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THE WHITE HOUSE

WASHINGTON

May 17, 1976

MEMORANDUM FOR: MAX FRIEDERSDORF
CHARLIE LEPPERT

FROM: *Glenn*
GLENN R. SCHLEEDE

SUBJECT: TITLE V OF H.R. 13350 WHICH IS DUE
FOR HOUSE FLOOR DEBATE ON
TUESDAY, MAY 18

I understand that there may be some confusion as to the Administration's bottom line position with respect to Title V of H.R. 13350 (ERDA Authorization Bill for 1977) - which title deals with the Government charge for uranium enrichment services.

Our position is as follows:

1. Strong support for subsections 1 and 2, which would permit ERDA to recover fair value for UE services.
2. Would prefer that subsection 3, with respect to review by JCAE of proposed changes in the charge, were omitted.
3. However, if subsection 3 cannot be dropped readily, would prefer that entire Title V be retained.

The above has been discussed and agreed to with OMB, ERDA and White House Counsel.

We would appreciate anything you can do to help retain Title V. For your information, the Utilities have mounted an effort to have it removed. Its removal would mean the loss of \$123 million in 1977 revenues which, as a practical matter, would have to be offset by either higher appropriations for ERDA or a cut in the ERDA program.



Please note from the attached fact sheet that \$81 million of the \$123 million will come from foreign customers.

ERDA has contacted Frank Horton and asked him to withdraw from his position stated in the attached "Dear Colleague" letter.

Attachment

cc: Jim Mitchell
Alan Kranowitz
Barry Roth

Fact Sheet

HR 13350 Title V

Pricing of Uranium Enriching Services

On June 24, 1975, ERDA submitted to Congress draft legislation to amend the Atomic Energy Act of 1954, as amended, to revise the basis for establishing prices for uranium enrichment services. This legislation would permit ERDA to establish charges for enrichment services which would recover not less than the Government's costs over a reasonable period of time, on an unsubsidized basis, and in the opinion of the ERDA Administrator would not discourage the development of domestic sources of supply independent of ERDA.

The legislative proposal supports two main objectives:

Enables ERDA to obtain a fair value for its enriching services sold to domestic and foreign customers.

Eliminates or reduces the differential between the Government's charges for enriching services and those of potential domestic private enrichers.

Uranium enrichment is the only step in the production of nuclear fuel that is not privately owned and priced on a commercial basis. Current charges for enrichment services, based on recovery of the Government's costs over a reasonable period of time, do not reflect the full range of cost elements associated with a commercial-industrial activity, such as provisions for taxes, insurance, and a return on equity. The



absence of these factors in the price essentially constitutes a subsidy to both domestic and foreign customers and results in a price significantly lower than can be reasonably expected from any future sources.

The increased revenues which would flow to the United States government from foreign and domestic customers will tend to reduce the general tax burden and minimize the impact of the Government's enrichment program on the U.S. economy..

A comparison of prices for uranium enriching services under the proposed present and revised legislation is as follows:

TABLE 1

Pricing of Uranium Enriching Services for
Fixed Commitment Contracts

	<u>Present Pricing</u>	<u>Revised Pricing</u>
	(\$ per SWU)	
Price in effect as of July 1975	\$53.35	\$76.00
Price in effect as of April 1976	\$59.05	\$82.00
Estimated Price to be Effective for FY 1977	\$63.35	\$90.00

The increases from July 1975 to FY 1977 reflect higher costs to be recovered, principally for cascade power and plant modifications and improvements (CIP/CUP).



The revised pricing would increase ERDA's Uranium Enriching Revenues for FY 1977 from \$539.1 million to \$661.9 million, or an increase of \$122.8 million. Of these additional revenues, about \$80.9 million would be from foreign customers and about \$41.9 million from domestic customers.

Over the next five years, the proposed pricing would result in additional revenues of about \$1.1 billion as follows:

TABLE 2

Additional Revenues from Fixed Commitment Customers

<u>FY</u>	<u>Enrichment Customers</u>	
	<u>Foreign</u> (Millions of 1977 Dollars)	<u>Domestic</u>
1977	81	42
1978	70	50
1979	110	90
1980	140	140
1981	<u>170</u>	<u>200</u>
	<u>571</u>	<u>522</u>

Even with these higher prices, ERDA will spend about \$610 million more in FY 1977 for uranium enriching activities than it will receive from revenues. ERDA projections indicate that at the revised prices it will be about 1982 before cumulative revenues offset cumulative expenditures for enriching operations, not including any possible expenditures for new plant capacity.



The higher price of nuclear fuel under the proposed legislation would result in an increase of about 3.1 percent or .57 mills/KWH in the cost of electricity generated from nuclear power as follows:

TABLE 3

Impact on Total
Bus-Bar Generation Cost
(mills/Kwh)

<u>Basis</u>	<u>Capital</u>	<u>Fuel</u>	<u>O&M</u>	<u>Total</u>
New Legislation	14.18	3.87	1.00	19.05
Old Legislation	14.18	3.30	1.00	<u>18.48</u>
Increase				<u>0.57</u> (3.1%)

When averaged over all electric generation, this increase would amount to a 0.07% and 0.13% increase in the cost of electric power to the ultimate consumer in FY 1978 and FY 1981, respectively.

Averaged, this increase would add less than four cents to a monthly electricity bill of \$30.00.

The GAO reviewed the revised basis of pricing proposed by ERDA and concluded that the assumptions in developing the revised prices, even though judgemental, were reasonable. The Joint Committee modified the legislation to incorporate GAO's suggestion that any change in the basic approach used by ERDA in arriving at its revised pricing must be submitted for congressional approval.



The Committee further modified the proposed legislation to provide for full and complete hearings to be held before the revised prices may take effect.

Critics of nuclear power charge that the taxpayer is subsidizing the nuclear industry. The proposed legislation, if enacted, would remove any basis for charges of a Government subsidy to either foreign or domestic utilities in the pricing of nuclear fuel. ERDA considers this revised basis of pricing essential to obtain a fair value for enriching services.



Congress of the United States

House of Representatives

Washington, D.C. 20515

May 12, 1976

H.R. 13350 - Pricing of Uranium Enrichment Services

Dear Colleague:

We are writing you on an issue of grave concern to the Congress and consumers-- energy prices.

The Joint Committee on Atomic Energy has inserted a provision in the ERDA authorization which would permit a substantial increase in the price of enriched uranium, the fuel which powers our growing number of nuclear power plants.

Present law provides that enrichment services are to be priced to recover "the Government's costs over a reasonable period of time" (42 U.S.C. §2201 v.). In practice, the government charges prices for these services which cover costs plus a 15 percent contingency. This pricing formula is analogous to the "just and reasonable" formulation employed to regulate prices of other essential services and fuels.


By contrast Title V of H.R. 13350 would allow ERDA to set the price of uranium enrichment services at a level which "will not discourage the development of domestic supply independent of" ERDA. This language would allow potential private enrichers to set the price of government services on the basis of some vague "discouragement index". The prices established by this formula would be a dramatic concession of the public interest to private power; and a drastic departure from traditional economic regulation designed to balance the achievement of adequate supply with just and reasonable prices.


The bottomline for consumers is increased energy prices. ERDA estimates that cumulative costs for the next five years would be \$760 million. This estimate was based upon a projected charge of \$76 per Separative Work Unit (SWU, a measure of the effort required to separate a given quantity of uranium feed into two streams, one having a higher percentage of U-235). However, GAO interviews with potential enrichers indicated that a charge of \$100 per SWU would be required in order not to discourage their entry into the industry. Based on this figures, the economic impact on consumers would be double that estimated by ERDA. Even \$76 represents a significant increase over present Government prices of \$53.

Ironically, Title V is not required to encourage private uranium enrichment. All of the government's enrichment capacity is fully contracted for. Therefore, government competition with private enrichers is not at issue.

For these reasons, we will offer a motion to strike Title V of H.R. 13350 when it comes to the floor today. For these same reasons, Title V is opposed by the Edison Electric Institute (representing investor-owned utilities); the American Public Power Association; the National Rural Electric Cooperative Association; Consumer Federation of America; AFL-CIO; and the former chairman of the JCAE, Chet Holifield. Some of their comments are attached to this letter for your consideration.

We hope you will join us in striking Title V of H.R. 13350.


John P. Moss
Member of Congress


Frank Horton
Member of Congress



Attachments

AMERICAN PUBLIC POWER ASSOCIATION

2600 VIRGINIA AVENUE NW WASHINGTON DC 20037 - 202/333-9200

May 11, 1976

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MAY 11 1976
JOHN E. MOSS

OFFICERS

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Vice President CHARLES E. DUCKWORTH
Secretary WALTER R. WOJCIK
Treasurer COLLEEN NORTHQUIT ELY
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JAMES P. FULLER
Hecaldine, Iowa
JAMES L. GRANT
Basin Electric Power
Cooperative, Inc.
Bismarck, North Dakota
CALVIN R. HENZE
Memphis, Tennessee
PIERRE J. HEROUX
Littleton, Massachusetts
PATRICK J. NESTER
Rockville Centre, New York
WARREN D. HINCHEE
Burbank, California
W. G. MULBERT, JR.
PUD #1 of Snohomish County
Everett, Washington
W. BERRY HUTCHINGS
Bountiful, Utah
ALAN H. JONES
McMinnville, Oregon
MAX E. KISURE
San River Public Power District
Columbus, Nebraska
C. D. MCINTOSH, JR.
Lakeland, Florida
JAMES L. MULLOY
Los Angeles, California
A. J. PRISTER
Salt River Project
Phoenix, Arizona
JOHN POLANCIC
Rockelle, Illinois
V. G. SCOGGIN
Nashville, Tennessee
JAMES D. SHERFEE
Bristol, Tennessee
EARL SWITZER
Macon, Missouri
J. B. THOMASON
South Carolina Electric
and Gas Company
Columbia, South Carolina
MARION H. ULMER
Joplin, Missouri
DENNIS VALENTE
California Municipal
Utilities Association
Sacramento, California
CONALD VON PATTEREN
Baltimore, Maryland

The Honorable John Moss
U.S. House of Representatives
2354 Rayburn House Office Bldg.
Washington, D.C. 20515

Dear Mr. Moss:

I understand that when the ERDA authorization bill, H.R. 13350, comes to the floor this week, you will offer an amendment to strike Title V of the bill which seeks to substitute speculative private prices for the existing statutory standard of "recovery of the government's costs over a reasonable period of time" in establishing charges for uranium enrichment provided by Federal facilities. On behalf of the American Public Power Association, which represents 1,400 local public power systems in 48 States, I wish to express my support for your amendment. Title V should be stricken for the following reasons:

1. It would significantly boost consumers' electric bills at a time when high rates are already imposing a heavy inflationary burden.
2. It would decrease the competitive pressure of nuclear power in keeping down the cost of fossil fuels.
3. It would abandon a policy of setting Federal prices on the basis of actual costs and use instead fictional costs based on private projections.
4. It would eliminate a yardstick against which to measure the charges of future private enrichers and set a floor for future charges.
5. It would discourage foreign interest in purchasing U.S. uranium enrichment services.

Title V is not necessary to resolve the pending question of who should build the next increment of uranium enrichment capacity. As pointed out by the General Accounting Office: "Since the Government's capacity is fully contracted for, its enrichment charge has little competitive importance to the potential private enrichers."

I urge that Title V be deleted from H.R. 13350.

Sincerely,





EDISON ELECTRIC INSTITUTE

90 PARK AVENUE • NEW YORK 10016 - (212) 572-2700

May 4, 1976

RECEIVED

MAY 04 1976

JOHN E. MOSS

The Honorable John O Pastore, Chairman
Joint Committee on Atomic Energy
Congress of the United States
Room E-403, The Capitol
Washington, D. C. 20510

Dear Senator Pastore

The Edison Electric Institute, the principal national association of investor-owned electric utilities, notes that the Joint Committee on Atomic Energy has voted to report out the ERDA Appropriations bill, S.3105. We are seriously concerned about Title V of the proposed bill which would authorize commercial pricing of enrichment services by ERDA.

The Institute has strongly supported passage of the Nuclear Fuel Assurance Act, S.2035, which would provide for commercial pricing in a competitive environment. We take strong issue, however, with arguments which have been advanced in favor of commercial pricing under conditions in which the government continues as the sole source of enrichment services. It is our understanding that existing legislation requires the government to fully recover the cost of providing enrichment services, and that prices are now, and have been, set accordingly. Further, it is our opinion that enactment of the proposed legislation is not necessary to encourage private commercial alternatives. There are other available courses which can accomplish this objective at lower cost, in our view.

The electric utility industry is acutely aware of the impact of increased prices upon consumers and its responsibility to do everything possible to control costs. Our belief is that the proposed legislation would unnecessarily increase the cost of electricity.

We respectfully recommend that the Committee agree to a floor amendment to delete Title V from the ERDA authorization bill so that the electric utility industry may have an opportunity to present its views on this most important matter at legislative hearings to be held at a later date.

Sincerely yours,

W Donham Crawford
President



energy policy task force

1012 14th STREET, N.W. - SUITE 901 - WASHINGTON, D.C. 20005 - (202) 737-3732

LEE C. WHITE, CHAIRMAN

ELLEN BERMAN, DIRECTOR

May 5, 1976

Dear Representative:

As reported by the Joint Committee on Atomic Energy, a little noticed provision in the ERDA authorization bill requires the ERDA Administrator to set prices for Federal uranium enrichment services at a level which will "not discourage" private concerns from moving into this field. The Energy Policy Task Force of Consumer Federation of America is vigorously opposed to this language.

The proposed amendment to the Atomic Energy Act would abandon the statutory standard of "recovery of the Government's costs over a reasonable period of time" and substitute hypothetical costs of private companies which might -- or might not -- enter the enrichment field.

ERDA is currently charging prices for enrichment services which cover its costs plus a 15% contingency, so there is no need to boost prices to avoid subsidization.

Since the Federal government is presumably not in the business of making excess profits off the services it sells to its citizens, the addition of fictional costs to Federal prices can only be regarded as an unjustified, regressive, and discriminatory tax on consumers of power produced by nuclear power plants.

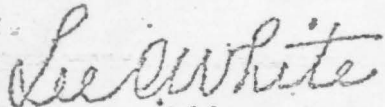
Higher charges which would result from this change in Federal policy would unreasonably inflate the electric bills of consumers who are already staggering under continuing rounds of rapid rate increases. The government's uranium enrichment capacity is fully contracted for and it is pointless to raise prices on existing contracts for the alleged purpose of encouraging non-Federal enrichment. Congress has not yet made a decision on who should build future increments of needed uranium enrichment capacity, but the answer to that question does not swing on ERDA pricing at Federal facilities.

Adoption of the private pricing approach would effectively eliminate the role of the Federal government as a yardstick to measure the charges of private enrichers which Congress may allow to perform this function in the future. A "discouragement index" prepared by private companies would be substituted for actual government costs in the establishment of Federal price ceilings. Congress would have created a new Federal price support program with a floor determined by the beneficiaries -- potential private enrichers -- and ratified by ERDA. This would be a flagrant abandonment of the government's responsibility to protect consumers, and

would further fuel contentions that Congress exhibits an unseemingly willingness to relinquish its powers in favor of large corporations.

We urge that the title containing this drastic modification of existing law be stricken from the ERDA authorization bill when it comes to the floor.

Sincerely,



Lee C. White
Chairman



AMENDMENTS TO HR 13350

ERDA AUTHORIZATION BILL

HOUSE ACTION -- MAY 18-19



BELLA S. ABZUG
20TH DISTRICT, NEW YORK

COMMITTEES:
GOVERNMENT OPERATIONS
PUBLIC WORKS

Congress of the United States
House of Representatives
Washington, D.C. 20515

May 4, 1976

WASHINGTON OFFICE:
1807 LONGWORTH OFFICE BUILDING
WASHINGTON, D.C. 20515
202-225-5935

DISTRICT OFFICES:
252-7TH AVENUE
NEW YORK, N.Y. 10001
212-620-6701

725 WEST 181ST STREET
NEW YORK, N.Y. 10033
212-860-6158

720 COLUMBUS AVENUE
NEW YORK, N.Y. 10023
212-630-1300

Dear Colleague, ✓

I am planning to introduce an amendment to H.R. 13350 on Thursday to strike all funds for "nuclear weapons activities" from the ERDA Fiscal Year 1977 authorization.

The purpose of my amendment is to strike the nuclear weapons authorization so that we can debate it separately. The intention is not necessarily to reduce ERDA's ultimate weapons authorization but rather to enable Congress to consider important weapons issues apart from unrelated civilian energy issues.

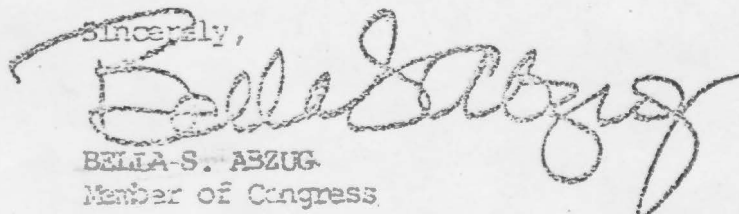
As you may recall, I offered a similar amendment supported by more than 100 Members to strike those funds designated for nuclear weapons from the FY 1976 ERDA authorization. Some Members who voted against the amendment did so to permit funds to be available to ERDA during FY 1976 but noted that they too favored the concept of separating the weapons authorization from the rest of the bill.

Important changes in America's nuclear strategy have been taking place. The basic strategy of "strategic deterrent" is being supplanted by "counterforce" or first-strike. Administration officials have hinted that "tactical" nuclear weapons are an option for policy-makers to consider. For Fiscal Year 1977, the Committee has recommended a 20% increase in nuclear weapons program operating expenses over last year.

Surely all these issues deserve the full and serious consideration attainable only through separate authorization proceedings rather than under the five-minute rule. I will offer my amendment to provide Congress with that opportunity. It would be a tragedy if, once again, we were told that it is "too late" to make the change this year.

If you have any questions, please contact Alex Knopp of my staff at Ext. 55635.

Sincerely,



BELLA S. ABZUG
Member of Congress



Jude Case 205-7250

To: Mr. Greer
Mr. Culpepper ←

Subject: AMENDMENT TO H.R. 13350, FY 1977 ERDA AUTHORIZATION BILL,
BY REP. BELLA ABZEG

I understand that Ms. Abzug is going to offer an amendment to the subject bill to remove all funds related to Weapons Activities and have the Weapons Funds included in a separate Authorization Bill voted on independently from H.R. 13350. Specifically, based on calls from Len Koja, Office of Congressional Relations, and Alex Knopp, Rep. Abzug's office, asking me to check the figures, she proposes the following:

	<u>H.R. 13350</u>	<u>Abzug Amendment</u>	<u>OC Recommends</u>
Page 2, line 13 (Total Title II)	\$5,233,304,000	No change	\$4,013,198,000
Page 16, line 11 (Operating)	3,371,676,000	\$2,351,271,000 ^{1/}	2,294,570,000 ^{1/}
Page 18, line 18 thru Page 19, line 14	69,400,000 (All specifically identified weapons activity projects.)	0	0
Page 20, line 13 (GPP)	74,610,000	54,110,000	54,110,000
Page 20, line 17 (Equipment)	276,368,000	203,268,000	203,268,000
Change			
Operating		-1,020,405,000	-1,077,106,000
Equipment		- 73,100,000	- 73,100,000
Construction			
Line Item		- 69,400,000	- 69,400,000
GPP		- 20,500,000	- 20,500,000
Total		\$1,183,405,000	\$1,240,106,000

^{1/} The difference is \$56,701,000 and represents the adjustment to get from B/O to B/A for weapons in the Authorization Bill.

I have notified Wainwright (ANS) and Groover (DPA) of this request and our recommendations.

Robert S. Boyd
Robert S. Boyd, Chief
National Security Branch
Office of the Controller

1203.1

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1. Striking the funds for nuclear weapon activities from H.R. 13350 is not necessary to bring about separate debate, nor is separate authorization. Weapon program funding requirements are identified separately in the ERDA budget request, and separate justification is provided for each element of the weapon program. It should be possible to arrange for separate debate of the weapon program by some process short of new legislation.
2. Separate authorization for ERDA nuclear weapon activities would be detrimental to both programs in that it would reduce flexibility for reprogramming funding between weapon and energy programs in time of emergency or when serious unanticipated changes in program resource requirements occur. [An illustration of such a need occurred recently. Delays in acquiring Congressional approval of an FY1976 supplemental eventually led to the realization that unless funds could be reprogrammed from nonweapon programs into weapons, the labs would be forced to reduce manpower levels below the level which would be supported in the transition quarter (when the supplemental funds were expected to be available) and greatly below the planned FY1977 level. Since such a temporary reduction in force would be very undesirable, it was decided to reprogram funds from another area (in this case, happily, from greater than anticipated uranium enrichment revenues). OMB concurred and since Congress merely had to be notified, \$8M was promptly reprogrammed, solving the problem. Had the weapon program been funded under separate legislation, a supplement would have been the only solution, and in view of the fact that the FY1976 supplemental delay was causing the problem there likely would have been no way to avoid a damaging personnel reduction.]



Amendment to H. R. 13350, As Reported

Offered by Ms. Abzug

Page 16, line 11, strike out "\$3,371,676,000" and insert
in lieu thereof "\$2,351,271,000".

$$\begin{array}{r} 5,565,000 \\ \hline 3,371,676,000 \end{array}$$



Amendment to H. R. 13350, As Reported

Offered by Ms. Abzug

Page 18, strike out line 18 and all that follows through page 19, line 14.

And redesignate the following paragraphs accordingly.

Page 20, beginning on line 13, strike out "\$74,610,000" and insert in lieu thereof "\$54,110,000".

Page 20, line 17, strike out "\$276,368,000" and insert in lieu thereof "\$203,268,000".





UNITED STATES
ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
WASHINGTON, D.C. 20545

MAY 6 1976

Honorable Bella S. Abzug
House of Representatives

Dear Ms. Abzug:

I appreciate the interest expressed in your April 23, 1976 letter to Mr. Cantus, the Director of ERDA's Congressional Liaison Office, to better understand the Weapons programs which comprises a significant portion of ERDA's FY 1977 budget request. Included in ERDA's total budget request of \$6.048 billion for budget authority (B/A) and \$5.266 billion in budget outlays (B/O) is funding for the Weapons program of \$1.203 billion in B/A and \$1.154 billion in B/O. The following unclassified information will provide some insight into the purpose and objectives of the Weapons program and the planned utilization of the funds being requested in FY 1977. I regret that the classified nature of this program does not permit the release of a more detailed explanation. However, we have provided additional classified details to our Authorization and Appropriations Committees.

Enclosure 1 provides dollar estimates of the Weapons program at the subprogram and category levels of the Operating Expenses Appropriation and the Plant and Capital Equipment Appropriation for FY 1975, FY 1976, the FY 1976 Transition Period, and the FY 1977 budget request.

Enclosure 2 is justification for the Weapons program funding request as contained in ERDA's FY 1977 Congressional budget submission.

Enclosure 3 lists each weapons system currently in the research, development, and/or production phase as well as the advanced development concepts which are to be supported by the FY 1977 budget request for the Weapons program.

One of the principal foundations of ERDA is multi-program laboratories and the scientific and management expertise inherited from the Atomic Energy Commission. As Weapons was one of AEC's larger programs, a significant portion of the work performed at these laboratories was directed toward nuclear weapons R&D. The expertise of these laboratories, under AEC and now ERDA management, has enabled this Nation to stay in the forefront in nuclear Weapons design and availability. These same laboratories have contributed significantly to the development and commercial application of nuclear energy and many other important areas.




Honorable Bella S. Abzug

- 2 -

The success in the development of atomic energy for both military and civilian applications is attributable to having a single agency responsible for the management and funding of the entire program, and the existence of an environment wherein weapons and energy R&D programs mutually share the benefit of their individual advances. As just one example, significant and dynamic programs are under way in the research and development of laser and electron beam fusion technology with the goal of generating electrical power by the fusion process. Other energy applications being pursued at ERDA's multi-program laboratories include laser isotope separation, geothermal power, solar energy, coal gasification, gas and oil well stimulation, wind energy and energy conservation.

I am hopeful the information provided herewith will enable you to better understand the Weapons program and its role in the Energy Research and Development Administration. If I can be of further assistance, please contact me.

Sincerely,

*for and
in the absence of* 
M. C. Greer
Controller

Enclosures:
As stated



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WATL
Sec.



CONGRESS OF THE UNITED STATES
HOUSE OF REPRESENTATIVES
WASHINGTON, D.C.

May 5, 1976

PROPOSED AMENDMENT TO ERDA AUTHORIZATION BILL--NUCLEAR PROLIFERATION

Dear Colleague: ✓

Thirty years ago, the only nation in the world with a nuclear bomb was the U.S.

Today, at least six nations—the United States, Great Britain, France, the Soviet Union, the People's Republic of China, and India—and reportedly a seventh—Israel—already have nuclear weapons.

Brazil, Argentina, Pakistan, South Africa, Turkey, Egypt, and Indonesia are on their way to getting nuclear bombs.

Irresponsible nuclear suppliers—notably France and West Germany—which are licensed by U.S. firms for nuclear technology and which depend largely on the United States to fuel their own power reactors, are now exporting nuclear weapons potential. Providing a country with nuclear power gives it not only plutonium (the substance needed to make a bomb) but also the scientific-engineering complex needed to make the short step to producing nuclear weapons.

By 1990, reactors in the developing nations, many of them ruled by unstable or unfriendly dictators, will be generating 30,000 pounds of plutonium annually—the equivalent of 3,000 atomic bombs.

The responsibility for this horrifying proliferation which may possibly destroy this planet lies with this country alone. Thus, it is up to the United States to use what leverage it has left (until the Europeans have their own nuclear fuel facilities) to curb proliferation.

As a first step in combatting nuclear proliferation, I shall offer an amendment to the Energy Research and Development Administration (ERDA) Authorization bill aimed at requiring a country which receives nuclear technology from the United States to agree to place all its nuclear facilities under the nuclear safeguards administered by the International Atomic Energy Agency. My amendment also urges the Administration to seek the cooperation of other nuclear suppliers in applying this condition (and includes a presidential waiver for national security).

Thus, my amendment is necessary to assert U.S. leadership in the struggle to restrain the spread of nuclear weapons. I would welcome your support. If you have any questions, please call Bill Anderson of my staff (x53061).

Sincerely,

Clarence D. Long
CLARENCE D. LONG



Comments on Mr. Long's Amendment to HR 13350

Section 123 requires a Presidential finding that any such agreement will "promote" the common defense and security. Thus, although the language of the Long amendment is somewhat different than that of Section 123, the end effect is similar: to require affirmative Presidential certification of the need for such an agreement.

To the extent that this language places restrictions upon the Executive Branch's ability to initiate negotiation of executive agreements, it seems to require a national security decision without knowledge of the content of the final agreement. Moreover, such a limitation would be an unwarranted and probably unconstitutional infringement of the Executive's authority to conduct foreign relations.

The US at present has 30 agreements for cooperation with individual nations and 2 with groups of nations, EURATOM and IAEA. Characteristically, these are permissive in nature; that is, they provide a framework rather than a commitment for the export of nuclear materials or equipment. Actual exports are made under general or specific licenses. Five new or substantially revised agreements are now in negotiation of which Brazil, Egypt and Israel would be affected by this amendment. As NPT parties, Iran and Greece would not be affected.

We would also note that the amendment would affect all of a nation's nuclear programs (and not only the peaceful nuclear facilities of non-nuclear weapon countries which are not parties to the NPT). This is inconsistent with the NPT which does not require any nation to place *all of* its military activities, e.g., naval propulsion, under IAEA safeguards.

The US considers it desirable in principle for all suppliers to adopt the policy of exporting only to nations which have accepted IAEA



safeguards on their full fuel cycle by NPT membership or otherwise; and the US has favored such an approach. If all suppliers adopted this policy, it would probably have a significant effect in persuading non-NPT nations to join NPT or accept IAEA safeguards on their full fuel cycle (although some non-NPT nations might press development of indigenous capacity without such safeguards). It is worth noting, in this connection, that the IAEA Board of Governors, with US support, has recently approved a resolution asking the Agency's Secretariat to prepare a document setting forth the possible content of a safeguards agreement under which a nation not party to the NPT could accept IAEA safeguards over its full nuclear fuel cycle, if it desired. The availability of such a document may be a useful step in support of nonproliferation objectives. At present, however, other nuclear exporters are not prepared to make full-fuel-cycle safeguards or NPT membership conditions of supply.

If the US alone adopted this policy, non-NPT countries desiring nuclear supplies could simply turn to suppliers which do not impose this requirement; consequently, the intended effects from the nonproliferation viewpoint would be lacking. Furthermore, the US ability as a supplier to influence the nuclear programs and safeguards policies of non-NPT nations would be significantly diminished. Another possible result would be the breakdown of supplier cooperation and a return to relatively uncontrolled competition among other supplier countries.



It must be recognized that unilateral US actions such as this would not lead to a cessation of nuclear power programs in the countries affected. The US no longer has a monopoly in the nuclear area. There are other suppliers of nuclear materials, equipment, and technology. Also, most non-nuclear countries can, if they are so determined, turn themselves into nuclear countries. The only way to try for the laudable goal envisaged by this amendment is to attempt to coordinate with the other supplier countries and to convince the recipient countries that this goal is necessary and in their own best interest.



0-2001/192



JOHN D. DINGELL
15TH DISTRICT, MICHIGAN

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Congress of the United States
House of Representatives
Washington, D.C. 20515

COMMITTEES:
INTERSTATE AND FOREIGN
COMMERCE
CHAIRMAN, SUBCOMMITTEE ON
ENERGY AND POWER
SMALL BUSINESS
CHAIRMAN, SUBCOMMITTEE ON
ENERGY AND ENVIRONMENT
MERCHANT MARINE AND FISHERIES
MIGRATORY BIRD
CONSERVATION COMMISSION

May 5, 1976

Dear Colleague:

This week the House is scheduled to consider H. R. 13350--the ERDA authorization bill for FY 1977.

Sections 108 and 306, which are identical, authorize ERDA to retain millions of dollars of receipts annually and to use the revenues as operating expenses to fund ERDA programs without further appropriation by Congress. Normally such revenues are required by 31 U.S.C. 484 to be deposited into the treasury. I believe that this provision violates Rule XXI, clause 5 of the House Rules which provides that no bill "carrying appropriations shall be reported by any committee not having jurisdiction to report appropriations" Clearly, the Science and Technology and Joint Atomic Energy Committees do not have such jurisdiction.

This is the grossest form of backdoor financing. I plan to offer an amendment to these sections requiring such revenues to be subject to annual appropriation Acts.

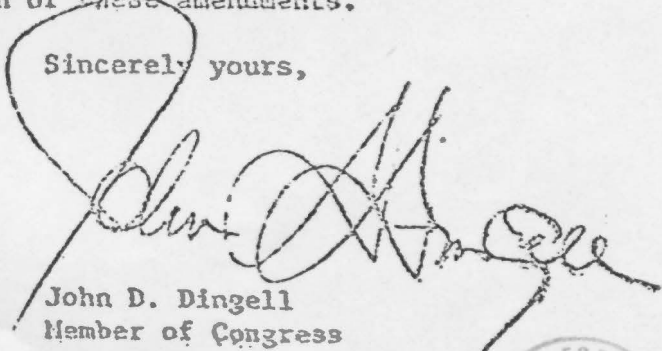
Sections 107 and 305 of the bill, which are identical, authorize ERDA to spend possibly millions for engineering design and construction projects merely on the basis that ERDA has proposed a bill to authorize such construction. Such a bill may never be enacted or even considered by Congress. The Senate report (94-762) of the Joint Committee on the companion bill (S. 3105) states (pp. 57-58):

"The authority is limited to permitting ERDA to contract for advanced architect/engineer services for construction projects that are deemed by the Administrator to be essential to meet the needs of national defense or the protection of life and property or health and safety prior to Congressional authorization."

However, this limitation is not a part of the bill itself. I think it should be. It is my intention to offer an amendment to insert this limitation in these two sections so as to make it clear that this authority applies only in emergency situations of this type.

I urge your support for both of these amendments.

Sincerely yours,


John D. Dingell
Member of Congress



FEDERAL BUDGET
HAVE PRIORITY

JACK EDWARDS

OF ALABAMA

HOUSE OF REPRESENTATIVES

Wednesday, May 5, 1976

EDWARDS of Alabama. Mr. Speaker, this year I send my constituents in the District of Alabama a questionnaire to learn their views on major issues with which we are faced here in the Congress. I have completed the compilation of the results and I would like to share them with you and the other Members of the House.

THE RESULTS—BALANCED FEDERAL BUDGET SHOULD HAVE PRIORITY

Seventy percent of the approximately 10,000 who returned my 1976 Legislative Questionnaire said they favor a balanced budget even if it means cutting back on some programs that they consider important.

When this opinion was compared with the results of the 1975 Legislative Questionnaire, Question No. 1, and three other questions, the results were as follows:

1. A majority response indicates to me that the majority of the First Congressional District of Alabama understand that cuts in Federal spending have to be made if our governmental condition is to be brought back to a level that affects us directly.

2. Government spending each year is one of our nation's problems and it is so many in Southwest Alabama that it is a basic fact.

3. In the past, "What action or combination of actions at the federal level would be most effective in stimulating employment?" said that employment through the Federal Government was the best way to cure unemployment. Fifty-one percent said they favor increasing tax incentives to private industry in order to encourage expansion in the private sector, and 33 percent said that a Federal action is needed; the Federal Government should be allowed to take its own course.

4. When asked with 11 percent who said that more Federal money for public works might help and four percent who said that increasing Federal spending to stimulate the economy might be the answer.

5. The return was Question No. 4, "What is the future of the Social Security program?" The question read, "Social Security authorities have testified to Congress that in the 1980's there will not be enough money left in the Social Security fund to continue the present level of benefits."

6. In this situation, citizens were asked for the answer closest to their own. The possible solution. Forty-three percent said the Social Security Trust Fund should be replenished from general tax revenues. Sixty percent said the fund should be replenished by increasing payroll taxes and that benefits should be cut. Several other suggestions were made, including various other suggestions, including Social Security over to private companies, allowing only the Federal Government to receive benefits, and Medicare out from under Federal supervision.

7. When asked who favors dipping into the Social Security fund to help the Social Security program, 60 percent realized that to do so would result in an increase in taxes for everybody and would probably result in the Social Security Program being abandoned by creating another

political football. The general fund is already \$660 billion in debt. While this might appear to be the answer at a quick glance, the long-term ramifications would be disastrous in my opinion.

The answer to Question No. 5 came as a bit of a surprise. Forty-nine percent of those returning the questionnaire said present laws should be amended to prohibit the manufacture and sale of "Saturday Night Specials" and other cheap handguns. Another 20 percent said they feel legislation requiring the licensing and registering of all types of firearms should be passed.

These two percentages were compared with 19 percent who said no further legislation is needed because present laws are satisfactory, and 11 percent who said all gun laws are an unconstitutional infringement on the right to bear arms.

Tabulations do not total 100 percent on each question because some chose not to answer some questions and in cases where more than one answer was marked to one question, none of the answers to that one question were counted. I sincerely appreciate those who took the time to give me their opinion and I will be mindful of the collective results when voting on these issues in the House of Representatives.

Other questions and results, not referred to above, were:

2. With both inflation and unemployment plaguing our economy today, which would you rather see eliminated first: Inflation, 80 percent; unemployment, 18 percent.

6. Legislation has been introduced in this session of Congress which would require courts to set a minimum sentence of five years for any Federal crime where a weapon is used. Do you support this approach as a crime deterrent? Yes, 82 percent; no, 11 percent; no opinion, 5 percent.

7. Do you feel the activities and expenditures of the CIA should be closely monitored by Congress? Yes, 47 percent; no, 49 percent; no opinion, 2 percent.

8. Should these CIA reports be released to the public? Yes, 11 percent; no, 87 percent; no opinion, 1 percent.

9. Do you think the United States financial contribution to the United Nations (which currently runs about one-fourth of the U.N. budget) should be: Maintained, 5 percent; increased, 1 percent; reduced, 52 percent; terminated, 41 percent.

10. Do you favor the United States retaining the Panama Canal or relinquishing it to the Country of Panama? U.S. retention, 97 percent; relinquishing to Panama, 2 percent.

11. Do you favor increasing trade between the United States and Communist countries? Favor, 56 percent; oppose, 43 percent.

12. Do you think the United States should get involved in another country's affairs to prevent a Communist takeover? Yes, 47 percent; no, 49 percent; no opinion, 2 percent.

RALPH ALTMAN

HON. WILLIAM A. STEIGER

OF WISCONSIN

IN THE HOUSE OF REPRESENTATIVES

Wednesday, May 5, 1976

Mr. STEIGER of Wisconsin. Mr. Speaker, an outstanding member of the Federal civil service, Ralph Altman, has retired this week. His valuable advice and assistance will be sorely missed.

In my service on the Unemployment Compensation Subcommittee I have had the opportunity to work with Ralph Altman on a number of occasions. His understanding and familiarity with the

intricate details, as well as the broader policies underlying the Federal-State unemployment compensation system have made him an invaluable asset.

This month marks the 35th anniversary of Ralph Altman's service with the Federal Government; he has served well in his current capacity as Deputy Administrator, Unemployment Insurance Service at the Department of Labor, and has provided the Unemployment Compensation Subcommittee with a tremendous amount of assistance. His easy manner has made him that much more valuable to us in our deliberations.

He has participated in the development of every unemployment compensation legislative proposal put forward by the Department of Labor in the past 15 years and has served with great distinction under both Democrat and Republican administrations.

I know that my colleagues on the Unemployment Compensation Subcommittee join with me in saying thank you to Ralph Altman and wishing him the very best—and a long and enjoyable retirement.

ERDA AUTHORIZATION FOR
FISCAL 1977

HON. JOHN D. DINGELL

OF MICHIGAN

IN THE HOUSE OF REPRESENTATIVES

Wednesday, May 5, 1976

Mr. DINGELL. Mr. Speaker, this week the House is scheduled to consider H.R. 13350—the ERDA authorization bill for fiscal year 1977.

Sections 108 and 306, which are identical, authorize ERDA to retain millions of dollars of receipts annually and to use the revenues as operating expenses to fund ERDA programs without further appropriation by Congress. Normally such revenues are required by 31 U.S.C. 484 to be deposited into the Treasury. I believe that this provision violates rule XXI, clause 5 of the House Rules which provides that no bill "carrying appropriations shall be reported by any committee not having jurisdiction to report appropriations. . . ." Clearly, the Science and Technology and Joint Atomic Energy Committees do not have such jurisdiction.

This is the grossest form of backdoor financing. I plan to offer an amendment to these sections requiring such revenues to be subject to annual appropriation acts.

Sections 107 and 305 of the bill, which are identical, authorize ERDA to spend possibly millions for engineering design and construction projects merely on the basis that ERDA has proposed a bill to authorize such construction. Such a bill may never be enacted or even considered by Congress. The Senate report—94-762—of the Joint Committee on the companion bill (S. 3105) states—pp. 57-58:

The authority is limited to permitting ERDA to contract for advanced architect/engineer services for construction projects that are deemed by the Administrator to be essential to meet the needs of national defense or the protection of life and property

May 5, 1976

of health and safety prior to Congressional authorization.

However, this limitation is not a part of the bill itself. I think it should be. It is my intention to offer an amendment to insert this limitation in these two sections so as to make it clear that this authority applies only in emergency situations of this type.

I urge your support for both of these amendments.

VISIT TO CAPITOL HILL BY THE HONORABLE ALAIN POHER

HON. STEPHEN J. SOLARZ

OF NEW YORK

IN THE HOUSE OF REPRESENTATIVES

Wednesday, May 5, 1976

Mr. SOLARZ. Mr. Speaker, I am pleased to announce that Congress will have the honor tomorrow of hosting a most distinguished visitor, Mr. Alain Poher, the President of the French Senate, who will be here under the auspices of the Committee of Concern for Syrian Jewry.

Mr. Poher has been President of the French Senate since 1968. He previously was elected President of the European Community three times beginning in 1968. His record as a leader of the European Community dates back to his close association with Robert Schuman starting in 1946, his work with the European Coal and Steel Community and his key role in the evolution of the Common Market and the European Parliament.

Mr. Poher was also an active figure in the French Resistance during World War II. For his service, he was honored with the Croix de Guerre and the Medal of the Resistance.

His willingness to fight for noble and just causes is amply reflected in his current work to help alleviate the unfortunate plight of the Jewish community in Syria. Mr. Poher is the chairman of the International Conference for Deliverance of the Jews in the Middle East. He has chaired two international conferences in Paris, in 1970 and 1974, to consider the situation of the Jews in the Middle East.

In 1969, Mr. Poher began a systematic and ultimately successful effort to get Jews out of Iraq. In the last 3 or 4 years, he has concentrated on the Syrian Jewish question. His close connection with the Jews in Israel dates back long before 1969. In fact, in 1961 he led a group of European Parliamentarians to Israel.

Mr. Poher's concern for Jews in the Middle East is based both on his deep humanitarian concerns and his feelings for the historical role of the Jewish people in the world. His magnanimous work is a cause for celebration for us all.

For a Syrian Jew to take up the cause of the Syrian Jewish community is an obligation.

For a Jew who is not of Syrian extraction to take up the cause of Syrian Jews to be expected.

But for a Christian, like Alain Poher, to provide leadership in the fight to se-

cure the release of the Jewish community in Syria can only be called a mitzvah.

In the best and most profound sense of the word, Mr. Alain Poher is a righteous gentile and he deserves the applause and appreciation of men and women of good will all over the world.

ITALY'S FUTURE MUST BE OUR CONCERN

HON. MARIO BIAGGI

OF NEW YORK

IN THE HOUSE OF REPRESENTATIVES

Wednesday, May 5, 1976

Mr. BIAGGI. Mr. Speaker, the recent collapse of the government of Premier Aldo Moro has caused tremors of concern throughout the Western World. The collapse coupled with the announcement of elections on June 20 and 21 has given rise to new fears of a Communist controlled government in Italy.

In the months ahead it is imperative that the Christian Democrat Party reestablish itself as the dominant political party in Italy. They must begin by trying to restore the confidence of the Italian people, as well as work with the other non-Communist parties in Italy to form an effective coalition government.

The Italian people cannot be deceived by the sugar coated promises of the Italian Communist Party when they profess their dedication to the principles of democracy. Communism and democracy are as alien to one another as death and life. I cannot envision the Italian Communist Party establishing a revolutionary new precedent, and adopting democratic principles in their ideology.

Many are conceding the June elections to the Communists. I prefer to believe that the Italian electorate will demonstrate their continued support of democracy and not allow the Communists to gain control of their nation.

An editorial appeared in Tuesday's Baltimore Sun discussing the situation in Italy. I offer it for the consideration of my colleagues:

ITALY AT THE BRINK

The inability of Italy's non-Communist parties to agree on a basis for rule has precipitated the election they dread. If the momentum of recent elections is maintained, the Communists should finally surpass the Christian Democrats as the largest single party in Parliament with a bloc too large to exclude from a ruling coalition. They would return to a role in Italy's central government after three decades' exclusion.

Italy's importance to NATO and to Western strategies in the Mediterranean cannot be overstated. The Italian Communist party's professed dedication to democracy and even to NATO, and its concomitant annoyance to Moscow are more charming than reassuring. Several democratic governments have survived Communist participation, Italy's among them, but the ones in Eastern Europe that vanished heard siren songs similar to Enrico Berlinguer's national democratic communism before they fell. Moscow's ability to pull the Italian party's strings is still very great. This election is being fought against a background of economic crisis, recurrent violence, despair in the democratic

left, and a tincture of corruption and stagnation among the Christian Democrats. The scandals of political payments by multinational defense and oil corporations could not have come at a worst time.

Yet possibly the despair has gone too far and the weaknesses in the Italian political structure are misunderstood. A party that has ruled for three decades as the Christian Democrats have must be expected to suffer arteriosclerosis and corruption, in any country and under any system. Power corrupts, absolute power atrophies. The Italian weakness, in European terms, is the absence of a democratic left alternative. The Socialists, with 9.6 per cent of the vote in 1972 and the Social Democrats, with 5.1 per cent, are not up to the responsibility that democracy imposes. The most to which either can hope is a junior partnership, with the party of capitalism and the Church, or with the party of dictatorship and suppression.

Italian elections are normally marked by marginal shifts, not wild swings. Even this pattern induces fear that, once more, Communism gain will realign power. But there is a new issue, the Communists themselves. The very voters who put Communists into every major city government north of Rome may, for the first time, consider issues of security and democracy. The Communists, no longer the vehicle of safe protest, are on the defensive. Moscow is heavy baggage to carry. Foreign currency markets are betting on a Communist plurality, but the Italian voters have yet to decide.

ABILITY COUNTS

HON. JOHN Y. McCOLLISTER

OF NEBRASKA

IN THE HOUSE OF REPRESENTATIVES

Wednesday, May 5, 1976

Mr. McCOLLISTER. Mr. Speaker, Americans are becoming more aware of the tremendous potential of the physically and mentally handicapped. We are also aware that past policies of isolation have not only worked a cruel and unnecessary personal hardship on the handicapped, but have deprived this Nation of the fruits of their creativity and their labors.

The President's Committee for Employment of the Handicapped deserves our heartfelt thanks for its effective efforts in portraying the situation of handicapped persons and its leadership in integrating the handicapped into the Nation's work force.

Every year, the committee sponsors an essay contest among students. This year's Nebraska "Ability Counts" contest winner is Miss Deniece Bowers, a student at Northwest High School in Omaha. Her essay is particularly effective in communicating the urgent need to assure the handicapped their full share of employment opportunities in this country. I commend it to my colleagues:

HOW A HANDICAPPED PERSON APPROPRIATES LIFE

A pair of bright brown eyes sparkle at us from an incredibly thin face as Bill's head-stick enables him to type out the words "Do you think, as a writer, I ought to stick to knitting?" A victim of cerebral palsy, Bill is 100% disabled; he can neither walk nor talk nor sit in his wheelchair without supportive braces and restraining straps. Yet, in the story published by our local newspaper...

Dingell

FACT SHEET

Sections 107, 209, and 305 of H.R. 13350, which are identical, authorize ERDA to perform construction design services on projects which have been included in a proposed authorization bill transmitted to Congress, and which ERDA determines to be of such urgency that construction of these projects should be initiated promptly upon enactment of legislation appropriating funds for construction.

Although not stated in the bill, Congressional direction concerning the use of this authorization limits the scope of this authority to permit ERDA to contract for advance architect-engineering (A-E) services only for such urgent projects that are essential to meet the needs of national defense or the protection of life and property or health and safety.

Uses of this advance A-E authority are subject to review and approval by Congressional committees having jurisdiction over ERDA programs.

Further, ERDA has written internal procedures setting forth the limitations for use of this authority with the express purpose of implementing the cited Congressional direction. Therefore, while these additional limitations are not so stated in the authorization bill, ERDA considers them to have the force of law in the use of this authority.

In view of the procedures currently in effect controlling ERDA's use of this advance A-E authority and the requirement to obtain Congressional approval, the inclusion of these provisions in the authorization bill may not be required.



FACT SHEET - DINGELL AMENDMENT

Sections 108, 210, and 306 of H.R. 13350

ERDA prepares its operating expenses budget request for annual submission to Congress assuming the retention of revenues, particularly those received through the sale of enriched uranium production services. Therefore, the operating expenses funding provided for in ERDA's authorization and appropriation bills represent a net amount. Without the retention of revenues, the funding appropriated by Congress for ERDA's budget would have to be increased by several hundred million dollars. (For instance, in FY 1977, the current revenue estimated is \$738 million.)

The inclusion of these cited sections in ERDA's authorization bill is not intended to provide the Agency with "back-door" financing. In 1975, the staff of the Public Works Subcommittee of the House Committee on Appropriations requested the Agency to review its appropriations language to identify provisions which under the rules of the House of Representatives would be subject to a point of order for lack of prior authorization. The provision to use revenues which was carried in the appropriations act at that time was found to lack such authorization. In order to correct that omission, the language identical to that currently found in sections 108, 210 and 306 of H.R. 13350 was added to the FY 1975 Bill.

In reviewing the language of the cited sections in H.R. 13350, while it was not intended, an interpretation could be made that it is appropriation language. To obviate any ambiguity, it is recommended that the following phrase be inserted at the beginning of the language currently



contained in Section 108, 210, and 306:

"Subject to appropriations Act by Congress...."



11-11-1964
P. 1



CONGRESS OF THE UNITED STATES
HOUSE OF REPRESENTATIVES
WASHINGTON, D.C. 20515

May 12, 1976

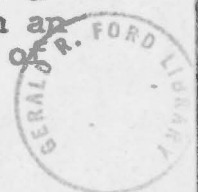
Dear Colleague,

Due to the volume of yesterday's CONGRESSIONAL RECORD, my Extension of Remarks was not inserted. Please find below the text of my statement.

ERDA Authorization Amendment

I intend to offer an amendment to the FY 1977 authorization bill for the Energy Research and Development Administration. The amendment is offered as a means to clarify a disconcerting and inequitable situation at the Lawrence Livermore Laboratory (LLL). LLL, located in my district, has for some years labored under conflicting and overlapping employer-employee regulations. ERDA, the State of California the University of California and the Lab itself all exert authority at various times. On one hand employees are confused about the multiplicity of grievance procedures and on the other, the management of the Lab is burdened by contending policies.

The Legislative Counsel for California in analyzing LLL employer-employee relations concluded that "...an employee or employee organization does appear not to have any recourse concerning the university's discretionary actions with respect to employer-employee relations, unless the university's action constitutes an abuse of discretion, in which case the employee might seek judicial review by writ of mandate." In normally accepted labor practices, a grievance exists whenever an employee feels he or she has a work related problem. At LLL, salaries, merit reviews, performance evaluations, working conditions, harassment and classification are not grievable. They are subject only to administrative review and the Employee Relations Manager is responsible for interpretation as to those appeals which are grievable. This is much too sensitive an area to be governed by so discretionary a policy. Both the employees and management suffer in an attempt to choose the best course at a divided road of regulations.



While investigating this situation, I discovered that out of 74 government-owned, contractor operated (GO-CO) ERDA facilities totalling more than 90,000 employees, the Lawrence Livermore Laboratory is one of a handful of facilities that does not comply with provisions of Taft-Hartley. Most ERDA contractors including the Princeton Plasma Physics Laboratory and Westinghouse's Idaho Naval Reactors Facility adhere to Taft-Hartley rules. Their research, their tests, their experiments operate under recognized labor practices. Only five other contractors do not carry on their scientific discoveries in this manner. The remainder of the contracting facilities be they private universities, corporations, or consortia of colleges, conform to these standards because they fall under the broad umbrella of the National Labor Relations Act. Since LLL receives its contract through a political subdivision known as the U.C. Board of Regents, it is exempted because of a technicality. The Lab employees and management are not professors. They are not tenured or involved with students or broad scale university academic endeavors. Instead, these people work at a federally owned facility over 30 miles away from the University of California campus. My amendment is not designed to single out Livermore Lab employees for some sort of special treatment. Its intention is to cause the 5600 employees at LLL to conform to the normal labor practices and grievance structure available to over 80,000 GO-CO employees.

The contract between ERDA and the Lab's parent, the University of California is set to expire on September 30, 1977. My amendment gives U.C. and ERDA until this time to alter the contract to bring the Lawrence Livermore Laboratory into the mainstream of equitable labor relations. We must stand opposed to a system of intergovernmental, interdepartmental, and interpersonal relationships that work against the employee and management. U.C. and LLL have nothing to loose by granting these employee rights. They can only gain by this infusion of enlightenment into an otherwise embittered situation. Let's give them a clear set of rules on which to base their relations. I believe my amendment would establish this base and create an environment where all would benefit, all would gain.



STARK AMENDMENT

The amendment introduced by Congressman Stark would prohibit ERDA from spending funds to support the Lawrence Livermore Laboratory after October 1, 1977 unless the operating contract requires the Laboratory to extend to its employees "the same rights as are guaranteed in Section 7 of the National Labor Relations Act..."

This amendment is based upon an erroneous assumption as to the state of labor relations at the Laboratory. It is also legally unsound and, if passed, could not accomplish its purpose.

In his letter of explanation of this amendment to Chairman Pastore of the Joint Committee, Congressman Stark asserts that labor relations at the Laboratory are chaotic, with hundreds of grievances, all resolved in favor of management, and large amounts of employee unrest.

The facts are these:

There are two formal grievance procedures available to Laboratory employees. The first, applicable to employee concerns as to layoffs, discipline, promotions and similar individual matters affecting employee rights, consists of two steps after informal discussion with the supervisor has not resolved the concern. The first step is to the Department Head, the second to a hearing Panel or Officer appointed by the Laboratory Director.

Before 1971 the Chancellor of the Berkeley campus received appeals. In 1972 the procedure was supplemented by providing that the aggrieved employee could have his case heard at second step by an impartial arbitrator selected through the American Arbitration Association.



The third step of the procedure is a ruling by the Laboratory Director, who has the power to overturn a Panel or arbitral decision. This power has never been exercised.

In the ten years since 1966, a total of 81 cases have reached the first step of the formal grievance process. Of these, 51 were appealed to the second step, the others having been granted, compromised or withdrawn. At the hearing stage, five of the 51 were granted (original decision reversed), nine were withdrawn, two were compromised and one is still pending. In only five cases did the grievant request appointment of an outside arbitrator.

The second procedure, the Administrative Review Procedure, was established in 1970. This procedure deals with such matters as classification and wage rates. Through 1975, 218 appeals were filed in this procedure. Two hundred of these cases involved only four issues, 18 involved separate issues. Thus, in six years, only 22 separate management decisions have been appealed. In all but one of these cases the administrative decision was upheld.

The most striking thing about this record is that there have been so few formal grievances. Just 81 grievances in ten years, and 22 issues as to pay and classification in six years, in a large, sophisticated and complex industrial laboratory employing more than 5,000 workers of all types and classes, is not a poor record. It is not a record which supports the Congressman's allegation in his letter of March 23.

Even if this were to be considered a poor record, the proposed rider won't do the job. This effort to extend the private sector rights established by Section 7 of NLRA would, in two major respects, run



head-long into California law.

Section 7 gives private employees the right to "engage in concerted activities for the purpose of collective bargaining or other mutual aid or protection." As is well known, striking is such a concerted activity except where specifically made unlawful by the Act's Section 8(b)(4) or a no-strike provision in an agreement.

Section 3536 of the California Government Code, read together with Section 923 of the Code, explicitly denies public employees of California the right to strike for any reason. Such strikes are illegal in California, and cannot be made legal by contract between ERDA and the University.

This proposed amendment would be ineffective for another reason. At the heart of the rights given by Section 7 is the right of employees to select organizations which can claim exclusive bargaining rights in an appropriate unit. Exclusive representation of defined units of public employees simply does not exist under the California Code. Section 3528, which gives employees the "right to represent their members in their employment relations," also preserves the right of non-members to have a different representative in their employment relations and grievances with the State.

It is worth noting that the California legislature had the opportunity, in 1975, to create for University employees, substantially the rights which this amendment seeks to give. This opportunity lay in the "Moretti Bill", which died in committee.

The propriety of seeking to create such rights for some public employees in California by an amendment to the ERDA authorization bill is dubious, to say the least.



If this amendment should pass, Congressman Stark would have succeeded only in putting 5,000 of his own constituents out of work.



10700
101



JEROME A. AMBRO
3D DISTRICT, NEW YORK

COMMITTEES
PUBLIC WORKS
AND TRANSPORTATION

SCIENCE AND TECHNOLOGY

STUDY, ORGANIZATION
AND REVIEW OF CONGRESS

AD HOC SELECT COMMITTEE
ON OUTER CONTINENTAL SHELF

CHAIRMAN, CLASS OF '94

Congress of the United States
House of Representatives
Washington, D.C. 20515

12 MAY 1976

FLOOR ACTION TODAY

Dear Colleague:

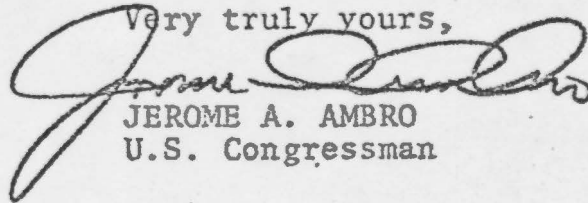
With several solar-related amendments slated for introduction during the ERDA authorization today, I wanted to restate the function of the amendment I will be offering.

As stated in my 5 May "Dear Colleague," the amendment assures the timely development of the Solar Energy Research Institute by making it a line item in the ERDA FY1977 budget.

This action in no way adds to the final authorization figure agreed to in Science and Technology markup, but only specifies that this money will be directed to the Institute.

It should also be noted that ERDA official testimony was used in arriving at the budget figures used in the amendment.

Very truly yours,



JEROME A. AMBRO
U.S. Congressman

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ROME A. AMBRO
DISTRICT, New York

COMMITTEES:
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AND TRANSPORTATION
SCIENCE AND TECHNOLOGY
INDUSTRY, ORGANIZATION
AND REVIEW OF CONGRESS
SELECT COMMITTEE
ON CONTINENTAL SHELF
SPEAKER, CLASS OF '94

Congress of the United States
House of Representatives
Washington, D.C. 20515

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NEW YORKER BUILDING
755 NEW YORK AVENUE, FOURTH FLOOR
HUNTINGTON, New York 11743

May 5, 1976

Dear Colleague, ✓

When the authorization bill for the Energy Research and Development Administration comes to the House floor on Friday, I will offer an amendment which will specifically direct that 1.5 million dollars, which has already been authorized for the Solar Energy Research Institute for FY '77, be used by the Administration for establishing and starting up the Solar Energy Research Institute as a physical facility.

I will submit a second amendment which will provide that 4 million dollars of the 229 million dollars authorized for Solar Energy Research Development and Demonstration be expended for research at the Solar Energy Research Institute during FY '77.

These amendments, if adopted, will assure that the Administration will establish the Solar Energy Research Institute as a physical entity as intended by the Congress, and do so during FY '77.

The figures in my amendment (1.5 million dollars for start up of the plant and 4 million dollars for actual research and development at the facility) are consistent with estimates made by the Energy Research and Development Administration during testimony before the Science and Technology Committee. In other words, these are the ERDA estimates for what they believe is a reasonable level of activity for start up of the Solar Energy Research Institute.

My amendment is not intended to infer block grants directly for the Institute. The 4 million dollars provided in my amendment will be part of the money already authorized by the Committee for use by the ERDA for solar energy research, development and demonstration and is completely consistent with ERDA's announced intent and program level.

The Solar Energy Research Institute will provide a focus for solar energy research, development and demonstration carried out under the direction of the ERDA. Its purpose is to provide a critical mass of scientific and engineering brain

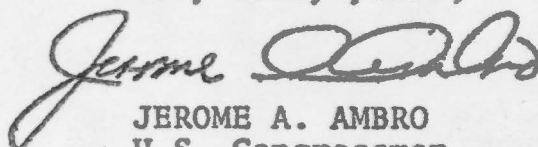


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power and competence along with the equipment required for most types of solar energy research, development and demonstration. I believe that SERI is so important that we must insist on its physical start up during FY '77. My amendment would do this and I urge your support.

Very truly yours,


JEROME A. AMBRO
U.S. Congressman



Comments on Amendment to ERDA authorization bill by Rep. Jerome A. Ambro concerning funding for the Solar Energy Research Institute (SERI)

Inasmuch as the exact text of the Ambro Amendment is not available, comment can only be made on the description of the amendment, not its substance.

Mr. Ambro proposes to direct that \$1.5 million of the Solar Energy Program authorization be expended for establishing and starting up SERI as a physical facility. He also proposes to direct that \$4 million of the authorization be expended for research at SERI during FY 1977.

The proposed Ambro amendment(s) appear to be redundant. They specify that ERDA do what it already has stated it will do within existing authorization categories. Such amendment(s) could hamper ERDA's flexibility in allocation of solar energy funds.

It appears that no useful purpose would be met by the Ambro amendments and we recommend that they not be adopted.



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JAMES H. SCHEUER
11TH DISTRICT, NEW YORK

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FAR ROCKAWAY, NEW YORK 11091
TELEPHONE: 212-471-7800

Congress of the United States
House of Representatives
Washington, D.C. 20515

May 5, 1976

INTERSTATE AND FOREIGN
COMMERCE COMMITTEE

SUBCOMMITTEES:
HEALTH AND THE ENVIRONMENT
OVERSIGHT AND INVESTIGATION
CONSUMER PROTECTION AND FT

SCIENCE AND TECHNOLOGY
COMMITTEE

SUBCOMMITTEES:
SCIENCE, RESEARCH AND TECHN
DOMESTIC AND INTERNATIONAL
SCIENTIFIC PLANNING AND ANAL
ENVIRONMENT AND THE ATMOSP
AVIATION AND TRANSPORTATION
RESEARCH AND DEVELOPMENT

FOR

MEMBER'S IMMEDIATE ATTENTION

Dear Colleague:

It is my intention to offer an amendment to Title I (Non-nuclear Programs Section) of the FY 1977 Energy Research and Development Administration, (ERDA) Authorization Bill. ~~This amendment would alter the conservation subsection which includes Research and Development funds for improved conversion efficiency, in the language of the Bill.~~

My proposal would amend the authorizing language so that:

First, \$6 million would be earmarked for the operating budget authority for ERDA's Office of Waste Systems Utilization for FY 1977; and

Second, The Office of Waste Systems Utilization would be granted the discretionary authority to obligate a total of no more than \$7 million in multi-year projects.

The President's Budget Message of last January announces this Administration's intention to allocate only \$1.2 million to the former category and only \$1.65 million to the latter category. This allocation of funds would be woefully inadequate. Indeed, ERDA's Office of Waste Systems Utilization has said that such funding not only would not permit even their present modest program to continue at its current snail's pace, but also would require the office actually to slow down work in progress, and to forego any further investigation into other technology

For the past thirty years, we have taken the easy route for the disposal of our solid wastes by using so called "sanitary land fills" and by the burning of wastes. The time for such heedless and simplistic answers has ended. Each year this nation will produce 135 million tons of urban wastes which could be processed to recover millions of tons of metals, glass, paper, oil, and gas.

Just consider the waste inherent in the disposal of aluminum: 41 bbl of oil are required to produce a ton of new aluminum, but it only takes one bbl of oil to produce that same ton if it comes from recycled aluminum. Smaller, but still significant savings can be derived from the recycling of copper, zinc and a host of other minerals.

In addition, we must also consider the savings we derive in our balance of payments by not having to import these minerals or the oil needed to produce these metals.

R. FORD

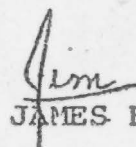
EPA has estimated in its publication, "Energy Conservation Through Improved Solid Waste Management," that about 70% to 80% of residential and commercial wastes are combustible and contain an energy content equivalent to approximately 522,000 bbls/day of oil, or 190 million bbls/year.

It is absurd to continue the misguided policy of so-called "sanitary land fills" which, due to leaching of pollutants, cause the contamination of drinking water supplies and the contamination of wetlands - the breeding ground of fish, crustaceans, and birds. The dumps which surround our nation's airports not only foster the breeding of disease carrying rats, but also attract seagulls that have repeatedly caused damage to incoming and outgoing aircraft and pose a serious safety hazard to air travel.

Solid waste recovery is a new and potentially beneficial technology which can simultaneously improve our environment and provide us with recycled materials and that most precious of resources, energy. ERDA should have the resources it needs to continue and expand its programs of resource recovery and the production of oil and gas through the decomposition of solid waste. My amendment is an opportunity for the Congress to insure that ERDA will use its funds in both an environmentally and energy constructive manner.

With every warm best wish.

Yours,


JAMES H. SCHEUER, M.C.



JAMES H. SCHEUER
11TH DISTRICT, NEW YORK

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Congress of the United States

House of Representatives

Washington, D.C. 20515

May 11, 1976

INTERSTATE AND FOREIGN
COMMERCE COMMITTEE

SUBCOMMITTEES:
HEALTH AND THE ENVIRONMENT
OVERSIGHT AND INVESTIGATIONS
CONSUMER PROTECTION AND FINANCE

SCIENCE AND TECHNOLOGY
COMMITTEE

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DOMESTIC AND INTERNATIONAL
SCIENTIFIC PLANNING AND ANALYSIS
ENVIRONMENT AND THE ATMOSPHERE
AVIATION AND TRANSPORTATION
RESEARCH AND DEVELOPMENT

Dear Colleague:

Last week, I wrote you concerning an amendment to Title I (Non-nuclear Programs Section) of the FY 1977 Energy Research and Development (ERDA) Authorization Bill. My amendment would alter sub-section 8, the conservation sub-section which includes research and development funds for conservation in buildings.

My proposal would amend the authorizing language so that: (1) \$7 million would be earmarked for the operating budget authority for ERDA's Office of Waste Systems Utilization; and (2) \$6 million would be earmarked for budgetary outlays for fiscal year 1977.

Let me re-emphasize that this amendment would not increase the authorization for ERDA by one single dollar--it is simply an earmarking amendment.

Since I last wrote to you, my amendment has received endorsements from a number of public interest groups and individual lobby groups here in Washington. Groups endorsing the amendment so far include: Energy Policy Task Force of the Consumer Federation of America; Rural Electrification Corporation; Friends of the Earth; National Governor's Conference; Citizens for Clean Air; National Association of Counties; National League of Cities; the National Taxpayers Union; and the National Clean Air Coalition.

I have taken the liberty of enclosing copies of the endorsements and look forward to your support on the Floor of the House. The ERDA Authorization Bill is scheduled for Floor debate tomorrow, Wednesday, with a small possibility that it could be delayed to Thursday.

With every warm best wish,

Yours,


JAMES H. SCHEUER



energy policy task force

1012 14th STREET, N.W. • SUITE 901 • WASHINGTON, D.C. 20005 • (202) 737-3732

LEE C. WHITE, CHAIRMAN

ELLEN BERMAN, DIRECTOR

May 11, 1976

Dear Representative:

When the FY 1977 Energy Research and Development Administration Authorization Bill comes before the House, an amendment will be offered by Rep. James Scheuer to designate funds for ERDA's Office of Waste Systems Utilization. The Energy Policy Task Force of the Consumer Federation of America urges your support of the Scheuer amendment.

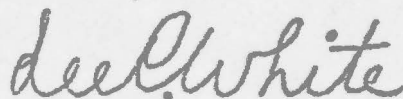
The Scheuer amendment authorizes \$6 million in direct outlays for the Office of Waste Systems Utilization for FY 1977 and up to \$7 million in obligations for special projects extending beyond FY 1977.

It becomes increasingly clear each day that the energy crisis is far from over, and that proven methods of preserving our natural resources must be explored and new methods must be developed. Solid-waste management is a step towards a sound, efficient, rational and environmentally sound solution to one of the most pressing problems facing the Nation today. Recent studies have already indicated that waste recovery techniques can produce monumental savings in energy resources. Effective solid waste recovery can produce the energy equivalent of over half a million barrels of oil a day.

The funds for the Office of Solid Waste Utilization recommended in the President's January Budget Message are only a fraction of those requested in the Scheuer amendment and would have required a drastic reduction in the current programs undertaken by the Office of Waste Systems Utilization.

The Scheuer amendment will allow the Office to continue its present efforts and to explore new technologies, and we urge you to support the amendment.

Sincerely,



Lee C. White
Chairman



consumer federation of america

National Governors' Conference

1150 Seventeenth Street N.W. Suite 600

Washington, D.C. 20036

(202)785-5600

Robert D. Ray
Governor of Iowa
Chairman

May 6, 1976

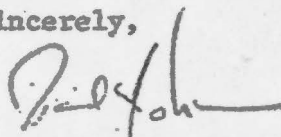
Honorable James H. Scheuer
United States House of Representative
Washington, D. C. 20515

Dear Congressman Scheuer:

The NGC supports expanded research activities in the field of energy production from solid waste recovery systems. This is detailed in the enclosed policy resolution D18, "Solid Waste Management," as updated at the Winter Meeting of the Governors on February 22-24, 1976.

In fact, the Governors strongly support increased efforts by ERDA and other federal agencies in all matters of energy conservation, as the only relief to the energy shortage in the short range.

Sincerely,



David W. Johnson
Staff Director
Committee on Natural Resources
and Environmental Management

Enclosure



May 6, 1976

The Honorable James H. Scheuer
House of Representatives
2438 Rayburn House Office Building
Washington, D.C. 20515

Dear Congressman Scheuer:

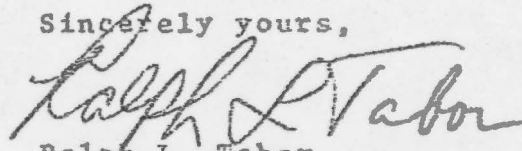
We are taking this opportunity to let you know of our strong support for an amendment that you will be offering to H.R. 13350, the ERDA authorizing legislation. Your amendment would require that \$7 million in budget authority be specifically set aside within ERDA for solid waste related research and development. The program would be administered by ERDA's office of waste systems utilization and would compliment the limited solid waste program currently under the Environmental Protection Agency.

The issue of solid waste management is critical for all local governments throughout the country. Recent projections indicate that over one-half of the nation's localities will run out of land-fill capacity within the next two years. Depletion of our natural resources is a problem with profound political, economic and environmental ramifications. All these factors comprise a compelling case for expanding the role of federal government in the solid waste area. One way in which the federal government can increase it's involvement in this activity is by funding research and development projects aimed at recovering the resources we currently dispose of throughout the country.

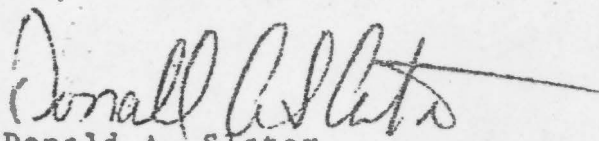
Your amendment would be a first step in accomplishing the overall objective of resource recovery.

We appreciate your leadership in this area and hope your colleagues will join us in support for this important amendment.

Sincerely yours,



Ralph L. Tabor
Director of Federal Affairs
National Association of Counties



Donald A. Slater
Director of the Office
of Federal Relations
National League of
Cities

DLS/RLT/lac



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western union **Mailgram**[®]



CONGRESSMAN JAMES SCHEUER
RAYBORN HOUSE OFFICE BLDG
WASHINGTON DC 20515

THIS IS TO INDICATE OUR SUPPORT OF YOUR AMENDMENT TO THE FY1977 ERDA AUTHORIZATION BILL EARMARKING FUNDS FOR THE CONTINUATION OF WORK IN THE OFFICE OF WASTE SYSTEM UTILIZATION (CONSERVATION RESEARCH AND DEVELOPMENT SECTION OF THE BILL).

AS YOU ARE AWARE URBAN WASTE MANAGEMENT SOON WILL OVERWHELM THIS AND OTHER MAJOR CITIES IN THE VERY NEAR FUTURE UNLESS WE FIND AN EFFECTIVE WAY OF RECLAIMING MATERIAL AND ENERGY ASSETS AVAILABLE IN THIS RESOURCE. YOUR AMENDMENT SHOULD SPEED THIS DEVELOPMENT.

THE ENVIRONMENTAL COMMUNITY LOOKS FORWARD TO YOUR ACTIVE SUPPORT OF TOUGH AUTO EMISSION STANDARDS WHEN THE CLEAN AIR AMENDMENTS REACH THE HOUSE FLOOR LATER THIS MONTH.

BRIAN KETCHAM PE
VICE PRESIDENT CITIZENS FOR CLEAN AIR INC
25 BROAD ST
NEW YORK NY 10004

22:14 EST

MGMWSHT HSB



INDIANA'S
ASSOCIATION
OF RURAL
ELECTRICS

7 May 1976

The Honorable Ray J. Madden
Member of Congress
2409 Rayburn House Office Building
Washington, D.C. 20515

Dear Congressman:

Congressman James H. Scheuer of New York has proposed amendments to H.R. 13350 that would provide funds for the office of waste systems utilizations and for their solid waste recycling program. As you are perhaps aware, this is a part of ERDA authorization title I non-nuclear program, section 101, sub-section 8.

It is our feeling this program is not only good from an environmental standpoint, but research of this nature will no doubt lead to a more useful disposal of waste in the rural areas of America.

Congressman Scheuer has supported the REMC program on many occasions during his years in the Congress. After a study of the above amendments, it would be greatly appreciated if you would support them.

Sincerely,

ERNEST P. HOWE
Director
Congressional Relations

EPH/pw

Letters were sent to: Hon. Andrew Jacobs, Jr., Hon. Lee H. Hamilton, Hon. Philip R. Sharp, Hon. Elwood H. Hillis, Hon. Philip H. Hayes, Hon. J.T. Myer, Hon. David W. Evans, Hon. Floyd Fithian, Hon. John Brademas, Hon. Ray J. Madden and Hon. J. Edward Roush



Indiana Statewide Rural Electric Cooperative Inc

P.O. Box 24517 - 720 North High School Road, Indianapolis, Indiana 46224 - Phone (317) 248-9453

5-10-33 | 5



Congress of the United States

House of Representatives

Washington, D.C. 20515

May 11, 1976

Dear Colleague:

Action on the Energy Research and Development Administration (ERDA) Authorization bill, once again affords us the opportunity to combat excessive Federal intervention into the private lives and businesses of our U.S. citizens. I intend to offer ~~two~~ major amendments targetting unnecessary rules and regulations and impersonal changes of administrative hearing venue as imposed by regulatory agency fiat.

The one amendment will require that all of ERDA's rules and regulations receive a Congressional OK prior to implementation, in language similar to that of the Regulatory Reform Act. Thanks to the majority of my colleagues who were present during the proceedings on the EPA's R & D bill, we successfully amended the R & D bill to require that any proposed EPA R & D regulation be subject to Congressional oversight and review. This is a case where the piece-meal approach is the best; where an omnibus bill tackling all regulatory agencies is sure to run into serious roadblocks. If we mean to have regulatory reform, if we mean to fulfill our role as overseers of the all-too-independent agencies we have created, this is the perfect vehicle with which to act.

The other amendment is strictly a people's amendment and that deals with hearings. Oftentimes a proposal is made affecting any political subdivision of the Government, whether it be city, county, municipality, or what have you, and those individuals lack the ability for any input because the hearings are never held where the people are. My amendment will make it a statute requirement that the Administrator of ERDA prescribe and implement rules ensuring that a public hearing or hearings will be held at the location of the area affected. In this way, all interested persons will be afforded ample opportunity to present their views.

I look forward to your support for both of these long-overdue measures. Thank you.

Sincerely,

Bill

WILLIAM M. KETCHUM
Member of Congress



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CONFIDENTIAL
NUCLEAR



Congress of the United States

House of Representatives

Washington, D.C. 20515
May 11, 1975

Dear Colleague:

On Wednesday, the House is scheduled to consider the ERDA Authorization for FY 1977, H.R. 13350. We intend to offer an amendment to the section of the bill authorizing the Clinch River Breeder Reactor, the demonstration plant for the liquid metal fast breeder program (LMFBR).

Our amendment is a simple one. It would require that a determination be made when the construction license for the Clinch River plant is issued that its operation will "provide adequate protection to the health and safety of the public." Under existing law, such a finding need not be made until after the plant has been built and is ready to operate. Given the special circumstances surrounding this particular plant, we are convinced that this safety determination needs to be made at the first stage in the licensing process.

Serious questions have been raised about risks posed by this new technology. A March 13 report by a senior Nuclear Regulatory Commission technical expert, Dr. Stephen H. Hanauer, noted that present designs for the LMFBR do not make adequate provision for human error, sabotage, safe siting, or the potential of a runaway reaction within the reactor core. We've attached a February 15 New York Times article on Dr. Hanauer's report as well as an endorsement of our amendment by Mr. Robert Pollard, a former NRC Project Manager.

We would also like to refer you to a statement in the May 7 Congressional Record, Page E 2443. It outlines Justices Douglas and Black's dissent to a 1961 Supreme Court decision allowing the Atomic Energy Commission to grant a construction permit to the Enrico Fermi breeder reactor without first making an adequate safety determination. The Fermi plant suffered a partial core melt-down in 1965, the most serious accident to date in the history of nuclear power development.

The change we are proposing in the licensing procedure is necessary if we are going to safeguard our investment in nuclear power technology. If adopted, our amendment may provide the margin of safety we need to strengthen public confidence in our nuclear power development effort.

We hope that we can count on your support for our amendment.

Sincerely,


Donald M. Fraser


Teno Roncalio



May 4, 1976

Congressman Donald M. Fraser
1111 House Office Building
Washington, D.C. 20515

Dear Congressman Fraser:

This is in response to your letter of April 30, 1976.

The current licensing practices of the Nuclear Regulatory Commission (NRC) are such that a finding of "adequate protection" to the health and safety of the public may be postponed until after construction of a nuclear plant is substantially complete. In fact, construction permits are routinely issued even when neither the NRC staff nor the applicant knows the design details of the nuclear plant to be constructed. The theory is that if design modifications are needed to provide adequate safety, such modifications can be ordered during the evaluation of the application for an operating license. Unfortunately, once construction is substantially complete, the cost of modifications is so high that they are frequently not ordered.

Based on my experience on the NRC staff, I believe that one of the most needed reforms is to require a finding of adequate protection to the health and safety of the public prior to granting a construction permit. Such a change in the licensing process would require a thorough evaluation of the safety aspects of a proposed nuclear power plant when any necessary design changes can be made at the least cost. Since it appears that most of the cost overruns on the Clinch River fast breeder reactor project will be born directly by the taxpayers, it certainly seems logical for the Congress to attempt to keep those costs as low as possible by enacting the amendment you and Mr. Roncalio intend to offer.

In addition to holding down costs, I also believe that the amendment would enhance the level of safety. I have seen firsthand the effects of economic pressures to accept "as built" designs that probably would not have been accepted if only design drawings rather than actual equipment had to be changed. In addition, once a design has been accepted, the quasi-judicial nature of the NRC licensing process is a very effective barrier to future design changes that could provide adequate safety because an admission of inadequate safety of previously approved designs is seldom, if ever, forthcoming from the NRC.

In addition to reducing costs and increasing safety, the intended amendment to the Clinch River appropriation could also, in the long run, speed up the licensing process. If a finding of adequate protection to the health and safety of the public were required prior to granting a construction permit and that finding was based on an evaluation of the actual design proposed rather than on only proposed design criteria, then the operating license review would be simply a matter of verifying that the plant had been constructed in accordance with the design approved at the construction permit stage.



Congressman Fraser

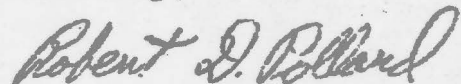
May 4, 1976

Page Two

I have often heard the counter argument that to require approval of design details prior to granting a construction permit would prevent the incorporation of design improvements developed during the years of plant construction. Although superficially appealing, this argument is without substantive merit because the current rules provide for applications for amendments to construction permits.

I hope that my assessment of your intended amendment is helpful. This assessment is based on my experience on the NRC staff and the knowledge of the nuclear licensing process I gained during that time. A copy of my letter and reports to the former Chairman of the Nuclear Regulatory Commission are enclosed. Since I was not assigned responsibilities directly related to the Clinch River project, my assessment of the intended amendment is based on my experiences with other projects as detailed in the enclosures.

Sincerely,



Robert D. Pollard

Union of Concerned Scientists
c/o Roisman, Kessler & Cashdan
1712 N Street, N.W.
Washington, D.C. 20036

202- 833-9070

Enclosures:

1. Letter to William A. Anders, dated February 6, 1976
2. Report on the Nuclear Regulatory Commission Reactor Safety Review process, February 6, 1976
3. Report on Obstacles to Nuclear Regulatory Commission Staff Communications with Top Management, February 6, 1976



critical stage. Newly revised negotiating texts from the session which ends today are expected to show that significant progress has been achieved and that the world may well be moving closer toward fair and equitable regime for the oceans. A final session of the conference will be held in New York City in August. President Ford has asked Secretary Kissinger to lead the American delegation to this session.

I believe that the American delegation to the conference should be given every possible opportunity to negotiate a treaty which protects American interests and, at the same time, advances international economic cooperation. There is a strong possibility that legislation which authorizes unilateral exploitation of the deep seabed by U.S. corporations could endanger the diplomatic process. It would be a signal to other nations that we are unwilling to work out an international agreement. If the conference were to break down, the result could well be new cartels of mineral producers and new tensions on the high seas. Military confrontation over fishing rights, boundaries and access to the mineral-rich seabeds could be the price to pay if diplomacy fails.

Perhaps the biggest loss of all would be the missed opportunity to arrive at a common agreement to turn the ideal of the seas as "the common heritage of humanity" into a political and economic reality. Failure to achieve an equitable law of the Sea Treaty would endanger not only the marine environment but would pollute the diplomatic environment as well. The United States is the unquestioned world leader in deep seabed mining. By working for an international agreement instead of beginning unilateral exploitation, we could become an unquestioned leader in promoting just diplomatic solutions as well.

For these reasons, Mr. Speaker, I believe it would be in the best interests of the United States to see whether or not an acceptable treaty emerges from the conference before we take any unilateral action. The international community has waited 10 years for this treaty. Surely we can wait for a few more months.

TWO HUNDRED YEARS AGO TODAY

HON. CHARLES E. WIGGINS

OF CALIFORNIA

IN THE HOUSE OF REPRESENTATIVES

Friday, May 7, 1976

Mr. WIGGINS. Mr. Speaker, 200 years ago today, continuing its effort to strengthen the military situation in the Southern colonies, on May 7, 1776, the Continental Congress took the following steps:

Ordered that a battalion, to be paid for by the United Colonies, be raised by North Carolina in addition to the five already on hand for the defense of that colony;

Ordered the Secret Committee to send 12 field pieces and 3 tons of gunpowder to the troops in North Carolina;

Ordered the Committee on Qualifications to purchase medicine and medical instruments and send them to each of the six battalions in North Carolina; and

Appointed a deputy quartermaster general for the southern department, to be employed in North Carolina.

CLINCH RIVER BREEDER REACTOR AMENDMENT TO ERDA AUTHORIZATION

HON. DONALD M. FRASER

OF MINNESOTA

IN THE HOUSE OF REPRESENTATIVES

Friday, May 7, 1976

Mr. FRASER. Mr. Speaker, next week I will offer an amendment to the Energy Research and Development Authorization, H.R. 13350. The amendment I will offer would affect the care and safety with which the Clinch River breeder reactor demonstration plant is built. The Clinch River breeder reactor is the sole demonstration plant for the liquid metal fast breeder reactor program—LMFBR.

The amendment is a simple one. It would require that a determination be made before the issuance of a construction permit to insure that the Clinch River plant's operation will provide adequate protection to the health and safety of the public.

The text of the amendment follows:

Amendment to H.R. 13350, as reported. Offered by Mr. FRASER, page 24, immediately after line 13, insert the following:

(5) adding at the end of section 106(a) the following: "Prior to the issuing of any permit authorizing the commencement of construction of the Clinch River Breeder Reactor Demonstration Plant, the Nuclear Regulatory Commission shall find that the operation of this facility will be in accord with the common defense and security and will provide adequate protection to the health and safety of the public."

Serious questions have been raised about risks posed by this new technology. A March 13 report by senior Nuclear Regulatory Commission technical expert, Dr. Stephen H. Hanauer, noted that present designs for the LMFBR do not make adequate provision for human error, sabotage, safe siting, or the potential of a runaway reaction within the reactor core.

Although this amendment was rejected by the Joint Economic Committee on the grounds of redundancy, a 1961 Supreme Court decision indicates otherwise. In that case, several labor unions challenged the Atomic Energy Commission's decision to grant a construction permit to the Enrico Fermi breeder reactor without first making an adequate safety determination. The AEC argued that this determination could wait until the plant was built and ready to operate. The Court of Appeals ruled in favor of the labor unions, but the Supreme Court reversed the lower court's decision, finding that the AEC was justified in its decision. Justice William O. Douglas and Hugo Black dissented.

The Supreme Court decision turned on the legislative intent of the 1954

Atomic Energy Act, particularly sections 182a and 185 which provide for the issuance of operating and construction licenses in two stages. The Justices' opinions were based on the legislative history of the act, each side interestingly enough basing its conclusions on different interpretations of an amendment similar to the one I am offering, offered during the Senate debate in 1954 by Senator HUMPHREY and then withdrawn.

The change I am proposing in the licensing procedure is necessary if we are going to safeguard our investment in nuclear power technology. If adopted, this amendment may provide the margin of safety we need to strengthen public confidence in our nuclear power development effort.

I thought it might be useful for Members to have the opportunity to review the dissent in the case, Power Reactor Development Co. against International Union of Electrical, Radio & Machine Workers, AFL-CIO.

The text of the dissent follows:

[Dissent, *PRDC v. IVEW*, 387 U.S. 398, 416 (1961)]

DOUGLAS, J., DISSENTING

Mr. Justice Douglas, with whom Mr. Justice Black concurs, dissenting.

The only requirement in the Act for a finding that the facilities involved here "will provide adequate protection to the health and safety of the public" is found in § 182 which is headed "License Applications." By the terms of § 185 a construction permit is, apart from the requirements of § 183, "deemed to be a 'license.'" Section 185 governs applications for construction permits. It has no separate or independent standards for safety, no specific requirement for a finding on "safety." If the facility is finished and will operate "in conformity with" the Act, the license issues "in the absence of any good cause being shown to the Commission why the granting of a license would not be in accordance with the provisions of" the Act. As the Committee Report stated, "Section 185 . . . requires the issuance of a license if the construction is carried out in accordance with the terms of the construction permit." In other words, the finding on "safety," if it is to be made (as it assuredly must be), must be made at the time the construction permit is issued or not at all.

While in the present case the Commission "finds reasonable assurance in the record, for the purposes of this provisional construction permit," that the facility can be operated "without undue risk to the health and safety of the public," it also finds that "It has not been positively established" that a facility of this character "can be operated without a credible possibility of releasing significant quantities of fission products to the environment." The Commission added that there was "reasonable assurance" before the date when the facility went into operation that research and investigation would definitely establish "whether or not the reactor proposed by Applicant can be so operated."

Plainly these are not findings that the "safety" standards have been met. They presuppose—contrary to the premise of the Act—that "safety" findings can be made after construction is finished. But when that point is reached, when millions have been invested, the momentum is on the side of the applicant, not on the side of the public. The momentum is not only generated by the desire to salvage an investment. No agency

Footnotes at end of article.

DR. FORD LIB.

wants to be the architect of a "white elephant." Congress could design an Act that would give a completed structure that momentum. But it is clear to me it did not do so.

When this measure was before the Senate, Senator Humphrey proposed an amendment that read, "no construction permits shall be issued by the Commission until after the completion of the procedures established by section 182 for the consideration of applications for licenses under this act." That amendment would plainly have made the present findings inadequate, for they leave the issue of "safety" wholly in conjecture and unresolved.

Senator Humphrey explained his amendment as follows:

"The purpose of the amendment when it was prepared was to make sure that the construction of a facility was not permitted prior to the authorization of a license, because had that been done what it would have amounted to would be getting an investment of a substantial amount of capital, which surely would have been prejudicial in terms of the Commission issuing the license. In other words, if the Commission had granted the construction permit for some form of nuclear reactor, and then the question of a license was not fully resolved, surely there would have been considerable pressure, and justifiably so, for the Commission to have authorized the license once it had authorized the permit for construction.

"The chairman of the committee tells me he has modified certain sections by the committee amendments to the bill, of which at that time I was not aware. The chairman indicates to me that under the terms of the bill, as amended, the construction permit is equivalent to a license. In other words, as I understand, under the bill a construction permit cannot be interpreted in any other way than being equal to or a part of the licensing procedure. Is that correct?"

His question was answered by Senator Hickenlooper, who was in charge of the bill:

"A license and a construction permit are equivalent. They are the same thing, and one cannot operate until the other is granted.

"The same is true with reference to hearings. Therefore, we believe, and we assure the Senator, that the amendment is not essential to the problem which he is attempting to reach."

Senator Humphrey then asked if § 182 applied "directly to construction permits." Senator Hickenlooper replied "Yes." Senator Humphrey accordingly withdrew his amendment.

This legislative history makes clear that the time when the issue of "safety" must be resolved is before the Commission issues a construction permit. The construction given the Act by the Commission (and today approved) is, with all deference, a light-hearted approach to the most awesome, the most deadly, the most dangerous process that man has ever conceived.¹⁰

APPENDIX TO OPINION OF MR. JUSTICE DOUGLAS

Section 182a provides in relevant part:

"LICENSE APPLICATIONS.—

"a. Each application for a license hereunder shall be in writing and shall specifically state such information as the Commission, by rule or regulation, may determine to be necessary to decide such of the technical and financial qualifications of the applicant, the character of the applicant, the citizenship of the applicant, or any other qualifications of the applicant as the Commission may deem appropriate for the license. In connection with applications for licenses to operate production or utilization facilities, the applicant shall state such technical specifications, including information of the amount, kind, and source of special nuclear material required, the place of the use, the specific characteristics of the facility, and

such other information as the Commission may, by rule or regulation, deem necessary in order to enable it to find that the utilization or production of special nuclear material will be in accord with the common defense and security and will provide adequate protection to the health and safety of the public. Such technical specifications shall be a part of any license issued."

Section 185 provides:

"CONSTRUCTION PERMITS.—All applicants for licenses to construct or modify production or utilization facilities shall, if the application is otherwise acceptable to the Commission, be initially granted a construction permit. The construction permit shall state the earliest and latest dates for the completion of the construction or modification. Unless the construction or modification of the facility is completed by the completion date, the construction permit shall expire, and all rights thereunder be forfeited, unless upon good cause shown, the Commission extends the completion date. Upon the completion of the construction or modification of the facility, upon the filing of any additional information needed to bring the original application up to date, and upon finding that the facility authorized has been constructed and will operate in conformity with the application as amended and in conformity with the provisions of this Act and of the rules and regulations of the Commission, and in the absence of any good cause being shown to the Commission why the granting of a license would not be in accordance with the provisions of this Act, the Commission shall thereupon issue a license to the applicant. For all other purposes of this Act, a construction permit is deemed to be a license."

FOOTNOTES

¹ See Appendix to this opinion, post, p. 419.

² *Ibid.*

³ 1 Leg. Hist. 1024 (Emphasis added.)

⁴ 3 Leg. Hist. 3759.

⁵ *Ibid.*

⁶ *Ibid.*

⁷ *Ibid.*

⁸ *Ibid.*

⁹ *Ibid.*

¹⁰ See Biological and Environmental Effects of Nuclear War, Summary-Analysis of Hearings, June 22-26, 1959, Joint Committee on Atomic Energy, 86th Cong., 1st Sess.; Fallout From Nuclear Weapons Tests, Summary-Analysis of Hearings, May 6-8, 1959, Joint Committee on Atomic Energy, 86th Cong., 1st Sess. For an analysis of the administrative law techniques used by the Commission in this case, see Jalet, A Study in Administrative Law, 47 Georgetown L. J. 47 (1958).

DISAPPROVAL OF NOMINATION OF S. JOHN BYINGTON

HON. ROBERT F. DRINAN

OF MASSACHUSETTS

IN THE HOUSE OF REPRESENTATIVES

Friday, May 7, 1976

Mr. DRINAN. Mr. Speaker, this week the Senate Commerce Committee voted to disapprove the nomination of S. John Byington to a 7-year term as a Commissioner of the Consumer Product Safety Commission. It was understood that if the Senate had confirmed Mr. Byington as a Commissioner President Ford would have appointed him as chairman of the Commission.

Following the action of the committee, President Ford, to the shock of those concerned about protecting American consumers from death and injury from

unsafe products, resubmitted Mr. Byington's name to the committee this time as the nominee for a 2½-year term on the Commission. Again, it is understood that if the Senate confirms Mr. Byington as a Commissioner the President will appoint him as chairman.

There is no question that if Mr. Byington is unfit to chair the Commission for 7 years he is unfit to chair it for 2½ years.

Every important consumer group has opposed Mr. Byington. Congressman JOHN E. MOSS has opposed him. The AFL-CIO and the UAW have opposed him.

I have written a letter to the Senate Commerce Committee to express my strong opposition to the new nomination. The committee is scheduled to vote on the nomination Tuesday morning, May 11. I call upon my colleagues in the House to communicate with the committee prior to that time to urge the disapproval of the nomination.

I am at this point in the Record including a copy of the letter I am sending to the Senate Commerce Committee:

MAY 7, 1976.

HON. WARREN G. MAGNUSON,
Chairman, Committee on Commerce, United States Senate, Dirksen Senate Office Building, Washington, D.C.

DEAR CHAIRMAN MAGNUSON AND MEMBERS OF THE COMMITTEE: I commend your Committee for its vote on May 4 to disapprove the nomination of S. John Byington to a seven year term as a Commissioner of the Consumer Product Safety Commission.

I commend you in particular because it was understood that if the Senate had confirmed Mr. Byington as a Commissioner President Ford would have appointed him as Chairman of the Commission.

Nevertheless, I am very distressed that President Ford has resubmitted Mr. Byington's name to the Committee, this time as the nominee for a two and one half year term on the Commission. Again, it is understood that if the Senate confirms Mr. Byington as a Commissioner the President will appoint him as Chairman.

There is no question that if Mr. Byington is unfit to chair the Commission for seven years he is unfit to chair it for two and one half years. I therefore urge you to disapprove his nomination to become a Commissioner. I believe that I am joined in urging disapproval by every one of the twenty-seven Members of Congress who, with me, sent you the March 15 letter that opposed the original nomination.

Mr. Byington has been opposed by the Consumer Federation of America, Ralph Nader's Public Citizen, the National Consumers League, various other consumer organizations, the AFL-CIO, and the United Auto Workers.

The Consumer Product Safety Commission, since its 1973 activation, has thus far failed to fulfill its potential to substantially reduce product-related injuries. In testimony before your Committee, the Virginia Citizens Consumer Council stated, "The performance of the Consumer Product Safety Commission during its first three years of operation has been spotty. No standards under the Consumer Product Safety Act have yet become operational. . . ."

The Commission has jurisdiction over a field that has literal life-and-death effect on Americans. According to testimony before your Committee, consumer products annually are associated with 20 million injuries in the United States, with 110,000 persons be-

R. F. DRINAN

ctly applicable to counseling students for civilian occupations.

The evident obfuscation of the connection between ASVAB and military recruiting efforts.

The storage and use of test scores and personal data obtained in the ASVAB program. Mosher presented his findings and recommendations to the Defense Department last December, in a personal letter to Secretary Eumseid. In an internal memorandum dated March 2, 1976, the staff of the Pentagon's Office of Military Personnel Policy and Programs stated:

"Congressman Mosher has expressed concern that ASVAB publicity, promotional and counseling materials are not straightforward in stating that the primary purpose of the program is recruiting, and that materials do not state that ASVAB scores have no predictive validity for civilian occupations.

"All available materials used for ASVAB have been evaluated and it has been determined that Congressman Mosher's findings are correct. . . ."

As a result of correspondence and personal meetings between Mosher and his staff and Pentagon officials, the Congressman is able to announce today that the Department of Defense has agreed to take the following steps to improve the ASVAB program in the high schools.

1. All schools using ASVAB will be reminded that the military does not desire that the test be mandatory.

2. There will be an explicit statement of the fact that ASVAB test results are used for recruiting by the Armed Forces.

3. There will be no further claims or suggestions that ASVAB results are applicable to counseling for civilian jobs unless and until such claims can be confirmed by specific files. Research into validation of the tests continue.

4. After two years, all personal identifying information will be removed from any ASVAB test result files. After two years in storage, it will be used only for research purposes.

5. All literature and materials relating to ASVAB will be revised to reflect the above four points.

6. Schools will be encouraged to provide parents and students with information about ASVAB at least one week in advance of the testing date.

These changes are outlined in a letter to Mosher from Vice Admiral John Pinneran, Deputy Assistant Secretary of Defense for Military Personnel Policy. He has assured the Representative that all of these policy changes will be implemented before the start of the 1976-77 school year.

Mosher says, "These new guidelines satisfy my qualms about the ASVAB program and, I believe, will answer most of the criticisms I have heard." He continues, "I have been very pleased by the openness and cooperation of the Military Personnel Policy Office throughout this episode. Our relations have been most cordial and productive."

Vice Admiral Pinneran says, "We are glad that the question could be resolved to everyone's satisfaction. Congressman Mosher and others expressed some valid concerns and we have attempted to address them. We feel that ASVAB will be a better program as a result of this examination."

Both the Representative from Oberlin and the Admiral note that the key issue in any discussion of ASVAB is that of "informed consent." They agree that the new policies will give students, parents and local communities a much better opportunity to accurately evaluate ASVAB.

The Representative emphasizes that the ASVAB testing program is offered free to local school districts that want it. He says, "It is still an open question whether any particular school should use ASVAB, and it is still a matter of personal choice whether an individual stu-

dent wants to take the test. Now, though, the literature and information about ASVAB is being revised so that the concerned individuals can make a truly informed decision in each instance. This, I feel, is the crux of the entire issue."

THE FIREFIGHTERS BENEFITS ACT OF 1976

HON. LEO C. ZEFERETTI

OF NEW YORK

IN THE HOUSE OF REPRESENTATIVES

Thursday, May 6, 1976

Mr. ZEFERETTI. Mr. Speaker, I was truly pleased to be able to lend my support to H.R. 365, the Firefighters Benefits Act of 1976 which passed the House last week. This bill, as we are all aware, if enacted, would provide \$50,000 in death benefits to the surviving dependents of firefighters who died in the line of duty.

Many of the arguments raised in support of H.R. 366, the Public Safety Officers Benefits Act are equally applicable here. The bill is desperately needed, to aid us in recognizing the commitment and service of thousands of professional and volunteer firefighters throughout the Nation and in recognizing the sacrifices made by these men and women and their families in the past.

The families of these courageous men and women who daily risked their lives so that the rest of us could be safe surely deserve our assistance. Firefighters, like public safety personnel have yet to be truly recognized on a national level. Yes, we have pledged our support in the form of plaques and medals of honor. But, the families, who have had to live in fear or anguish that this hazardous profession might very well claim the life of one member of their family, should also be acknowledged. They deserve to be granted the compensation that would make their lives easier in the future.

Statistics indicating the number of deaths caused by fire each year continue to amaze all of us. Thousands of people each year perish as a result of fire. However, the figure would be much higher were it not for our professional and volunteer firefighters who risk their lives on a daily basis to protect us. Yet, in the process, many of these firefighters also lose their own lives. This legislation would deal with this fact, recognize the importance of their work, and aid local communities in building up firefighting forces around the country as well. And, no where else is this more necessary than in the city of New York, where firemen and supporting crew have been laid off due to the recent financial crisis—where the dangers associated with fire protection have become more and more apparent.

Since it has been shown that States and localities have failed, to a large extent, to provide the necessary assistance to the survivors and dependents of firefighters who sacrificed for us, I am pleased that the Members of the House saw it fit to carry out these moral ob-

ligations—to act on behalf of the men and women whose lifelong work was to protect us.

ANTI

FRASER-AMENDMENT ON CLINCH RIVER BREEDER REACTOR

HON. JOHN B. ANDERSON

OF ILLINOIS

IN THE HOUSE OF REPRESENTATIVES

Thursday, May 6, 1976

Mr. ANDERSON of Illinois. Mr. Speaker, next week the House will be taking up the Energy Research and Development Administration, ERDA, authorization bill for fiscal year 1977. Representative DON FRASER will be offering an amendment which would delay the granting of a construction permit to the Clinch River breeder reactor by the Nuclear Regulatory Commission—NRC. I urge my colleagues to vote against that amendment.

The Fraser amendment would require that all safety related issues be resolved between the applicant and the NRC before the NRC grants a construction permit. In the normal licensing procedures, the NRC must find that under the provisions of the Atomic Energy Act, as amended, "No license may be issued to any person within the United States, if in the opinion of the Commission, the issuance of a license to such person would be inimical to the common defense and security or to the health and safety of the public."

Additionally, it is specified in the Nuclear Regulatory Commission regulations, that the Commission may issue a construction permit if it finds that—

There is reasonable assurance that (1) . . . safety questions (regarding safety features or components of the plant which require further research and development) will be satisfactorily resolved at or before the latest date stated in the application for completion of construction of the proposed facility, and (2) . . . the proposed facility can be constructed and operated at the proposed location without undue risk to the health and safety of the public.

It is very important to remember, Mr. Speaker, that in licensing the construction and operation of the Clinch River demonstration plant the NRC will treat the Clinch River breeder reactor, CRBR, applicant no less rigorously than a privately owned nuclear plant applying for a license for construction and operation. All of the essential safety and environmental criteria which apply for licensing light water reactors will be applied in licensing the CRBR. What is going to take place additionally is that tougher standards are going to be applied in this case than would be applied in a normal light water reactor review because:

First, The Clinch River plant is a first of a kind plant and is applying for a commercial license as well. Therefore, the examination and resolution of all safety-related issues will require a much more comprehensive analysis than has been the case in past demonstration facility licensing cases.

Second, Since the plant is not a light

water reactor, those safety reviews which are normally used and applied to light water reactors will be somewhat different and more exhausting.

To get away from the generalities and down to the specifics, despite the fears of some, the NRC will not grant a license for construction of the plant until the applicant, ERDA and NRC have developed sufficient information to prove that a severe nuclear accident can be contained within the design of the plant—or alternatively, that such an accident should not be considered in consideration of the design of the plant because such an accident is sufficiently improbable to be ruled out as a design basis accident.

The basic safety question that is being debated in the licensing action is the nature and behavior of the core of the reactor under severe accident conditions. Because of the higher level of enrichment of the fuel in a breeder reactor there is an unresolved question about the capability of the molten fuel following a core melt accident to assemble itself into an explosive mass and break open the containment vessel. I have some respect for this problem and from Mr. Hanauer's statement, as well as volumes of testimony before the NRC, ERDA and in private files, many others do as well.

But it is a gross oversimplification to assume that such an accident sequence is common and from what has been published and discussed in public meetings recently, such an assumption is being shown to be erroneous and improbable in a practical sense.

This past week the American Physical Society held their annual spring meeting here in Washington, exactly 1 year after they presented their independent views on the reactor safety study done by Dr. Norman Rasmussen and the NRC. Because of the continuing importance of nuclear energy in our national energy policy debate, they—the APS—convened a special half day session on breeder reactor safety.

The invited papers were presented by Prof. Richard Wilson of Harvard University, Dr. John Graham, Westinghouse Electric Corp., Dr. John F. Marchaterre, Argonne National Laboratory, Dr. Hans K. Fauske, Argonne National Laboratory, and Dr. William R. Stratton of Los Alamos Scientific Laboratory, a former member of the Advisory Committee on Reactor Safeguards and most recently its past chairman.

These men, Mr. Speaker, are the acknowledged experts in breeder physics and it is from their deliberations that the breeder safety questions are being answered. It is not theoretical calculations that are forming the basis for safety decisions in breeders—it is hard experimental evidence and although it may not necessarily be comprehensible to laymen it is convincing to those who must make the final decision.

To a man, Mr. Speaker, these eminent scientists agree that a breeder reactor, as is currently contemplated at CRBR, is inherently safer than a light water reactor. There are accident sequences which if they happen, are possibly more serious than a light water accident. But be-

cause of the reactor design, the reactor coolant and the design of the reactor coolant system, the chances of this serious accident happening are not as large.

For example, if a large pipe springs a leak in a light water reactor, coolant is rapidly discharged through the hole because of the high pressure of the steam or water inside the pipe.

On the other hand in a breeder reactor, the same rupture would result in very little coolant being lost since the pressure inside the pipe is very low.

Another example is the nature of the coolant itself. Sodium is a very good conductor of heat and is capable of storing a large quantity of heat before it begins to boil. Therefore, if hot spots develop on the fuel, the fuel is less likely to be damaged either by cracking or melting because the excess heat gets carried away more efficiently.

The ability of sodium to store large quantities of heat and to resist boiling at high temperatures serves as a perfect companion to another safety feature of the CRBR design. As the core goes to higher temperatures, its reactivity, or its ability to produce heat or energy, is designed to decrease. So in an accident sequence, high sodium boiling temperature and decline in power production potential work together to reduce the effects of an accident, a design feature which is not as prevalent in a LWR.

Despite a very careful design of CRBR, there is substantial concern about the offsite effects resulting from a core melt accident. To make an unlikely accident even less likely, the applicant has designed two redundant reactor shutdown or SCRAM systems. Each operates completely independently on separate design principles, different hardware, different and separate power supplies and control systems. They have to insert 19 control rods into the core but only three are needed out of the 19 to shut down the reactor safely.

The very careful design of these two shutdown systems is calculated to reduce the likelihood of a total or substantial core melt resulting from a failure to SCRAM—insert control rods—to very near zero. In fact, the target goal is to show that the failure to SCRAM is smaller than one chance in a million per reactor per year. Thus 100 reactors would not see such an accident more often than once every 10,000 years.

It must also be emphasized, Mr. Speaker, that the CRBR design itself makes this the most plausible sequence to get to a core melt accident. In a light water reactor the most plausible core melt is initiated by a catastrophic pipe break, an accident which is not likely in a breeder since the coolant is under low pressure and the piping is, therefore, not under the same internal stresses.

Insisting on the verification of this one in a million goal, Mr. Speaker, in my mind is highly indicative of the safety review that NRC is giving the CRBR. They will not license the applicant to begin construction until the failure to SCRAM is sufficiently verified in their mind to adequately protect the public health and safety. The concerns reflected

on by Mr. FRASER in his amendment are clearly not applicable in this particular issue. The law and the procedures of the NRC prohibit the resolution of this issue at any other time but the present.

To take the next step toward the implausible, in the interest of safety, Mr. Speaker, ERDA, NRC, and the applicant assume a core melt has taken place and they attempt to calculate the ensuing sequence of events. What happens, for instance, to the molten fuel? Does it crystallize in the cooler sodium, break up into very fine pieces and get swept up into the top of the reactor where it can disperse and cool in the sodium? Does it remain in a molten mass generating heat a boiling sodium? Or does it explode like a small bomb and if so, how much energy does it release? Under these explosive conditions, can the containment contain this event?

All of these possibilities are being considered by NRC and no construction permit will be issued unless the design of the reactor can either prohibit the event in the first place or handle the event if it happens without endangering the public.

What must be realized is that these safety issues are such that they must and will be resolved prior to the granting of a construction permit. There is no procedure by which the NRC could justify granting the construction permit under the terms of the Atomic Energy Act or its own regulations without a finding that these questions had been resolved to their satisfaction. They are independent of the Fraser amendment, totally covered in the licensing regulations and what Mr. FRASER is addressing are much less consequential matters.

The unresolved issues that are carried by the NRC during the construction phase are not of this type. They are relatively minor issues and in the opinion of NRC, ERDA, and the applicant, they can and must be resolved to the satisfaction of NRC prior to licensing operation at full power. In some cases the unresolved issues may be qualifiers which await preoperational testing.

Having watched the evolution of the licensing process now for nearly 13 years, on the committee, it is important to observe that the carrying of unresolved safety issues through construction represents a very important licensing philosophy—the proof of safe operation lies only in the final hardware, not in the initial set of plans. Only when the NRC can see all of the results of the construction process, the preoperational testing, the slow approach to full power and then full power operation can it certify that the plant can be operated safely and grant an operating license. The two step licensing process always gives the NRC the right to demand changes in the public interest prior to operation. In the case of CRBR the evolving nature of understanding in breeder reactor performance will undoubtedly give the NRC opportunity to make changes later on that will improve the safety of the plant, if new knowledge gained in the interim justifies such an action.

I would like to point out, Mr. Speaker, that the amendment offered by my col-



ue from Minnesota would result in a reduction of licensing options available he NRC, thereby reducing the safeguards built in to protect the public, re- the privileges provided to inter- ventioners who wish to involve themselves in the licensing action and reduce the overall safety of the plant. No agency such as NRC can pretend to know all of the answers 6 to 8 years before a demonstration plant can be licensed to operate. By making a final ruling now on an operating license and/or all safety issues, options available under the current licensing practice which might be needed or advantageous would be difficult to implement. The existing measured process of licensing, developed painstakingly over the years, would be dealt a broadside, wiping out the substantial safeguards built in to protect the public health and safety.

I, for one, Mr. Speaker, cannot in good conscience, sacrifice on the altar of what I consider to be misplaced public concern, the safeguards and procedures which have been carefully and painstakingly developed over the years to protect that very same public. This amendment is a wolf in sheep's clothing and I urge that it be defeated soundly.

EXTENSION OF SOCIAL SECURITY BENEFITS TO TOTALLY DISABLED WIDOWS

HON. JOE MOAKLEY

OF MASSACHUSETTS

IN THE HOUSE OF REPRESENTATIVES

Thursday, May 6, 1976

Mr. MOAKLEY. Mr. Speaker, today I have reintroduced an amendment to title 2 of the Social Security Act aimed at providing extended social security protection for totally disabled widows and widowers, and surviving divorce spouses.

The bill, introduced recently by Senator DICK CLARK, would eliminate the age requirement that these disabled individuals must meet in order to be eligible for disability payments. This poses a particular hardship in the case of the younger widow, for instance, who may not have had ample time to accumulate funds for retirement, or for the unforeseen.

In the Nation as a whole, 18 percent of those widows awarded disability benefits in 1971 had been declared totally disabled prior to reaching age 50. It has been estimated that 75 percent of them are living below the poverty level. Thus, this type of legislation is a necessity.

Disabled persons suffer physical, as well as economic disadvantages. It is important that we respond adequately to this small, but equally deserving segment of the population.

I strongly urge action on this worthy piece of legislation. We must act now to see that those in need of such help receive it. I can think of no reason to deny the assistance to those who, in most cases, cannot help themselves. I will be reintroducing H.R. 13028 with cosponsor later this month. If you wish to join

with me in this effort, please contact Margaret Forde of my staff at extension 58273, by May 26.

STRONG LABOR UNION SUPPORT FOR FEDERAL LOAN GUARANTEES FOR SYNTHETIC FUEL DEVELOPMENT

HON. OLIN E. TEAGUE

OF TEXAS

IN THE HOUSE OF REPRESENTATIVES

Thursday, May 6, 1976

Mr. TEAGUE. Mr. Speaker, Joseph Maloney, Secretary-Treasurer of the Building and Construction Trades Department of the AFL-CIO, conveyed labor's strong support for Federal loan guarantees for synthetic fuel development detailed in H.R. 12112, in testimony before the House Committee on Science and Technology. Mr. Maloney spoke for more than 4 million workers affiliated with the Building and Construction Trades Department when he said,

I appear before you today to urge your support for HR 12112. Synthetic fuels and other alternate energy sources must be an essential component of any national energy policy.

At their national jobs conference held in early spring of this year the Building and Construction Trades' 3,000 delegates unanimously voted for a 12-part resolution. In section (2) the delegates urge,

That Congress adopt H.R. 12112, a bill to provide loan guarantees for the development of synthetic fuels. Vast coal and oil shale resources which can provide domestic supplies of gas and oil exist. Development is ready to commence if financing can be assured. Minimal governmental involvement through loan guarantees will ensure this development.

Synthetic fuels will be needed in substantial quantities by the 1990's as domestic production of oil and natural gas continue to decline. Mr. Maloney emphasizes that,

Initiating a synthetic fuels industry that can make a serious contribution to our energy supplies by 1995 requires an immediate "commercial demonstration program." This program would help clear up existing uncertainties and pave the way for adequate plant investment in the middle 1980's so that significant production can be achieved in the 1990's. Thus, the lead times involved require the construction and operation over the next 5 to 10 years of a representative mix of synthetic fuel plants. From there we will obtain the necessary information to resolve any uncertainties and push ahead with this new industry. He further elaborated that the loan guarantees program for synthetic fuel development places great emphasis on environmental quality issues and would provide financial and technical assistance to affected localities.

In his testimony Mr. Maloney singled out the oil shale and coal gasification projects as offering the most substantial employment opportunities. During the height of construction a high BTU coal gasification plant would employ as many as 4,000 construction workers. Upon completion the plant would permanently

employ about 6,000 people and another 400 jobs would be created to operate the attendant coal mine. It has been estimated that a single oil shale plant would provide 3,600 construction jobs and 1,200 permanent jobs. In the construction industry, which has been hard hit by utility cutbacks, these figures mean an increase in employment and a brighter prospect for economic security.

Mr. Maloney concluded his remarks by stating,

"Mr. Chairman, we believe that this bill represents an unparalleled (sic) opportunity for this Committee to make an important contribution to this country's energy security and economic prosperity. We urge you to report favorably H.R. 12112.

TRIBUTE TO MISS MARY O'BRIEN

HON. HENRY J. HYDE

OF ILLINOIS

IN THE HOUSE OF REPRESENTATIVES

Thursday, May 6, 1976

Mr. HYDE. Mr. Speaker, the traditional view of the role of women in our society has changed greatly in the last decade. Women who embarked on professional careers before it was "fashionable" have helped pave the way for the present and future generations of young women who are interested in professional careers.

One of these women, Miss Mary O'Brien, has been a pioneer in the banking industry. Miss O'Brien is a constituent of mine and she is presently vice president of the Riverside National Bank in Riverside, Ill. Recently, Miss O'Brien was honored by the Illinois Banker Association for 50 years of service to the banking industry.

Mary O'Brien began her employment with the Riverside National Bank as a file clerk in 1925. Through the years she moved up the ranks serving in various capacities—including vault attendant, stenographer, bookkeeper, head bookkeeper, teller, and cashier. In 1969, she was the first woman to become an officer of the Riverside National Bank. Several years later, she became assistant vice president.

By starting at the bottom and working her way up, Miss O'Brien has had the opportunity to learn every aspect of banking, and she probably knows more about banking than most of her colleagues in that field.

Miss O'Brien has witnessed many changes in the banking industry in her half-century career. She recalls the day in 1923 when Riverside National purchased its first bookkeeping machine. Since then, she has seen the introduction of the computer which has brought about great changes in the transfer of funds and the modernization of the entire check clearance process. She has also seen sweeping changes occur in the marketing and advertising of bank services and the handling of bank public relations. The types of services offered by banks has grown substantially in the past 50 years, and Miss O'Brien has been an in-

GERALD R. FOR

FACT SHEET - IMPACT OF TUNNEY/RONCALIO AMENDMENT

A. Impact of CRBRP Project

The proposed Tunney/Roncalio amendment would have a significant impact on the cost and schedule of CRBRP. That impact would be as follows:

- . The schedule delay would be at least four years due to the necessity to complete detailed plant design prior to obtaining a plant construction permit.
- . The cost impact of CRBRP would be significant (on the order of many hundreds of millions of dollars) due to the cancellation of existing orders, escalations, increased overhead costs, etc.
- . It is uncertain if CRBRP (or any other plant) could ever be licensed using this approach since data on as-built components and structures are required by NRC to make a determination of plant safety.

B. Impact on the IMFBR Program

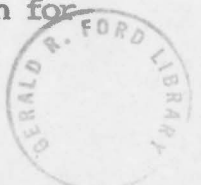
In addition to the impact on the CRBRP Project the proposed amendment would also significantly delay, for four or more years, the Administrator's decision point on IMFBR commercialization. Consequently, the availability of the IMFBR option to the Nation as an essentially inexhaustible energy resource would be delayed. The current ERDA plan specifies the year 1986 as the decision point based on the following milestones:

- . Completion of uranium resources assessment (1980)
- . Resolution of safeguards issues (1981)
- . Resolution of reactor safety and other environmental issues through operation of FFTF, execution of development programs, etc. (1986)
- . Three years meaningful operation of CRBRP (1986)

The Tunney/Roncalio amendment would delay all but the first milestone by four years or more, and hence delay confirming IMFBR's viability as a source of essentially inexhaustible energy.

The impact of such a delay in introduction of the IMFBR would include:

- Benefits derived from the IMFBR would be reduced by \$3 billion for each year of delay.



- The probability of shortage of economically recoverable uranium resources due to deferring the introduction of the breeder reactor economy would be increased significantly.
- The possible need to import foreign technology as a substitute for a commercially viable U.S. breeder reactor industry which would cause a significant loss of U.S. jobs and imbalance of payments.

C. Provisions of the Current Licensing Process

The current licensing process for CRBRP will ensure that plant design and construction are carried out in a manner to adequately protect the health and safety of the public. Provisions of the process currently underway include:

- NRC review of the CRBRP design will be conducted in a manner identical to that currently employed for light water reactors.
- NRC's review requires a deliberate and orderly development of plant design including:
 - A safety review by the NRC technical staff
 - A safety review by the Advisory Committee on Reactor Safeguards (ACRS)
 - Public hearings which are conducted by the Atomic Safety and Licensing Board to allow full and open discussion of CRBRP safety issues.
- The current process does require a thorough, stringent design review of CRBRP. As a part of this process, the project has already provided over 18,000 pages of information in support of CRBRP to date. This is indicative of the in-depth review required to determine the safety of a first-of -a-kind plant. The design and safety review process for FFTF has contributed significantly to the design of CRBRP.
- After a construction permit (CP) has been issued, the CRBRP licensing process will continue. Any design deficiencies revealed during plant construction must be corrected. (On LWR's, it is true that all plants which received CP's subsequently received Operating Licenses (OL's). However, NRC did require substantial design changes in some plants prior to granting of an OL).



D. Discussion of EBR-I and Fermi Experience

Reference is made to EBR-I and Fermi experience in the Tunney/Roncalio minority views. The EBR-I and Fermi reactor incidents, although not directly applicable to GRBRP, have been extensively reviewed and analyzed. The following facts are pertinent:

- EBR-I was a small test reactor which was built to investigate various aspects of fast reactors. The configuration of the reactor was totally unlike that of FFTF and CRBRP. When an accident did occur in 1955 and some damage to the reactor was realized, it was determined to be nonfeasible to rebuild EBR-I. Instead EBR-II was designed and built as the logical next step in development of LMFBR's and has operated successfully since 1963.
- The incident at Fermi in 1966 resulted in some damage to the reactor, but demonstrated the efficacy of plant safety systems. Such backup systems have been significantly improved since 1966. The reactor was repaired, relicensed, recommissioned, and ran until 1973 when it was shutdown.
- The incidents at EBR-I and Fermi did not result in injury to any personnel or a release of radiation to the site boundary.





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ided with plenty of nourishment. Its branches must be carefully watched and constantly pruned. Our government officials must have the desire to be strong like the trees, with ever deepening roots, and bear fruits which are pleasing to God and man. As long as we select timber from trees with these qualifications, our grandchildren will be able to enjoy the freedom our forefathers gave us.

LASER FUSION AND OIL SHALE

HON. WILLIAM S. MOORHEAD

OF PENNSYLVANIA

IN THE HOUSE OF REPRESENTATIVES

Thursday, May 6, 1976

Mr. MOORHEAD of Pennsylvania. Mr. Speaker, it is my intention next week to propose an amendment to the ERDA authorization bill, H.R. 13350, to increase funds for the development of laser fusion technology by the private sector.

I believe laser fusion holds great energy promise for America in the production of artificial natural gas and also the tapping of energy resources from oil shale formations located in both the western and eastern United States. I think all Members of the House of Representatives will be very much interested in the following technical paper by KMS Fusion, Inc., of Ann Arbor, Mich., on the potential use of laser fusion and the in situ development of shale:

LASER FUSION AND OIL SHALE

(By H. J. Gomberg and W. W. Meinke)

Oil shale is the larger resource for hydrocarbon fuel in North America and it is, as yet, essentially untapped. One estimate places its production potential as in excess of the Middle East oil reserves.

The major difference is in the availability and cost of recovery. The hydrocarbon in oil shale are physically bound within a rock-like structure which typically is an intimate continuous mix or marl or other finely divided inorganic material and kerogen, a carbon rich (and hydrogen deficient) material of very high viscosity. The shale is a dense, impervious, relatively elastic, material which does not fracture or crack readily, making increase in permeability difficult or impractical. When the kerogen is fully separated, or recovered, the remaining mineral is a fine, dust-like material which is not easily handled, controlled or disposed of.

Fuel from shale requires two major steps.

(a) Mobilization or separation of the kerogen from the shale.

(b) Disposition of the mineral residue.

Kerogen recovery may in principle take place either in situ, or the shale may be mined and moved to a recovery plant on the surface for processing.

In situ recovery of underground mineral deposits is a well developed art as for example in some types of copper mining. A most desirable objective in shale oil recovery would be dissolving the kerogen out of the shale under ground and then moving the solution to the surface for separation and refinement. Kerogen, however, has a very high molecular weight (about 3000) and no satisfactory hydrocarbon solvents have been found, although there is a proprietary process by Shell Oil on heated oil-miscible solvents.

In addition to the low inherent solubility of the kerogen, the elastic quality of the oil shale itself makes it difficult to improve penetration by microfracturing, as might occur in brittle rock.

In situ recovery remains very attractive however as it eliminates, to a large degree, the residue disposal problem and also reduces very sharply the water requirements for shale and residue processing, including dust control.

The Garrett Corporation, an Occidental Petroleum subsidiary, is continuing studies of in-situ recovery but by use of heat to vaporize a large fraction of the kerogen. A cavity in the shale is mined out and a fire started, using air from the surface to support combustion. Under proper conditions a fraction of the kerogen burns, releasing enough heat to vaporize a much larger quantity. The vapors are condensed in another chamber below the burning zone, collected in a pool and later pumped to the surface. Recovery levels are expected to approach 70%.

Most recovery operations now under study are based, however, on processes in which the shale is mined, moved to the surface and treated there to recover the kerogen. There are three major variations on ways to heat the shale, recover liquid and gas, and dispose of the residue, but they are all fundamentally heat cycle systems, in which a fraction of the carbon and hydrogen are recovered.

The Institute of Gas Technology has studied a fourth process in which excess hydrogen (source unspecified) is introduced as broken shale is heated in a retort. In this case, almost all of the carbon and hydrogen are recovered and the final product mix is subject to good control.

The Institute of Gas Technology reports are very attractive but the obvious question is—where does the extra hydrogen come from?

Certainly not from the shale itself.

A typical oil shale contains 25% kerogen and 75% minerals. The analysis of kerogen by weight percent is:

Carbon, 80.5; Hydrogen, 10.3; Nitrogen, 2.4; Sulfur, 1.0; and Oxygen, 5.8.

Methane is 75 percent carbon and 25 percent hydrogen by weight.

This is the crucial point at which new hydrogen, produced from water via laser-driven fusion, may be introduced. This new hydrogen supply makes it possible to complete the recovery of hydrocarbon fuel from shale by addition of a fraction of new fuel as free hydrogen produced by laser-fusion driven systems.

If this approach is accepted, we can go one step further, but it is a most important step.

A modified IGT process using KMSF "laser-fusion" hydrogen would still require mining and transport of the shale, and disposal of the mineral waste. With hydrogen (and oxygen) available from splitting of the water molecule, the in-situ process in its simplest and most economical form should be practical.

Going back to the solvent recovery technique, it should be possible to use hydrogen and a small amount of oxygen to do the equivalent efficiency. Oxygen is introduced for efficient burning of a fraction of the kerogen to mobilize a larger quantity. Introduction of hydrogen leads to chemical reactions underground in which the products are hydrogen enriched, becoming primarily natural-gas like materials which may be brought to the surface—or possibly stored underground.

Formation of the hydrocarbons breaks up the shale structure and, since hydrogen is far more mobile or penetrating than liquid solvents, the volume treatable from an initial drill hole should be much larger than that possible with solvents.

Little energy is expended in mining, no separate process water supply is needed, only that required to generate hydrogen, and the mineral residue remains underground.

The process may be compared to the Garrett process of in situ recovery, but one in which oxygen replaces the air used, the prod-

uct is highly enriched by the addition of hydrogen, recovery is more complete, and the amount of underground mining required is minimized.

An economical, reliable supply of hydrogen from a new source, water, will expand recoverable hydrocarbon fuel supplies, in this case from oil shale resources, by many fold. The KMSF crossed water splitting process, using laser-driven fusion, make this possible.

LINE OF DUTY

HON. ROBERT E. BAUMAN

OF MARYLAND

IN THE HOUSE OF REPRESENTATIVES

Thursday, May 6, 1976

Mr. BAUMAN. Mr. Speaker, the Catholic Standard of Washington, D.C., in an impressive editorial on April 3, 1976, summed up the problems facing police officers all across the United States. The occasion of their editorial was the recent tragic death of two Montgomery County, Md., police officers, Capt. James E. Daly and Cpl. John M. Frontczak.

As the Catholic Standard points out, the restrictions that are placed on police in every jurisdiction in this Nation in many ways promote and encourage the violence on the part of criminals which in the past might have been subdued if they knew they faced the prospect of immediate harm and apprehension.

The editorial follows:

[From the Washington, D.C., Catholic Standard, Apr. 1, 1976]

LINE OF DUTY

The senseless shooting that took the lives of two Montgomery Police officers, Capt. James E. Daly and Cpl. John M. Frontczak, within the past week is another grim reminder of the continuous danger that police officers face in the line of duty. Unfortunately all too many people fail to appreciate the quality of police protection our communities receive from the police. It generally requires the death or serious injury of police officers to remind us of the service they perform.

By the very nature of his work a police officer always faces the possibility of death and danger. However, it is not a minute-to-minute reality. Many officers, because of the nature of their assignments, can go months or even years without being exposed to real danger. But they never know when violence will strike and the possibility is always there.

Last Friday two officers started out independently on what in all probability was routine duty. They were alerted by radio about a bank robbery and the whereabouts of a possible suspect. They both reached the area in which the suspected robber was reported to be. What actually occurred from that point is somewhat obscure. Within brief minutes, however, both officers were critically wounded and the suspect fled.

What adds to the tragic irony of this case is the fact that if the suspect, instead of the officers, had been critically wounded, both officers would now be on administrative leave and possibly could be facing charges of using excessive force or police brutality. They could not shoot first and ask questions afterward. They were bound to make an identification and then use only the force necessary to effect an arrest. This state of mind gave the killer an advantage. He was not operating under the same limitations. Needless to say, the police officers could not have acted other





UNITED STATES
ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
WASHINGTON, D.C. 20545

MAY 12 1976

Mr. George F. Murphy, Jr.
Executive Director
Joint Committee on Atomic Energy
Congress of the United States
Washington, D. C. 20515

Dear Mr. Murphy:

In accordance with a Joint Committee on Atomic Energy (JCAE) request to provide information concerning the proposed Moorhead Amendment which would add \$5,000K of operating expense funding for KMS Fusion, Inc. (KMSF) to the FY 1977 Laser Fusion Budget, the following information is provided.

The table below represents actual and planned funding for the KMSF contract as developed by the Laser Fusion Division.

	<u>ACTUAL FUNDING</u>	<u>SUBMISSION TO OMB</u>	<u>ERDA BUDGET REQUEST</u>
FY 1975	\$ 850K	--	--
FY 1976	\$9,358K	--	--
FY 1976T	--	\$ 1,650K	\$1,650K
FY 1977	--	\$11,800K	\$7,000K

In the submission to OMB, KMSF funding for FY 1977 was planned at a level of \$11,800K. This amount of funding included a continuation of FY 1976 level of effort (approximately \$550K per month) plus an upgrade of the KMSF laser facility from 2tw to provide a laser capability of 4tw. As a result of budgetary reviews, the planned laser upgrade for KMSF was deferred and only a continued level of effort remained in the budget for KMSF estimated at \$7,000K for FY 1977.

It should be noted that funding levels for FY 1976T and FY 1977 were prepared prior to KMSF submitting a proposal for that period and without a comprehensive review of work being performed by KMSF under the present



contract. We have just recently received a renewal proposal from KMSF which requests a total of \$23,267K for the 15-month period, July 1, 1976, through September 30, 1977, detailed as follows:

	<u>FY 1976T</u>	<u>FY 1977</u>	<u>Total</u>
Operating Expense	\$ 2,487K	\$11,495K	\$13,982K
Capital Equipment	2,390K	6,895K	9,285K
Total	\$ 4,877K	\$18,390K	\$23,267K

Since we have not yet completed a full evaluation of this proposal, firm funding levels have not been determined beyond those identified in the submission for the FY 1977 President's budget.

An additional factor to be considered prior to any decision on future funding for KMSF is an evaluation of KMSF effort under the present contract (May 1975 through June 1976) in relation to the work being proposed by KMSF.


In summary, funding for KMSF during FY 1977 is dependent on three basic factors:

1. A full evaluation of the latest KMSF proposal.
2. A review of work performed under the current contract.
3. The level of funding provided to the Laser Fusion Program by Congress.

We understand that the JCAE has already recommended in the authorization bill increasing the Laser Fusion Budget by \$14,000K. This would provide additional funds for KMS and other purposes.

Based on the foregoing discussion, we are not in a position to support an additional \$5,000K of funding for KMSF, Inc.'s FY 1977 efforts in the program as proposed by the Moorhead Amendment.

Sincerely,


 Alfred D. Starbird
 Assistant Administrator
 for National Security



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women in the working place, but also because many women have been forced back to work for purely financial reasons. In some situations, high inflation rates forced women to supplement their family income. In many other unfortunate cases, our high divorce rate has left many women with no other choice than to go back to work, or to work for the first time. Some reduction in the inflation rate may take the pressure off some family finances so that those women currently in the labor force strictly for supplementary income purposes can return to their present jobs of homemakers. The bulk of the women, will of course, remain in the labor force.

The baby boom which occurred after World War II is a "numbers" problem which I had to deal with until recent years in my profession as an educator. Now these young adults are out in the work force in record numbers and many are overeducated for the jobs available. Even with the addition of thousands of makeshift public works or service jobs we would continue to see a high level of underemployment—employment at a level under the capability of the worker—among this sizeable group. Their job mobility is as high as their job dissatisfaction. The alternative of periodic unemployment—while they receive unemployment benefits—is often more attractive than stability in a job for which the person is overqualified and is bored.

The attractiveness of unemployment compensation over the acceptance of a job which is below a person's goal, is an issue which needs to be addressed by any person seriously analyzing unemployment statistics. There is little room for doubt that the current system of unemployment compensation increases the rate and duration of unemployment. The amount of this increase has been in dispute, but most economists agree that it does contribute to an increase in the unemployment figures.

In an appearance before the Joint Economic Committee, Martin Feldstein, a Harvard economist, stated that the present form of unemployment insurance may contribute 1.25 percent to the permanent rate of unemployment. This is not to say that I feel we should do away with the unemployment insurance system because it has the effect of increasing the rate and duration of unemployment. But we should face up to the reality that by giving an unemployed person an alternative to taking jobs which he or she finds unacceptable, we add significantly to those who are counted in the unemployment statistics.

In addition to his comment upon the unemployment insurance system, Mr. Feldstein has addressed the current structure of unemployment in a paper issued by the Harvard Institute of Economic Research. In that paper he concludes:

The current structure of unemployment in the American Economy is not compatible with the traditional view of a hard core of unemployed who are unable to find jobs. Even with the high unemployment rate of 1974, the durations of unemployment were short, job losers accounted for less than half of unemployment, and quit rates generally exceeded layoffs.

An acceptable rate of unemployment is viewed by some to be 1 percent, by others to be 3 percent, and by many to be 4 percent. A good number of people, including myself, are skeptical that any figure for an across-the-board percentage is acceptable no matter what it is. Various groups experience different unemployment levels and by combining them all into one group we do them a great disservice by stating one full employment level guideline.

I am sure that we can make improvements in each category, and the Jobs Creation Act is a step in the right direction. Private industry can produce more of the needed jobs if the incentives are right. I am the first to say that this bill is not a cure-all for our economic problems, nor will it eradicate unemployment, altogether. However, I do believe that it will go much further if implemented to solve our unemployment problems than will the promises set out by those who are promising a job to every person who wants one.

If one looks back at the record of the public works jobs after the Depression, one would see that the unemployment level in 1932 was 15.5 percent and after sinking millions of dollars into public service jobs, the unemployment rate rose to 17.2 percent in 1933. I hope that we do not make the same mistake and increase our own unemployment rate by adding billions this time around for public service jobs.

GENERAL LEAVE

Mr. KEMP. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days in which to revise and extend their remarks and to include therein extraneous material on the subject of my special order today.

The SPEAKER pro tempore (Mr. DANIELSON). Is there objection to the request of the gentleman from New York?

There was no objection.

THE NEED TO PROVIDE ADEQUATE FUNDING FOR SOLAR ENERGY

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Vermont (Mr. JEFFORDS) is recognized for 30 minutes.

Mr. JEFFORDS. Mr. Speaker, I and a number of my colleagues intend to offer an amendment to the fiscal year 1977 ERDA authorization measure (H.R. 12113) to increase funding for solar energy technologies by \$116.2 million. This increment is absolutely vital to maximize the potential these promising technologies have to help alleviate our energy crisis at an optimum pace. Added to the \$229.2 million reported from the Science and Technology Committee, the total nonnuclear energy figure would then be \$345.4 million.

This amendment has two broad purposes:

First. To develop a momentum in the solar programs—particularly photovoltaics and solar thermal—which will bring lower cost solar energy, available on a more widespread basis, at a pace which

it is clear the technology can now sustain.

Second. To elevate the funding levels to match policy objectives already announced by the administration; that is, to commit the Nation to solar development in the same way as the Nation is now committed to the breeder reactor.

The goal of this amendment is to demonstrate the viability of this renewable energy option by the year 1985. The present program, unfortunately, according to the consultant who prepared the national solar energy evaluation for the Office of Technology Assessment, Mr. Dan Ahern, is a program which "may not even be able to prove itself by the year 2000, simply because of the severe cuts in funding."

Information from reliable industry and administration officials, as well as knowledgeable independent authorities has convinced us that the technologies can effectively utilize this additional funding. It is significant that the original ERDA branch chief requests, from the persons most knowledgeable about the practical capacity to use the funds effectively, totalled \$471.2 million, 25 percent higher than the figure we propose.

I am proposing increases in the following areas:

First. Photovoltaics—an increase of \$47.9 million, from \$32.1 to \$81 million, equaling the original request of the photovoltaic branch in ERDA.

Second. Solar thermal—an increase of \$27 million, from \$3 to \$65 still considerably below the \$1 million requested by the branch.

Third. Wind—an increase of \$12.8 million, from \$16 to \$28.8 million, which is \$6.2 million below the branch request.

Fourth. Construction items—and increase of \$25 million, from \$15 to \$40 million, representing an additional seven important projects in various technologies, and still \$4 million below branch request.

Fifth. Reports and additional staffing—\$2.5 million to provide the additional staffing necessary to handle the increased funding and to provide reports called for by the Office of Technology Assessment in its evaluation of the ERDA program.

The detailed breakdown is as follows:

1. PHOTOVOLTAICS

The potentiality for low-cost production of electricity via photovoltaic technologies is promising indeed. A recent program analysis developed by the highly-respected jet propulsion laboratory indicates that there are three very attractive photovoltaic technologies which could be economically competitive with all other energy sources by 1985 for generation of electricity at any scale. This however, can only be achieved by reinstating the \$81 million originally requested by the photovoltaic branch in ERDA, and not with the \$32 million presently in the authorization bill. If the present figure is allowed to stand, such promising technologies will be stretched out many years and commercial market which could be galvanized with the increased funds will be greatly reduced.

For the information of my colleagues



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For the information of my colleagues,

I here insert the major portions of the JPL paper, completed in April 1975:

PHOTOVOLTAIC CONVERSION PROGRAM—BACKGROUND AND RATIONALE FOR THE NEW 10-YEAR PLAN

1. BACKGROUND

Four key events that have come to light during the past month have served to trigger the formulation of a completely revised, more aggressive 10-year photovoltaic conversion plan. These are:

1. **Texas Instruments' "Breakthrough"**—The first is Texas Instruments' assertion that, with their recent "breakthrough" on less expensive solar-grade silicon and the high probability that they can reduce their losses by recycling silicon left in the current state-of-the-art solar-cell fabrication process, they now can predict, "with assurance," that: (1) the cost of mass-producing silicon solar arrays can be reduced, (2) the ERDA program goal of 500 MW/year at an array price of 50¢/watt can be met by 1985. Item (2) is based on the assumption that the well-established 80% learning curve that T.I. (and others) routinely use for their market projections will be maintained from 1979 through 1985, as illustrated in Figure 1.

This assertion enhances the possibility of a steady growth in the availability of improved-technology, lower-cost solar arrays. This, in turn, places less reliance on the hoped-for future breakthroughs and the relatively slow bringing-on-line of unconventional, large-scale ribbon (or other) low-cost silicon solar array plants (in the 1983 to 1984 time period) and allows for continual decreases in cost as the increases in the solar-cell production capacity are achieved.

2. **Mobil-Tyco 65-Foot Ribbon**—The second event was the recent announcement by Mobil-Tyco that they have now achieved a continuous growth of 65 feet of silicon ribbon, and expect to have 100 feet or more of continuous growth by late Spring (as soon as new equipment is brought on line). This meets a significant milestone in their overcoming the critical die-degradation problem, and serves to provide further confidence for the ultimate success of the overall photovoltaic conversion program goals.

3. **DOD Interest in Solar-Cell Applications**—The foremost event, however, is the interest that DOD has recently expressed in applying photovoltaic conversion technology to promote energy "self-sufficiency" in their remote military bases. This opens an entirely new and potentially quite significant early market for the first generations of improved terrestrial solar cells.

By considering only the prices now being paid for energy at some remote sites, DOD has already projected an annual market of 100 KW for photovoltaic systems at an array price of 400 mils/kWh (or about \$4.50/peak watt), and of more than 5 MW when the price drops below 200 mils/kWh (or about \$2.25/peak watt). These prices do not include the "added-value" (that DOD is now in the process of determining) that reflects the advantage of achieving energy self-sufficiency on such bases.

Most significantly, DoD has expressed its desire to cooperate fully with ERDA in this effort. They have already indicated their willingness to publish their "price lists" for photovoltaic applications (to serve as a free market incentive) and their interest in having ERDA develop a sound testing and demonstration program on DoD bases to establish the effectiveness of photovoltaic power systems. This would begin in FY 76 with a blend of applications totaling 75 kW, to be designed, procured, tested, monitored and funded within the ERDA photovoltaic conversion program. Based on the success of these initial demonstrations, DoD would then, starting in FY 77, annually order progressively larger quantities of improved-technology cells through the program, at a

buying-rate that could exceed 50 MW annually as prices drop below \$1/peak watt.

4. **Projected Solar-Array Market Conditions**—Detailed discussions with representatives from both the solar-cell and the semiconductor industries have shown general agreement on the projected market-growth factors for solar cells. Without government assistance, the solar-cell market is projected to follow a 1.5 annual growth rate. Starting with the anticipated 100 kW terrestrial market in 1975, this gives an annual cell production rate of about 30 MW in 1985 under prevailing free-market conditions, as shown in Figure 2.

On the other hand, to achieve the 500 MW annual production-rate goal of the ERDA program is an orderly fashion within 10 years, an annual market growth rate (in terms of total power produced) of slightly less than 3 is required. Interestingly, the growth rate predicted by Texas Instruments from their 80% learning curve for the 1975 to 1985 time period proves to be almost identical to a factor of 3 annual production growth rate for that period.

Several industry sources have said that if such a production growth rate (i.e., 3X) were assured to them by a Federal program, they would have little difficulty in attracting the private capital needed to achieve the necessary industrial expansion to meet the 1985 near-term ERDA program goals.

2. BACKGROUND

In light of the preceding background considerations, the proposed photovoltaic conversion plan represents an aggressive R&D effort that strives: (1) To insure achievement of a solar array cost of less than \$2 per peak watt by 1979; and (2) To establish the desired 80% "learning-curve" growth beyond that point by establishing an early Government market for solar cells that gradually tapers off as the free-enterprise system takes hold.

This plan is based upon an initial (FY 76) ERDA buy of 75 kW of solar arrays at an anticipated price at \$10 to \$15 per peak watt, to be applied to an early blend of experiments and demonstrations on remote DoD bases. This purchase, coupled with the projected 180 kW of free-market arrays would establish the first step toward the desired factor of 3 growth.

In FY 77, a total government buy of about 325 kW would be shared between ERDA and DoD, and applied to both civilian and military applications. All subsequent ERDA array procurements would then be directed toward civilian demonstration systems, building up to a 11 MW demonstration in 1983. DoD would continue to buy arrays at increasingly large rates during this period, ultimately approaching purchases in the neighborhood of 60 MW annually to meet their energy self-sufficiency needs.

The major planning milestones for this near-term (FY 76 to 85) segment of this program are given in Figure 3, while the projected impact of the program is included in Figure 2. Figures 4 and 5 give the detailed program budget and solar-cell production schedule, respectively.

The key result of the proposed program (as shown in Figure 2) is that the total annual solar-array-production rate is projected to follow the desired factor of 3 growth rate from 1975 to 1985. This is based primarily on the impact of the combined ERDA and DoD (i.e., total government) array purchase schedule also shown on that graph. The near-term program goal of 500 MW/year (at less than 50¢/peak watt) is seen to be achievable as early as 1983 to 1984.

The existing photovoltaic conversion program, in comparison, can be shown to lead to only a relatively minor increment in the projected "free-market" curve of Figure 2 during the first nine years of the near-term (1975 to 1984) period. In particular, the 200 kW-array purchase planned for FY 78 would

increase the projected production rate for that year from 585 kW to 785 kW. The two other 200 kW purchases (in FY 81 and 83), however, would be insignificant in comparison to the MW production rates for those years projected by the existing free-market curve. Thus, the thrust of the existing kW order would be apparent only during FY 85, when the large-scale silicon array plants are planned to be brought on-

line to meet the present 500 MW/year, FY 85 program goal.

The more aggressive RD&D program now being proposed has a projected 10-year budget of \$1,043M (in FY 75\$)* in comparison

*This figure follows from the \$1,252.1M budget plan (in FY 77 \$), and the 20% inflation factor used for converting from FY 75 \$ to FY 77 \$.

to the \$816.2M 10-year plan submitted to OMB last June. This represents a 27.8% increase over the existing plan.

Finally, it should be noted that other (outside) factors, such as EEA's expressed interest in establishing tax (and other) incentives to promote the acceptance of solar energy systems, have not been considered in the market projections for the impact of this RD&D program plan.

PLANNING MILESTONES FOR SOLAR PHOTOVOLTAIC CONVERSION PROGRAM

	Fiscal year—										
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
I. Systems and applications:											
Engineering and analysis			Preliminary design specification		Small design operations						
Demonstrations		75 kilowatts	300 kilowatts	500 kilowatts	1 megawatt	2 megawatts	4 megawatts	7 megawatts	11 megawatts		
II. Low-cost silicon arrays:											
Technical development					\$2,000/kW established	\$1,000/kW feasibility studies		\$2,000/kW establishment		\$1,000/kW established	\$500/kW established
Large-scale production		75 kilowatts delivered	180 kilowatts delivered	250 kilowatts delivered	500 kilowatts delivered	1 megawatt delivered	2 megawatts delivered	4 megawatts delivered	6 megawatts delivered		\$250/kW established
III. Concentrator systems:											
Test and standards		Test facility operations			Solar cell performance specification						
IV. Research and development:						20 percent objective thin-film device demonstration					\$100 to \$200/kW thin film feasibility demonstration
V. Storage and power conditioning:			Evaluation tasks initiative	Preliminary subsystem tests	Cond. cell system selected		Develop and proto-test complete		Hardware developed		
VI. Assignment of goals:						Plant ownership determination					

FIG. 4

REVISED SOLAR PHOTOVOLTAIC CONVERSION PROGRAM

Fiscal year 1977 dollar per plant installed

	1975	1976	Transition	1977	1978	1979	1980	1981	Subtotal	Run-on to fiscal year 1985	Fiscal year 1975-85 total
I. Systems and applications:											
Eng. and anal.	1.2	3.0	0.5	7.0	9.0	9.0	6.0	6.0	42.0	22.0	65.0
Demonstrator		2.4	.5	7.8	1.2	11.2	22.4	22.4	78.2	31.6	110.3
II. Si arrays:											
Technical development	2.0	12.0	2.0	32.7	5.4	55.7	30.0	112.2	351.6	298.2	630.7
Production		5.6	1.2	5.6	5.6	5.6	11.2	11.2	47.1	15.4	62.9
III. Concen. systems:		1.0	.3	4.5	4.5	4.5	8.8	8.8	26.7	23.0	49.7
IV. Test and standards:		1.7	.4	4.5	4.5	3.5	3.5	3.5	2.1	13.8	35.9
V. R. & D.:		2.5	.6	6.0	14.0	14.0	12.5	12.5	64.3	50.0	114.3
VI. Stor. and power cond.:		1.0	.3	6.3	11.9	22.4	28.0	38.1	108.0	60.3	168.3
VII. Assess. of goals:		.3	.1	.6	.6	.6	.6	.6	3.7	2.4	6.1
Total:	2.0	30.5	2.2	81.0	106.7	122.5	170.2	212.9	744.8	467.3	1,252.1

* Represents 27.8 percent increase over present SPC program.

It is clear from the "milestones" chart that silicon arrays, concentration systems, and thin-film research all have the potential of producing electricity by 1985 at prices competitive with all other energy sources.

The present level of funding will cause slippage in these milestone by 1 to 3 years, according to Mr. Ahearn. If this level of funding remains relatively the same over the next few years, the economics predicted that the JPL paper will obviously slip seriously into the 1990's; rather than provide probable viable options in 1985. Mr. Ahearn estimates the slippage would be at least 15 years.

An industry panel testifying before the Joint Economic Committee on April 5 indicated that the additional money proposed by this amendment and similar legislation on the Senate side was badly needed. There was considerable emphasis of the need for the Federal Gov-

ernment to stimulate market development by levels of funding sufficiently high to convince industry that we are serious about our commitment to solar energy. One representative indicated that \$60 million for research, systems demonstration, and market development for cadmium materials and other materials alone "might not be enough," indicating also that megawatt quantities of these materials "at attractive prices can be achieved and delivered starting late in fiscal year 1977." A representative from Mobil-Tyco said silicon ribbon solar cells could be cost competitive for production of electricity within 7 years.

There was considerable comment that ERDA was "grossly understaffed" and that the operation was "pretty much one horse. But if you are interested in the probability of success, betting on more than one horse is the best way to come out a winner."

To be specific, the industry panel agreed that the level "of funding ought to be restored to \$60 million"—this is the outlay figure which is equivalent to \$81 million in budget authority.

Informed observers suggest the following breakdown of the \$32.1 million additional funding for photovoltaics:

First, \$10 million authority for the following items:

- Increased efforts to reduce the cost of silicon raw materials down by a factor of six;
- Additional funds to drive down the cost of single silicon crystal sheet;
- There is now one program looking at encapsulated materials of at least a 20-year lifetime; at least one more parallel effort with another company involved is needed; and
- In the automated array area, there are now paper studies, and they need to be turned into experimental programs as

soon as possible. At the committee level funding, only one experimental program would be possible, but a number more are possible and needed.

Second, \$20 million authority for market development. There is now only about \$5 million to generate application studies, experiments and demonstrations. These will help generate early markets, but need to be doing much more. Instead of 5 to 6 applications, we should be looking to upward of 25 applications, and therefore earlier acceptance of Photovoltaics by users.

Third, \$15 million for the long-range program to reduce the economics of new materials. There is \$5 million now allocated, but the additional money could be very effectively used now, especially for thin film devices such as cadmium sulfide, gallium arsenide, cuprous oxide and other exotic materials.

Fourth, \$3 to \$4 million to expedite systems analysis activities and concentration work.

II. SOLAR THERMAL

Similar comments were made in the April 5 Joint Economic Committee hearing on the solar thermal program. An increase in the level we propose was termed "critical." The additional \$27 million can be used for the following areas:

First, \$9 million for the central receiver project should be accelerated by funding the development of lower cost heliostats, structures and controls. This also includes the development and demonstration of improved thermal storage systems and turbines;

Second, \$5 million for studies and demonstrations projects for total energy residential systems—100 homes, for power systems for small towns—10 megawatts and below, and industrial parks;

Third, \$4 million reinstated for irrigation pumping systems, engines and storage systems in the 50 KW range. Such systems without storage are in operation in Mexico and North Africa, marketed by Renault; we have no comparable industry whatsoever, nor demonstration program. The market is very large: Much of the southwest's irrigation is pumped by natural gas and that energy source is becoming rapidly interruptible; replaceable pumps on American oil fields number in the hundreds of thousands as well;

Fourth, \$5 million to reinstate funding for total energy systems to conform to final timetable; for architect and engineering solicitation and conceptual design oriented around the usage of waste heat from a solar thermal electric plant;

Fifth, \$4 million for competitive designs for alternative concepts to the Central Receiver, such as parabolic troughs, concentrating collectors and fixed mirror distributed foci directed toward central station power generation. This is to introduce parallel concepts into central station power generation, whereas the present program puts all our eggs into the concept of the Central Receiver.

III. WIND

The branch chiefs requested \$35 million, which was cut to \$28.8 at the divi-

sion level and further to \$16 by OMB. The House committee left the OMB figure intact, which has the effect, according to the Division Director, Mr. H. Marvin, of "an overall program slowdown." He said:

It delays for 1 year the design and construction of large wind machines for modest wind zones, defers initiating the 10 MW pilot plant for a year and will require that other large scale wind system projects be stretched out with less planned overlap. Parallel projects in technology development and advanced concept research will also be deferred by about 1 year.

Projects for small wind machines for farm and agricultural use were cut entirely. If the present level of funding is maintained in the future, the potential to develop wind energy for a variety of uses and at a variety of scales has been placed in serious jeopardy.

We thus propose to reinstate the division level of funding, as follows:

First, \$7.5 million, of which \$2.6 million is to be devoted to the development of a 5-10 KW system, suitable for heating agricultural facilities and \$4.9 million for the development of 100 KW systems—1-2 horsepower—for irrigation usages.

Second, \$3.5 million for the development of modest wind zones-utility size machines. The present program has been limited to megawatt machines for high wind zones. This is a relatively restricted market. Adding more modest zone machines allows for applications to a much wider geographical spread.

Third, \$1.8 million for the development of pilot plant, in which a windmill farm is associated with a utility to demonstrate that large-scale power systems can be effectively supplemented with wind power. The \$1.8 million would be devoted to planning and components, and the funding increased in the next 2 fiscal years for full development of this concept.

The effect of these additions would be to stimulate new industry interest in wind, and particularly utility interest; it would also allow for more competitiveness within industry for ERDA contracts.

In addition, it would reinstate funding for agricultural areas which has been eliminated in wind in the same way it was eliminated in solar thermal. A combination of the reinstated funding in wind and solar thermal would place a better balance in our funding as between central and decentralized systems, giving more appropriate attention to our rural areas.

IV. CONSTRUCTION ITEMS

First, \$2.5 million for 77-2-C—Solar thermal electric demonstration powerplant for agricultural use, 5 megawatts—baseline studies. This project is to develop and demonstrate the feasibility of using solar energy to provide electricity to meet agricultural needs—it would demonstrate the application of solar energy to replace scarce natural gas and propane. It would have direct applicability to the southwestern irrigation problem, midwestern cattle and farming

problems, would be applicable in eastern and southern agricultural areas as well.

Second, \$4.0 million for 76-2-C—total energy demonstration facility, 1 megawatt electric, 10 megawatts thermal. This project is to develop and demonstrate the first full system capability for a solar thermal total energy system to provide for generation of electricity, space heating, air conditioning and hot water, with potential applicability to industrial and community load centers.

Third, \$2.5 million for 77-3-A. Solar thermal demonstration powerplant for a small community, electric cooperative or municipal utility—5 megawatt—baseline design study. To demonstrate the ability of such a system to meet the needs of small communities. It will be integrated into an existing electrical grid network to serve as a prototype test system for interconnect and switching.

Fourth, \$5 million for 77-2-B. Solar electric hybrid—photovoltaic coal—demonstration powerplant, 10 megawatts—baseline design studies and utility interconnect studies. This project is to develop and demonstrate the technical and economic feasibility of using solar technology in conjunction with conventional powerplant technology.

Fifth, \$5 million for 76-2-E. A 10 megawatt central receiver powerplant. To design, build, and operate a 10-megawatt water/steam central receiver pilot plant. This will be the prototype for ultimate development of large 100-1,000 megawatt central station plants for use by major utilities. There is some indication that some funding was intended in the solar thermal portion of the committee budget for this project, but, since the committee did not provide a line item breakdown and since this project was not placed in the construction section of the bill, there is no assurance the project will go forward. Therefore, we regard it as prudent to spell out its mandate in the construction section as a line item.

Sixth, \$3 million for 77-2-D. A 5-megawatt distributed collector receiver solar thermal test facility. This project is to provide a test facility having the capability of testing various types of distributed collector systems.

Seventh, \$4 million for 77-2-E. A 10-megawatt wind electric test facility—baseline design study. The project is to design, build, and demonstrate a 10-megawatt wind electric pilot plant and test facility. It will be the world's largest wind electric generating system and will permit the thorough evaluation of technical and economic feasibility of multi-megawatt wind system operation.

Small business set-aside. Twenty percent of the funding is mandated to go to small business. As has been well documented by Congressman MORRI and Senator MCINTYRE, small business in the United States has played a disproportionately large role in the invention of important technologies in this century. A 1967 report by the U.S. Panel on Invention and Innovation of the Department of Commerce concluded that:

First, small firms and independent inventors are better innovators than large firms; and

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Second, most innovations occur outside the industry being changed. A recent University of Maryland study showed that small firms and independent inventors provided over two-thirds of the major inventions between 1946 and 1955. Yet, in the new solar field, over 70 percent of Federal R. & D. funds to profit-making corporations was awarded during the last 2 years to companies ranking among the 200 largest in the Nation. Less than 6 percent went to small firms.

The administration has, on numerous occasions, indicated it holds the potential for solar energy in high regard. The original Project Independence Report stated that—

A reasonable extrapolation of solar energy system capabilities shows that solar energy could contribute from 15 to 30 percent of the Nation's total energy requirements about the turn of the century.

The FEA's solar energy office estimates that under an "accelerated funding program" about 10 percent of the total national energy demand could be met by solar means by the year 1990.

Mr. Speaker, these estimates are startling. We have dedicated very large amounts of funds during the last 20 years to nuclear energy and today only about 2 percent of our total energy demand is met by nuclear. We have spent over \$4 billion for nuclear energy, excluding weapons applications, alone. Now we are told that we could achieve five times that result with solar in less time, that is, 15 years. I would say that an accelerated funding program for solar is certainly cost-effective in light of this raw aggregate data.

LET US NOT DENY VETERANS A COST-OF-LIVING INCREASE

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Massachusetts (Mrs. HECKLER) is recognized for 5 minutes.

Mrs. HECKLER of Massachusetts. Mr. Speaker, I acknowledge the need for Federal budgetary restraint, as we set legislative priorities through the budgetary process. As a member of the Committee on Veterans' Affairs, I stressed fiscal responsibility throughout the committee's deliberations on the budget and reiterate its importance today.

However, I believe that support of essential veterans' programs is well within the bounds of fiscal responsibility. With stress on the word "essential," I cite cost-of-living increases in veterans' pension, compensation, and education benefits.

Mr. Speaker, these increases are in line with the inflated costs which veterans, their dependents, and their survivors must pay. If the increases are not approved, the purchasing power of these persons will be eroded.

For example, those drawing pensions for non-service-connected disabilities received an 8-percent increase in benefits on January 1. If funds are not included in the fiscal 1977 budget, these pensioners will have their checks reduced effective October 1. Is it fiscally responsible to penalize these disabled veterans, many of whom are elderly persons who rely upon

their pension benefits as their major source of income? I believe that cutting off this cost-of-living increase would be an irresponsible act on the part of this body.

For another example, veterans receiving disability compensation and survivors getting dependency and indemnity compensation last received an increase on August 1, 1975. During this calendar year, we can expect the cost of living to rise by about 6 percent. If funds are not authorized in this budget, the Committee on Veterans' Affairs will be hampered from holding hearings on the compensation program, determining what cost-of-living increase is necessary, and recommending such an increase to the full House. Is it fiscally responsible to deny disabled veterans and their survivors an equitable cost-of-living increase? I believe that such a denial would be an irresponsible act.

Therefore, I urge my colleagues to restore the \$1.2 billion in authorizing funds for cost-of-living increases which the Committee on Veterans' Affairs recommended to the Budget Committee. To do otherwise would be to place the brunt of inflation on the veterans of this Nation—those who, in view of their sacrifices, least deserve to bear such a burden.

LEGISLATION TO REVERSE RECENT TREASURY DEPARTMENT DECISION TO TAX ARMED FORCES HEALTH PROFESSIONS SCHOLARSHIP PROGRAM SCHOLARSHIPS

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from California (Mr. BOB WILSON) is recognized for 5 minutes.

Mr. BOB WILSON. Mr. Speaker, I am today introducing legislation to reverse a recent Treasury Department decision that scholarships for students enrolled in the Armed Forces health professions scholarship program are taxable.

We are today at a crossroads in terms of medical care for military families. With the end of the draft, the services have faced a difficult task in trying to attract and retain high quality medical personnel. In an effort to make the pay of military doctors more competitive with the private sector, special bonuses have been enacted. Under the able and dedicated leadership of Congressman F. EDWARD HEZLET, we created the Uniformed Services University of the Health Sciences to train new military doctors. In addition, Congress established the Armed Forces health professions scholarship program. I understand that several of the services will be relying heavily on the new doctors produced by this scholarship program, particularly as the last of the draftees leave in the next few years.

In recent years, Congress, through the annual Department of Defense appropriations bill, has required the services to cut back on the use of CHAMPUS and to rely more heavily of military medical facilities. At this same time, the supply of military doctors at these facilities has been shrinking. The shortage in the years ahead could reach crisis proportions unless we generate a new source of doctors.

This is the reason for the Armed Forces health professions scholarship program. Taxation of these scholarships is both illogical and highly counterproductive to the recruitment of new doctors for the military services.

These scholarships were exempted from taxation on a temporary basis for calendar years 1973, 1974, and 1975. That legislative authority has now expired. As a result, I am today introducing a bill to make these stipends exempt from taxation on a permanent basis beginning with calendar year 1976. I urge the House Ways and Means and Senate Finance Committees to act expeditiously as possible on this bill.

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Ohio (Mr. MILLER) is recognized for 10 minutes.

Mr. MILLER of Ohio addressed the House. His remarks will appear hereafter in the Extensions of Remarks. I

"FINAL DAYS" HITS RAW NERVE

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Connecticut (Mr. COTTER) is recognized for 5 minutes.

Mr. COTTER. Mr. Speaker, I would like to take this opportunity to insert into the Record an excellent article by Bob Waters, a correspondent for the Hartford Courant, on the subject of "The Final Days":

"FINAL DAYS" HITS RAW NERVE (By Robert Waters)

WASHINGTON.—In the words of one Washington Post writer, the latest Woodstein opus, "The Final Days," has struck a raw nerve.

The Post has been swamped with angry mail since its decision a couple of weeks ago to reprint on page one—excerpts from the certain-best seller by reporters Bob Woodward and Carl Bernstein.

Along with the excerpts, the newspaper also published a beautifully written critique and summary of the book by Haynes Johnson.

Ever since then, angry letters—some of them from charter members of the "I Hate Nixon Club"—have been taking the paper to task.

The thrust of most of the complaints was summed up by the Post's ombudsman, Associate Editor Charles B. Seib: "... there is a growing impatience with the press's lack of concern for personal privacy and that undefinable thing we call taste."

Some of the specific complaints about the book centered on its references to the drinking and personal lives of Richard and Pat Nixon.

Others were directed to the book's description of an incident in which the then-President invited Secretary of State Henry Kissinger to pray with him.

Up to now, there have been surprisingly few hard challenges to the accuracy of the events described by Woodward and Bernstein. Even some of the denials—when carefully read—contain a circa 1973 White House flavor.

But all in all, the public's reaction seems to boil down to: Why can't you leave the poor guy alone?

As a bystander and sometimes chronicler of the Watergate era, I must confess that I share some of the concerns of the critics. It

JAMES M. JEFFORDS
VERMONT CONGRESSMAN

COMMITTEE ON AGRICULTURE
SUBCOMMITTEES:
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RANKING MINORITY MEMBER
CONSERVATION AND CREDIT
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May 10, 1976

Subject: ESSENTIAL FUNDING INCREASE FOR SOLAR ENERGY—
FY 77 ERDA AUTHORIZATION

Dear Colleague:

We are offering amendments to the FY 77 ERDA authorization measure to increase funding for solar energy technologies by \$116.2 million, and provide that at least 20% of the funds contracted out by ERDA for solar energy go to small business.

The total solar figure (including Photovoltaic, Solar Thermal, Wind, Biomass, Heating and Cooling and Ocean Thermal technologies) would then be \$345.2 million.

Our intent is to maximize the potential these promising technologies have to help alleviate our energy crisis at an optimum pace.

We have been greatly encouraged by reports of very significant breakthroughs achieved in these technologies in the past year -- a recent program analysis done by the Jet Propulsion Laboratory (inserted in April 28 Record, pp. H3566-7) for example, projects that a number of attractive Photovoltaic technologies can be economically competitive with all other sources of energy by the year 1985, but only with the levels of funding we propose.

Last month, industry representatives testifying before the Joint Economic Committee, stated the increased funding levels we propose are now "critical" to the present stage of development of the Solar Thermal and Photovoltaic technologies

An authoritative "Evaluation of the National Solar Energy Program", done in February for the Office of Technology Assessment concluded that a budget of at least 3 times the proposed FY 77 budget "could be used effectively and would greatly enhance the probability of large scale usage of solar energy in the near and mid-term time frame." The study concluded:

A program, given a high national priority, must receive commensurate funding, manning, and management support. . . . Solar energy and energy storage have received none of these and thus are not regarded seriously or with urgency in the highest echelon of our government. Until this is corrected solar energy's rapid utilization will not occur.

In summation, the program is indeed a program for the year 2000. Conversely, this evaluation has indicated that solar energy can be a program for the year 1986 but only if it is accorded the resources and support merited as a high national priority. (emphasis added).

(See pp. H4107-8 of May 7 Record for the full text of the Overall Evaluation section of this study)

The increase is therefore absolutely vital to (a) develop a momentum in these solar programs which will bring lower cost solar energy, available on a more widespread basis, at a pace which it is clear the technology can now sustain, and (b) elevate the funding levels to match policy objectives already announced by the Administration, i.e., to stimulate the development of these technologies as a major American energy source.



The goal is to prove the viability of the renewable energy option by 1985.

The 20% small business set-aside requirement, according to Mr. Milton Steward, President of the National Small Business Association, "is an absolute minimum, given the level of magnitude of the small business input into these technologies today." In the Senate Select Committee on Small Business report of 1975, entitled, "The Role of Small Business in Solar Energy Research, Development, and Demonstration", it was concluded that:

Until very recently, the Federal government... left solar up to the small business pioneers and individual innovators who, acting on their own initiative, with virtually no government support were responsible for almost all of the solar energy research, development, and demonstration work that occurred in this country prior to 1973. Now that the Federal government has decided to embark on an accelerated program... one might think that the pioneers would finally get their rightful share of the participation, but that has rarely been the case. The Federal departments and agencies charged with the development of solar energy have not adequately considered the needs and capabilities of small business... have not established small business set-asides, and have usually relied on and favored big business concerns...

We intend to establish such a program through this set-aside.

This amendment is endorsed by the National Association of Manufacturers, the National Small Business Association, Common Cause, and all major environmental and consumer groups.

if you have any questions or would care to join us as a sponsor of this amendment, please contact us directly or our staffs (Dick 54115, Jeff 56416). Present cosponsors are listed below.

Sincerely,

Harold Runnels

Jim Weayer

James Jeffords

- Lehman - Florida
- Richard White - Texas
- Gude - Maryland
- Richmond - N.Y.
- Fenwick - N.J.
- Fraser - Minnesota
- Udall - Arizona
- Neal - North Carolina
- Reuss - Wisconsin
- Seiberling - Ohio
- Cleveland - New Hampshire
- Biester - Pennsylvania
- Conte - Massachusetts
- Mottl - Ohio
- Heckler - Massachusetts
- Mitchell - N.Y.
- Lujan - New Mexico
- Bedell - Iowa
- Oberstar - Minnesota
- AuCoin - Oregon
- Bingham - N.Y.
- Nolan - Minnesota
- Tsongas - Massachusetts
- Holtzman - N.Y.
- Lundine - N.Y.
- Edgar - Pennsylvania
- Minish - N.J.
- Whitehurst - Virginia
- Howe - Utah
- Beard - Rhode Island
- Keys - Kansas
- Santini - Nevada
- Jennette - S.C.

- Hays - Ohio
- Rodino - N.J.
- Cornell - Wisconsin
- Hughes - N.J.
- McHugh - N.Y.
- Downey - N.Y.
- Solarz - N.Y.
- Spellman - Maryland
- Wirth - Colorado
- Hannaford - California
- Simon - Illinois
- Moorehead - Pennsylvania
- LaFalce - N.Y.
- Mitchell - Maryland
- Traxler - Michigan
- Badillo - N.Y.
- Breaux - Louisiana
- Hillis - Indiana
- Abzug - N.Y.
- D'Amours - New Hampshire
- Krebs - Minnesota
- Patterson - California
- Aspin - Wisconsin
- Roe - N.J.
- Steelman - Texas
- Dominick Daniels - N.J.
- Miller - California
- McClosky - California
- Mineta - California
- Lloyd - California
- Emery - Maine
- Bressler - S. Dakota
- Drinan - Massachusetts
- McKinney - Connecticut



BARRY M. GILLIN, JR.
1074 D STREET, N.W.

COMMITTEE ON PUBLIC WORKS
AND TRANSPORTATION
COMMITTEE ON SCIENCE AND
TECHNOLOGY

Congress of the United States
House of Representatives

Washington, D.C. 20515

May 11, 1976

H.R. 13350 - JEFFORDS AMENDMENT

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Dear Colleague:

As Chairman and Ranking Minority Member of the Energy Research, Development and Demonstration Subcommittee, we have reviewed the provisions of Congressman Jefford's amendment (Record, May 3, 1976, H3851) to the solar program in H.R. 13350, the FY 1977 authorization for the Energy Research and Development Administration. The amendment (1) adds 9 line items for solar; (2) increases three solar programs - solar thermal by \$27 million, photovoltaics by \$49 million, wind by \$12.8 million and plants for the three by \$25 million; (3) requires a \$4 million solar electric study; (4) creates 75 new positions; and (5) sets aside 20% of the entire solar program budget for small business.

While we fully appreciate that this amendment is a well-intentioned effort to accelerate this exciting and vital new technology, we are constrained to strongly oppose it. We also have considered the efforts proposed by the amendment for increased funding during our Committee deliberations. We also reviewed these efforts with Dr. Tom Teem, the former Assistant Administrator for these programs, and received OIA's comments on the proposed budget.

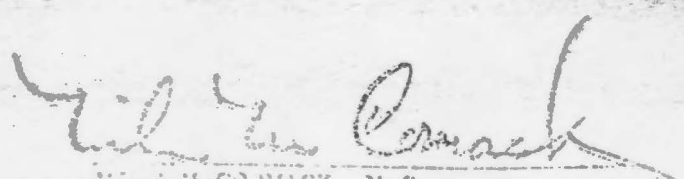
We believe the current levels in the bill are adequate this year.


Some specifics will help place the Jeffords amendment in perspective. In the wind program, the amendment almost doubles Dr. Teem's recommendations. In the solar thermal program, the amendment more than doubles Dr. Teem's recommendations, exceeds the Solar Division recommendation by 33%, and doubles the ERDA request to OMB. The amendment would increase the photovoltaic program to more than double Dr. Teem's recommendation, doubles the Solar Division recommendation and more than doubles the ERDA request to OMB.

The small business provision, the new positions, the line iteming and the study are also surely well intentioned. We, however, must oppose each for reasons we shall detail on the Floor. Basically, each has been fully considered by our Committee and has been resolved in the existing bill.

We, too, are committed to the rapid development of solar energy to its fullest potential. We want not only these selected programs, but other solar activities to aggressively move forward. Where we part ways with the Jeffords amendment, and where we strongly urge your support in opposition to it, is in advocating a practical, effective program instead of a "wish list". Solar energy deserves hard-nosed analysis and management, just like the presently economic energy technologies. The Committee bill before the House furnishes such a realistic program. We urge your support of the bill as reported and your opposition to the Jeffords amendment.

Sincerely,


MIKE M. CORMACK, M.C.


BARRY M. GILLIN, JR.,



ANALYSIS OF JEFFORDS AMENDMENT
TO HOUSE AUTHORIZATION FOR FY 1977
SOLAR ENERGY DEVELOPMENT

The Jeffords amendment adds \$116.2M to the \$226.7M House authorization for FY 1977 solar energy development. The new total solar authorization becomes \$342.9M. ERDA comments on the proposed amendment area as follows:

a. The Jeffords amendment appears to provide line-by-line authorization. ERDA believes this method of authorizing appropriations is unduly restrictive and difficult to administer. Authorization by major area of solar interest without a breakdown into specific tasks provides ERDA with the necessary flexibility to program funds for maximum utilization. For example, under present authorizing procedures, funds can be diverted between programs taking into consideration such factors as advances between programs, program mix and overall best interests of the solar program.

b. Solar Thermal.

Fiscal Year	Operating Expenses		Construction & Capital Equipment		Combined Total	
	BA	BO	BA	BO	BA	BO
	(\$ In Millions)					
FY 1975	\$13.20	\$ 3.70	\$ 0.05	\$ 0.03	\$13.26	\$ 3.76
FY 1976	14.30	10.60	5.00	5.00	19.30	15.60
FY 1977 Budget Request	30.90	26.50	15.00	2.65	45.90	29.15
Committee Inc	7.10	5.30	8.0	9.30	7.10	14.60
Jeffords Amend. Increase	27.00	*	21.00	*	48.00	*

* Budget Outlays not provided in the Jeffords amendment.

The House Science and Technology Subcommittee additions of \$7.10M to the President's Budget would permit the testing of second generation central receiver prototype hardware, the initiation of distributed collector solar thermal systems for early application (irrigation, small communities, agricultural), evaluation of advanced systems, and the research and development support necessary in receivers and engine development including research work transferred from the National Science Foundation.



The Jeffords amendment provides for an additional \$27M in operating authority funds. Broken down as follows:

- \$9M - Central receiver project acceleration
- \$5M - Solar thermal projects applicable to small towns
- \$4M - Irrigation applications
- \$5M - Total energy system large scale experiment
- \$4M - Alternate concepts to the central receiver concepts

ERDA's review of the Jeffords amendment indicates that all of the projects earmarked in the \$27M are included in either the amount originally requested by the President's budget or in the additional fund authorization provided by the House Committee but at lesser amounts. Therefore, detailed plans for spending an additional \$27M have not been formulated.

The President's budget contains construction authorization for the 5 megawatt solar thermal test facility and provides outlays for it and the 10 megawatt central receiver pilot plant previously authorized in FY 1976. The House Science and Technology Subcommittee made no changes to the President's budget other than to increase the amount of outlays available for the 5 megawatt project work. The proposed Jeffords amendment adds construction items totaling \$21M. They are:

- \$2.5M - Baseline studies for the 5 megawatt thermal electric demonstration power plant for agriculture/irrigation uses
- \$2.5M - Small community solar thermal power demonstration plant
- \$4.0M - Total energy demonstration facility
- \$4.0M - Baseline studies for a solar electric hybrid power plant
- \$5.0M - 10 megawatt central receiver power plant
- \$3.0M - Distributed collector solar thermal test facility

The construction projects proposed by the Jeffords amendment appears to be a duplication of work already included as operating funds. This is so because baseline designs and feasibility studies are normally included as operating costs. Moreover, no decision has been made at this time to proceed with the projects as construction items authorized from construction funds or as demonstrations authorized from operating funds.



c. Photovoltaic.

Fiscal Year	Operating Expenses		Construction & Capital Equipment		Combined Total	
	BA	BO	BA	BO	BA	BO
FY 1975	\$ 5.16	\$ 2.60	\$	\$	\$ 5.16	\$ 2.60
FY 1976	21.60	16.00	0.80	0.40	22.40	16.40
FY 1977						
Budget Request	28.20	22.00	4.60	2.80	32.50	24.80
Committee Inc	3.90	3.10			37.80	28.00
Jeffords Amend. Increase	52.80				52.80	

The 1975 JPL report that Mr. Jeffords refers to and the one that has become the basis for his recommended funding level of \$81M was prepared as an interim working memorandum and should be considered as one possible scenario in the continually evolving photovoltaic program. It is ERDA's objective to develop the technology base by the year 2000 to allow production of 10 to 30 cents per peak watt in photovoltaic arrays. The President's budget is considered the minimum amount necessary to achieve this goal. As with any research and development program, it would be possible to accelerate the development of photovoltaic systems with additional funding. However, the amount of acceleration achievable is currently uncertain. The following represents a breakdown of the various funding requests for the photovoltaic program.

	President's Request	Division Request to ERDA
	BA	BA
	(\$ In Millions)	
Operating		
Mission Analysis	\$ 0.4	\$ 0.6
Systems Analysis & Engineering	2.3	4.0
Silicon Solar Arrays	17.3	26.2
Concentrator Studies	1.0	1.6
Tests and Applications	3.0	3.8
Novel Materials and Devices	3.8	2.4
Storage and Power Conditioning	0.0	2.0
Assessment of Goals	0.4	0.4
Subtotal	\$28.2	\$41.0
Capital Equipment	\$ 4.6	\$11.9
Total	\$32.5	\$52.9



It is ERDA's judgment that no reasonable increase in funds beyond that originally estimated by the division could provide the acceleration necessary to achieve the goal of significant photovoltaic production costing 10 to 30 cents per peak watt within a 10 year period.

d. Wind.

Fiscal Year	Operating Expenses		Construction & Capital Equipment		Combined Total	
	BA	BO	BA	BO	BA	BO
FY 1975	\$ 5.72	\$ 1.03	\$	\$	\$ 5.72	\$ 1.03
FY 1976	14.90	11.00	0.20	0.10	15.10	11.10
FY 1977						
Budget Request	16.00	12.00			16.00	12.00
Committee Inc			1.10	0.50	1.10	0.50
Jeffords Amend. Increase	12.80	*	5.10	*	17.90	*

* Budget Outlays not provided in the Jeffords amendment.

The proposed amendment would increase the President's budget to \$28.8M. In the justification for the increase, the amendment states that projects for small farm systems were deleted entirely in the budget cycles. ERDA records indicate, however, that \$1.5M for this effort remains in the President's FY 1977 budget submission.

The result of funding based on the Jeffords amendment would be a program plan essentially as originally proposed by the division with one major exception. The Jeffords amendment adds \$4M as a construction line item for a 10 megawatt wind electric pilot plant and test facility. ERDA, in its original program plan, included only \$0.9M for this effort. It is felt that funding at the level proposed by the Jeffords amendment over stresses and over accelerates the 10 megawatt pilot plant without sufficient technical baseline work. If such a funding level were to be implemented, the emphasis should be shifted to the technology and advance concept line items as originally planned by the division. In this manner, the funds can be used to support the development of all future large systems including large irrigation systems and both on- and off-shore utility type systems.

Since the original division plan was developed, more emphasis has been placed on the mid-sized irrigation systems as compared to electrical output systems. Finally, the amendment states that \$2.6M is to be devoted to the development of 5-20 kW systems suitable for heating agriculture facilities. If implemented, ERDA would use this money to also examine small electrical, refrigeration and other applications. The following represents a break down of the original division request as compared to the President's budget submission.

	President's Budget	Division Request
	(\$ In Millions)	
Program Development and Technology	\$ 7.7	\$11.2
Farm and Rural Systems (small)	1.5	2.6
100 kW Scale Systems	0.1	4.9
MW Scale Systems	5.5	8.5
Large Multi-Unit Systems	1.2	1.6
	\$16.0	\$28.8
Equipment	1.1	2.7
MW Pilot Plant	0.0	0.9
	\$17.1	\$32.4

It is ERDA's judgment that no significant acceleration could be undertaken beyond that represented by the division request.

e. The Jeffords amendment adds \$2.5M to provide the staffing necessary to handle the increased funding and to provide reports called for by the Office of Technology Assessment in its evaluation of the ERDA program. The existing FY 1977 House authorization added \$8M to Section 301, Program Support, as additional staff in non-fossil, non-nuclear programs. According to the Committee Report, such additional monies are to be distributed among these program areas in rough proportion to increases provided to each program area in operating expenses and plant and capital equipment. Increases in Solar staffing resulting from this action, approximately \$2.4M, is considered adequate to carry out the Solar program as now contemplated.

f. The Jeffords amendment proposes a small business set-aside of 20% of the FY 1977 funding. The Division of Solar Energy currently has an aggressive small business program carried out through its program assigned to other government agencies, federal laboratories and non-profit institutions. These other institutions are an integrated part of the solar program and are invaluable in helping to maintain overall program direction



and control under a small headquarters staff. For example, the Division of Solar Energy has delegated to NASA the responsibility for carrying out its commercial Solar Heating and Cooling Demonstration Program and to HUD, the responsibility for the equivalent residential program. These agencies, in-turn develop the technical and contract parameters of the project then subcontract the actual work. Approximately 80% of the funds assigned to these agencies are available as subcontracts with over 50% going to small business. An inflexible small business set-aside of FY 1977 Solar Energy budget without consideration of this overall program implementation plan would result in the Division of Solar Energy being unable to utilize other federal agencies, universities, etc., to help to carry out the solar objectives while at the same time meeting the small business goals. Another reason for deferring any proposed set percentage at this time is that there is no data available to establish a valid set-aside base in the solar area. As the program develops beyond its initial first years of operation, the ability to develop such a data base will increase.

01221200
/ 45



Congress of the United States

House of Representatives

Washington, D.C. 20515

yes

MEMBERS IMMEDIATE
ATTENTION

May 11, 1976

Dear Colleagues:

The ERDA Authorization for FY 1977, H.R. 13350, is scheduled for floor action on Wednesday, May 12, 1976.

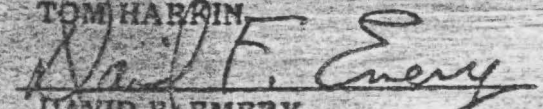
We plan to offer an amendment which would require that all ERDA employees in policy making positions, who have "known" financial interests as defined by the Administrator in firms doing business with ERDA both from the standpoint of energy R&D and national security R&D, shall annually file written statements with the Administrator. These reports shall be available to the public. Such a provision extends the existing requirements of law concerning conflict of interests.

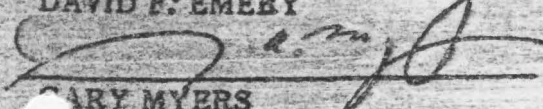
The potential for conflict of interest in the energy industry has already been recognized by this Congress. On December 22, 1975 Congress enacted a public disclosure provision similar to our amendment for the Interior Department and the Federal Energy Administration as part of the Energy Policy and Conservation Act (Public Law 94-133). Only last week our Committee on Science and Technology adopted a public disclosure provision as part of H.R. 1283 for its proposed synthetic fuels loan guarantee program. This amendment would extend the provision to all ERDA employees in a policy making position as defined by the Administrator.

All of us, as elected officials, are aware of the public's increasing lack of confidence in government and big business. To a great extent, this lack of confidence stems from the public being denied information regarding the financial holdings of high government officials. Thus the purpose of this amendment is to require public disclosure of any potential conflict of interest by top policy making officials at ERDA. We urge your support of our amendment.


JIM BLANCHARD


TOM HARRIN



DAVID F. EMERY


GARY MYERS

Sincerely,

CHRISTOPHER J. EDD


RICHARD OTTINGER


TIM WIRTH



HORTON
NUC
LEAD



mm Carter

Congress of the United States

House of Representatives

Washington, D.C. 20515

May 12, 1976

H.R. 13350 - Pricing of Uranium Enrichment Services

Dear Colleague:

We are writing you on an issue of grave concern to the Congress and consumers-- energy prices.

The Joint Committee on Atomic Energy has inserted a provision in the ERDA authorization which would permit a substantial increase in the price of enriched uranium, the fuel which powers our growing number of nuclear power plants.

Present law provides that enrichment services are to be priced to recover "the Government's costs over a reasonable period of time" (42 U.S.C. §2201 v.). In practice, the government charges prices for these services which cover costs plus a 15 percent contingency. This pricing formula is analogous to the "just and reasonable" formulation employed to regulate prices of other essential services and fuels.

By contrast Title V of H.R. 13350 would allow ERDA to set the price of uranium enrichment services at a level which "will not discourage the development of domestic supply independent of" ERDA. This language would allow potential private enrichers to set the price of government services on the basis of some vague "discouragement index". The prices established by this formula would be a dramatic concession of the public interest to private power; and a drastic departure from traditional economic regulation designed to balance the achievement of adequate supply with just and reasonable prices.

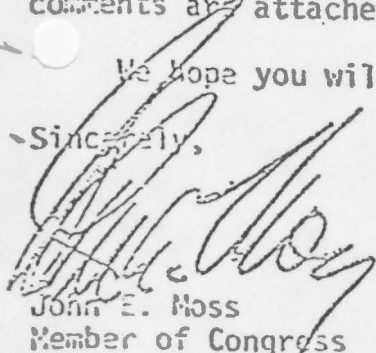
The bottomline for consumers is increased energy prices. ERDA estimates that cumulative costs for the next five years would be \$760 million. This estimate was based upon a projected charge of \$76 per Separative Work Unit (SWU, a measure of the effort required to separate a given quantity of uranium feed into two streams, one having a higher percentage of U-235). However, GAO interviews with potential enrichers indicated that a charge of \$100 per SWU would be required in order not to discourage their entry into the industry. Based on this figures, the economic impact on consumers would be double that estimated by ERDA. Even \$76 represents a significant increase over present Government prices of \$53.

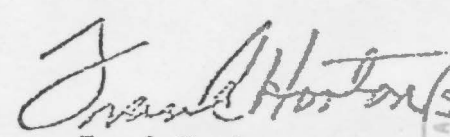
Ironically, Title V is not required to encourage private uranium enrichment. All of the government's enrichment capacity is fully contracted for. Therefore, government competition with private enrichers is not at issue.

For these reasons, we will offer a motion to strike Title V of H.R. 13350 when it comes to the floor today. For these same reasons, Title V is opposed by the Edison Electric Institute (representing investor-owned utilities); the American Public Power Association; the National Rural Electric Cooperative Association; Consumer Federation of America; AFL-CIO; and the former chairman of the JCAE, Chet Holifield. Some of their comments are attached to this letter for your consideration.

We hope you will join us in striking Title V of H.R. 13350.

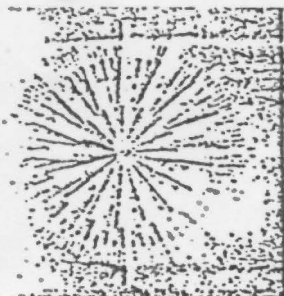
Sincerely,


John E. Moss
Member of Congress


Frank Horton
Member of Congress

Attachments





AMERICAN PUBLIC POWER ASSOCIATION

2600 VIRGINIA AVENUE NW WASHINGTON DC 20037 - 202/333-9200

May 11, 1976

RECEIVED

MAY 11 1976
JOHN E. MOSS

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Utilities Association
Sacramento, California

CONRAD VON RAESFELD
Santa Clara, California

GEORGE W. WATERS
Clark County Public Utility District
Vancouver, Washington

The Honorable John Moss
U.S. House of Representatives
2354 Rayburn House Office Bldg.
Washington, D.C. 20515

Dear Mr. Moss:

I understand that when the ERDA authorization bill, H.R. 13350, comes to the floor this week, you will offer an amendment to strike Title V of the bill which seeks to substitute speculative private prices for the existing statutory standard of "recovery of the government's costs over a reasonable period of time" in establishing charges for uranium enrichment provided by Federal facilities. On behalf of the American Public Power Association, which represents 1,400 local public power systems in 48 States, I wish to express my support for your amendment. Title V should be stricken for the following reasons:

1. It would significantly boost consumers' electric bills at a time when high rates are already imposing a heavy inflationary burden.
2. It would decrease the competitive pressure of nuclear power in keeping down the cost of fossil fuels.
3. It would abandon a policy of setting Federal prices on the basis of actual costs and use instead fictional costs based on private projections.
4. It would eliminate a yardstick against which to measure the charges of future private enrichers and set a floor for future charges.
5. It would discourage foreign interest in purchasing U.S. uranium enrichment services.

Title V is not necessary to resolve the pending question of who should build the next increment of uranium enrichment capacity. As pointed out by the General Accounting Office: "Since the Government's capacity is fully contracted for, its enrichment charge has little competitive importance to the potential private enrichers."

I urge that Title V be deleted from H.R. 13350.

Sincerely,

Alex Radin
Alex Radin





EDISON ELECTRIC INSTITUTE
90 PARK AVENUE • NEW YORK 10016 - (212) 573-2700

May 4, 1975.

RECEIVED
MAY 04 1975
JOHN E. MOSS.

The Honorable John O Pastore, Chairman
Joint Committee on Atomic Energy
Congress of the United States
Room E-403, The Capitol
Washington, D. C. 20510

Dear Senator Pastore

The Edison Electric Institute, the principal national association of investor-owned electric utilities, notes that the Joint Committee on Atomic Energy has voted to report out the ERDA Appropriations bill, S.3105. We are seriously concerned about Title V of the proposed bill which would authorize commercial pricing of enrichment services by ERDA.

The Institute has strongly supported passage of the Nuclear Fuel Assurance Act, S.2035, which would provide for commercial pricing in a competitive environment. We take strong issue, however, with arguments which have been advanced in favor of commercial pricing under conditions in which the government continues as the sole source of enrichment services. It is our understanding that existing legislation requires the government to fully recover the cost of providing enrichment services, and that prices are now, and have been, set accordingly. Further, it is our opinion that enactment of the proposed legislation is not necessary to encourage private commercial alternatives. There are other available courses which can accomplish this objective at lower cost, in our view.

The electric utility industry is acutely aware of the impact of increased prices upon consumers and its responsibility to do everything possible to control costs. Our belief is that the proposed legislation would unnecessarily increase the cost of electricity.

We respectfully recommend that the Committee agree to a floor amendment to delete Title V from the ERDA authorization bill so that the electric utility industry may have an opportunity to present its views on this most important matter at legislative hearings to be held at a later date.

Sincerely yours,

W Lonnan Crawford
President



energy policy task force

1012 14th STREET, N.W. - SUITE 901 - WASHINGTON, D.C. 20005 - (202) 737-3732

LEE C. WHITE, CHAIRMAN

ELLEN BERMAN, DIRECTOR

May 5, 1976

Dear Representative:

As reported by the Joint Committee on Atomic Energy, a little noticed provision in the ERDA authorization bill requires the ERDA Administrator to set prices for Federal uranium enrichment services at a level which will "not discourage" private concerns from moving into this field. The Energy Policy Task Force of Consumer Federation of America is vigorously opposed to this language.


The proposed amendment to the Atomic Energy Act would abandon the statutory standard of "recovery of the Government's costs over a reasonable period of time" and substitute hypothetical costs of private companies which might -- or might not -- enter the enrichment field.

ERDA is currently charging prices for enrichment services which cover its costs plus a 15% contingency, so there is no need to boost prices to avoid subsidization.

Since the Federal government is presumably not in the business of making excess profits off the services it sells to its citizens, the addition of fictional costs to Federal prices can only be regarded as an unjustified, regressive, and discriminatory tax on consumers of power produced by nuclear power plants.

Higher charges which would result from this change in Federal policy would unreasonably inflate the electric bills of consumers who are already staggering under continuing rounds of rapid rate increases. The government's uranium enrichment capacity is fully contracted for and it is pointless to raise prices on existing contracts for the alleged purpose of encouraging non-Federal enrichment. Congress has not yet made a decision on who should build future increments of needed uranium enrichment capacity, but the answer to that question does not swing on ERDA pricing at Federal facilities.

Adoption of the private pricing approach would effectively eliminate the role of the Federal government as a yardstick to measure the charges of private enrichers which Congress may allow to perform this function in the future. A "discouragement index" prepared by private companies would be substituted for actual government costs in the establishment of Federal price schedules. The Congress would have created a new Federal price support program with a floor determined by the beneficiaries -- potential private enrichers -- and ratified by ERDA. This would be a flagrant abandonment of the government's responsibility to protect consumers, and


Consumer Federation of America



would further fuel contentions that Congress exhibits an unseemingly willingness to relinquish its powers in favor of large corporations.

We urge that the title containing this drastic modification of existing law be stricken from the ERDA authorization bill when it comes to the floor.

Sincerely,

Lee C. White

Lee C. White
Chairman



HORTON-MOSS AMENDMENT ON URANIUM ENRICHMENT PRICING

Amendment: Strike Title V from H.R. 13350, ERDA Authorization Bill

Effect:

- Continue to provide enriching services to utility customers at below Government cost. (Government subsidy to utilities)
- Continue to provide similar subsidy to foreign customers -- annual rate of \$81 Million per year.
- Require additional \$123 Million in Authorization, Appropriation and Budget authority.

Title V impact on consumer: \$0.04 on a \$30 electricity bill

Fact Sheet

HR 13350 Title V

Pricing of Uranium Enriching Services

On June 24, 1975, ERDA submitted to Congress draft legislation to amend the Atomic Energy Act of 1954, as amended, to revise the basis for establishing prices for uranium enrichment services. This legislation would permit ERDA to establish charges for enrichment services which would recover not less than the Government's costs over a reasonable period of time, on an unsubsidized basis, and in the opinion of the ERDA Administrator would not discourage the development of domestic sources of supply independent of ERDA.

The legislative proposal supports two main objectives:

Enables ERDA to obtain a fair value for its enriching services sold to domestic and foreign customers.

Eliminates or reduces the differential between the Government's charges for enriching services and those of potential domestic private enrichers.

Uranium enrichment is the only step in the production of nuclear fuel that is not privately owned and priced on a commercial basis. Current charges for enrichment services, based on recovery of the Government's costs over a reasonable period of time, do not reflect the full range of cost elements associated with a commercial-industrial activity, such as provisions for taxes, insurance, and a return on equity. The

absence of these factors in the price essentially constitutes a subsidy to both domestic and foreign customers and results in a price significantly lower than can be reasonably expected from any future sources.

The increased revenues which would flow to the United States government from foreign and domestic customers will tend to reduce the general tax burden and minimize the impact of the Government's enrichment program on the U.S. economy.

A comparison of prices for uranium enriching services under the proposed present and revised legislation is as follows:

TABLE 1

Pricing of Uranium Enriching Services for

Fixed Commitment Contracts

	<u>Present Pricing</u>	<u>Revised Pricing</u>
	(\$ per SWU)	
Price in effect as of July 1975	\$53.35	\$76.00
Price in effect as of April 1976	\$59.05	\$82.00
Estimated Price to be Effective for FY 1977	\$63.35	\$90.00

The increases from July 1975 to FY 1977 reflect higher costs to be recovered, principally for cascade power and plant modifications and improvements (CIP/CUP).

The revised pricing would increase ERDA's Uranium Enriching Revenues for FY 1977 from \$539.1 million to \$661.9 million, or an increase of \$122.8 million. Of these additional revenues, about \$80.9 million would be from foreign customers and about \$41.9 million from domestic customers.

Over the next five years, the proposed pricing would result in additional revenues of about \$1.1 billion as follows:

TABLE 2

Additional Revenues from Fixed Commitment Customers

<u>FY</u>	<u>Enrichment Customers</u>	
	<u>Foreign</u> (Millions of 1977 Dollars)	<u>Domestic</u>
1977	81	42
1978	70	50
1979	110	90
1980	140	140
1981	<u>170</u>	<u>200</u>
	<u>571</u>	<u>522</u>

Even with these higher prices, ERDA will spend about \$610 million more in FY 1977 for uranium enriching activities than it will receive from revenues. ERDA projections indicate that at the revised prices it will be about 1982 before cumulative revenues offset cumulative expenditures for enriching operations, not including any possible expenditures for new plant capacity.

The higher price of nuclear fuel under the proposed legislation would result in an increase of about 3.1 percent or .57 mills/KWH in the cost of electricity generated from nuclear power as follows:

TABLE 3

Impact on Total
Bus-Bar Generation Cost
(mills/Kwh)

<u>Basis</u>	<u>Capital</u>	<u>Fuel</u>	<u>O&M</u>	<u>Total</u>
New Legislation	14.18	3.87	1.00	19.05
Old Legislation	14.18	3.30	1.00	<u>18.48</u>
Increase				<u>0.57</u> (3.1%)

When averaged over all electric generation, this increase would amount to a 0.07% and 0.13% increase in the cost of electric power to the ultimate consumer in FY 1978 and FY 1981, respectively. Averaged, this increase would add less than four cents to a monthly electricity bill of \$30.00.

The GAO reviewed the revised basis of pricing proposed by ERDA and concluded that the assumptions in developing the revised prices, even though judgemental, were reasonable. The Joint Committee modified the legislation to incorporate GAO's suggestion that any change in the basic approach used by ERDA in arriving at its revised pricing must be submitted for congressional approval.

The Committee further modified the proposed legislation to provide for full and complete hearings to be held before the revised prices may take effect.

Critics of nuclear power charge that the taxpayer is subsidizing the nuclear industry. The proposed legislation, if enacted, would remove any basis for charges of a Government subsidy to either foreign or domestic utilities in the pricing of nuclear fuel. ERDA considers this revised basis of pricing essential to obtain a fair value for enriching services.

2-11-68
OPERATIONS



May 22, 1975

Dear Colleague:

This week, when the House considers H.R. 13350, the Energy Research and Development Administration authorization for FY 77, we urge you to support our amendment ~~requiring~~ that the private participants in the Clinch River Breeder Reactor (CRBR) contribute a greater share of all cost overruns above the total project cost of \$2 billion.

As we noted in a previous "Dear Colleague," the percentage of the total cost to be borne by the utilities and reactor manufacturers engaged in this Government-Industry joint venture has declined ~~drastically~~. ~~Under the~~ original cost share of the private sector was negotiated in 1972 at 39 percent. It is now only 13 percent. This slippage is due primarily to the rapidly escalating cost of the CRBR—currently projected to be \$1.95 billion. All overruns must be absorbed by the Federal Government, despite the fact that the private parties control 65 percent of the plant's management.

Our amendment would reverse this downward trend and provide for gradually increased private financial participation as follows: 30 percent for total costs of \$2 - 2.25 billion; 40 percent for total costs of \$2.25 - 2.5 billion; and 50 percent for all total costs above \$2.5 billion. This financial commitment would serve as a pragmatic indication that the project has credibility by the standards of the private sector. In addition, it would allow more Federal R&D money to be allocated to other alternatives thus better providing our nation with the optimal mix of energy programs at the lowest cost.

Numerous organizations have given their endorsement to our amendment. These include the following:

Friends of the Earth
Environmental Policy Center
Common Cause
National Taxpayers Union
United Mine Workers of America
National Council of Churches
Pennsylvania Petroleum Association

We hope that you will join with us in supporting this amendment. Our proposal, as has been charged, is not anti-nuclear, nor is it an attempt to kill the breeder program. Simply stated, it is designed to bring the cost consciousness of private industry to bear on the CRBR project, thus restoring, in the long run, more equity and balance to our overall energy R&D budget.

LAWRENCE COUGHLIN

WILLIAM S. MOORHEAD

May 11, 1976

Dear Colleagues:

This week Reps. Coughlin and Moorhead will offer an amendment to the ERDA FY 1977 Authorization bill requiring private participants in the Clinch River Breeder Reactor (CRBR) demonstration project to share in all costs in excess of \$2 billion. Our view is that this amendment is premature, represents bad-faith bargaining by the Federal Government (and the Congress) and should be soundly defeated.

At present, the Nuclear Regulatory Commission is reviewing the proposed design of the CRBR. Pending before the Commission are data which should permit the resolution of several critical safety related questions. Until such issues are resolved and the final design of the plant is approved, it is not possible for ERDA to do a complete and accurate cost run-out on the plant. The \$1.95 billion current estimate is necessarily tentative at this time although it does represent an accurate estimate of the plant as it is now designed.

It is important to point out as well that the original agreement between the government and the private participants contemplated a fixed commitment involvement by the private sector. Utility participants were not able to go to their rate commissions and stockholders and ask for authority to engage in an open ended financial commitment such as agreeing to assume some fraction of an unknown total cost of a demonstration breeder reactor. For the Congress to require such an open ended commitment would be especially inappropriate if most of the increased costs, as they are, were due to delays caused by governmental licensing processes or uncertainties in the likelihood of adequate authorizations and appropriations.

To date the private participants remain enthusiastic and on schedule in their contributions to the project. It is only the resolve of the Congress that is of concern. This is especially disconcerting in view of the resounding support given to the breeder program and CRBR during action on last year's ERDA Authorization.

It is our view that it would be a totally unrealistic and fundamentally irresponsible act by the Congress to demand private commitments to cost sharing with a ceiling that is not known at this time and moreover is contrary to the basic principles governing the operation of the utilities. Such a requirement would necessitate a complete reassessment of their participation in the project and would very likely result in total government funding for the plant and a great deal more difficulty in effecting commercialization in the coming years.

The Congress last year issued a strong statement of support to the timely completion of the CRBR. This amendment, offered by the same opponents as were primarily responsible, but would likely result in the termination of the project, is a serious and essential question of the future of the program, commercialization

and very strongly urge that the Congress affirm its prior decision and agree to reject this amendment.

MELVIN PRICE

JOHN B. ANDERSON

FACT SHEET — SHARING OF COST INCREASES ON INTER
(Coughlin's Amendment — H.R. 13350)

CONGRESSMAN COUGHLIN PROPOSES THAT LANGUAGE BE INCLUDED IN THE FY 77 AUTHORIZATION BILL TO OBLIGATE PRIVATE INDUSTRY TO PAY A PERCENTAGE OF CRBP PROJECT COSTS THAT EXCEED \$2 BILLION.

The utilities have indicated that they would consider this proposed change a ~~re-negotiation~~ of the present contract with them. Also, it could potentially trigger one of the criteria for termination of the project. The utilities entered this project on the basis of a fixed contribution. If ERDA limits its contribution to a percentage of the costs exceeding \$2 billion, and at some point the cost estimate exceeds \$2 billion, this could lead to a determination by the utilities that sufficient resources are not available and the project should be terminated.

There does not appear to be a strong basis for requiring additional contributions from the utilities since ERDA has taken over full project management responsibility from them, while their total originally planned contribution will still be provided to the project. This is by far the largest industry contribution to a cooperative project of this type. If their contribution were not provided, the government would have to fund the entire project because of the importance of the IMFR Program to the Nation.

Even if many of the utilities were willing to assume this additional risk, arranging for cost sharing over \$2 billion would be very time-consuming and almost impossible. Over 740 utilities have individually pledged to contribute various amounts to the CRBP Project. The rate structures which provide for these contributions from the public utilities had to be approved by the respective public utility commissions. It is doubtful that these utilities could agree to a cost sharing arrangement such as that proposed without approval of their cognizant Public Utility Commission, since there are no provisions for an open-ended, indeterminate obligation in their rate structures.

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ISSUE #1

FEDERAL EMPLOYEES ARE BEING SUPERVISED BY PRIVATE EMPLOYEES OR THE REVERSE.

RESPONSE

CRERP is a joint government/utility industry venture where it is essential that government employees work very closely with industry employees cooperatively to achieve the common Project objectives. This is a partnership not just an arrangement for the government to obtain services.

Administratively the project office is being organized and managed such that ERDA employees will be supervised in terms of overall direction, performance evaluation, hire/fire, etc. only by ERDA employees and likewise utility employees will only be supervised by other utility industry employees.

ISSUE #2

INCREASED OPPORTUNITIES EXIST FOR UTILITY EMPLOYEES TO MAKE DECISIONS FAVORING THEIR PRIVATE EMPLOYERS UNCONSTRAINED BY FINANCIAL PENALTIES FOR BIAS AND CONFLICT OF INTEREST.

RESPONSE

All project employees (ERDA and utility) are subject to a uniform Code of Conduct prepared by ERDA based on ERDA Regulations.

Any project employee will be disciplined, and is subject to dismissal from the Project if he violates the Code of Conduct. Additionally, ERDA employees are subject to criminal statutes. Criminal penalties cannot be imposed on utility employees by contract.

Utility employees are not authorized to commit government funds; only ERDA employees can do this.

ISSUE #3

TERMINATION LIABILITY OF UTILITIES ARE DIFFERENT UNDER REVISED CONTRACT.

RESPONSE

Under the revised arrangements termination of the project at anytime would in fact, substantially penalize the utilities since their entire contributions due and payable as of the date of termination would be used to pay project costs. In the event of termination in FY 1976, the amount due to the utilities would exceed \$100 million. This amount is

essentially the same as the utilities would have paid under the original contract.

ERDA's increased liability in the event of termination is primarily due to the increased cost estimate, not changes in the contract.

ERDA would not permit its technical objectivity in any area including safety to be influenced by utility pressure, even a "threat" to terminate the project. ERDA is also confident that the licensing process as administered by NRC is not susceptible to being influenced in any vital safety area.

ISSUE #4

UNDER THE REVISED CONTRACT, UTILITY PLEDGES COULD NO LONGER BE "USED AS COLLATERAL FOR PROJECT LOANS AFTER START OF CONSTRUCTION."

RESPONSE

- Original provision was based on possible cash flow problems anticipated early in the project before sufficient utility payments had been received.
- Under present schedule, utilities will have contributed \$150M of \$250M pledges by start of construction.
- Provisions deleted because its no longer necessary.
- This item has no connection with the safety of the plant.

ISSUE #5

DOES THE REVISED CONTRACT REQUIRE THE TVA TO OPERATE THE PLANT?

RESPONSE

The original contract and the revised contract among ERDA, PNC, TVA and CE contractually commit TVA to "operate and maintain the plant throughout the term of the demonstration period." (Appendix D, Section 13.0)

This is a legally binding contractual requirement. It has not been changed in the revised contract. Both contracts state the requirement to operate "pursuant to a separate agreement with ERDA which agreement will incorporate terms and conditions substantially as set forth in paragraph D-13.2 (para. D-7, - in the original agreement)." Paragraph D-13.2 of the revised contract consisting of six pages of terms and conditions will be used as the basis for the separate, detailed agreement between ERDA and TVA. There will be no change to the substantive, legal obligation of the TVA to operate the plant.