All too often people in a position of power and influence as well as the general public, in their enthusiasm and concern for solving specific problems confronting our society, lose sight of the fact that our vibrant institutions of capitalism and the patent system are alive and well; not merely theories to be experimented with or disrupted in the hope an important end purpose of society can be more quickly and satisfactorily achieved by other means. It is felt appropriate to strongly admonish the ERDA and Congress to step back from the blinding appeal of motherhood, baseball and apple pie used by the Justice Department and other compulsory licensing advocates in the past. Serious consideration must be given to the unfavorable economic impact of compulsory licensing legislation in the nonnuclear energy field. Our country's future is at stake!

or rapidly changing preferences of the consumer market, thereby eliminating serious competition prior to divestment from those that cannot finance investment with a high turnove rate; (4) a product or service that encompasses well-kept secrets relating to manufacturin or operating know-how requiring a great deal of foresight, industry, and possibly years of down-to-earth reverse engineering dog-work on the part of a competitor attempting to market a product or service with a similar concept or function; and (5) patent protection granting the right to exclude competitors from copying the product or service concept for a limited period of time sufficient for the venturer to recoup its investment together wit a reasonable profit commensurate with the venture investment risk.

[4]National Science Foundation, Successful Industrial Innovations, pp. 39-59 (1969).

[5]Patent protection: (1) gives at least some assurance that the venture will enjoy a limited competitive advantage for more than the five-year period within which it would normally take a competitor to crack a trade secret; (2) permits the employer to allo its researchers and engineers to publish, gain recognition, and maintain high morale; and (3) gives the business valuable publicity and leverage in recruiting personnel, maintainin a high earnings multiplier on the stock market, and obtaining additional capital for further innovation. For further information on the weaker but sometimes more desirable protection afforded by the trade secret law, see Painton & Co. v. Bourns, Inc., 442 F. 2d 216, 224 (CA2 1971); Water Services, Inc. v. Tesco Chemicals, Inc., 410 F. 2d 163, 172 (CA5 1969); Sperber, Intellectual Property Management: Law - Business - Strategy, Section 3:06(1) (Clark Boardman Company, New York City, 1974).

[6]In his February 1, 1974 statement before the House of Representatives, Thoma E. Kauper, Assistant Attorney-General of the Justice Department Antiturst Division, stated "We also do not believe it will be necessary very often to invoke the provisions of Subsection (c) (Mandatory Licensing)."

[17]Kewanee Oil Co., v. Bicron Corp., 416 U.S. 470 181 USPQ 673 (1974).

[18]Arnold and Janicke, "Compulsory Licensing Anyone?" 55 JPCS 149, 167-183, March, 1973; Morton, "Compulsory Licensing-An Unplanned-for Addition to the United States Patent System" II APLAQJ 171, 182, 183, Summer 1974.

[19]S.814, introduced by Senator Philip A. Hart, (94th Cong. 1st Sess.); proposals by Tom Arnold and W. Brown Morton, Jr., in n. 18.

[20]Steiner, Top Management Planning (MacMillan, London, 1969) 557-558.

[21]Address by Honorable Robert Gottschalk before the Sction of Patent, Trademark and Copyright Law, American Bar Association, San Francisco, Calif., August 12, 1972, published in U.S. Department of Commerce News (Patent Office, August 12, 1972).

[22]Honorable Richard L. Roudebush, "Compulsory Licensing and the Patent System", The Congressional Record, H-9293 (May 29, 1963).

[23]James Watt and James Joule, energy R&D pioneers.

[24]For a thorough treatment of the intent behind this constitutional provisic and how it has been interpreted through the years, see Pravel, "Say 'No' to More Compulsory Licensing Statutes" II APLAQJ 185, Summer, 1974 and Wetzel, "Can Patent Properties Be Redistributed Through Compulsory Licensing?" I APLAQJ 183, Summer, 1974.

[25]104 U.S. 356,357.

MR. SPERBER: Congress, in its wisdom, has acknowledged the willingness to spend as much as $20 billion over the next decade for ERDA grants, contracts, and other forms of funding for research, development, and demonstration projects pursuant to the FNERDA of 1974. The mere fact that all this money is being pumped into the energy field will surely divert the talents of many companies and individuals in non-energy industries and technologies who would be happy to get funding with energy projects to keep them going in the present sluggish economy.

Indeed, a recent unpublished survey conducted by the Licensing Executives Society that has been brought to my attention shows that most government contractors do not expect to get any future commercial benefits once their contracts with the government are completed.

What about the corporations and small businessmen already in the energy field? Will these firms with the energy expertise rush for the ERDA handouts? Also, will these firms also not expect to exploit the results of their government contracts as the companies with no expertise in energy would probably feel?

I would like to first talk about the quickest way to energy independence for the United States. The end product desired by Congress is readily available, low-priced solutions to our energy problems as quickly as possible. This end result is attainable only after commercialization of the most promising of many different technological approaches and innovations in the energy field. One of the ways in which this end result can be achieved in the fastest possible manner is motivating the research and development contractor to invest his private funds in bringing the results of energy R and D for ERDA to the marketplace.

What is the ideal combination of incentives to motivate the commercial application of ERDA R and D contracts within the energy industry? The basic motivations for budgeting R and D for ventures in any industry are well established, the prime incentive being a satisfactory return on investment. If the potential rate of return on investment is high enough, the entrepreneur will take a reasonable gamble with his or his backers' capital.

The key to decision-making here is, what is a reasonable gamble? The risk that return on investment objectives may not be reached is dependent on several fundamental factors, the most important in the mind of the

public interest and the equities of the contractor and government are satisfied.

Let's take a hypothetical situation where, let's say, ERDA decides that America's future in solving its energy problems lies in waste, the bio-conversion of waste into methane, let's say. Well, ERDA asks for bids for, let's say, a research, development and demonstration project. If an R and D firm is large enough to have in-house counsel, it may bid for the contract with a request for an advance waiver, in the hope of obtaining an exclusive license on the patent and trade secret rights evolved during the course of the contract. If the bidder is a small company and doesn't have access to expensive legal advece, before it wades through all of the red tape and all of the detailed language that only a lawyer can best understand that are contained in the proposed ERDA policy, the small company will probably bid without a request for advance waiver especially with the possibility that the waiver could be revoked later on anyway. Even in the case of large companies, they may not wish to bid with an application for an advance waiver because of the feeling that ERDA will select another bidder who has not requested an advance waiver simply to avoid the time-consuming decision process in deciding whether an advance waiver should be granted.

The waiver statistics of government agencies in the past show that most small companies and many large ones will expect to receive ERDA grants on a nonexclusive license basis for the work product they develop in performance of the contract.

Because of size and financial resources, some of these large companies will go on to commercialize the breakthroughs developed during the government contracts because they do not need to depend upon patent or trade secret protection. However, the small companies will not be able to risk their or their backers' capital for commercialization of any breakthroughs on a nonexclusive basis.

But does it really matter whether these government contractors commercialize the discoveries they make during the performance of their government contracts? The government has obtained title and ownership to these discoveries and can license them to other firms. Unfortunately, other firms that do not even have the original expertise that the government contractors did will not have sufficient incentive to commercially introduce the discoveries to the marketplace because ot the immediate competition or at least short-term

President Kennedy summed it up when he stated the incentives and protection available in the patent system that are exclusively afforded to the owner of a patent are the bulwark upon which he can risk existing capital and attract new capital for the development of markets, for products, marketable products, construction of plants, employment of labor and increasing the Gross National Product.

The uncertainty associated with obtaining and retaining exclusive rights on contract-developed inventions and secrets and background inventions and trade secrets will serve as a deterrent to entering into a contract with the government. It is interesting to note that the survey conducted by the Licensing Executives Society shows that four-fifths of the government contractors would be discouraged from conducting R and D for the government without the assurance of an exclusive license in certain technological areas.

ERDA will be left with a concentrated pool of major corporations as the energy innovators of tomorrow because of their ability to risk money in the commercialization of high technology ventures without the protection of patent and trade secret rights.

Small businessmen and corporations with valuable background rights representing the energy expertise needed for many ERDA projects will depend upon their own continued funding for their exclusive rights of their energy R and D, notwithstanding that this process could be speeded up with an influence of ERDA money.

The firms that have little energy expertise and therefore little to lose in contracting with the government will look upon ERDA contracts as another source of revenue, rather than as the start of an R and D venture which could mushroom into a possible commercial application.

Because there would not be a strong motivation to commercially apply the energy solutions contracted for by ERDA, such contractors would lack entrepreneurial incentive and enthusiasm to put in peak performance for innovative results, thereby shortchanging the ultimate goal of ERDA funding.

Let me talk to you about a government patent policy that makes sense to me. If we are more interested in commercial utilization of government inventions than the

Now, if the contractor or a subsequent non-exclusive licensee introduces the energy breakthrough to the marketplace within the three-year deadline, that they had the excluseve license for, then the firm would have another three years to conscientiously expand production facilities and marketing efforts to satisfy the need of the public on a nationwide basis.

If this is done by the end of the second three-year period, then the firm would receive an irrevocable exclusive license for the rest of the patent term. If the nation's need for the energy breakthrough is not satisfied at the end of the second three-year period, then the government can require nonexclusive licensing of other candidates to help satisfy the nation's need for the energy solution.

MR. DENNY: Excuse me. It is getting late. Can you sum up?

MR. SPERBER: Okay.

All right, the important philosophy behind this proposal is that the government contractor has a limited exclusive incentive to risk capital in commercializing the work product of the government R and D project. At the same time, the public is protected against the government contractor not being diligent, if he does not meet a first three-year deadline to introduce; in other words, actually develop the R and D of the government contract into a commercially feasible product that has actually been introduced to the marketplace.

If he doesn't, the public is protected because the contracor's exclusive licensing becomes nonexclusive, and the government has the right to grant another nonexclusive license to another promising candidate to try to introduce the discovery to the marketplace.

I will stop right here.

MR. DENNY Thank you very much.

Are there any questions from the panel?

MR. WEINHOLD: One quick question:

You talked about the three-year time period. I guess from my knowledge of energy techniques,there is a wide variation in how long it takes to bring a particular

MR. GOODWIN: I would have some difficulty in thinking that a small contractor big enough to play a significant role in ERDA programs is not going to be big enough to afford whatever legal or other expertise it needs to deal with the proposed patent policy.

I wonder if you would comment on that.

MR. SPERBER: All I can say is that there are a lot of small businesses -- By small I am talking about anything up to $20 million -- that do not have their own inhouse counsel, and that even if they do, just will not wade through the 13 considerations as to why they should -- why they should qualify for a waiver and all of the other hurdles that they have to pass in getting an exclusive license.

Also, I might mention that the Senate Select Committee on Small Businesses has just come out with a report in the solar energy field, dissappointingly finding that small businesses have done a lot in the solar energy field over the past two decades; yet they are hardly represented at all with respect to ERDA contracts.

MR. DENNY: Thank you, Mr. Sperber.

These hearings are on patent policy. Appropriately enough, we started the hearings off yesterday with comments from the Patent Law Section of the D. C. Bar. Just as appropriately, we are winding up with comments from the American Patent Law Association.

Mr. Edward McKie will speak to them. I welcome you and ask you to proceed with your comments.

MR. MCKIE: Thank you very much, sir.

I have what I think is a fairly short statement, gentlemen. You may take some comfort from that in view of the hour.

My name is Edward F. McKie, Jr. I appear here as President of the American Patent Law Association. APLA is a nationwide association of approximately 4,000 lawyers particularly interested in the field of intellectual property. One of our areas of most particular interest is the patent field. Our members are drawn from all areas of the law, including judges, law teachers, private, corporate and government patent counsel.

We believe that ERDA's policy should encourage both the making of inventions in the energy field and the commercial utilization of those inventions. For that purpose we think it extremely important that exclusive commercial rights reside in the contractor, who has the incentive to exploit the invention as well as to make it. If necessary, those exclusive rights could be limited as to time to protect against the possibility that the contractor does not in fact develop the invention to the point of commercialization. Of course, we recognize that patents on inventions made under government contracts should be subject to a government license.

We also think it very important that the incentive to enter into governmental contracts in this extremely important field be maximized. Any requirement of a governmental contract which would divest the contractor of prior background rights in patents and proprietary data would necessarily discourage the most qualified organizations from entering into government contracts. Accordingly, we think it extremely important that ERDA's patent policy not require that contractors lose background patent and data rights.

The exclusive right granted by a patent of course requires the right to sue for enforcement of that right. The right to sue should be in the contractor who possesses the exclusive rights. It should not require joinder of the government in any suit against infringers of those exclusive rights. Indeed, the government should not be involved in enforcing patent rights against its citizens. It would be an extremely unfortunate thing if any agency of the federal government were to become involved in prosecuting infringers of patent rights.

Another important aspect of maximization of the incentive to enter into ERDA contracts is the simplification of the disposition of patent rights. To the maximum extent possible, that should be settled at the time of contracting. Any administrative actions, petitions and negotiations with respect to exclusive rights should be minimized. Otherwise, the most qualified organizations may be discouraged from entering into government contracts.

I have already indicated that in APLA's view it is in the public interest that the exclusive rights to patents be held by the contractor. For that purpose, title of the patents should be in the contractor subject to the customary government license. The contractor should have

MR. MCKIE: If requesting the contractor means requiring the contractor to do so, I think it does.

MR. DENNY: Does anyone have any questions?

MR. RITZMANN: One other person testified before the panel, stating that the government should prosecute infringers of patent rights. Yet in your statement you mention that it would be extremely unfortunate if the government should do such. Could you elaborate a bit on that? Why does your Association feel the government should not prosecute infringers?

MR. MCKIE: Well, I think the normal forces that operate in the area of attempting to enforce patent rights don't apply where the government is concerned. Those of us in the private sector who are concerned with enforcement of patent rights, either defending against them or prosecuting infringers, are subject to various forces that control the amount of litigation that will occur. Those forces do not operate the same way if the government is involved.

I can conceive of a situation, for instance, where a special agency is set up to enforce government patent rights, to sue infringers. With the tremendous resources of the government available for the selection of infringers to be prosecuted, it would be a tremendously different thing, one that I think might necessarily, might naturally result in great unfairness to American citizens if the government were to be involved.

I think it would be a totally new concept that would be an extremely unfortunate matter.

MR. GOODWIN: Disregarding for the moment the administrative burdens involved and the technical enforcement distinctions between having an exclusive license and having a patent, don't you think the ERDA policy is sufficiently full of holes so that anybody who wants to market an invention can wind up with a limited period of exclusive marketing rights?

MR. MCKIE: Well, I don't think I am an expert on the ERDA policy, sir. But I do understand that there are provisions which would allow such a thing to occur. To me, to the extent that those provisions are there, that is, provisions that provide for exclusivity, then they indicate a determination of the desirability of exclusivity.

Another difficulty is in trying to set up a system in which some kind of other organization, such as the government, determines the amount of the reasonable royalty. That is a kind of a situation which is frought with so many difficulties that I think the whole situation is best left to the normal operation of the marketplace, the normal negotiation between parties to determine the amount of the reasonable royalty.

MR. DENNY: Thank you, Mr. McKie.

I think you can certainly be excused for not being an ERDA patent expert. I am not sure one exists today. That is what we are working on.

Thank you, very much.

MR. MCKIE: Thank you very much.

MR. DENNY: With that, I would like to ask Mr. Johnson if he would return back to the podium and close out the hearing.

CHAIRMAN JOHNSON: I wish to thank everyone who stayed with us through these two days, and also thank those who came on the second day. We have heard a number of different views, and certainly I think those of you who are here have a better appreciation of some of the problems that we have in trying to solve these problems.

In doing all this, we want to keep our eye on the main objective, which is to work together in this country to develop and regain control over the sources of our country's energy. Patents and patent incentives are one force that can enable us to do that. We have endeavored within the guidelines of the laws that have been given us to propose a patent policy to do that.

We have had a number of helpful suggestions that might be or certainly are worthy of further consideration in making our recommendations to the Congress. We do plan to come out with a report as required by Section 9(n), I think it is, of the Non-Nuclear Act, by the end of this calendar year.

But because the problem is complex enough, we expect there will be a subsequent report in about another six months thereafter. At least this is our current thinking.

Appendix C.3
Written comments on ERDA Patent Policy

APPENDIX C. 3:

WRITTEN COMMENTS ON PATENT POLICY AND COMPULSORY LICENSING

AMERICAN COUNCIL ON EDUCATION
ONE DUPONT CIRCLE
WASHINGTON, D. C. 20036

OFFICE OF GOVERNMENTAL RELATIONS

November 13, 1975

Mr. Kenneth L. Cage
Room 92, Eighth Floor
Office of the General Counsel
U.S. Energy Research and Development
Administration
20 Massachusetts Avenue, N.W.
Washington, D.C. 20545

Dear Mr. Cage:

On behalf of the American Council on Education, an association of 179 national and regional education associations and 1,361 institutions of higher education, I am pleased to respond to the notice in the Federal Register of October 15, 1975 inviting comment on the two legislative enactments upon which ERDA patent policy is based, as well as on the desirability of mandatory licensing.

Setion 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 provides that--

> "(a) Whenever any invention is made or conceived in the course of or under any contract of the Administration, other than Nuclear Energy research, development, and demonstration pursuant to the Atomic Energy Act of 1954 (42 USC 2011 et seq.) and the Administrator determines that--
>
> "(c) Under such regulations in conformity with the provisions of this section as the Administrator shall prescribe, the Administrator may waive all or any part of the rights of the United States under this section with respect to any invention or class of inventions made or which may be made by any person or class of persons in the course of or under any contract of the Administration if he determines that the interests of the United States and the general public will best be served by such waiver. . .In making such determinations, the Administrator shall have the following objectives.
>
> "(11) in the case of a nonprofit educational institution, the extent to which such institution has a technology transfer capability and program, approved by the Administrator as being consistent with the applicable policies of this section."

The Conference Report on the Bill notes that--

> "The reference in subsection (d)(11) to nonprofit educational institutions with approved technology transfer capabilities and programs is included, among other reasons, to assure that these institutions would not be disqualified from consideration for a waiver due to a lack of established commercial position or manufacturing capability."

C. Additional benefits would flow if qualified universities retain principal rights to resulting inventions.

1. Recognition of Co-sponsor Equities [The Government often does not provide the total costs of a research project and funds from other sources must be used.]

2. Ease of Administration [Case-by-case decisions would be eliminated, reducing administrative work for both parties.]

3. Use of Royalties for Support of Scientific Research and Education [It would be in the public interest for universities to generate and retain income to cover their patent administrative costs and to support education and research from such income.]

4. Use of Management Capability for All Inventions [Universities would be able to use their management capabilities to transfer all their technology, whether Government-supported or not, thereby expanding utilization of inventions.]

5. Training of Further Technology Transfer Managers [If universities are permitted to retain rights to inventions, more personnel in the area of technology transfer will be trained.]

The Subcommittee specifically recommended adoption by all Government agencies of a policy permitting qualified universities to retain title in inventions under institutional patent agreements. The Report of the Subcommittee demonstrates a realistic comprehension of not only the issues at hand but an understanding of all the problems inherent in the licensing of inventions for commercial development. ACE concurs in the findings and urges adoption by ERDA of the Subcommittee's recommendation.

In a related area, it is felt that legislation requiring mandatory licensing of energy-related patents is not needed to carry out the purposes of the Federal Nonnuclear Energy Research and Development Act of 1974. Rather, it is felt that mandatory licensing is at odds with the Energy Reorganization Act of 1974 which states that the objective of ERDA patent policy is to provide an incentive to stimulate commercial industrial development in energy fields, as well as to protect the public's interest. Mandatory licensing would require the owner to grant a license to any party desiring one. It is submitted that, if such legislation were to be enacted, the incentive of the limited monopoly granted by a patent would be destroyed.

It is very often the case that, in order for an industrial organization to invest the time and money necessary to commercialize an invention, there must be the incentive provided by the patent monopoly. In some cases, as when commercial development of the invention requires extraordinary expenditures, an exclusive patent monopoly is necessary, if only for a limited time. If mandatory licensing were required, this incentive would be lost and the public's interest would suffer since worthwhile inventions would not be commercialized. It is, therefore, urged that legislation requiring

Amoco Oil Company
Research and Development Department
Post Office Box 400
Naperville, Illinois 60540
312-420-5111

November 11, 1975

Mr. Kenneth L. Cage
Energy Research and Development Administration
Office of the General Counsel
Room 92, 8th Floor
20 Massachusetts Avenue
Washington, D. C. 20545

Dear Mr. Cage:

Patent Policy on Government Contracts

As we discussed this morning, I am enclosing a copy of my article "Patent Policy in Government Contracts" which appeared in Chemical Engineering Progress, pages 31-32, November 1971.

This article, of course, refers to the problems encountered when the government takes title to patents.

I hope that the results of the meeting next week will give ERDA strong backing to implement its current patent policy.

Sincerely,

A. L. Conn

A. L. CONN
Director, Government Contracts

ALC/ad

Enclosure

I then have to convince people in my company that contracts in areas of mutual interest should be sought. This can sometimes be difficult.

First, let us look at contract research and development from the government's point of view. I know that there are cases in which the government would like to develop new talent and broaden expertise in the country; but in the majority of situations the objective is to have the work done as efficiently and effectively as possible. Obviously, this can best be accomplished by people most knowledgeable and experienced in the field. When the job is completed, the government must have complete freedom to use the results in its operations. Furthermore, if a worthwhile discovery or invention has resulted that would benefit the general public, the government would like to encourage widespread use

How Are the Objectives Being Accomplished?

How does the government handle patent rights in order to accomplish these objectives? Since the government is a composite of different departments and agencies, there are a variety of approaches. The Department of Defense, for example, generally gives full commercial patent rights to the contractor, with the government receiving a royalty-free right for governmental use. In this case, the contractor is free to commercialize the development and recover the additional costs incurred in commercialization through his exclusive right to the invention in dealing with other commercial establishments. Many other branches of the government, however, insist on retaining full rights to patents and merely give the contractor a royalty-free right to use the patent. Still others vary the approach to fit the specific situation. In some cases, however, receiving full rights to patents acquired during the course of the contract work is not enough; the government agency may insist on receiving rights—or even title—to background patents to make sure that it can establish alternate sources of supply under these patents. This, of course, is in line with the popular notion that if the government pays for the work, it should receive full benefits. But is this the best way to fulfill the government's objectives?

Let us examine the reaction of the contractor to these various patent arrangements. In the case of a private corporation, the handling of patent rights can be a key point in determining whether or not a contract should be undertaken. Assuming that the government needs to have the development accomplished as quickly and efficiently as possible, it will want to receive bids from companies that have expertise in the particular field. Those companies, however, will most likely have their own proprietary interests. And the reaction to a contract in which the agency insists on retaining full rights to patents will be not to bid. What happens? The government has to select a bidder from companies that are not as knowledgeable in the field and who would like to acquire expertise at government expense. The result—the government pays more for what is done, the job takes longer, and the result may be inferior.

When the Government Retains Full Rights

What happens to a process of commercial interest in which the government retains full patent rights? In many cases, there is little incentive for promoting it. Even though a company may have acquired sufficient expertise and knowledge in the field to consider further process, product and market development, it might hesitate to spend the additional money for commercialization without some protection from competition—at least in the early stages of the development. And the government, in turn, is hesitant to grant an exclusive license to any one company under its patents because of the public policy expresed in the antitrust laws. So in contrast to the government's original intent, the public may not receive the benefit of a new invention just because it is government property.

Despite the logic that would dictate that when the government pays for the work, it should have the rights to the resulting patents, the end result may not be in the best public interest. If the object is to develop a commercial process or product, the best arrangement is for the contractor to receive full rights to the patents with the government retaining a royalty-free position. In that way, the government will receive better work and quicker results for less money, while the public will be more certain to benefit from new developments.

Conn

Amoco Oil Company
Research and Development Department
Post Office Box 400
Naperville, Illinois 60540
312—420-4833

K. W. McHenry
Vice President

November 11, 1975

Mr. Kenneth L. Cage
U. S. Energy Research & Development Administration
Office of the General Counsel
Room 92, 8th Floor
20 Massachusetts Avenue, N.W.
Washington, D.C. 20545

Dear Mr. Cage:

Submission for November 18-19 Hearing on ERDA Patent Regulations

We are in accord with the policies as set forth in paragraph 9-9.100 of the proposed patent regulations for the Energy Research and Development Administration. If the United States is to develop new energy sources as rapidly and efficiently as possible to permit reducing our dependence on imported oil, it is necessary for ERDA and industry to cooperate to the fullest extent. This, in turn, will be fostered by granting industry title to patents which are conceived in the course of contractural work.

The proposed regulations provide for this by permitting the Administrator of ERDA to waive the Government's patent rights, as indicated in paragraph 0-9.109-6 (a). We hope, however, that the thirteen considerations specifically listed for the advance waiver (9-9.109-6 (b)) will not prove so formidable as to constitute a roadblock to carrying out this policy.

It should be kept in mind that companies with expertise in a given field will have proprietary interests and will bid on a government contract only if their proprietary interests can be protected. If in the implementation of the policy the thirteen considerations make it difficult for the Administrator to grant an advance waiver, then he will have to select a bidder from companies that are not as knowledgeable in the field. Past experience has indicated that in such cases the Government ended up paying more for what was done, the job took longer, and the result was below expectations.

Thus, in lending our strong support to the intent of ERDA's patent policy, we hope that the implementation will closely follow the intent. Granting of patent rights to private individuals or companies has proved to be

ASE WESTERN RESERVE UNIVERSITY • CLEVELAND, OHIO 44106

November 14, 1975

Mr. Kenneth L. Cage
Room 92, Eighth Floor
Dffice of General Counsel
20 Massachusetts Avenue, N.W.
US ERDA
Washington, D. C. 20054

Dear Mr. Cage:

In reference to the ERDA hearing scheduled for November 18 and 19, please be advised that this institution strongly endorses a waiver clause permitting patent rights to be transferred to universities.

Recognizing that many universities, including Case Western Reserve University, needed to reexamine their capability to handle technology transfer more effectively, we organized a national conference entitled "Technology Transfer: University Opportunities and Responsibilities" last year. This meeting, attended by over 120 people representing 80 educational institutions, provides strong evidence of the growing interest of the university community in this important subject. Since much of the content of the conference proceedings has a bearing on the ERDA hearings, I am sending you a copy of the report under separate cover for your review.

Case Western Reserve University has for several years worked with the Department of Health, Education and Welfare under an institutional patent agreement. We have found this to be an expeditious manner of handling federally-supported inventions. As a consequence, we are currently negotiating with the National Science Foundation to arrange a similar agreement. We would hope that other federal agencies move in this direction to minimize the time and effort required on behalf of both the universities and the government to transfer academic research accomplishments into the marketplace.

It should be emphasized that if title to ERDA-financed inventions is not readily available to universities, there is little likelihood that these inventions will ever be exploited. As you undoubtedly realize, placing an invention "in the public domain" through publication, or requiring non-exclusive licensing of patents, almost invariably results in non-utilization of the technology.

CAVITRON CORPORATION
1290 AVENUE OF THE AMERICAS · NEW YORK, NEW YORK · 10019 · (212) 977-8430

November 24, 1975

Mr. Kenneth L. Cage
Room 92, 8th Floor
Office of the General Counsel
20 Massachusetts Avenue
U.S. Energy Research and Development
Administration
Washington, D.C. 20545

Dear Ken:

It was a pleasure meeting you at the hearings conducted in Germantown. I hope that my testimony will contribute to the decision-making process that is now before the interagency task force.

Please note that I terminated my testimony, because of time, in the middle of the section entitled "A Government Patent Policy That Makes Sense." I doubt whether all of the panel members completely grasped what my proposal was all about, and therefore it is desirable that they read this section. Also, in the section after that (starting on page 9), I explain why there would be no problems involving restraint of competition, high prices, and a concentration of large companies in the energy field with an exclusive licensing policy, thereby minimizing the need to evaluate and negotiate with respect to the 13 conditions when applying for a waiver.

Sincerely,

Phil

Philip Sperber
Manager
Legal Department

PS:MC
enc.

INTRODUCTION

Congress in its wisdom has acknowledged a willingess to spend as much as $20 billion over the next decade for ERDA grants, contracts and other forms of funding for research, development and demonstration projects and ventures pursuant the Federal Nonnuclear Energy Research and Development Act of 1974. The mere fact that all of this money is being pumped into the energy field will surely divert the talents of many companies and individuals in other industries and technologies who would be happy to get funding with energy projects to keep them going in the present sluggish economy. Indeed, a recent unpublished survey conducted by the Licensing Executives Society shows that most government contractors do not expect to get any future commercial benefits once their contracts are completed.

But what about the corporations and small businessmen already in the energy field? Will these firms with the energy expertise rush for these ERDA handouts? Will these firms also not expect to exploit the results of their government contracts?

THE QUICKEST WAY TO ENERGY INDEPENDENCE

The end product desired by Congress is readily available low-priced solutions to our energy problems. This end result is attainable only after commercialization of the most promising of many different technological approaches and innovations in the energy field. One of the ways in which this end result can be achieved in the fastest possible manner is motivating the research and develop-

petition because our nation must rely more heavily on them than the giants for our energy solutions. It is a fact that more than 60% of the major innovations of the twentieth century are based on inventions of individuals and small business. It therefore becomes vital that small business in America be given other forms of protection against competition; namely, patent and trade secret protection, if our country is to have an adequate supply of energy innovators and financial backers willing to gamble on profits from energy technology.

HOW WILL THE PROPOSED POLICIES AND PROCEDURES OF ERDA ON PATENT, DATA & COPYRIGHTS AFFECT COMMERCIALIZATION OF ENERGY R&D?

The proposed ERDA policy is that the contractor will normally get a non-exclusive license, the government will get full title and ownership, and the government will have the right to license third parties on the patent and trade secret rights conceived and reduced to practice under and during the course of a contract as well as background rights necessary for practicing the work product developed during the contract. A contractor has the right to apply for a waiver to obtain a revocable exclusive license; provided, it can persuade the ERDA that numerous conditions involving the public interest and the equities of the government and the contractor are satisfied.

Let's take a look at a hypothetical situation where the ERDA asks bids from firms to conduct research on the feasibility of bioconversion of waste into methane. If the R&D firm is large enough to have in-house counsel, it may bid for the contract with a request for an advance waiver in the hope of obtaining an exclusive license on the patent and trade secret rights evolved during the course of the contract. If a company is small and does not have access to expensive legal advice, it may bid without a request for the advance waiver, especially in view of all the red tape involved and the possibility that the waiver could be revoked later on anyway. Even in the case of large companies, they may not wish to bid with an application for advance waivers because of the feeling that the ERDA will prefer not to get bogged down in studies and negotiations and will select another bidder who has not requested an advance waiver. The waiver statistics of government agencies in the past indicate that most small companies and many large ones will assume that ERDA will be grants on a non-exclusive basis, notwithstanding the opportunity to request a waiver because it has been almost futile to do so in the past. Because of size and finanical resources, some of these large companies will go on to commercialize the breakthroughs developed during the government contracts because they do not need to depend upon waivers for patent or trade secret pro-

HOW DOES THE VENTURE CAPITALIST MENTALITY REACT TO THE AVAILABILITY OF A NONEXCLUSIVE LICENSE ON GOVERNMENT CONTRACTOR INVENTIONS AND THE POSSIBILITY THAT BACKGROUND INVENTIONS AND TRADE SECRETS MAY BE LICENSED TO OTHERS?

, The mere presence of a nonexclusive licensing policy by ERDA, regardless of how infrequently used it may be, will become the critical factor in the minds of many venture capitalists that will cause a high-risk venture evolving from an ERDA contract to become an unjustified gamble having too many unknowns that could prevent not merely a return on the investment, but also a return of the investment itself. Conversely, in the presence of exclusive licensing, financial backers and top management will continue the confidence/they have exercised in the past in the energy field because of their unaltered in the patent incentive system expectation of meeting their goals once they have decided to take the risk of technical, market or patent failure. President Kennedy summed it up well when he stated that the incentives and protection available in the patent system that are exclusively afforded to the owner of a patent are the bulwark upon which he can risk existing capital and attract new capital for development of markets for products, marketable products, the construction of plants, the employment of labor, and increasing the gross national product.

The uncertainty associated with obtaining and retaining exclusive rights on contract-developed inventions and secrets and background inventions and trade secrets will serve as a deterrent to entering into a/contract with the government. It is interesting to note that the survey conducted by the Licensing Executives Society shows that 4/5 of the government contractors would be discouraged from conducting R&D for the government without the assurance of an exclusive license in certain technological areas. The ERDA will be left with a/concentrated pool of major corporations as the energy innovators of tomorrow because of their ability to risk money in the commercialization of high technology ventures without the protection of patent and trade secret rights. Small businessmen and corporations with valuable background rights, representing the energy expertise needed for ERDA projects, will depend upon their own continuing funding for commercializing the exclusive rights of their energy R&D, notwithstanding the process could be speeded up with an infusion of ERDA money.

to the marketplace before any other nonexclusive licenses are granted. In this manner, each licensee would be assured a limited period of time in which competition could be limited to a small group of previous nonexclusive licensees who have failed to employ enough diligent effort to effect commercialization of the invention.

If the contractor or a subsequent nonexclusive licensee introduces the energy breakthrough to the marketplace within the three year deadline, the firm would have another three years to conscientiously expand production facilities and marketing efforts to satisfy the need of the public on a nationwide basis. If this is done by the end of the sixth year, then the firm would receive an irrevocable exclusive license for the rest of the patent term. If the nation's need for the energy breakthrough is not satisfied at the end of the sixth year, then the government could require nonexclusive licensing of other promising candidates to help satisfy the nation's need for the energy solution.

The important point is that the initial contractor has the incentive to risk capital as a result of his being protected from competition if the contractor succeeds in meeting its goals of market introduction and market satisfaction. Even if the contractor is unsuccessful, he knows that the market will only be divided with the entry of another competitor or two, as opposed to numerous competitors, which would prevent the contractor from realizing a quick pay-back and suitable return of his investment. If the contractor fails in the first three year period to introduce the invention to the market, the government should not have too much trouble getting another candidate due to the assurance that no other nonexclusive licenses will be granted unless the subsequent candidate fails. If the contractor fails in the second three year period, he will have the security of licensing other manufacturers at appropriate royalties.

The same procedure as suggested above could be implemented for small businessmen, with one important change. Small R&D firms would be given a five year exclusive period in which to diligently attempt to introduce the invention to the market and another five years in which to satisfy the national market need. The reason for liberalizing the per-

nized this unfortunate fact of life when he stated that "(if) a strong profit incentive to justify expensive and risky research . . . . is to continue, the profit return on the inventions which are successful must carry the losses of those that fail."

Third, the well known marketing strategy of price skimming is normally applied when a new product or service is introduced. This strategy is based on the fact that there will always be a certain percentage of the market that will attempt to fulfill the unsatisfied need with a newly introduced product or service regardless of how high the price. Since a high price will frequently produce a greater dollar volume of sales in the early stages of market development than a lower price policy which would not necessarily capture a larger market segment due to the usual skepticism that prevails among potential customers, relying on salesmanship to skim the cream of the market at high prices before attempting to penetrate the more price-sensitive sections of the market provides greater funds for financing expansion into the larger volume market sectors that will subsequently be hit with tempting prices lowered from initial introduction price.

WHAT ARE THE LONG RANGE EFFECTS OF WIDESPREAD EXCLUSIVE LICENSING BY THE GOVERNMENT?

As has already been discussed, an exclusive licensing policy will make the benefits of the energy research, development, and demonstration projects widely available to the public in the shortest possible time. However, will competition be restrained, will undue market concentration result, and will monopolistic prices result from an exclusive licensing policy?

Capitalism and the patent incentive work hand in hand to increase competition and lower prices, contrary to the beliefs of many nonexclusive licensing advocates. Let's get into the nitty gritty of the real world, for reliance on sweeping generalizations will not convince anyone of their truth.

First, although the new product stemming from the government contract may be superior, there is always a breakeven point where the high price of a new product will still make the old inefficient one more desirable to stick with or purchase. Thus, the new product or energy facility must be reasonably priced in relation to the existing methods of satisfying the market need. This is especially true in the energy field where, unlike a consumer-oriented market, professionals are too shrewd to make capital expenditures that are excessive-

and effective contractor participation in government R&D contracts by the portions of industry having large commercial investment, patent interests and expertise in the energy field; that which is needed to best provide the government's needs due to the predictability of the exclusive license necessary for risking capital and the ease of working with the government from an administrative and procedural point of view on the part of the contractor.

CONCLUSION

There is a highly delicate relationship between the patent incentive and the cautious, slow-moving gears of high-risk venture capital financing. The right to exclude for a limited duration is the impetus for commercializing the R&D work product, competition, and low prices in the energy field. It is significant here to point out a former president's conviction that "The mere act of scientific discovery alone is not enough. Even the most important breakthrough will have little impact on our lives unless it is put to use ---- and putting an idea to use is a far more complex problem than has often been appreciated. . . Excessive regulation, inadequate incentives and other barriers to innovation have worked to discourage and even to impede the entrepreneurial spirit."

It is felt appropriate to strongly admonish the ERDA and Congress to step back from the blinding appeal of motherhood, baseball and apple pie used by the Justice Department, certain Congressmen, Ralph Nader's group and other nonexclusive licensing advocates in the past. Serious consideration must be given to the unfavorable economic impact of the ERDA's proposed nonexclusive licensing policy in the nonnuclear energy field. Our country's future is at stake!

GEORGE W. TALBURTT

CHIEF PATENT COUNSEL

CHRYSLER CORPORATION

December 15, 1975

Mr. R. Tenney Johnson, General Counsel
U. S. Energy Research and Development Administration
20 Massachusetts Avenue
Washington, D. C. 20545

Re: Comments to Interagency Task Force on ERDA Patent Policy

Dear Mr. Johnson:

We were pleased to attend the hearings before the Interagency Task Force on November 18 and 19, 1975. We found that the comments and testimony presented generally agreed with Chrysler Corporation's position on the questions posed in the notice of such hearings. Chrysler Corporation's comments are set out below.

WHAT MODIFICATIONS TO THE ATOMIC ENERGY ACT AND THE FEDERAL NON-NUCLEAR ENERGY RESEARCH AND DEVELOPMENT SHOULD ERDA PROPOSE TO CONGRESS?

ERDA should propose to Congress modifications to the Acts which will permit ERDA, as a matter of policy, to grant contractors title to inventions made in the course of performance of ERDA contracts. This would be the best way for ERDA to accomplish its mission, as outlined in the Energy Reorganization Act, by having a patent policy which would provide an incentive function to stimulate commercial industrial development in energy fields as well as protecting the public's interest.

Commercial utilization of inventions requires a great deal of work and risk capital beyond the initial making of the invention under an ERDA contract. The contractor is the party most likely to invest this effort and capital to exploit the invention since he has the background expertise in the field of the invention. Without the right to patent the invention, he can not justify the investment needed to bring the invention to the market place because anyone could take advantage of his work and capital investment and immediately bring out competing copy thus denying him the recoupment of his investment.

The public would be protected, under a policy leaving title to inventions in the contractor, by being provided the best possible chance to have the inventions brought to the market place. Further protection of the public could be provided by reserving to the Administrator

P. O. BOX 1118, DETROIT, MICHIGAN 48231

provisions, as suggested above in accordance with the general tenor of the testimony presented at the November 18th and 19th hearings, would not only help the Administrator accomplish ERDA's objective but would also ease his task by obviating the time consuming, expensive and onerous waiver procedures presently required of him.

Very truly yours,

George W. Talburtt

George W. Talburtt

GWT:da

Combustion Engineering, Inc.
1000 Prospect Hill Road
Windsor, Connecticut 06095

Tel. 203/688-1911
Telex: 9-9297

COMBUSTION ENGINEERING

November 26, 1975

Mr. James E. Denny
Assistant General Counsel for Patents
U.S. Energy Research and Development Administration
Washington, D.C. 20545

Dear Mr. Denny:

A statement of Combustion Engineering, Inc. regarding the proposed ERDA patent and data policy is attached hereto. The opportunity to present comments on the policy is appreciated. If there are any questions regarding this statement, please feel free to call.

Very truly yours,

Richard H. Berneike

Richard H. Berneike
Attorney, Patent Department

RHB:cm

Enclosure

STATEMENT OF COMBUSTION ENGINEERING, INC. REGARDING ERDA PATENT AND DATA POLICY

Combustion Engineering, Inc. is a diversified company serving electric utility companies, oil and gas producers, chemical companies and the general industry throughout the world. The base of C-E's business has long been steam generating equipment for electric utilities and industry, and C-E is one of the world's leading designers and manufacturers of such equipment. The organization, as it exists today, has more than 80 years of experience in the design, development and fabrication of steam generating and energy system equipment. The C-E's Power Systems Group supplies electric utilities as its principal customers and also provides fossil fueled steam supply systems to industrial users. No matter what the fuel - uranium, coal, oil, gas, bagasse, bark or refuse - the main business of C-E power Systems is to caputre the heat - energy of the fuel being used and to convert it efficiently into steam.

Combustion Engineering, Inc. has been to a significant extent and wishes to continue to be a contractor with the Federal Government in the energy area. For the past three years and in 1975 to date, the following is an indication of the extent of our Government research and development contracting in the energy area:

Year	No. Contracts	$ Value
1972	9	$ 1,377,164
1973	7	720,375
1974	8	15,114,426
1975	16	2,780,668
		$19,992,633

contractor to third parties in the event that the contractor was not making the benefits of the invention reasonably accessible to the public. However, C-E recognizes that the revision of the statute providing for Government ownership in most instances is unlikely. To be candid, it is probably unlikely that this provision for ownership of Subject Inventions in the U.S. by the Government will significantly deter C-E from entering into fully funded Government contracts except for some isolated instances. However, we do see significant problems relating to other provisions; namely, the disposition of rights to Subject Inventions in jointly funded projects, the right of the contract to use Subject Inventions in the U.S., the provisions relating to background patents and the disposition of foreign rights particularly with respect to the contractors ability to license. These limitations could be a significant deterrent to our willingness to enter into ERDA contracts and will be discussed in more detail later.

C-E is delighted to see that the ERDA patent policy provides for waivers. However, the efficacy of the waiver provisions in achieving the goals of the ERDA patent program will depend upon some as yet unknown standards for applying the waiver provisions. It is our feeling that these waiver provisions will be very stictly applied and that granting of waivers will be very limited. The need for a liberal interpretation of the waiver provisions will be discussed particularly with respect to provisions of the ERDA Patent Policy other than the disposition of the principal rights in the U.S. to Subject Inventions. Also, there should be some automatic waiver policy for jointly funded projects to eliminate the need for a complicated waiver process.

We have licensing programs throughout the world in the area of steam generation. This foreign licensing program brings royalty income into our company and, therefore, into the U.S. We view this result of our foreign licensing program as being very beneficial not only to our company but to the United States as a whole. The limited rights of the contractor in foreign patents and the uncertainties surrounding such rights are detrimental to our foreign licensing program. Our usual licensing arrangment, at least in the fossil energy area, involves the licensing of our total technology, including patents and know-how to licensees in various foreign countries. It would make it difficult to include in the licensing package any rights under foreign patents which ERDA had the power to revoke. It is not clear from the policy whether the mere licensing of a foreign patent would prevent ERDA from taking back the contractor's rights to such foreign patents or whether the licensee must actually be using the specific invention. We do not always know which licensed patent the licensee is actually using.

Another aspect of the proposed ERDA Patent Policy relating to foreign patent rights which would be detrimental to our foreign licensing program, is the potential right of ERDA to license foreign Governments. In a great many countries, the electric utilities are operated by the Government and such licensing rights in ERDA would have the effect of licensing the utilities in those countries. This would make any foreign rights retained by the contractor in those countries worthless. There is a lack of understanding on our part as to just why ERDA seems to maintain such an interest in foreign patents and why it is necessary to formulate the policy with respect to foreign patents in a manner that is detrimental to the licensing of these patents in foreign countries by U.S. contractors.

public. It is not known how the data policy will be administered and when provisions such as those for third party licensing will be included. We would hope that a policy favoring the proprietary rights of contractors would be followed by ERDA.

Our company takes the position that the mandatory licensing of energy-related patents is not needed. C-E feels that such a requirement could be a deterrent to research and development in the energy area and that it would lead to the use of the trade secret route of protection where applicable. Furthermore, it cannot be shown that mandatory licensing of an invention has ever been necessary to make a worthwhile invention available to the public. It cannot be imagined that C-E would not either pursue and market the invention itself or, if this were not desirable, make the invention available by voluntary licensing. Mandatory licensing seems to be an extreme solution to a problem that does not exist.

CBEMA Computer and Business Equipment Manufacturers Association

1828 L Street, N.W., Washington, D.C. 20036 • (202) 466-2288 • Telex 89-2704

November 14, 1975

Dr. Robert C. Seamans, Jr.
Administrator
U.S. Energy Research & Development
Administration
Washington, D.C. 20545

Re: Report on Patent Policy

Dear Dr. Seamans:

The Computer and Business Equipment Manufacturers Association (CBEMA) appreciates your invitation to provide comments on the policies expressed and implicit in the ERDA statutory and regulatory provisions for Patents, Data and Copyrights.

CBEMA is the trade association which has represented the leading manufacturers of computer and business equipment for the past sixty years. Members of CBEMA have consistently been leaders in achieving major developments, in both the concept and application, of computer programming and data processing, and have contributed greatly to the present significant status and roll of the computer in modern society. These members maintain and support extensive activities devoted to applied research and systems development in all phases of computer use and data processing.

Issues pertaining to ERDA statutory and regulatory policy provisions with respect to such areas as patents, data, computer software, and copyrights, are of vital concern to all manufacturers in the computer and data processing field because of the extensive need for computers, business equipment and related products in nuclear and non-nuclear R&D contract activities. The resolution of these issues will have an impact on CBEMA members as well as their customers who may bid for ERDA R&D contracts in which, for example, application of computer programming and data processing will be necessary.

The extent to which computer software and data bases have been addressed within ERDA is not clear. For example, the phrase "computer software or printouts" is included within the definition of "Technical Data" in the Rights In Technical Data clause, 9-9.202-3 (e)(2). On the other hand, the definition of "Technical Data" within the clause Rights In Technical Data-Special (see 9-9.202-4(a)), includes no reference to computer software. The reasong for the distinction between the two "Technical Data" definitions is not clear.

> "a license as aforesaid under any and all copyrighted or copyrightable work, other than computer software, not first produced or composed by the Contractor in the performance of this contract..."

CBEMA further recommends that ERDA data provisions accommodate the following concept: When proprietary computer software is modified or combined with other software, the derivateive software should carry the same restricted rights as does the base proprietary software. Computer software developed at private expense, although modified or enhanced as a necessary part of performing a contract, should continue to be deemed proprietary computer software to which restricted rights may attach.

There is a continous thread in the foregoing commentary against mandatory licensing and delivery of background patent rights as well as Contractor proprietary data including computer software. CBEMA is unaware of any existing need for background patent licensing; and, accordingly, until such need is clearly demonstrated with supportable data, CBEMA opposes adoption of any statutory or regulatory policy in support of such licensing.

Policy provisions with respect to the compulsory licensing of Contractor proprietary data are extremely detrimental to the proprietary position of the Contractor, and should not be used. The danger of loss to a Contractor's proprietary position in whatever fashion, including action under the Freedom of Information Act, may, of course, cause competent firms and commercial R&D organizations to reconsider the wisdom in bidding for a specific R&D contract whose scope of work corresponds to the prospective Contractor's area of competency. Should ERDA adopt a proprietary data licensing regulation, however, CBEMA recommends that at the very least, any proprietary data licensing provision should stand on its own as a negotiatable clause to be used only in certain situations. It should not be set forth as a subsection within the Rights In Technical Data clause because past experience has shown that Contracting Officers and others in Field Offices attempt to use such subsections as standard boiler plate language in each and every prospective contract calling for a Rights In Technical Data clause.

CBEMA recognizes the importance of these intellectual property law and procurement issues from the standpoint of both Government and Industry and continues to be available to you for additional assistance and further comment.

Very truly yours,

Oliver R. Smoot

Oliver R. Smoot
Vice President

DOW CHEMICAL U.S.A.

BENNETT BUILDING
2030 DOW CENTER
MIDLAND, MICHIGAN 48640

November 18, 1975

James E. Denny, Esq.
Assistant General Counsel for Patents
U. S. Energy Research and Development
Administration
Washington, D.C. 20545

Subject: Proposed Policies and Procedures (Part 9-9-Patents, Data and Copyrights)

Dear Mr. Denny:

The opportunity to comment on the proposed policies and procedures relative to intellectual property is appreciated.

On the whole, the thrust of these regulations is in the right direction. The recognition of the fact that the public interest may be served without necessarily doing violence to contractor's background rights in intellectual property is laudable. As I have stated in a letter to R. Tenney Johnson of even date, given such flexibility and the proper administration thereof, there is reason to believe that the ERDA research effort will be a success.

The following comments are addressed to general matters and I have not dissected the verbiage clause by paragraph; I will leave this to others more experienced in these matters.

Broadly I would suggest an expedited system for providing an exclusive license with appropriate safeguards to the contractors. The proposed regulations do provide for title in subject inventions to remain with the contractor and for eventual exclusive licenses to interested and qualified applicants. However, in many cases the most qualified applicant for an exclusive license is the contractor himself. Based upon his work and his background he can early determine what direction the work is going and by an early exclusive license can best operate to the advantage of the public interest, making the innovation readily available to the general public and take all necessary steps to protect the invention for the government. I would perceive that such exclusive licenses could be granted far in advance of any

reasonable time to a commercial item rather than forego this option in favor of a third party. An example of this type of background clause may be found in the OSW background clause.

The same option should be granted to the contractor relative to proprietary data licensing. That is to say third party licensing should indicate that the contractor upon written application by ERDA will have the right to reduce the subject matter of the background data to a commercial item either through himself or licensees of his own choosing within a reasonable time as determined by the Administrator. Again, this retains the right of exclusivity in contractor's background data until such time as a decision is needed to advance the public interest. Putting it another way, the contractor doesn't have to bargain away exclusivity in advance where no useful purpose is necessarily served.

Finally, the optional clause -- rights to proprietary data covering the necessity to acquire rights in and to a contractor's proprietary data, indicates that the government shall not use the data except in the performance of this or other contracts or subcontracts with or for the benefit of the government, unless such technical data is generally available to the public, etc. I have no problem with this clause except that it should state that when the government uses the data in the performance of contracts for the benefit of the government that it secure from such other contractors an agreement to maintain such data in secrecy and use it for no other purpose.

Thank you again for your consideration in these matters.

Sincerely,

Sidney Walker

Sidney D. Walker
Government Affairs
Patent Counsel

DOW CHEMICAL U.S.A.

BENNETT BUILDING
2030 DOW CENTER
MIDLAND, MICHIGAN 48640

November 18, 1975

R. Tenney Johnson, Esq.
General Counsel
United States Energy Research
and Development Administration
Washington, D.C. 20545

Dear Tenney:

As Counsel for Government Affairs, I have been asked to respond on behalf of The Dow Chemical Company to your considerate invitations to our President, C. B. Branch, and to our Trademark Manager, W. J. Hedelund, relative to the ERDA proposed policy. We have decided to respond by comments directed to Mr. Denny and I am enclosing a copy of the same for your information.

I want to take this opportunity to congratulate your people on a particularly well-written set of proposed rules. They, better than most I have read, acknowledge the stake that the private sector has in its know-how while at the same time assuring that the interest of the general public is served.

The two are not incompatible -- in fact they are complementary. Re-inventing the wheel has resulted in the past where government agencies have turned off companies having extensive background because of their insistence on garnering all rights to themselves and as a consequence have been forced to contract with companies of lesser talents and expertise. In 1972, the Administrator of the Office of Saline Water asked for repeal of a section of the Saline Water Conversion Act which had been interpreted as putting into the public domain all information resulting from research contracts, including patents, because of the reluctance of companies having a high degree of background expertise to enter into OSW research contracts.

But a good regulation is not enough. The people administering the policy must be flexible in their approach and we think this will be the case with ERDA. I know from your extensive background including your Department of Defense work in this area

DRESSER INDUSTRIES, INC., EXECUTIVE OFFICES: DRESSER BUILDING • ELM AT AKARD • DALLAS, TEXAS 75221

J. D. MAYSON
VICE PRESIDENT, SECRETARY
& GENERAL COUNSEL
LAW DEPARTMENT

November 13, 1975

Mr. James E. Denny
Assistant General Counsel for Patents
U.S. Energy, Research & Development Administration
Washington, D.C. 20545

Dear Mr. Denny:

Dresser Industries, Inc. herewith respectfully offers its comments, in a spirit of constructive criticism, concerning ERDA Proposed Policies and Procedures covering Patents, Data and Copyrights (41 CFR Part 9-9). As a member of U.S. Industry and a leading supplier of high-technology products and services to the worldwide energy and natural resources industries, Dresser is vitally interested in the development of workable solutions to our country's pressing energy problems. These comments are occasioned by our concern about the potential adverse effect of the Proposed Policies and Procedures upon ERDA activities.

We see the Proposed Policies and Procedures as discouraging industrial participation in ERDA programs and, therefore, as counterproductive in meeting ERDA objectives. We recognize that ERDA unfortunately is constrained as to the handling of inventions by provisions of the Atomic Energy Act and the Nonnuclear Energy Research and Development Act (see Proposed Rules, Section 9-9.107-1). Our hope here is to point up the problems and a possible avenue to their solution which would be an incentive to industry participation.

Section 9-9.100 of the Proposed Rules states:

> "ERDA's primary mission in its R&D procurement process is not oriented toward reprocurement for Government use, but rather toward the development and ultimate commercial utilization of all efficient sources of energy."

any such subcontractors must work through the prime contractor in negotiating suitable terms and conditions to cover their aspect of the prime contract requirements!

Is there any potential relief for the contractor, either prime or sub? The only potentially viable avenue is through waiver of Government rights, as permitted by both the Atomic Energy Act and the Federal Nonnuclear Energy Research and Development Act. In accord with these Acts, the proposed rules do provide for waiver of Government rights, within precise boundaries, either prior to contracting or at the time of identification of a particular invention. The effectiveness of the waiver avenue has yet to be determined, however, the Government will, notwithstanding, generally retain an irrevocable non-exclusive paid-up license for itself, States and municipalities (see 9-9.107-4). It should be noted that waivers are to be unilaterally granted by the Administrator or his designee, based upon recommendations of Patent Counsel assisting the procuring activity. The latter are required to record the basis of waivers. If incentives to industrial participation are to flow from inventions made under the contract, the waiver avenue must be the key. As now proposed, the guidelines for waiver are exceedingly complex (see Section 9-9.109-6) and fall far short of assuring the contractor or the lower tier subcontractor of reasonable hope in retaining title to his inventions.

In addition to foreground rights, ERDA will seek background rights as stated in Section 9-9.107-4:

> "(4) The primary missions of ERDA may require that certain rights in the contractor's privately developed background patents be acquired for the Government's future production, research, development and demonstration projects. Similar rights may also be required to enable private parties to utilize the technology developed or demonstrated with Government assistance in the field of technology specifically contemplated in the contract effort. To this end, subject to specified exceptions and negotiations the Patent Rights Clause in contracts over $250,000 shall normally include provisions obtaining rights of the type specified in Section 9-9.107-5 to such background patents." (Emphasis supplied)

Within the some 25,000 words of the proposed rules devoted to intellectual property rights acquisition by ERDA for the Government are in-depth requirements for delivery of technical data, exclusive of trade secrets. Even the latter may be required by the Government in certain situations. Thus Section 9-9.202-3(d)(5) states:

These procedures should extend beyond the mere unilateral determination by the Administrator or his designee that licensing is necessary, as is the present situation with respect to waiver and background licensing provisions. If no changes are made in the proposed complex Rules, the waiver and background patents licensing procedures must be so administered as to convince industry that participation in ERDA programs is worthwhile and will not entail an intellectual property rights give away without possibility of commensurate return. In the high risk state of development which characterizes much of the potential ERDA contract work, adequate incentives are essential if we are not to reinvent the wheel and are to avoid wasting time, effort and expense to horsepower technical solutions already potentially available from industry.

Attached are additional comments concerning specific Proposed ERDA Rules. Your consideration of Dresser's position concerning the Proposed Rules will be appreciated.

Very truly yours,

John N. Hazelwood
Director of Patents
and Licensing

JNH:lh
Attachment

cc: Mr. Richard S. Morse
John Lawrence
J. V. James
J. D. Mayson
Ardon Judd (2)

ADDITIONAL COMMENTS CONCERNING SPECIFIC PROVISIONS
OF PROPOSED POLICIES AND PROCEDURES,
PATENTS, DATA AND COPYRIGHTS (41 CFR PART 9-9)

Section 9-9.107-(3) Policy

(a) This provision states that: "Whenever any invention is made or conceived in the course of or under any contract of ERDA, title to such invention shall vest in the United States unless the Administrator or his designee waives all or any part of the rights of the United States. . . ."

> Comment: We appreciate this statement stems from Section 9 of the Federal Nonnuclear Energy Research and Development Act. Is it the intent of this provision for ERDA to acquire title to all inventions, even those made under supply type contracts wherein no research, development or demonstration is contemplated? If not, what is the purpose of this section? Its consequence?

(b) It is stated here: "In contracts calling for research, development or demonstration work and in other special contracts, the government shall normally acquire title in and to any invention or discovery conceived or first actually reduced to practice in the course of or under the contract, . . ." The contractor is further permitted to retain a nonexclusive, revocable, paid-up license which is subject to revocation or modification by ERDA under specified conditions.

> Comment: The requirement for conveying title in inventions to the government seriously impedes later enforceability of any resulting patents. Any incentives flowing from protectable rights in inventions is therefore stiffled. Further, the prospect of the contractor being contractually precluded from practice of his own inventions at some later time makes invention an Achilles heel. Query: Why should demonstration of a product, system or process normally open up the contractor to acquisition by the government of foreground rights? Certainly, if mere demonstration of the contractor's existing background position is contemplated in a particular contract, the contractor's equities must be favorably considered in waiver and background provisions.

Comment: Although subject to negotiation as to precise extent, the necessity that a contractor expose his valuable background to the prospect of competitive licensing is a serious deterrent to participation by those very members of industry frequently best qualified to assist ERDA and the nation in meeting its Energy objectives.

(f) Subcontracts. It is stated: "(1) The policy expressed in Section 9-9.107-3 is applicable to prime contracts and to subcontracts regardless of tier." Further: ". . .the patent rights clause contained in the prime contract is not to be deemed automatically appropriate for subcontracts."

Comment: In the absence of provision to the contrary, it is assumed that the prime contractor will be called upon to present the position of the lower tier subcontractor concerning both waiver and government acquisition of any background patent rights. Obviously, this places the subcontractor at a substantial disadvantage. Pass-down of patent provisions on a worst case basis by the prime contractor may be anticipated, with resultant discouragement of many potentially well-qualified subcontractors. Particular trouble is foreseen where the program is for demonstration of hardware which is state-of-the-art or close thereto for the contractor at any given tier. Why should, for example, routine adaptation of a valve by a contractor-supplier to meet demonstration specifications, give rise to patent rights in the government?

Section 9-9.107-5. Clause for Contracts (long form).

It should be appreciated that the typical industrial contractor who has had little experience in dealing with the government will have considerable difficulty in administering this complex clause.

(b)(2) Greater rights determinations. It is noted that: ". . . the employee-inventor with authorization of the contractor may request greater rights than the nonexclusive license and the right to request foreign patent rights provided in paragraph (c) of this clause on identified inventions. . ."

Comment: Does the government intend to negotiate directly with the employee-inventor in this and related situations? Is it the intent of the government to hold the employee as well as the contractor to any obligations flowing from such greater rights determinations? Or will the contractor be relieved of any obligations in such case?

(g) Forfeiture of rights in unreported subject inventions. Here again we find the Administrator or his designee making a unilateral determination concerning forfeiture to the government of rights and subject inventions.

> Comment: Is this an incentive to invent? To innovate? Even to advance the state-of-the-art?

(h) Examination of records relating to inventions. Here the contractor is faced with the prospect of exposing his records over a three year period following final payment under the contract to examination at the unilateral determination of cognizant ERDA personnel in order to permit administrative assessment of his compliance with the patent rights clause of the contract.

> Comment: As with the patent rights clause generally, we can see this requirement driving up the costs of the contractor. Query: What protection is there for the contractor's proprietary information which is subjected to a review by the ERDA personnel?

(i) Withholding of payment. Again we find a unilateral determination, i.e., by the Contracting Officer, for withhold of payment of a reserve not to exceed $50,000 or 5% of the amount of the contract, for such reasons as failure by the contractor: To maintain effective procedures for identifying and disclosing subject inventions; to disclose any subject inventions; to deliver interim reports; to provide information regarding subcontracts; and to convey to the Government by way of an ERDA approved form the title or other rights of the Government in each Subject Invention. Final payment under the contract may similarly be withheld.

> Comment: Faced with provisions such as these, the contractor of necessity must set up detailed contract administration procedures to handle the many and varied requirements flowing from the long form patent rights clause. Inevitably this will increase contract costs. Query concerning the real benefits to ERDA?

(j) Subcontracts. Under this provision the subcontrators are swept in under the patent rights clause and faced with negotiation for equitable retention of background rights and waiver re foreground rights, by going through the upper-tier contractor. Reference back to Section 9-9.107-3(f) makes it clear that the general policy expressed in the proposed rules is applicable both to prime contracts and subcontracts. However, it is equally clear that the preferences granted the

faced with the possibility of a unilateral determination by ERDA that the contractor's very success in such risk undertaking will lead to licensing of his competitors? ERDA should appreciate that the contractor in employing his risk capital must of necessity aim for a profit, not the mere receipt of license royalties from competitors.

Section 9-9.109-2. Follow-up by contractor. Again it is made very clear under this clause that the contractors must establish and maintain effective procedures to administer the requirements of the patent provisions of the contract. Because of the depth and detail of such requirements, we can anticipate substantially increased costs.

Section 9-9.109-3. Follow-up by government. There is here provided a good check-off list for determining the various matters required for complying with the patent rights provisions of ERDA contracts. At a time when the Executive Branch is pressing for reduction in proliferation of the many forms already employed by the government, we see more forms developing out of these proposed rules, e.g., form ERDA 213, 242. No doubt there will be others.

Section 9-9.109-6. Waivers. This section provides for the unilateral determination by the Administrator or his designee of all or any part of the rights of the U.S. under the clause. For Advance Waiver or that undertaken before the contract, it is contemplated that 13 factors must be considered, as a minimum, by the Administrator or his designee in determining upon waiver. Where involving the Waiver of Identified Inventions, 12 such factors must be considered. Further, under (e)(3): "All materials submitted in requests for waiver or in support thereof will be made available to the public after a determination on the waiver request has been made, regardless of whether a waiver has been granted."

Comment: The position of the contractor, particularly the subcontractor working through an upper-tier contractor, is particularly tenuous under this provision. For amongst the many provisions considered in deciding upon waiver are such sensitive aspects of the prime or subcontractor's business as: "the extent to which the contractor has made or will make substantial investment of financial resources or technology developed at the contractor's private expense which will directly benefit the work to be performed under the contract; . . ." Further included

Comment: The objections raised to background patent rights conveyance to the government generally apply here; however, the exceptions provided as alternatives in Section (h) (third party licensing) give the contractor more suitable relief, particularly in the instance where the data in the form of results obtained by its use is being supplied by the contractor in sufficient quantity and at reasonable prices to satisfy market needs.

(6) Subcontracting. It is noted that the technical data policy extends to subcontracts at lower tiers. Accordingly, the subcontractor is faced with the same problem of working through the upper tier contractor to resolve any difficulties growing out of his negotiation or performance in the technical data area.

FORM LG-4676

DU PONT
REG. U.S. PAT. OFF.
ESTABLISHED 1802

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE 19898

LEGAL DEPARTMENT

November 24, 1975

R. Tenney Johnson, Esquire
General Counsel
Energy Research & Development Administration
20 Massachusetts Avenue
Washington, D.C. 20545

Dear Mr. Johnson:

Comments by
E. I. du Pont de Nemours and Company
Regarding ERDA's Patent Policy

The Du Pont Company welcomes the opportunity to present comments on ERDA's patent policy. We have a special interest in this matter due to our large commitment to research and development activities and the importance of the patent system as an incentive to R&D. Our annual R&D budget is more than $300 million and more than 5,000 Du Pont scientists and engineers are engaged in this work. Each year we file several hundred U. S. patent applications on inventions based on our R&D efforts and have about 10,000 U. S. patents in force at the present time.

The U. S. patent system offers a valuable incentive for inventors to search for new products and processes and for corporations to expend the large sums necessary for development of these inventions into commercial realities. Examples of such Du Pont products include nylon and "Dacron" synthetic fibers, "Teflon" finishes, neoprene rubber, and the automatic clinical analyser to name a few. Some or all of these would probably not have been discovered and commercialized in the absence of the incentive provided by our patent system.

ERDA has been charged with the responsibility for encouraging development and commercialization of new and under-used energy sources. Private industry could play an important part in this work. A flexible and reasonable ERDA patent policy responsive to industry's needs could provide the incentive necessary for widespread industry participation in ERDA's programs and greatly improve the chances for success. Accordingly, we offer the following views concerning ERDA's patent policy.

the discovery of new and better processes and products. The incentive is the exclusive right which a patent grants to practice an invention for 17 years in return for a full disclosure of the invention to the public. The exclusive right to practice an invention for 17 years is a valuable incentive for research and development because it provides a sheltered period during which research and development expenditures can be recouped. The disclosure is of benefit since it is available to the public when the patent issues and thereby acts as a springboard for further advances by others. Moreover, upon termination of the patent, the invention can be freely practiced by everybody. In contrast, without a viable patent system, it would be necessary to keep inventions secret in order to prevent piracy, and the advance of technical knowledge would be greatly impeded.

We believe strongly that mandatory licensing of energy related patents would effectively deny the benefits of the present patent system to inventors of such subject matter and eliminate much of the incentive of industry to participate in such work. Accordingly, we feel that mandatory licensing of such patents would be counterproductive to achievement of ERDA's objectives.

Moreover, mandatory licensing would accomplish no useful purpose. We believe that human nature and economic necessity insure that a patent owner will fully exploit his patents by practicing them himself and/or licensing them to others — whichever will bring the greatest financial rewards. He will do this without further regulations or legislation. Despite some vague speculations to the contrary, we are aware of no instance of deliberate supression of a patented invention of commercial significance.

We note that the Atomic Energy Act has mandatory patent licensing provisions. Such provisions may have been appropriate at the time of enactment of this Act in view of the national security aspects of atomic energy and the Federal Government, directly or through contractors, having done most of the initial research and development work on atomic energy. However, these considerations do not apply to nonnuclear energy, because most background research and development work in this area has been done by private industry and there appear to be no national security aspects.

* * * * * *

We hope the foregoing will aid you in your deliberations on this important subject. Please call on us if you have

ELECTRONIC INDUSTRIES ASSOCIATION

2001 EYE STREET, N. W.
WASHINGTON, D. C. 20006

TELEPHONE: (202) 659-2200
CABLES: ELECTRON WASHINGTON DC

November 14, 1975

V. J. ADDUCI
PRESIDENT

Mr. Kenneth L. Cage
Office of the General Counsel
Room 92 - 8th Floor
Energy Research and Development Administration
20 Massachusetts Avenue, N.W.
Washington, D. C. 20545

Dear Mr. Cage:

In response to the Notice of Hearing for November 18-19, 1975, to be held under Subsection 9(n) of P.L. 93-577 dealing with the patent policy of ERDA as published in the Federal Register of Wednesday, October 15, 1975, we respectfully request that the enclosed written statement of the Electronic Industries Association be made a formal part of the record. We do not plan to make an oral presentation.

The Electronic Industries Association is the national trade association representing the $35 billion U. S. electronics industry and, of course, member companies have a vital interest in the Nation's energy programs and particularly in the patent policy and proprietary nature of the programs.

We appreciate this opportunity to participate in this review of the ERDA patent policy and would be glad to supply amplifying information.

Very truly yours,

V. J. Adduci

Encls.

COMMENTS
by the
ELECTRONIC INDUSTRIES ASSOCIATION
With Reference to the Patent Policy
of the
Energy Research and Development Administration
As Contained in Public Law 93-577
"Federal Nonnuclear Energy Research and Development Act of 1974"

The Electronic Industries Association is the national organization representing the high technology U. S. electronic industries. Our approximately 270 member companies manufacture the great preponderance of products within this $35 billion industry, ranging from small micro components through major systems for space and defense. Our members have a great interest in the Nation's energy program and it is for this reason that we are pleased to submit comments regarding the patent policy of the Energy Research and Development Administration.

Title Policy

The concept of placing title to inventions generated under Government contracts in the Government is one that is basically alien to high technology, risk-taking companies. Practice of this concept is an obvious disadvantage. We believe that ERDA should also consider other less obvious disincentives inherent in a Government title policy. The presence of title in the Government results, in the first instance, in the need for other complicated and burdensome considerations such as waivers, the concept of revocability, exclusive licensing and the other considerations which the Government must now involve itself in once having taken title. In our judgment it is probable that the step of placing title in the Government is only the first one in a program that will lead to contractors being forced to give up more and more background patent rights and perhaps eventually being asked to divulge valuable and proprietary background data and know-how. These first and subsequent steps may have commercially harmful effects on contractors and are a disincentive to participation.

Waivers

As mentioned in our opening paragraphs, the creation of waivers goes hand-in-hand with a Government title policy. However, the guidelines of the ERDA personnel in administering the waiver policy must be carefully structured so as to highlight the value of waivers to the overall ERDA program and not constitute further disincentives to prospective contractors.

With reference to Subsection 9(c) of the statute (P.L. 93-577 - Federal Nonnuclear Energy Research and Development Act of 1974) we, of course, concur in the establishment of the basic provision for the granting of waivers. One comment needs to be made, however. In the administration of 9(c) a liberal policy for granting waivers must be followed by ERDA to assure any benefit in the waiver principle. Inherent in a liberal policy of granting waivers is a further need for ERDA to take whatever steps necessary to reduce the "red tape" requirements surrounding the waiver application. Even with a liberal policy for granting waivers, if the procedure is unduly burdensome, we believe the waiver principle will be of little benefit to the ERDA program if it discourages contractors from undertaking a contract.

In summary, we urge a fair and liberal administration of 9(c) to provide some incentive to participating firms.

Under Subsection 9(f) of P.L. 93-577, we would urge that the statute clearly provide that sublicensing rights in the contractor be assured. The most obvious reasons for these assurances is the probability at the time of contracting of existing licensing arrangements. An ERDA policy which would mitigate against sublicenses could force a contractor to be in violation of these agreements or not participate in the program at all.

Mandatory Licensing -- Background Rights in Patents and Data

Responding to the specific request in the announcement, EIA would prefer to see no provision for broad compulsory or mandatory licensing in the statute for the reasons we will spell out.

We understand the basic aims of the energy program to advance U. S. energy technology. In that sense, we understand the need for Government in limited cases to obtain rights in background patents which may be absolutly necessary to practice the Subject Invention. The patent rights needed by the Government or by third parties should be obtained by negotiating with the patent owners. We would stress that any other policy can only be a major disincentive to further participation in the ERDA program by competent contractors.

Additionally, no ERDA policy should be extended by definition or practice to invade the contractor's proprietary rights in background data. To require a contractor to divulge some or all of his background data and technical know-how, which frequently is only tangentially involved with practicing a Subject Invention, would be most unfair. Worse yet, such a practice constitutes a disincentive for participation. Clearly, no prudent firm will submit itself to a program which would result in a forced dissemination of valuable and proprietary technology and know-how which is its basis for maintaining a competitive position in the marketplace. We would urge full protection in the ERDA program of proprietary background data.

We fail to see how a broad mandatory licensing program could contribute in any positive way to the success of the ERDA program. Conversely, it would constitute a disincentive for high technology firms who would be placed in the position of being forced to set up competitors or deal with potential competitors from a poor bargaining position.

EXXON RESEARCH AND ENGINEERING COMPANY

P.O. BOX 101, FLORHAM PARK, NEW JERSEY 07932

E. J. GORNOWSKI
Executive Vice President

Telephone: 201-474-1661

November 13, 1975

Energy Research and Development Administration
Office of the General Counsel
Room 92 - 8th Floor
20 Massachusetts Avenue
U.S. Energy and Research Development Administration
Washington, D. C. 20545

Att: Mr. Kenneth L. Cage

Gentlemen:

Pursuant to your notice published in the Federal Register of October 15, 1975, the following comments are offered on behalf of Exxon Research and Engineering Company regarding a modification to the "Federal Non-nuclear Energy Research and Development Act of 1974" ERDA should propose to Congress. Our comments are directed to Section 9.(a) of the Act which defines the nature of the inventions to which the United States Government obtains certain rights in ERDA's non-nuclear energy research, development, or demonstration contracts. We will communicate at a later date in regard to the proposed regulations on patents and technical data and other patent policy matters.

Section 9.(a) defines an invention to which the United States Government obtains title as any invention which is made or conceived "in the course of or under" any non-nuclear contract with ERDA. The phrase "in the course of" could be interpreted as a time frame reference. Thus, it may be misconstrued to bring within the ambit of inventions to which the Government obtains title, inventions conceived and first actually reduced to practice in a contractor's privately financed research and development program relating to or in the same general area of the ERDA program during the period of time that the contractor was engaged in a research and development program with ERDA. Such a construction, in addition to being inequitable, would be inconsistent with the overall objectives of ERDA, as well as with the Presidents' Patent Policy statements which cover inventions resulting from federally sponsored research.

Our concern with regard to this phrase is increased by Subsection (1) of Section 9.(a) of the Act which indicates that the person who made the invention to which the Government may obtain title need not have had any involvement with the ERDA program.

The ambiguity of this phrase is reflected in a number of recent cases (see Fitch and Braun v. The Atomic Energy Commission, 181 USPQ 41).

Accordingly, we propose you eliminate the uncertainty and possible misinterpretation of this phrase by revising Section 9.(a) to read as follows:

> "Whenever any invention is made in the performance of any work under any contract of the Administration..."

Fairchild Industries Germantown, Maryland 20767 (301) 428-6000

November 26, 1975

R. Tenney Johnson, Esq.
General Counsel
U.S. Energy Research and
Development Administration
Washington, D.C. 20545

Dear Mr. Johnson:

This is in response to your letter of October 31, 1975 concerning the proposed ERDA patent policy.

I was able to briefly attend the public hearing and I also reviewed the lengthy and complex proposed rules related to patents and technical data. However, other obligations prevented me from making a presentation at the hearing.

In our opinion, the overall effect of such rules, if they are adopted, will be to at least discourage participation in ERDA contracts. At the very minimum, it will be my responsibility to point out the numerous dangers to participation in contracts under the proposed rules, if they are put into effect, and to recommend disapproval of contracts containing provisions presented in the proposed rules since Fairchild Industries, Inc. (Fairchild) has a responsibility not to give away or encumber its intellectual property rights without receiving adequate compensation for such rights.

Some of the objectionable features of the proposed rules are briefly set forth as follows:

1. The Government normally takes title to the invention if it is first actually reduced to practice under an ERDA contract even if substantial sums had previously been spent by the contractor on the invention.

2. Although greater patent license rights may be granted to the contractor, they are subject to revocation or the patents concerned are subject to compulsory licensing which substantially impairs such rights.

It also appears, in my opinion, that full consideration may not have been given to the possible impact of certain proposed rules related to patent prosecution with the American Bar Association Code of Professional Responsibility, particularly to Canon 5 and the appropriate disciplining rules. Moreover, the same full consideration may not have been given with respect to the Freedom of Information Act.

I note in your letter that you refer to the desirability of mandatory licensing of energy related patents. In effect, such licensing already exists by the proper utilization of 28 U.S.C. 1498.

Basically, a patent is a monopoly given for a fixed period of time as an incentive to make the invention and to publicly divulge the invention and the manner of making and using it, and obviously the incentive is greatly reduced when rights to the patent are taken by the Government. In our opinion, ERDA will not achieve active meaningful industry participation with the title taking patent type of policy set forth in the proposed rules.

Fairchild is familiar with NASA's title taking provisions which it has had in many of its contracts. The title policy was justified in these circumstances since NASA completely funded its programs. However, under the NASA provisions, it was difficult to motivate inventors since they could not participate in Fairchild's incentive patent policy which is similar to other policies in the industry and grants awards upon the filing of an application and when the patent issues. The same policy also allows the inventor(s) to receive percentages of royalties received by Fairchild on a sliding scale starting at 20% of the first $100,000. NASA does have some type of patent award system, but in over six years as Patent Counsel for Fairchild I can remember only three patent applications being filed by NASA on inventions made by Fairchild's employees, and only one award. The opposite was true with respect to Department of Defense (DOD) non-title taking contract provisions and numerous DOD related patents have been filed and awards made under Fairchild's Patent Policy since Fairchild retained title to the patent.

In view of the foregoing, if ERDA wants an aggressive incentive oriented program, I would recommend that ERDA allow full patent rights to remain with the contractor at least in instances where conception has taken place before the contract without the use of ERDA funds, and that ERDA negotiate for proprietary technical data when needed on an individual basis. In many instances, the patent itself will contain the desired data. If a contractor should impede development of energy related inventions through

FEDERAL COUNCIL FOR SCIENCE AND TECHNOLOGY

WASHINGTON, D.C. 20550

November 13, 1975

Honorable Robert C. Seamans, Jr.
Administrator
Energy Research and Development
Administration
Washington, D.C. 20545

Dear Dr. Bob Seamans:

I am taking this opportunity to comment on the Energy Research and Development Administration's proposed patent regulations as recently published in the Federal Register and to make certain suggestions with respect to the report now being prepared by ERDA pursuant to section 9(n) of the Federal Nonnuclear Energy R&D Act of 1974. I am submitting these remarks in my capacity as Chairman of the Federal Council for Science and Technology.

For many years the FCST Committee on Government Patent Policy has been studying the question of what patent policy the Federal Government should adopt vis-a-vis inventions deriving from federally-supported research at our universities and other non-profit organizations. Recently, that long effort reached fruition when the Committee on Government Patent Policy unanimously (with two abstentions) approved a report and recommendations of the University Patent Policy Ad Hoc Subcommittee urging all Government agencies to adopt policies allowing universities with effective technology transfer programs the option to retain title to inventions. The basis for this recommendation is well developed in the Report. It is my belief that the policy advocated in that Report will maximize the utilization of inventions made at universities while at the same time safeguarding the public from any potential abuse. Moreover, the policy advocated in that Report should create an incentive for cooperation between industry and our nation's universities in bringing to practical application new ideas and inventions supported by ERDA. Such goals and incentives are cited in section 9(c) of the Federal Nonnuclear Energy R&D Act as primary objectives of ERDA patent policy.

PAUL LOUIS GOMORY
5609 OGDEN ROAD, WASHINGTON, D.C. 20016

November 17, 1975

Mr. R. Tenney Johnson
General Counsel
Energy Research and Development Administration
Washington, D.C. 20545

Dear Mr. Johnson:

The ERDA patent policy should be based upon a far reaching long-term look at all of the persons and organizations who may invent or improve energy sources.

This means that careful consideration must be given to not discourage investment of funds, time, and energy -- in energy and related fields. This means to me that mandatory licensing would be unwise even as has been the administration position. Undated letter Ken Cole, Executive Director, Council for Domestic Policy, to P. L. Gomory, responding to my letter of January 22, 1974, copies attached. I will discuss below mandatory licensing under two heads.

1- Mandatory licensing of patents resulting from contract to work for U.S.A.

2- Mandatory licensing of just "any" patent which includes patents of citizens and residents, non-citizens and non-residents.

ERDA patent policy should be decided to give participating incentive to those who best qualify or are most competent to accomplish the desired result. Thus, I believe the United States should receive what it pays for. I will discuss what I mean by the word "receive" under a separate head.

The ERDA patent policy should not require consideration of whether there will be a lessening of competition since such consideration is based on a false premise. Accordingly, for reasons set out below, I urge elimination from the statutory policy of all dealing with competition, concentration, and like matters.

* * *

Ours is a voluntary disclosure, patent incentive inventive system. To date it has encouraged the investment of time, funds, and energy to make and, importantly, to disclose inventions. The disclosure of these inventions has fostered competition because disclosure makes the competitor

B. Those who are not would-be ERDA contractors but who direct the investment-into-research policy of organizations will prefer to guide their research into non-energy related fields rather than to risk coming up with inventions which may be mandatorily licensed as by decree of a court which may decide to pay only the cost of producing the last step. Thus, if 10 million dollars had been spent on 10 failures and one million dollars have been spent on a successful or last step, the court may decide to pay for the last step only. As a director of investment policy, I would look very hard indeed to put funds, entrusted to my care, into non-energy related fields. The long-term, enlightened self-interest of the government and of our open, free competitive enterprise system -- to the extent it still exists -- are best served by no mandatory licensing of any kind, not even of ERDA-contractor developed inventions or know-how. Exclusivity brings forth the best-equipped contractors. Once the contract has been negotiated, at the very least, a court-demonstrated need to take away exclusivity from the contractor should be demonstrated even as now required under Section 308 of the Clean Air Amendments Act of 1970.

II LESSENING OF COMPETITION CONSIDERATIONS

As noted, the government patent policy provides, as above quoted, that exclusive rights aquired by the contractor do not remove him from the provisions of the anti-trust laws.

The provisions dealing with "competition", "market concentration", and with whether the grant of license "...are substantially to lessen competition..." which are found, for example, in Public Law 93-577 of December 30, 1974 Patent Policy, Section 9(d)2 D should be stricken from the statute.

The statute would at least in the first instance be a burden upon the administrator which only a judge of a duly-constituted court should bear. The scope of the investigations which will be necessary to be made by the administrator can best be recognized and really fully understood by referring to anti-trust litigation in which such points as relevant market, market concentration, etc., have been involved.*

The ERDA Act placed into the ERDA administration a full-blown United States District Court judge along with the full-blown district court proceedings, including such expensive time-consuming disincentives as subpoenas, interrogatories, depositions, and even discovery or fishing expeditions. Why should a would-be contractor open himself to this sort of thing?

Importantly also, the "responsible applicant" under 9(h)7 who has less know-how or capability and who wishes to proceed at the expense of the exclusive licensee can name the administrator and the licensee defendants in a lengthy law suit, during which time, through discovery and other proceedings, a fishing expedition can be accomplished and our energy programs considerably delayed.

And now the full-blown "district court judge", having attempted to operate full-blown court procedures, will have ended up in another judge's court as a defendant!

*Walker Proc. Equip., Inc. v. Food Mach., Inc. 382 US 172, 177-178 (1965)