree once you read all of the facts involved.

In December of 1990, there was a fire at a gas station in Bergenfield, NJ as a vapor recovery nozzle was filling a car. This incident brought out a barrage of people, including the fire department, police, pump mechanics, and pump manufacturer personnel -- all of whom were baffled by what had happened. This fire was taped on a security camera. The following day, our company was called to come out and determine a possible cause of the fire. As a result, we discovered that the hose had no ground. This incident triggered a diligent effort by Thunder Nozzles to find out how many other stations had the same problem and what equipment was not performing according to the standards mandated by Underwriters Laboratories #330. Our findings were shocking. Our four technicians in the field that day discovered that one half of all nozzles and hoses tested had no ground. We immediately approached the manufacturers only to be told that our equipment for administering this test was wrong. After a year of checking and gathering data, we discovered that the manufacturers had misled us.

According to Underwriters Laboratories, our procedure was correct.

Continued...

Much of the equipment now has strayed away from the original and necessary requirements for safety. At the request of State Officials, and in their presence, we tested hoses for ground two weeks ago. This procedure, according to U.L. #330, requires that a low voltage multitester be connected to both ends of the hose. This test tells us if the wire inside the hose is complete and if there is continuity. We then sent the hoses to U.L. for confirmation of our findings, which were determined to be correct.

On January 28, 1992, another station dealer called to inform us that his oil company had replaced two year old hoses because the gas attendants were getting shocked while pumping. I explained that the nozzles should also be checked. On January 30, 1992, he called again and told me that even with the new hoses, attendants were still receiving electrical shocks. We then replaced two spouts on his nozzles.

This, we believe, is just the tip of the iceberg. As vendors for your company, it is imperative that this information reach you so you may be aware of the dangers involved.

It is at this time that we approach with great conviction the seriousness of this situation and the immediate need to act. It is our finding that coax vapor recovery as we are now using is UNSAFE and WE RECOMMEND THAT IT NOT BE USED AT ALL.

Officially, at this time, I have enclosed for your immediate review and response a copy of the report given to the New Jersey State D.E.P. Enforcement Division. We are meeting with New Jersey directors soon and are being advised by our counsel to give this information to the Center for Auto Safety Board and the Public Citizens Group in Washington, DC.

This information is very real. Even though our company services a great deal of stations locally, I would be unable to tell anyone that one location is any safer than another. The involvement of many will bring this issue out into the open, not hidden as many manufacturers would probably like it to be. In the demise of the space shuttle "Challenger", its problems were known by a few whose warnings went ignored and hidden until the day when lives were lost before millions of horrified onlookers.

Please use this information however you see fit. I eagerly await your response and the responses of those to which you release these facts that you have read today.

Thank you very much for your anticipated cooperation.

Sincerely

Kevin Madison

KM:sbc

Enclosures



COPY

P.O. Box 339
Ridgewood, NJ 07451

1-800-322-0106
Phone: 201-444-3013
Fax: 201-612-0326

January 31, 1992

Amoco Oil Company
200 East Randolph Drive
Chicago, IL 60601

Attention: Mr. Bill Lowrie
President

Dear Mr. Lowrie

I am writing to you at this time as a customer and vendor of your company; but more importantly, as one person to another with information that pertains to the safety and well-being of other individuals. The issue involves the pumping of gasoline by way of the coax vapor recovery system. It has been our finding for over one year that the safety of individuals pumping gasoline and the consumers receiving it is life-threatening.

It is our firm belief and our concern that the manufacturers will not bring this information to the public. Even though most problems eventually work themselves out, the vapor recovery system here on the East Coast (since its installation three years ago) has progressively deteriorated. We feel confident that you will also agree once you read all of the facts involved.

In December of 1990, there was a fire at a gas station in Bergenfield, NJ as a vapor recovery nozzle was filling a car. This incident brought out a barrage of people, including the fire department, police, pump mechanics, and pump manufacturer personnel -- all of whom were baffled by what had happened. This fire was taped on a security camera. The following day, our company was called to come out and determine a possible cause of the fire. As a result, we discovered that the hose had no ground. This incident triggered a diligent effort by Thunder Nozzles to find out how many other stations had the same problem and what equipment was not performing according to the standards mandated by Underwriters Laboratories #330. Our findings were shocking. Our four technicians in the field that day discovered that one half of all nozzles and hoses tested had no ground. We immediately approached the manufacturers only to be told that our equipment for administering this test was wrong. After a year of checking and gathering data, we discovered that the manufacturers had misled us.

According to Underwriters Laboratories, our procedure was correct.

Continued...

Much of the equipment now has strayed away from the original and necessary requirements for safety. At the request of State Officials, and in their presence, we tested hoses for ground two weeks ago. This procedure, according to U.L. #330, requires that a low voltage multitester be connected to both ends of the hose. This test tells us if the wire inside the hose is complete and if there is continuity. We then sent the hoses to U.L. for confirmation of our findings, which were determined to be correct.

On January 28, 1992, another station dealer called to inform us that his oil company had replaced two year old hoses because the gas attendants were getting shocked while pumping. I explained that the nozzles should also be checked. On January 30, 1992, he called again and told me that even with the new hoses, attendants were still receiving electrical shocks. We then replaced two spouts on his nozzles.

This, we believe, is just the tip of the iceberg. As vendors for your company, it is imperative that this information reach you so you may be aware of the dangers involved.

It is at this time that we approach with great conviction the seriousness of this situation and the immediate need to act. It is our finding that coax vapor recovery as we are now using is UNSAFE and WE RECOMMEND THAT IT NOT BE USED AT ALL.

Officially, at this time, I have enclosed for your immediate review and response a copy of the report given to the New Jersey State D.E.P. Enforcement Division. We are meeting with New Jersey directors soon and are being advised by our counsel to give this information to the Center for Auto Safety Board and the Public Citizens Group in Washington, DC.

This information is very real. Even though our company services a great deal of stations locally, I would be unable to tell anyone that one location is any safer than another. The involvement of many will bring this issue out into the open, not hidden as many manufacturers would probably like it to be. In the demise of the space shuttle "Challenger", its problems were known by a few whose warnings went ignored and hidden until the day when lives were lost before millions of horrified onlookers.

Please use this information however you see fit. I eagerly await your response and the responses of those to which you release these facts that you have read today.

Thank you very much for your anticipated cooperation.

Sincerely

Kevin Madison

KM:sbc

Enclosures



COPY

P.O. Box 339
Ridgewood, NJ 07451

1-800-322-0106
Phone: 201-444-3013
Fax: 201-612-0326

January 31, 1992

Mobil Oil Company
3225 Gallows Road
Fairfax, VA 22037-001

Attention: Mr. R.J. McKool
President

Dear Mr. McKool

I am writing to you at this time as a customer and vendor of your company; but more importantly, as one person to another with information that pertains to the safety and well-being of other individuals. The issue involves the pumping of gasoline by way of the coax vapor recovery system. It has been our finding for over one year that the safety of individuals pumping gasoline and the consumers receiving it is life-threatening.

It is our firm belief and our concern that the manufacturers will not bring this information to the public. Even though most problems eventually work themselves out, the vapor recovery system here on the East Coast (since its installation three years ago) has progressively deteriorated. We feel confident that you will also agree once you read all of the facts involved.

In December of 1990, there was a fire at a gas station in Bergenfield, NJ as a vapor recovery nozzle was filling a car. This incident brought out a barrage of people, including the fire department, police, pump mechanics, and pump manufacturer personnel -- all of whom were baffled by what had happened. This fire was taped on a security camera. The following day, our company was called to come out and determine a possible cause of the fire. As a result, we discovered that the hose had no ground. This incident triggered a diligent effort by Thunder Nozzles to find out how many other stations had the same problem and what equipment was not performing according to the standards mandated by Underwriters Laboratories #330. Our findings were shocking. Our four technicians in the field that day discovered that one half of all nozzles and hoses tested had no ground. We immediately approached the manufacturers only to be told that our equipment for administering this test was wrong. After a year of checking and gathering data, we discovered that the manufacturers had misled us.

According to Underwriters Laboratories, our procedure was correct.

Continued...

Much of the equipment now has strayed away from the original and necessary requirements for safety. At the request of State Officials, and in their presence, we tested hoses for ground two weeks ago. This procedure, according to U.L. #330, requires that a low voltage multitester be connected to both ends of the hose. This test tells us if the wire inside the hose is complete and if there is continuity. We then sent the hoses to U.L. for confirmation of our findings, which were determined to be correct.

On January 28, 1992, another station dealer called to inform us that his oil company had replaced two year old hoses because the gas attendants were getting shocked while pumping. I explained that the nozzles should also be checked. On January 30, 1992, he called again and told me that even with the new hoses, attendants were still receiving electrical shocks. We then replaced two spouts on his nozzles.

This, we believe, is just the tip of the iceberg. As vendors for your company, it is imperative that this information reach you so you may be aware of the dangers involved.

It is at this time that we approach with great conviction the seriousness of this situation and the immediate need to act. It is our finding that coax vapor recovery as we are now using is UNSAFE and WE RECOMMEND THAT IT NOT BE USED AT ALL.

Officially, at this time, I have enclosed for your immediate review and response a copy of the report given to the New Jersey State D.E.P. Enforcement Division. We are meeting with New Jersey directors soon and are being advised by our counsel to give this information to the Center for Auto Safety Board and the Public Citizens Group in Washington, DC.

This information is very real. Even though our company services a great deal of stations locally, I would be unable to tell anyone that one location is any safer than another. The involvement of many will bring this issue out into the open, not hidden as many manufacturers would probably like it to be. In the demise of the space shuttle "Challenger", its problems were known by a few whose warnings went ignored and hidden until the day when lives were lost before millions of horrified onlookers.

Please use this information however you see fit. I eagerly await your response and the responses of those to which you release these facts that you have read today.

Thank you very much for your anticipated cooperation.

Sincerely

Kevin Madison

KM:sbc

Enclosures



COPY

P.O. Box 339
Ridgewood, NJ 07451

1-800-322-0106
Phone: 201-444-3013
Fax: 201-612-0326

January 31, 1992

Shell Oil Company
1 Shell Plaza
Houston, TX 77002

Attention: Mr. Frank Richardson
President

Dear Mr. Richardson

I am writing to you at this time as a customer and vendor of your company; but more importantly, as one person to another with information that pertains to the safety and well-being of other individuals. The issue involves the pumping of gasoline by way of the coax vapor recovery system. It has been our finding for over one year that the safety of individuals pumping gasoline and the consumers receiving it is life-threatening.

It is our firm belief and our concern that the manufacturers will not bring this information to the public. Even though most problems eventually work themselves out, the vapor recovery system here on the East Coast (since its installation three years ago) has progressively deteriorated. We feel confident that you will also agree once you read all of the facts involved.

In December of 1990, there was a fire at a gas station in Bergenfield, NJ as a vapor recovery nozzle was filling a car. This incident brought out a barrage of people, including the fire department, police, pump mechanics, and pump manufacturer personnel -- all of whom were baffled by what had happened. This fire was taped on a security camera. The following day, our company was called to come out and determine a possible cause of the fire. As a result, we discovered that the hose had no ground. This incident triggered a diligent effort by Thunder Nozzles to find out how many other stations had the same problem and what equipment was not performing according to the standards mandated by Underwriters Laboratories #330. Our findings were shocking. Our four technicians in the field that day discovered that one half of all nozzles and hoses tested had no ground. We immediately approached the manufacturers only to be told that our equipment for administering this test was wrong. After a year of checking and gathering data, we discovered that the manufacturers had misled us.

According to Underwriters Laboratories, our procedure was correct.

Continued...

Much of the equipment now has strayed away from the original and necessary requirements for safety. At the request of State Officials, and in their presence, we tested hoses for ground two weeks ago. This procedure, according to U.L. #330, requires that a low voltage multitester be connected to both ends of the hose. This test tells us if the wire inside the hose is complete and if there is continuity. We then sent the hoses to U.L. for confirmation of our findings, which were determined to be correct.

On January 28, 1992, another station dealer called to inform us that his oil company had replaced two year old hoses because the gas attendants were getting shocked while pumping. I explained that the nozzles should also be checked. On January 30, 1992, he called again and told me that even with the new hoses, attendants were still receiving electrical shocks. We then replaced two spouts on his nozzles.

This, we believe, is just the tip of the iceberg. As vendors for your company, it is imperative that this information reach you so you may be aware of the dangers involved.

It is at this time that we approach with great conviction the seriousness of this situation and the immediate need to act. It is our finding that coax vapor recovery as we are now using is UNSAFE and WE RECOMMEND THAT IT NOT BE USED AT ALL.

Officially, at this time, I have enclosed for your immediate review and response a copy of the report given to the New Jersey State D.E.P. Enforcement Division. We are meeeting with New Jersey directors soon and are being advised by our counsel to give this information to the Center for Auto Safety Board and the Public Citizens Group in Washington, DC.

This information is very real. Even though our company services a great deal of stations locally, I would be unable to tell anyone that one location is any safer than another. The involvement of many will bring this issue out into the open, not hidden as many manufacturers would probably like it to be. In the demise of the space shuttle "Challenger", its problems were known by a few whose warnings went ignored and hidden until the day when lives were lost before millions of horrified onlookers.

Please use this information however you see fit. I eagerly await your response and the responses of those to which you release these facts that you have read today.

Thank you very much for your anticipated cooperation.

Sincerely

Kevin Madison

KM:sbc

Enclosures

COPY



P.O. Box 339
Ridgewood, NJ 07451

1-800-322-0106
Phone: 201-444-3013
Fax: 201-612-0326

January 31, 1992

Coastal Oil Company
9 Greenway Plaza
Houston, TX 77002

Attention: Mr. Jack Pester

Dear Mr. Pester

I am writing to you at this time as a customer and vendor of your company; but more importantly, as one person to another with information that pertains to the safety and well-being of other individuals. The issue involves the pumping of gasoline by way of the coax vapor recovery system. It has been our finding for over one year that the safety of individuals pumping gasoline and the consumers receiving it is life-threatening.

It is our firm belief and our concern that the manufacturers will not bring this information to the public. Even though most problems eventually work themselves out, the vapor recovery system here on the East Coast (since its installation three years ago) has progressively deteriorated. We feel confident that you will also agree once you read all of the facts involved.

In December of 1990, there was a fire at a gas station in Bergenfield, NJ as a vapor recovery nozzle was filling a car. This incident brought out a barrage of people, including the fire department, police, pump mechanics, and pump manufacturer personnel -- all of whom were baffled by what had happened. This fire was taped on a security camera. The following day, our company was called to come out and determine a possible cause of the fire. As a result, we discovered that the hose had no ground. This incident triggered a diligent effort by Thunder Nozzles to find out how many other stations had the same problem and what equipment was not performing according to the standards mandated by Underwriters Laboratories #330. Our findings were shocking. Our four technicians in the field that day discovered that one half of all nozzles and hoses tested had no ground. We immediately approached the manufacturers only to be told that our equipment for administering this test was wrong. After a year of checking and gathering data, we discovered that the manufacturers had misled us.

According to Underwriters Laboratories, our procedure was correct.

Continued...

Much of the equipment now has strayed away from the original and necessary requirements for safety. At the request of State Officials, and in their presence, we tested hoses for ground two weeks ago. This procedure, according to U.L. #330, requires that a low voltage multitester be connected to both ends of the hose. This test tells us if the wire inside the hose is complete and if there is continuity. We then sent the hoses to U.L. for confirmation of our findings, which were determined to be correct.

On January 28, 1992, another station dealer called to inform us that his oil company had replaced two year old hoses because the gas attendants were getting shocked while pumping. I explained that the nozzles should also be checked. On January 30, 1992, he called again and told me that even with the new hoses, attendants were still receiving electrical shocks. We then replaced two spouts on his nozzles.

This, we believe, is just the tip of the iceberg. As vendors for your company, it is imperative that this information reach you so you may be aware of the dangers involved.

It is at this time that we approach with great conviction the seriousness of this situation and the immediate need to act. It is our finding that coax vapor recovery as we are now using is UNSAFE and WE RECOMMEND THAT IT NOT BE USED AT ALL.

Officially, at this time, I have enclosed for your immediate review and response a copy of the report given to the New Jersey State D.E.P. Enforcement Division. We are meeting with New Jersey directors soon and are being advised by our counsel to give this information to the Center for Auto Safety Board and the Public Citizens Group in Washington, DC.

This information is very real. Even though our company services a great deal of stations locally, I would be unable to tell anyone that one location is any safer than another. The involvement of many will bring this issue out into the open, not hidden as many manufacturers would probably like it to be. In the demise of the space shuttle "Challenger", its problems were known by a few whose warnings went ignored and hidden until the day when lives were lost before millions of horrified onlookers.

Please use this information however you see fit. I eagerly await your response and the responses of those to which you release these facts that you have read today.

Thank you very much for your anticipated cooperation.

Sincerely

Kevin Madison

KM:sbc

Enclosures

P.O. Box 339
Ridgewood, NJ 07451



COPY

1-800-322-0106
Phone: 201-444-3013
Fax: 201-612-0326

January 31, 1992

Star Enterprises/Texaco
303 Fellowship Road
CS 18
Morristown, NJ 08057

Attention: Mr. Frank R. Herbst

Dear Mr. Herbst

I am writing to you at this time as a customer and vendor of your company; but more importantly, as one person to another with information that pertains to the safety and well-being of other individuals. The issue involves the pumping of gasoline by way of the coax vapor recovery system. It has been our finding for over one year that the safety of individuals pumping gasoline and the consumers receiving it is life-threatening.

It is our firm belief and our concern that the manufacturers will not bring this information to the public. Even though most problems eventually work themselves out, the vapor recovery system here on the East Coast (since its installation three years ago) has progressively deteriorated. We feel confident that you will also agree once you read all of the facts involved.

In December of 1990, there was a fire at a gas station in Bergenfield, NJ as a vapor recovery nozzle was filling a car. This incident brought out a barrage of people, including the fire department, police, pump mechanics, and pump manufacturer personnel -- all of whom were baffled by what had happened. This fire was taped on a security camera. The following day, our company was called to come out and determine a possible cause of the fire. As a result, we discovered that the hose had no ground. This incident triggered a diligent effort by Thunder Nozzles to find out how many other stations had the same problem and what equipment was not performing according to the standards mandated by Underwriters Laboratories #330. Our findings were shocking. Our four technicians in the field that day discovered that one half of all nozzles and hoses tested had no ground. We immediately approached the manufacturers only to be told that our equipment for administering this test was wrong. After a year of checking and gathering data, we discovered that the manufacturers had misled us.

According to Underwriters Laboratories, our procedure was correct.

Continued...

Much of the equipment now has strayed away from the original and necessary requirements for safety. At the request of State Officials, and in their presence, we tested hoses for ground two weeks ago. This procedure, according to U.L. #330, requires that a low voltage multitester be connected to both ends of the hose. This test tells us if the wire inside the hose is complete and if there is continuity. We then sent the hoses to U.L. for confirmation of our findings, which were determined to be correct.

On January 28, 1992, another station dealer called to inform us that his oil company had replaced two year old hoses because the gas attendants were getting shocked while pumping. I explained that the nozzles should also be checked. On January 30, 1992, he called again and told me that even with the new hoses, attendants were still receiving electrical shocks. We then replaced two spouts on his nozzles.

This, we believe, is just the tip of the iceberg. As vendors for your company, it is imperative that this information reach you so you may be aware of the dangers involved.

It is at this time that we approach with great conviction the seriousness of this situation and the immediate need to act. It is our finding that coax vapor recovery as we are now using is UNSAFE and WE RECOMMEND THAT IT NOT BE USED AT ALL.

Officially, at this time, I have enclosed for your immediate review and response a copy of the report given to the New Jersey State D.E.P. Enforcement Division. We are meeting with New Jersey directors soon and are being advised by our counsel to give this information to the Center for Auto Safety Board and the Public Citizens Group in Washington, DC.

This information is very real. Even though our company services a great deal of stations locally, I would be unable to tell anyone that one location is any safer than another. The involvement of many will bring this issue out into the open, not hidden as many manufacturers would probably like it to be. In the demise of the space shuttle "Challenger", its problems were known by a few whose warnings went ignored and hidden until the day when lives were lost before millions of horrified onlookers.

Please use this information however you see fit. I eagerly await your response and the responses of those to which you release these facts that you have read today.

Thank you very much for your anticipated cooperation.

Sincerely

Kevin Madison

KM:sbc

Enclosures

COPY



P.O. Box 339
Ridgewood, NJ 07451

1-800-322-0106
Phone: 201-444-3013
Fax: 201-612-0326

January 31, 1992

Sun Refining & Marketing Company
1801 Market Street
Philadelphia, PA 19103-1699

Attention: Mr. Robert H. Campbell
CEO/President

Dear Mr. Campbell

I am writing to you at this time as a customer and vendor of your company; but more importantly, as one person to another with information that pertains to the safety and well-being of other individuals. The issue involves the pumping of gasoline by way of the coax vapor recovery system. It has been our finding for over one year that the safety of individuals pumping gasoline and the consumers receiving it is life-threatening.

It is our firm belief and our concern that the manufacturers will not bring this information to the public. Even though most problems eventually work themselves out, the vapor recovery system here on the East Coast (since its installation three years ago) has progressively deteriorated. We feel confident that you will also agree once you read all of the facts involved.

In December of 1990, there was a fire at a gas station in Bergenfield, NJ as a vapor recovery nozzle was filling a car. This incident brought out a barrage of people, including the fire department, police, pump mechanics, and pump manufacturer personnel -- all of whom were baffled by what had happened. This fire was taped on a security camera. The following day, our company was called to come out and determine a possible cause of the fire. As a result, we discovered that the hose had no ground. This incident triggered a diligent effort by Thunder Nozzles to find out how many other stations had the same problem and what equipment was not performing according to the standards mandated by Underwriters Laboratories #330. Our findings were shocking. Our four technicians in the field that day discovered that one half of all nozzles and hoses tested had no ground. We immediately approached the manufacturers only to be told that our equipment for administering the test was wrong. After a year of checking and gathering data, we discovered that the manufacturers had misled us.

According to Underwriters Laboratories, our procedure was correct.

Continued...

Much of the equipment now has strayed away from the original and necessary requirements for safety. At the request of State Officials, and in their presence, we tested hoses for ground two weeks ago. This procedure, according to U.L. #330, requires that a low voltage multitester be connected to both ends of the hose. This test tells us if the wire inside the hose is complete and if there is continuity. We then sent the hoses to U.L. for confirmation of our findings, which were determined to be correct.

On January 28, 1992, another station dealer called to inform us that his oil company had replaced two year old hoses because the gas attendants were getting shocked while pumping. I explained that the nozzles should also be checked. On January 30, 1992, he called again and told me that even with the new hoses, attendants were still receiving electrical shocks. We then replaced two spouts on his nozzles.

This, we believe, is just the tip of the iceberg. As vendors for your company, it is imperative that this information reach you so you may be aware of the dangers involved.

It is at this time that we approach with great conviction the seriousness of this situation and the immediate need to act. It is our finding that coax vapor recovery as we are now using is UNSAFE and WE RECOMMEND THAT IT NOT BE USED AT ALL.

Officially, at this time, I have enclosed for your immediate review and response a copy of the report given to the New Jersey State D.E.P. Enforcement Division. We are meeting with New Jersey directors soon and are being advised by our counsel to give this information to the Center for Auto Safety Board and the Public Citizens Group in Washington, DC.

This information is very real. Even though our company services a great deal of stations locally, I would be unable to tell anyone that one location is any safer than another. The involvement of many will bring this issue out into the open, not hidden as many manufacturers would probably like it to be. In the demise of the space shuttle "Challenger", its problems were known by a few whose warnings went ignored and hidden until the day when lives were lost before millions of horrified onlookers.

Please use this information however you see fit. I eagerly await your response and the responses of those to which you release these facts that you have read today.

Thank you very much for your anticipated cooperation.

Sincerely

Kevin Madison

KM:sbc

Enclosures



COPY

P.O. Box 339
Ridgewood, NJ 07451

1-800-322-0106
Phone: 201-444-3013
Fax: 201-612-0326

January 31, 1992

Mobil Oil Company
3225 Gallows Road
Fairfax, VA 22037-001

Attention: Mr. A.J. Spiess

Dear Mr. Spiess

I am writing to you at this time as a customer and vendor of your company; but more importantly, as one person to another with information that pertains to the safety and well-being of other individuals. The issue involves the pumping of gasoline by way of the coax vapor recovery system. It has been our finding for over one year that the safety of individuals pumping gasoline and the consumers receiving it is life-threatening.

It is our firm belief and our concern that the manufacturers will not bring this information to the public. Even though most problems eventually work themselves out, the vapor recovery system here on the East Coast (since its installation three years ago) has progressively deteriorated. We feel confident that you will also agree once you read all of the facts involved.

In December of 1990, there was a fire at a gas station in Bergenfield, NJ as a vapor recovery nozzle was filling a car. This incident brought out a barrage of people, including the fire department, police, pump mechanics, and pump manufacturer personnel -- all of whom were baffled by what had happened. This fire was taped on a security camera. The following day, our company was called to come out and determine a possible cause of the fire. As a result, we discovered that the hose had no ground. This incident triggered a diligent effort by Thunder Nozzles to find out how many other stations had the same problem and what equipment was not performing according to the standards mandated by Underwriters Laboratories #330. Our findings were shocking. Our four technicians in the field that day discovered that one half of all nozzles and hoses tested had no ground. We immediately approached the manufacturers only to be told that our equipment for administering this test was wrong. After a year of checking and gathering data, we discovered that the manufacturers had misled us.

According to Underwriters Laboratories, our procedure was correct.

Continued...

Much of the equipment now has strayed away from the original and necessary requirements for safety. At the request of State Officials, and in their presence, we tested hoses for ground two weeks ago. This procedure, according to U.L. #330, requires that a low voltage multitester be connected to both ends of the hose. This test tells us if the wire inside the hose is complete and if there is continuity. We then sent the hoses to U.L. for confirmation of our findings, which were determined to be correct.

On January 28, 1992, another station dealer called to inform us that his oil company had replaced two year old hoses because the gas attendants were getting shocked while pumping. I explained that the nozzles should also be checked. On January 30, 1992, he called again and told me that even with the new hoses, attendants were still receiving electrical shocks. We then replaced two spouts on his nozzles.

This, we believe, is just the tip of the iceberg. As vendors for your company, it is imperative that this information reach you so you may be aware of the dangers involved.

It is at this time that we approach with great conviction the seriousness of this situation and the immediate need to act. It is our finding that coax vapor recovery as we are now using is UNSAFE and WE RECOMMEND THAT IT NOT BE USED AT ALL.

Officially, at this time, I have enclosed for your immediate review and response a copy of the report given to the New Jersey State D.E.P. Enforcement Division. We are meeting with New Jersey directors soon and are being advised by our counsel to give this information to the Center for Auto Safety Board and the Public Citizens Group in Washington, DC.

This information is very real. Even though our company services a great deal of stations locally, I would be unable to tell anyone that one location is any safer than another. The involvement of many will bring this issue out into the open, not hidden as many manufacturers would probably like it to be. In the demise of the space shuttle "Challenger", its problems were known by a few whose warnings went ignored and hidden until the day when lives were lost before millions of horrified onlookers.

Please use this information nowever you see fit. I eagerly await your response and the responses of those to which you release these facts that you have read today.

Thank you very much for your anticipated cooperation.

Sincerely

Kevin Madison

KM:sbc

Enclosures

9. Hydrostatic Strength Test

9.1 The hose previously subjected to the repeated bending test shall withstand a hydrostatic test pressure of 200 pounds per square inch (psi) (1.38 MPa) for 5 minutes without leakage, and upon increasing the pressure, the hose shall withstand a hydrostatic test pressure of 350 psi (2.4 MPa) without leakage, ballooning, or rupture.

Apparatus

9.2 Hydrostatic pressure may be applied by means of a hand or power-operated pump or an accumulator system capable of increasing the pressure in the hose at a rate of 300–400 psi per minute (34.5–46 kPa/s). All pressures are to be measured with a calibrated pressure gauge.

Method

9.3 The hose sample, while lying straight, is to be connected to the pump and filled with water, leaving the pet cock open to allow the air to escape. The pet cock is then to be closed and the pressure in the hose is to be increased at a rate of 300–400 psi per minute (34.5–46 kPa/s) until the test pressure of 200 psi (1.38 MPa) is reached. After holding the pressure at 200 psi for 5 minutes, the pressure is to be increased at a rate of 300–400 psi per minute until the test pressure of 350 psi (2.4 MPa) is reached.

10. Repeated Bending Test of Hose, Filled

General

10.1 The hose, filled with ASTM Reference Fuel B, shall withstand repeated bending, in the manner described in paragraph 8.3, for 3,150 cycles per day for 6 days. No breakdown of the hose or any of its parts shall occur during this period of test. The total loss of liquid shall not exceed 30 percent by volume during the 6 day test period. The electrical resistance of hose having a metallic bonding path shall not increase more than 200 percent after the repeated bending.

Apparatus

10.2 The bending machine described in paragraphs 8.2 and 8.3 is to be used for this test. A low-voltage, battery-operated ohmmeter is to be used for measuring the electrical resistance of the hose.

Method

10.3 The electrical resistance from coupling-to-coupling of an 11 foot (3.35 m) length of hose is to be measured by means of a low-voltage, battery-operated ohmmeter. While the leads at the ohmmeter are attached to the couplings, the hose is to be flexed manually, and the highest reading obtained is to be considered the resistance of the hose. The hose is then to be filled with a measured volume of ASTM Reference Fuel B (70 volumes of isooctane, 30 volumes of toluene). The filled hose is then to be subjected to repeated bending as described in paragraph 8.3 for 3,150 cycles per day for 6 days. At the end of each daily flexing period, the hose is to be removed from the bending machine and suspended in a vertical or U-shaped position. An examination is to be made for any evidence of breakdown of the hose or any of its parts, and the amount of test liquid, if any, needed to restore the original liquid level in the hose is added and recorded. At the end of the test, any amounts of test liquid added are totaled. After 18,900 cycles of repeated bending, the electrical resistance is to be measured again.

11. Adhesion Test

11.1 The adhesion between the cover and the reinforcement, between the tube and the fabric reinforcement, and between the plies of fabric reinforcement shall be such that the rate of separation of a ring-shaped specimen, 1 inch (25.4 mm) in width, is not greater than 1 inch per minute (25.4 mm/m) with a weight of 10 pounds (4.5 kg).

11.2 The adhesion between adjacent wire braids of reinforcement and between the tube and a wire braid of reinforcement shall be such that adjacent braids, and the tube and the braid, adhere firmly to each other by means of a rubber compound impregnated in the braids.

11.3 The adhesion between the tube and a woven wire filler reinforcement shall be such that the tube and reinforcement adhere firmly to each other.

11.4 The above adhesion requirements are not intended for light fabric braids imbedded in or vulcanized to the rubber cover or tube for the primary purpose of improving the adhesion between the cover or tube and the reinforcement.

5.3 The end of the hose is to be cut square. If a tapered plug gauge is used, the plug gauge is to be inserted in the hose sample until a close fit is obtained without forcing. The diameter of the gauge at the end of the sample, to the nearest $1/64$ inch (0.4 mm), is to be recorded as the internal diameter of the hose. If a set of straight or ball-type plug gauges is used, the diameter of the gauge, which when inserted in the hose sample gives a close fit without forcing, is to be recorded as the internal diameter of the hose. If the end of a wire-braided hose is constricted or flared, the inside diameter is to be measured far enough from the end to be representative of the inside diameter by means of an expanding ball gauge.

6. Reinforcement

6.1 A reinforcement shall be provided and shall be of cotton, synthetic fibers, or metal, evenly and firmly applied over the tube. Braids shall be thoroughly impregnated with a rubber compound which shall cause plies to adhere firmly to each other and to the rubber tube and cover.

7. Electrical Bonding

7.1 Hose shall be constructed so as to provide an electrically conductive and bonding path between the couplings at each end of the length in order to dissipate static electricity.

PERFORMANCE

8. Repeated Bending Test of Hose, Empty

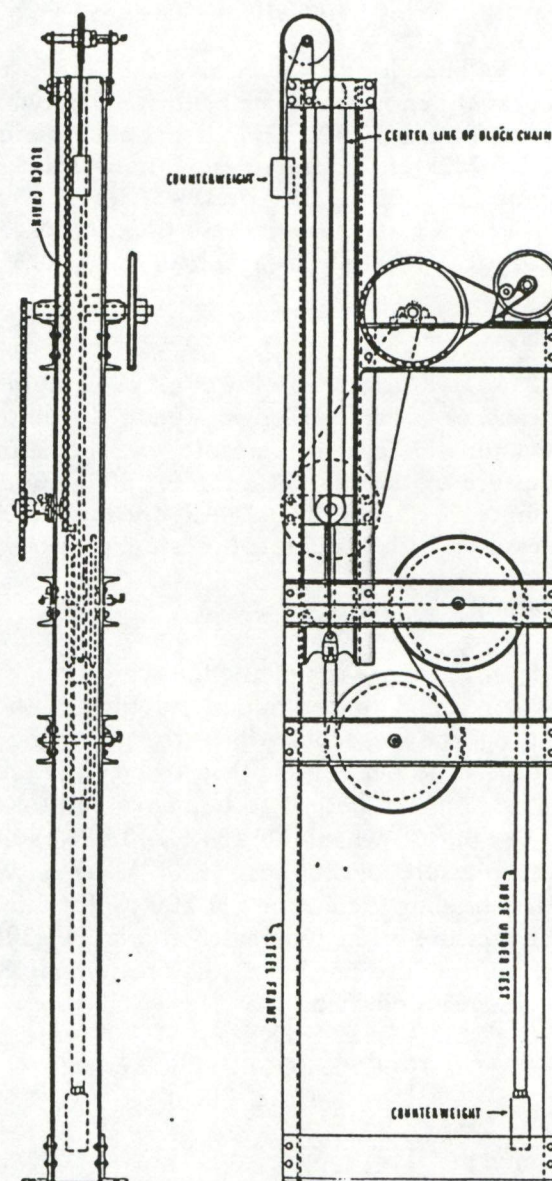
General

8.1 The hose shall withstand 3000 cycles of repeated bending to a 7 inch (178 mm) radius, and shall then be subjected to the Hydrostatic Strength Test, Section 9.

Apparatus

8.2 A bending machine as shown in Figure 8.1, with drums having a radius of 7 inches (178 mm), is to be used for this test.

FIGURE 8.1



HE63-1

Method

8.3 An 11 foot (3.35 m) section of the finished hose is to be employed for the repeated bending test. The test machine and position of the hose for the repeated bending tests are shown in Figure 8.1. The hose is to be moved back and forth for a distance of 4 feet (1.2 m) at a rate of approximately 470 cycles per hour. The weight used on the end of the hose is to be the minimum required to make the hose conform to the curvature of the drums during the test. During this test the hose is to be empty.

"Document Control"

TYPE: INFORMATION

DOCUMENT NUMBER: 9201292

ORIGINATOR: 02

STATUS C

DIRECTORATE STATUS

FROM: VANDERSTEEL, WILLIAM: TUBEXPRESS

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 04/09/92

SUBJECT: LETTER TO MR. SKINNER ADDRESSING A NEWLY DEVELOPING
TECHNOLOGY THAT DEALS WITH THE FREIGHT
TRANSPORTATION SYSTEM OF THE 21ST CENTURY.
ENCLOSURES ATTACHED.

DIRECTORATE
ASSIGNED: STAFF
ASSIGNED:

ACTION
REQUIRED:

STAFF
ACTION:

SENDER'S DUE DATE:

OSTP DUE DATE:
DATE COMPLETED:

STAFF DUE DATE
DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley
INDUSTRIAL

WHITE HOUSE TRACKING #:

CONTACT PERSON:
PHONE:

EXT:

REMARKS:

OSTP RECEIVED: 04/13/92 DEPT RECEIVED:
FILE: ~~INDUSTRIAL-ECONOMIC COMPETITIVENESS~~

CENTRAL FILES:

ENERGY

Handwritten notes: Allan - Please see Dan P. Taylor's attached memo Karl

Handwritten notes: Karl's Comments DAB

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

May 1, 1992

MEMORANDUM FOR KARL ERB

FROM: DONALD PRYOR 
SUBJECT: PNEUMATIC CAPSULE PIPELINE TRANSPORTATION

"Pneumatic tube trains" are "for real" in a limited sense. Reportedly there are operating systems that provide short-hauls for coal-fired power plants.

As a possible common carrier system, no overwhelming advantage over alternative systems is apparent. I am not aware of any analysis that has been done. Neither OTA nor the NRC Transportation Studies Board has examined the concept. The Surface Transportation Act of 1991 does call for an evaluation of pneumatic capsule pipelines and a report to Congress by December of 1993. DOT has not yet begun that effort.

DOT indicated that they would share their response, if any, to Mr. Vandersteel's letter.

Thanks, D—
