PROPOSED SALE OF LA CROSSE BOILING WATER REACTOR TO DAIRYLAND POWER COOPERATIVE

HEARING

BEFORE THE

JOINT COMMITTEE ON ATOMIC ENERGY

CONGRESS OF THE UNITED STATES

NINETY-THIRD CONGRESS

FIRST SESSION

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FRIDAY, AUGUST 3, 1973

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
Washington, D.C.

The Joint Committee met at 10 a.m., pursuant to call, in room S–407, the Capitol, Representative Melvin Price (chairman of the Joint Committee) presiding.

Present: Representatives Price, Hosmer, and Anderson; and Senator Aiken.

Also present: Edward J. Bauser, executive director; James B. Graham, assistant director; Peter A. Bernard, counsel; and Joe B. La Grone, Congressional Fellow.

OPENING STATEMENT OF CHAIRMAN PRICE

Chairman PRICE. The committee will be in order.

The purpose of this hearing is to consider the new terms of the proposed sale of the La Crosse Boiling Water Reactor (LACBWR) to the Dairyland Power Cooperative (DPC).

LACBWR is a 50 megawatt (net) nuclear steam plant located on the east bank of the Mississippi River, about 19 miles south of La Crosse, Wis. The LACBWR project was one of several reactors built under the Atomic Energy Commission's cooperative power reactor demonstration program and was authorized in 1961 under section 109(c) of Public Law 87–315.*

The reactor is Government owned and is operated by the Dairyland Power Cooperative under a contract with the AEC for a 10-year period which would end on November 1, 1979.

The terms of the proposed sale of this reactor had been previously submitted to the Joint Committee in July of last year. The committee, at that time, reviewed the proposed terms and waived the balance of the 45-day period in order that the transaction could be carried out. Correspondence from the Commission and other background information on the proposed sale was inserted in the Congressional Record of July 19, 1972. [See Appendix 1, p. 13.]

However, by letter dated July 9, 1973, the AEC informed the committee that the parties had agreed upon modifications to the terms of the sale which had been submitted to the committee. [See Appendix 2, p. 18.] Under the authorizing legislation, the new terms of the proposed sale constitute an amendment to the basis of an existing arrangement for this cooperative demonstration project and they must lie before the committee for a period of 45 days while

*The JCAE held a hearing on May 4, 1967 on "LaCrosse Boiling Water Reactor Project. This volume is now out of print.

Congress is in session unless the committee, by resolution, waives the balance of the 45-day period. Excluding the August recess, the 45-day period would expire on or about September 25, 1973.

Under the former arrangement submitted to the committee, Dairyland would have paid the AEC a net purchase price of $2.1 million for the reactor and the two fuel cores now at the site. Dairyland would have also assumed the cost of operating the reactor as of November 1, 1971. Under the new arrangement, the purchase price would be reduced from the net figure of $2.1 million to a nominal sum of $1 and the Commission would continue to bear the cost of operating the reactor from November 1971 through August 1973. Continued responsibility for the cost of operating the reactor during this period would result in net additional cost to the AEC of approximately $700,000.

We understand that this matter is of some urgency, and, in view of the pending congressional recess, the committee announced its intention to hold this public hearing on the new terms of the proposed sale prior to our recess. [See Appendix 3, p. 29.]

Subject to any objection by a member, copies of the above-mentioned documents will be inserted in the record as an appendix.

We have scheduled representatives of the AEC and the DPC to testify concerning the proposed changes in the terms of the sale. The first witness will be Mr. Edwin E. Kintner, Deputy Director, Division of Reactor Research and Development. Mr. Kintner, you may proceed with your statement.

STATEMENT OF EDWIN E. KINTNER, DEPUTY DIRECTOR, DIVISION OF RESEARCH AND REACTOR DEVELOPMENT; ACCOMPANIED BY JOHN SIEG, PROJECT MANAGER, DIVISION OF RESEARCH AND REACTOR DEVELOPMENT; ROBERT H. BAUER, MANAGER, CHICAGO OPERATIONS OFFICE; AND FRED HISER, ASSISTANT TO THE CONTROLLER, ATOMIC ENERGY COMMISSION

Mr. KINTNER. I am pleased to be here today to discuss the negotiated arrangements for the sale of the La Crosse Boiling Water Reactor (LACBWR) to Dairyland Power Cooperative (DPC). I have prepared a statement which, with the committee's permission, I would like to read into the record, after which I will be pleased to respond to any questions which the committee may have.

A mutually satisfactory arrangement for the sale of the La Crosse Boiling Water Reactor to Dairyland Power Cooperative has been negotiated and approved by the Commission. This arrangement was submitted to the Joint Committee for its consideration by the AEC's letter to Chairman Price of July 9, 1973.

As the committee is aware, this is the second proposal to sell the La Crosse reactor plant to the utility operator. The previous one failed when Dairyland declined to consummate the sale principally for the reason that it had failed to appreciate the potential dollar magnitude of obtaining a full operating license. Other factors cited by them were the availability and reliability of the plant and operating and maintenance economics.

In subsequent discussions early this year, Mr. Madgett, general manager of Dairyland, made it evident that Dairyland was still in-

terested in purchasing the plant but could not ignore the costs he thought he would probably incur in obtaining a full operating license. This was an undertaking that had been assumed by Dairyland under the previously negotiated agreement.

Following these discussions, Dairyland made a new proposal in a letter to the AEC dated March 3, 1973. This proposal was included in the supporting material related to the proposed sale which was provided with our letter to the Joint Committee referred to earlier.

The only substantive difference between this proposed sale and the one which we submitted last year—the background and analysis of which was published in the July 19, 1972 Congressional Record—is that this arrangement provides for Dairyland to acquire the reactor plant and the two fuel cores presently at the site for the nominal sum of $1; whereas, last year we had negotiated a purchase price of $2.7 million for these items.

The mutual advantages to Dairyland and the Commission are basically the same as previously stated, subject only to additional net operating cost of $700,000 to the Commission from November 1, 1971 to date. Enclosure 3 of our July 9, 1973 submission should be revised to reflect this net operating cost of $700,000 instead of $856,000, as submitted.

It is the judgment of the Commission' technical staff that the costs to obtain a full operating license after transfer of title to Dairyland, if the sale is consummated as now agreed upon, will probably equal or exceed this $2.7 million. Our current estimate of net savings in operating costs to the Commission is $4.7 million. The contingent liabilities retained by the Commission under this sale arrangement, subject to some upward escalation, remain essentially as described in last year's submission.

An assessment of the economic value of the plant depends upon how well the plant operates and for how long. There are undoubtedly efficiencies and economies that can be effected by Dairyland in its operation. Based on our assessment, the economic value compared to that of a fossil fueled plant of similar size would appear to be marginal.

However, assuming Dairyland reduces costs by introducing economies in operation, the possibility exists that the reactor plant would be economically attractive under the terms of the sale. I will provide for the record information supporting this conclusion.

[Information subsequently furnished follows:]

LACBWR Financial Data

I. The economic value of the reactor has been determined by comparing its estimated operating costs with those estimated for the cost of procuring and operating a fossil-fired boiler of the same size.

Estimated operating costs, exclusive of any capital costs, for the reactor plant are estimated at 11.4 m/kwh. Those of a fossil plant are estimated at 11.2 m/kwh. including a capital charge of 3.3 m/kwh. The reactor operating costs (without a capital charge) are slightly higher than the cost of operating the fossil plant with a capital charge. This indicates the economic capital value of the reactor is marginal if economies in operation cannot be effected. The estimated cost of steam from say a 400 MWe fossil plant is in the order of 8.5 to 9.0 m/kwh.

If the plant, as presently staffed and supported, operates well, at a capacity factor of about 80%, its economic value compared to that of a fossil-fueled plant of similar size is marginal. However, if Dairyland could reduce operating costs by say 1 mill per kwh this would represent a present economic value of about $3.5

million which would be essentially offset by the initial cost to DPC of about $2.7 million for plant modifications to enable it to obtain a full operating license. Accordingly, for $1.00, Dairyland would obtain reactor fuel having a present value of approximately $5 million and a reactor with a presently marginal or doubtful value, but with the optimistic expectation that some operating economies could be achieved.

Dairyland, by purchasing the reactor under the proposed arrangement, is giving up the rights it has under the existing contract for an additional one or possibly six years in which to demonstrate the plant's reliability and economics. Further, if risks materialize, Dairyland could lose the use of its turbine-generator set in which it has an investment of about $7 million until an alternate steam source is acquired.

II. In our prior submission pertaining to the sale at November 1, 1971, the value of the fuel was taken at $2.6 million. This amount was the "end of life value" and not the value as of the date of sale. Our current estimate of the value of the fuel is $5.2 million and is based on current prices for enriched uranium at existing assays less estimates of the cost of chemical reprocessing, conversion and shipping, and plus the value of plutonium produced.

III. If the reactor were sold in August 1973, instead of waiting until November 1974, the estimated savings to the AEC would be $5.7 million. This is comprised of costs in the aggregate of $8.5 million less revenues for the same period estimated at $2.8 million.

IV. Operating costs to date of the proposed sale (August 1973) are $9.0 million, an increase of $3.2 million from November 1, 1971. The net operating costs at date of proposed sale after revenues of $2.5 million is $.7 million. Continuation of operations through November 1, 1979, would involve spending an additional $18.9 million. Revenues during the period would amount to $14.2 million resulting in a net additional cost of $4.7 million.

V. The estimated operating costs of $9.0 through August 1973 and actual costs through October 31, 1971, are summarized as follows:

[In millions of dollars]

	Aug. 31, 1973	Oct. 31, 1971	Increase
O. & M. costs, June 30, 1974	5.8	3.0	2.8
Estimate July and August 1973	.4		.4
	6.2	3.0	3.2
Training	2.8	2.8	
Cumulative operating costs	9.0	5.8	3.2

The $7.4 million estimated for costs in the previous submission, when compared with the current cost of $9.0 million, shows an apparent increase of $1.6 million. The actual increase was $3.2 million as shown above. Included in the previous estimate of $7.4 million was $1.6 million for plant analysis, repairs, and modifications (only $.6 million was actually accomplished). Therefore, the previous estimate of $7.4 million was overstated by $1.0 million. The remaining difference of $600,000 can be explained as differences between estimates of work and actual costs.

The Commission believes that this arrangement, as negotiated, is in the best interests of the Government, and both we and the utility desire that it be implemented at the earliest possible date. Should the sale not be consummated as proposed, it will be necessary to absorb within AEC's current availability about $4 million to cover net operating costs—$6 million gross costs, less $2 million anticipated revenue—for fiscal year 1974.

We should like to point out that, of the two cores which Dairyland would acquire, one is approximately two-thirds burned and one-third of the other core is now in the reactor. If the proposed sale is not consummated, AEC will have to initiate procurement of an additional 1⅓ cores in September of this year at an estimated cost of $2.5 mil-

lion, and a portion of associated costs is included in the fiscal year 1974 operating costs referred to above.

This concludes my prepared statement.

I have with me today Mr. Sherwood, who is an assistant to the general manager of Dairyland, and Mr. Bauer, who is the Manager of the Chicago Operations Office of the Commission. We are prepared to answer any questions that you may have.

Chairman PRICE. Thank you very much, Mr. Kintner. What are the contingent liabilities that you have referred to?

Mr. KINTNER. The contingency liabilities which the Commission retains under the contract modification for sale of the reactor plant.

Mr. SIEG. There has been no change in the contingent liabilities from the last submittal. They were $1 million for decommissioning and an estimated $2½ million maximum for the provision of backup power, both of which lapse on November 1, 1974, if they don't come into effect previously, and then finally a longer period contingency for the possible replacement of some low-alloy steel in the feed water system. We would be open to this through 1979. We had estimated it previously at $500,000. So they still total $4 million.

Chairman PRICE. What is the difference in the 2.1 figure that I used in my statement and the 2.7 figure that you use in your statement, Mr. Kintner?

Mr. KINTNER. The 2.1 is a net figure, Mr. Price; 2.7 was the gross figure. At that time, the Commission had assumed the responsibility for approximately $600,000 of liabilities in the transaction.

Chairman PRICE. Does the Commission foresee any future need for nuclear reactors the size of the La Crosse reactor?

Mr. KINTNER. We do not see any further need for reactors of that size. As you know, the sizes of reactors now being purchased are very much larger than the 50-megawatt electric size. So no research is taking place; no development programs are under way for reactors in this small size range.

Chairman PRICE. Are there any special technical areas concerning the reactor which are of programmatic importance to the AEC?

Mr. KINTNER. No longer. The interest of the Commission and the intent with which the reactor was first built has been satisfied and we have no technical interest in it from now on.

Chairman PRICE. What is the present status of the reactor?

Mr. KINTNER. The reactor is operating today and has been operating fairly regularly on the utility grid. It has, during the last year, had a 55-percent capacity factor. The economics which we have been discussing, which Dairyland is assuming for the future, indicate they must get up to about 80 percent. To this point in time, we have been in the 45- to 50-percent range, which is one of the reasons why we believe the economics from the Government point of view are satisfied with the lower price contract.

Chairman PRICE. Are there any special problems with the plant?

Mr. KINTNER. No major technical problems which have an overriding consideration in this exchange. There are some minor problems which are going to have to be remedied as time goes on, some of which are concerns at the moment, but no major problems which should in any way color the decision with regard to this contract.

Chairman PRICE. What is the estimated time required for the granting of provisional operating license for the plant to Dairyland?

Mr. KINTNER. We believe this is a matter of days, perhaps a week, for the provisional license. The full operating license will take considerably longer, of course, and will involve considerable action.

Chairman PRICE. What has been the overall experience in operating the plant from the beginning?

Mr. KINTNER. Perhaps Mr. Sherwood would like to answer that. The impression we have is that it has been reasonably good. It started out slowly but gradually and certainly has built up the capacity factor at which it has operated.

Mr. SHERWOOD. It has not operated at the 80-percent capability factor that we had projected, but it has been improving in the last year.

Chairman PRICE. Will the AEC incur additional costs if the 45-day statutory period is allowed to run its full course?

Mr. KINTNER. We will accrue some additional cost.

Mr. HISER. I am Fred Hiser, Office of the Controller. Costs are running about $200,000 a month exclusive of some revenues. The reactor has not operated fully for the month of July. We estimate that it will cost an additional $300,000 since June 30.

Chairman PRICE. What are the estimated additional monthly costs as far as you can see now?

Mr. HISER. They run about $200,000 a month without any additional equipment. That would be a gross cost basis.

Chairman PRICE. Is the Commission recommending a waiver of the 45-day period?

Mr. KINTNER. No, sir, we are not requesting a waiver in any formal sense. We are anxious to proceed with the consummation of the contract, however, as soon as practicable.

Chairman PRICE. In other words, there is actually no importance to a waiver at this point because there are other things which you have to work on before the turnover?

Mr. KINTNER. There are some additional administrative steps we must take. We would like to proceed with the consummation of the contract. We are not asking for a waiver.

Chairman PRICE. Mr. Hosmer, do you have any questions?

Representative HOSMER. Mr. Kintner, what transpired in these negotiations that caused this Dairyland Cooperative to believe that they had a good deal with you in the first instance and then, later, the thing collapsed?

Mr. KINTNER. Again I think perhaps Dairyland can answer that better for you, sir.

Representative HOSMER. I will ask them the same question, but I want your side of it first.

Mr. KINTNER. The difference was that very shortly after the negotiations had been completed, Dairyland became considerably more aware of costs associated with full licensing of the plant. These were in the areas of the emergency core cooling system and effluent controls.

Representative HOSMER. What was that first system?

Mr. KINTNER. The emergency core cooling system and effluent controls. They had estimates made of the potential cost to put the plant into condition for full licensing, and they became quite concerned about these costs. That caused them to reconsider their willingness to place a value of $2.7 million on the plant.

Representative HOSMER. This ECCS and the effluent control issues were nothing new. They had been lingering around for some time at this period of time, had they not?

Mr. KINTNER. They were not new, but they were not fully appreciated and understood at the time of the negotiations.

Representative HOSMER. Why did not the AEC take some steps to inform its negotiating adversary of these conditions?

Mr. KINTNER. I cannot answer that, sir. I am sure that we did recognize that there were some costs, and there were actually some estimates that had been made and discussed at that time. But the threatened cost for making these changes increased with further examination of them.

Representative HOSMER. Mr. Sherwood, do you want to give your side of the story? Why did you renege on the first round?

STATEMENT OF JAMES SHERWOOD, ASSISTANT TO THE GENERAL MANAGER; ACCOMPANIED BY DR. SEYMOUR RAFFETY, NUCLEAR ENGINEER; WILLIAM ANGLE, MECHANICAL ENGINEER; AND HENRY NICHOL, COUNSEL, DAIRYLAND POWER COOPERATIVE

Mr. SHERWOOD. Mr. Kintner is essentially correct. Just before we would have finalized the agreement a year ago, we used the services of an outside consulting engineering firm to assess these liabilities in getting a full term operating license. It did at that time look prohibitive to us in cost. So we backed away from the agreement. Since then, with further talking with the licensing people and with other engineers, we think we have perhaps a more reasonable figure that we can live with.

Representative HOSMER. There is about a $2½ million difference in the two deals, is there not?

Mr. SHERWOOD. Yes, about $2.1 million. For that $2.1 million, we pick up some additional liabilities toward the modification of the plant for a full term operating license.

Representative HOSMER. Do you very, very carefully calculate that this will be sufficient in order to allow Dairyland a reasonable chance to come out even or better on this revised transaction?

Mr. SHERWOOD. Mr. Hosmer, let me introduce my people to you and to the Joint Committee because they have some expertise; they may want to comment on that. I have with me Dr. Seymour Raffety, a nuclear engineer; William Angle, mechanical engineer; and Henry Nichol, counsel. Perhaps they may want to comment.

Chairman PRICE. If there are any questions directed to you, Mr. Sherwood, that you don't feel you can respond to, perhaps one of the others can respond to them.

Mr. SHERWOOD. To answer your question, this is a calculated risk, a gamble, if you will, that we can make this plant perform economically for our power system.

Representative HOSMER. You are familiar with that memorandum from Mr. Shimshank to Mr. Madgett of August 15 detailing the various risk items that might be involved in this reactor, are you not?

Mr. SHERWOOD. Perhaps at this time I could give John Madgett's

personal regrets to the committee. He would very much have liked to be here. He has taken a great personal interest and involvement in this project. It is unfortunate that he could not be here today.

Representative HOSMER. We are sorry that he was not able to make it.

Mr. Raffety, do you have that memorandum?

Mr. RAFFETY. Yes, sir.

Representative HOSMER. I want to make certain that you and your group were aware of those figures. For instance, there is a range of $1 to $5 million in design protection against natural phenomena, primarily seismic, I presume.

Mr. RAFFETY. Yes, sir. This memo is from our superintendent to the general manager. It was based on the results of this first outside engineering analysis of the full term licensing cost that has been previously mentioned.

Besides ECCS that Mr. Kintner mentioned, there was also a fairly large part of this estimate based on possible cost for seismic protection, modifications in the plant.

The total in this memo Mr. Hosmer has mentioned ranged from $3 to $10 million. This was basically the reason for the turndown of the initial offer. At the time we had to make our decision, it appeared that the cost could go as high as this $10 million.

Representative HOSMER. Is it now your considered opinion that, rather than running as high as $10 million, it is even lower than the $3 million?

Mr. RAFFETY. Yes, sir. The present estimates are that we should be able to get our full term license for the order of $2.5 million. That is our best estimate. It runs as high as $4 million.

Representative HOSMER. Are you satisfied that at this time you have properly analyzed this problem and its various ramifications and details so that you are proceeding from a basis of confidence that these variables are within the parameters of the arrangement that is now contemplated?

Mr. RAFFETY. Yes, sir, we do. That was the basis for the new offer.

Representative HOSMER. I have one other question. That is: What if they are not and there are serious overruns? Is there any way that Dairyland can protect itself, or if it bankrupts itself, how do we dispose of the parts and pieces of the reactor that will have to be sanitized and disposed of?

Mr. KINTNER. I believe, Mr. Hosmer, that until November 1, 1974, if major problems develop with the nuclear island, Dairyland is protected to some extent from the kind of serious financial difficulty that you are talking to.

Representative HOSMER. I did not understand that. Maybe I didn't hear it.

Mr. KINTNER. Until November 1974, if there is serious difficulty with the nuclear portion of the plant, the Commission will still have some responsibility to protect Dairyland against the kind of financial problems you are talking to.

Representative HOSMER. You are kind of giving them a guarantee up to that time, is that it?

Mr. KINTNER. Would you talk to that point, Bob?

Mr. BAUER. There are two factors: makeup power requirement and $1 million for decommissioning. If the plant goes completely sour be-

fore November 1974, we have the responsibility to come in with $1 million toward decommissioning plus a responsibility to provide for makeup power for a period not to exceed 36 months.

Representative HOSMER. Now we have it up to November 1974. What happens, Mr. Sherwood, if the plant waits until December 1974 to go sour? Is Dairyland in a position to make the necessary expenditures?

Mr. SHERWOOD. Mr. Hosmer, we feel the plant is going to run. In the event it doesn't and it happens after October 1974, we feel Dairyland is in a financial position to decommission the plant and to keep it in proper security.

Representative HOSMER. Thank you. That is a fair statement.

Mr. Chairman, I opposed this second round of demonstration plants back in 1961, when they were initiated, because I felt that the cooperatives had no business getting into this league. I think that caution has proved well-founded.

I do wish to compliment Dairyland for the considerable zeal, enthusiasm, and sacrifice with which it has met these problems over the past years. I wish you every good fortune and success in this arrangement. Thank you, Mr. Chairman.

Chairman PRICE. Senator Aiken.

Senator AIKEN. I would like to ask a question. What is your estimated cost of producing a kilowatt from the La Crosse plant?

Mr. KINTNER. Our present estimates in this plant are a little over 11 mills per kilowatt hour.

Senator AIKEN. Eleven mills?

Mr. KINTNER. Yes, sir.

Senator AIKEN. The next question is: How is it you can produce power at this experimental plant at so much less than you can at a fully developed plant like Vermont Yankee? What is the difference?

Mr. KINTNER. The number I gave you, sir, is an uncapitalized number.

Senator AIKEN. You say, estimated 11 mills?

Mr. KINTNER. Yes.

Senator AIKEN. Vermont Yankee was first estimated at 4 mills. Now, I guess, it is up to 14 or 16.

Mr. KINTNER. If the capital charges were included in this plant, it would be 14 mills.

Senator AIKEN. Are there many lawsuits on their hands to the extent of a few hundred thousand dollars or $1 million?

Mr. KINTNER. I think this plant was a little bit ahead of that, Senator.

Senator AIKEN. You mean you didn't get harassment from the coal and oil people?

Mr. SHERWOOD. Senator, we think we have enjoyed good public acceptance of this plant. We have had a lot of tours through the plant. We have opened it up to the public as much as possible. We have not had the court battles that some of the other utilities have had.

Senator AIKEN. Evidently the competitive fuels people thought that it was going to cost so much to produce power that it wouldn't be competitive with them anyway at the time. That is not the way it works up my way, not at all. I hope that you do make a go of it.

Mr. SHERWOOD. Thank you, sir.

Senator AIKEN. Because we need yardsticks; we need yardsticks up in New England very badly.

Chairman PRICE. Mr. Kintner, what is the total cost of the program, including the cost to AEC and to Dairyland?

Mr. KINTNER. The total cost of this entire project has been close to $29 million, of which the Commission's share was $21 million and the Dairyland share—which was primarily for the balance of plant, turbines and generators—was $8 million.

Chairman PRICE. I guess, with the experience that we have had with inflationary trends in the last few years, you came pretty close to hitting the target.

Mr. KINTNER. Yes, sir; $29 million or a little over was the projection.

Chairman PRICE. Your estimated cost given to the committee back in 1967 was $20,490,000. I would say if you came within $9 million with the experiences we have had in the last few years, you did not do too badly.

Mr. KINTNER. Yes, sir.

Chairman PRICE. What is the present value of the reactor and the fuel, less depreciation?

Mr. KINTNER. The present value of the plant itself is roughly $10 million. We calculate the present value of the cores—there are two cores there—as $5 million.

Mr. HISER. The value on our books, net book value, is $10 million. However, the economic value, Mr. Kintner already mentioned, is about marginal, sir, relative to cost of producing power from fossil fuel.

Chairman PRICE. We understood that the AEC has recomputed the value of the fuel for the plant. What is the basis for the recomputation?

Mr. KINTNER. The recomputation has to do primarily with a statement as to present value versus end-of-life value of the fuel. The $5 million is a present-value number.

Chairman PRICE. That was an increase from 2.6?

Mr. KINTNER. Yes, sir.

Chairman PRICE. What price would Dairyland have to pay if the reactor proved to be an economic and reliable power producer? Assuming that to be the case, what is the earliest date Dairyland would have an obligation to purchase the reactor?

Mr. KINTNER. The contract provisions require that, as of November 1, 1974—which is the end of 5 years of the contract—if the plant is producing reliably and can be shown to compete economically with fossil plants, Dairyland would be obligated to purchase it. In that event, the contract provides a purchase price which is calculated to be approximately $9.5 million.

Chairman PRICE. What is the range of estimates for decommissioning of the plant?

Mr. KINTNER. Our estimates for decommissioning of the plant, based on some recent experience with other plants of similar nature, range from $3 to $5 million.

Chairman PRICE. What are the estimated net operating costs for the reactor up to November 1, 1979?

Mr. KINTNER. The net operating cost to the end of the contract is $4.7 million. That breaks down to $19 million of actual cost and then

something over $14 million of revenues. Those assumptions, however, are on the basis of very good performance, 80-percent capacity factor, over the remaining years.

Chairman PRICE. If the reactor is sold to Dairyland on the basis we are talking about now, the new program, what is the amount of potential savings for the Commission?

Mr. KINTNER. We think we would save that $4.7 million. But there are intangible savings which we think are also important: first of all, the contingencies and liabilities which the Commission would hold all that time until the contract was completed and, further, the required involvement on our part from the standpoint of officials of the Commission and their responsibilities in the operation of the plant, which has been not insignificant in the last few years.

Chairman PRICE. I would like some of the Dairyland people to respond to this question: How was the determination made of the economic value of the reactor?

Mr. SHERWOOD. An operating cost projection was made for the next 10 years based upon the costs we think we will assume in obtaining a long-term license, the cost of fuel. This compares approximately equal to what it would cost for a similar size fossil fuel plant.

Chairman PRICE. I think in the general line of questions you already touched on the factors which caused you to reevaluate your original proposal.

Mr. SHERWOOD. Yes.

Chairman PRICE. What factors led to the shift of the date when Dairyland would be responsible for the costs of operating the reactor?

Mr. SHERWOOD. It was the reanalysis of the costs involved in obtaining the full-term license.

Chairman PRICE. What kind of modification of the reactor facility does Dairyland anticipate making in connection with obtaining the provisional operating license and full-term license?

Mr. ANGLE. The provisional license, I believe, would be turned over at the time of the termination of the contract. The full term license, though, is an amount of funds that would be expended by Dairyland which we hope will be partially covered by the present contract.

Chairman PRICE. What kind of reliance do you put in your projections of the cost estimates of the modifications that you may have to make?

Mr. ANGLE. I believe, with the technical data that we have at the present time, it is probably as close as we can possibly get. There has been a considerable amount of evaluation and reevaluation on the engineering and technical costs associated with licensing efforts. We believe his is the best estimate that we have today.

Chairman PRICE. What are your present estimates?

Mr. ANGLE. Approximately 2.5.

Chairman PRICE. That is almost the cost of what you originally planned to put up for the purpose of the reactor.

Have the modifications been discussed with the AEC regulatory staff?

Mr. ANGLE. Yes. These modifications have been discussed with the regulatory staff in a series of meetings with them.

Chairman PRICE. Do you have some degree of confidence that you have a complete list of modifications that will be required?

Mr. ANGLE. I would hesitate to project on a 100-percent assurance basis, but we believe, to the best of our knowledge, that we have included all of the major items that would be required for licensing.

Chairman PRICE. Mr. Anderson, do you have any questions?

Representative ANDERSON. I have just one question. In reading the statement, Mr. Chairman, by Mr. Kintner, he refers to the fact that the contingent liabilities that would be retained by the Commission under this sales arrangement, subject to some upward escalation, remain essentially as provided in last year's submission.

What, approximately, are you talking about? In what range would those liabilities be?

Mr. KINTNER. $4 million is the current estimate.

Chairman PRICE. Mr. Kintner, what additional costs would occur to the AEC if there is not a waiver of the balance of the 45-day period?

Mr. KINTNER. I think the costs are simply the costs which we discussed earlier, the monthly gross costs of operation, which are about $200,000 a month. It is in the range of $300,000 if there is no waiver.

Chairman PRICE. $300,000 or $400,000.

Mr. KINTNER. You see, 3 weeks have already passed of the 45-day period.

Chairman PRICE. Yes, but we have this recess. That takes it up to September 25.

Mr. KINTNER. Yes, sir.

Chairman PRICE. The waiver period does not run during the recess of the Congress.

Mr. KINTNER. As I said, we would prefer to proceed, and savings could be in the order of $200,000 to $300,000.

Chairman PRICE. Mr. Hosmer, do you have any further questions?

Representative HOSMER. No further questions, Mr. Chairman. I think the record appears adequate so far. I just wanted to make certain that the Dairyland people knew the ramifications of their problem this time better than they did before. I think we should go ahead with the waiver.

Chairman PRICE. Mr. Anderson.

Mr. ANDERSON. I have nothing further.

Chairman PRICE. Does the staff have any questions?

Mr. BAUSER. No.

Chairman PRICE. Thank you very much. I want to compliment Dairyland. I think in their work in this area with the Commission on this program they have done a good job.

Mr. SHERWOOD. Thank you, Mr. Chairman. We appreciate the efforts of the Joint Committee and the Commission staff during our years of working with this project.

Chairman PRICE. Thank you, gentlemen.

The committee is adjourned.

[Whereupon, at 10:55 a.m. the Joint Committee adjourned, to reconvene at the call of the Chair.]

APPENDIX 1

BACKGROUND INFORMATION

[Reprinted from the Congressional Record, July 19, 1972]

PROPOSED SALE BY THE AEC OF THE LA CROSSE BOILING WATER REACTOR—LACBWR—TO THE DAIRYLAND POWER COOPERATIVE

Mr. PASTORE. Mr. President, by letter dated July 5, 1972, the AEC advised the Joint Committee on Atomic Energy of its intent to sell the La Crosse boiling water reactor—LACBWR—to the Dairyland Power Cooperative, The LACBWR is a 50-megawatt—net—electrical nuclear steam plant, located on the east bank of the Mississippi River, about 19 miles south of La Crosse, Wis. The LACBWR project was authorized under section 109(c) of Public Law 87–315—September 26, 1961. The reactor is Government-owned and is operated by Dairyland under a contract with AEC for a 10-year period which ends on November 1, 1979. The AEC has no unilateral right to terminate the contract.

Under its contract with AEC, Dairyland operates the AEC-owned nuclear plant on a cost reimbursable basis; purchases from AEC the steam produced by the reactor for use in the generation of electricity; and has the use of the reactor as an integral part of its electrical system for a period of 10 years.

Justification data for the arrangement which led to the existing contract was submitted to the Joint Committee as required by the authorizing legislation. Sale of the reactor prior to November 1, 1974, will require an amendment to the arrangement which was submitted to the Joint Committee. Before the AEC can sell the reactor, the proposal must lie before the committee for a period of 45 days while Congress is in session, unless the Joint Committee, by resolution in writing, waves the conditions of all or any portion of such 45-day period.

Mr. President, I ask unanimous consent to have printed in the Record correspondence forwarded to the Joint Committee on Atomic Energy by the Atomic Energy Commission concerning the proposed sale. Background documents referred to in this correspondence are on file in the office of the Joint Committee on Atomic Energy.

There being no objection, the correspondence was ordered to be printed in the Record, as follows:

REVISED PROGRAM JUSTIFICATION DATA—LACBWR PROJECT—ARRANGEMENT 60–110–2

U.S. ATOMIC ENERGY COMMISSION,
Washington, D.C., July 5, 1972.

Hon. JOHN O. PASTORE,
Chairman, Joint Committee on Atomic Energy, Congress of the United States.

DEAR SENATOR PASTORE: This is in furtherance of our January 21, 1972 letter that informed you of the proposed arrangements on which the Commission and Dairyland Power Cooperative had reached agreement in principle for the sale by AEC of the La Crosse Boiling Water Reactor (LACBWR) to Dairyland for private ownership and operation.

We have since negotiated a modification to the existing operating contract with Dairyland, copy enclosed, for the sale consistent with the principles set forth in the outline of the proposed arrangements that accompanied our January 21, 1972 letter.

Pursuant to applicable statutory requirements, this letter and enclosures are submitted as revised program justification data for the LACBWR Project (Arrangement 60–110–2), providing for the sale of the reactor plant and fuel to Dairyland in accordance with the enclosed proposed contract modification. The Commission and Dairyland expect to execute this modification shortly. There-

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after, it is planned that transfer of title to Dairyland will take place coincident with Dairyland obtaining a conversion of the existing 10 CFR Part 115 operating authorization to the necessary licenses for its private ownership and operation of the plant. We will advise the Committee when such transfer is made. Until title transfer, the reactor will continue to be operated by Dairyland for AEC under the existing contractual arrangement.

There is enclosed an estimate of the costs to AEC in connection with the LACBWR Project after giving effect to the sale arrangements. This $27,894,000 estimate is less than the currently authorized $28,204,000 for the project. As stated in this enclosure, this cost estimate does not include three contingencies for which AEC retains responsibility following the sale, in view of the unlikelihood of any of these contingencies materializing. The maximum potential liability of AEC under these contingencies is estimated at $4,000,000. This amount, added to the $27,894,000 stated in the enclosed cost estimate, aggregates less than the current authorization of $28,204,000 plus 15%. The enclosed contract modification recognizes that the Commission's obligation with respect to these contingencies is subject to the availability of appropriated funds. In view of the foregoing, the current authorization should remain unchanged, in order that it will be available against which to request appropriation of funds in the unlikely event they are needed for any of these three contingencies.

Should you desire any further information on this matter, please let us know.

Sincerely,

R. E. HOLLINGSWORTH,
General Manager.

LA CROSSE BOILING WATER REACTOR PROJECT—ARRANGEMENT 60–110–2

ESTIMATE OF PROJECT COSTS TO AEC, GIVING EFFECT TO PROPOSED SALE OF LACBWR TO DAIRYLAND POWER COOPERATIVE

	Thousand
AEC-owned reactor plant—design and construction generator plant—furnished by Dairyland at cost of approximately $8.7 million	$12,455
Fabrication of reactor fuel—Cores I and II	1,527
AEC-furnished special nuclear material for Cores I and II	6,209
Reactor plant operations [1]	7,436
Fuel use charges waived by AEC	2,358
Revenue from sale of steam to Dairyland for generator plant	(1,672)
Replacement power payments	2,331
Total estimated costs to AEC	30,644
Sale price of reactor plant and Cores I and II to Dairyland	(2,750)
Net estimated cost of project to AEC [1]	27,894

[1] Includes operating costs to 11/1/71 (the date as of which the sale is to be made effective for financial settlement purposes), plus provision for AEC responsibilities thereafter under the terms of the sale contract, except that the following contingencies have not been provided for in the above costs in view of the unlikelihood of their materializing:

(a) Should Dairyland determine to permanently close down the reactor plant prior to 11/1/74, AEC will pay Dairyland a lump sum of $1,000,000 toward decommissioning, etc.

(b) Should there be a reactor plant failure (exclusive of a failure confined to the fuel) prior to 11/1/74 which the parties agree is estimated to cost Dairyland more than $1,000,000 to repair. AEC will pay 80% of Dairyland's net cost for replacement power until the reactor plant is returned to operation by Dairyland or until Dairyland restores its generator plant to operation with steam from another source, whichever is earlier, but in no event for more than three years. (The amount payable by AEC will be 80% of any excess of the cost to Dairyland of the replacement power, over what it would have cost Dairyland to produce that power in the nuclear plant. Thus, should the contingency materialize, AEC's liability may be nil, but the maximum liability estimated is $2.5 million.)

(c) In the event the parties determine prior to 11/1/79, based on data then available, that any or all of the carbon steel forced circulation piping (installed as a developmental aspect of the plant) must be replaced by 11/1/82 for safety reasons. AEC will compensate Dairyland for such replacement. (The amount payable by AEC in the event this contingency arises will depend upon the extent of piping that must be replaced, but is estimated to involve not more than $500,000.)

In the event any of the foregoing contingencies materialize, the Commission will advise JCAE, and seek the appropriation of any additional funds necessary therefore.

U.S. ATOMIC ENERGY COMMISSION,
Washington, D.C., January 21, 1972.

Hon. JOHN O. PASTORE,
Chairman, Joint Committee on Atomic Energy,
Congress of the United States.

DEAR SENATOR PASTORE: You will recall that during the FY 1972 Authorization Hearings we advised the Committee of our intent to pursue with Dairyland Power Cooperative (DPC) the possibility of their taking over the La Crosse Boiling Water Reactor (LACBWR) for private ownership and operation.

Under the Commission's existing contract with DPC the earliest date on which the reactor could be offered to DPC for purchase is November 1, 1974. Consequently, the discussions between AEC and DPC have been on the basis that transfer of the reactor plant at this time, which is outside the contemplation of the contract, would have to be by mutual agreement on arrangements which each party considers more advantageous than continuation of the existing contract for operation of the reactor.

Following initial discussions, DPC submitted the proposal contained in its enclosed letter of August 16, 1971. In essence, this proposal amounts to DPC paying a purchase price of $1, with AEC continuing to bear the risks and be responsible for substantially the same obligations that it now has under the operating contract, except for the reimbursement of DPC's normal operating expenses.

Further discussions resulted in the parties reaching agreement in principle on revised arrangements as set forth in the enclosed "Outline of Proposed Purchase Arrangements." Briefly, these revised arrangements, acceptable to both parties as the basis for negotiation of a definitive agreement, are:

DPC to pay $2.75 million for the reactor plant and the two fuel cores now at the site. DPC to own the fuel material in the two cores, reprocessing of which is to be DPC's responsibility and expense.

From above $2.75 million, AEC to allow DPC a lump sum of $650,000 to make repairs and modifications that have been agreed upon as necessary.

AEC is relieved of all obligations with respect to the reactor plant and its operation, except for certain additional plant modifications not now considered necessary, should they become necessary, and for certain contingencies (as specified under 2 and 3, respectively, of the "Outline").

From a financial standpoint, the advantages to AEC and the potential benefits and risks to DPC from the proposed arrangements are reflected in some detail in our enclosed analysis, "Effect of Proposed Sale of LACBWR to DPC." From the Commission's programatic standpoint, the continuation of LACBWR is not necessary since the project is outside the mainstream of our currently most pressing reactor development efforts. It is our conclusion that the proposed sale arrangements offer advantages to both parties over continuing under the existing operating contract, in that:

AEC will save dollars in any event and, should the plant encounter unforeseen technical difficulties, AEC will be relieved of obligations under the existing contract which outweigh the limited contingencies that AEC will continue to be responsible for under the proposed sale arrangements.

The arrangements offer the opportunity to DPC to realize economic benefits from purchasing the reactor for private operation. These potential benefits to DPC (if the plant runs well after purchase) and risks (if it doesn't) are fairly balanced. Sufficiently so that AEC is not giving DPC a windfall on the one hand or, on the other, leaving it with risks that are unreasonable or beyond its ability to sustain.

We plan to proceed to negotiate with DPC a definitive agreement for its purchase of LACBWR on the basis of the aforementioned arrangements which have been accepted by the parties in principle. Should there be any significant departures from these arrangements during the negotiations, we will inform you. We also plan to submit revised project justification data, reflecting the definitive agreement negotiated for transfer of LACBWR to DPC, as soon as the negotiations are completed.

Should you desire any further information on this matter, we will be pleased to provide it.

Sincerely,

R. E. HOLLINGSWORTH,
General Manager.

JOINT COMMITTEE ON ATOMIC ENERGY STAFF ANALYSIS OF PROPOSED SALE BY AEC OF THE LA CROSSE BOILING WATER REACTOR—LACBWR—TO THE DAIRYLAND POWER COOPERATIVE

The Commission, by letter dated July 5, 1972, to Chairman Pastore, has advised the Joint Committee of its intent to sell the La Crosse Boiling Water Reactor (LACBWR) to Dairyland Power Cooperative.

LACBWR is a 50-megawatt (net) electrical nuclear steam plant, located on the east bank of the Mississippi River, about 19 miles south of La Crosse, Wisconsin. The LACBWR project was authorized under Section 109(c) of Public Law 87–315 (September 26, 1961). The reactor is Government-owned and is operated by Dairyland under a contract with AEC for a ten-year period which ends on November 1, 1979. The AEC has no unilateral right to terminate the contract.

Under its contract with AEC, Dairyland operates the AEC-owned nuclear plant on a cost reimbursable basis; purchases from AEC the steam produced by the reactor for use in the generation of electricity; and has the use of the reactor as an integral part of its electrical system for a period of ten years.

Under the existing contract, November 1, 1974, is the earliest date on which the reactor could be sold to Dairyland. The contract requires the Commission to offer to sell the reactor to Dairyland upon expiration of the operating term of ten years (November 1, 1979), but the Commission may offer to sell the reactor at any time during the second five years of operation (that is after November 1, 1973). Under the contract, Dairyland has an obligation to buy the reactor if it is determined to be an economic and reliable power producer. Justification data for the arrangement which led to the existing contract was submitted to the Joint Committee as required by the authorizing legislation. Sale of the reactor prior to November 1, 1974, will require an amendment to the arrangement which was submitted to the Joint Committee. Before the Commission can sell the reactor, the proposal must lie before the Committee for a period of 45 days while Congress is in session, unless the Joint Committee, by resolution in writing, waives the conditions of all or any portion of such 45-day period.

The Commission's reason for the proposed sale of the reactor prior to November 1, 1974, is premised on the fact that continued operation of the reactor is of no technical value to AEC and termination of AEC's contractual responsibilities would benefit AEC economically (at least approximately $5.6 million). Dairyland would pay AEC $2,750,000 for the reactor and for two fuel cores now at the site. Sale of the reactor this year would reduce the Commission's term for paying costs for operation of the reactor from a certain three additional years (November 1, 1974) and a probable eight additional years (November 1, 1979).

The Commission would undertake no obligations under the proposed sales arrangement which it does not already have under the existing contract. As summarized below, the sales arrangement will actually result in a sizeable reduction in the costs which AEC must obligate for reactor operation and significantly limit the contingency-type AEC risks under the existing contract.

(a) AEC currently pays the operating costs for the reactor. Operating costs through November 1, 1971, the agreed-upon date for purposes of financial settlement, are estimated to be $7.4 million. In the absence of a sale, the AEC could continue to have the responsibility to pay operating costs to November 1, 1979, which would involve an estimated ten million additional dollars.

(b) The Commission currently has an obligation to provide replacement power if LACBWR is shut down for nuclear causes. The AEC has already paid Dairyland $2.3 million for this purpose. Under the proposed sale, the AEC liability for replacement power would be limited to a maximum of 36 months and then only if a shutdown for nuclear causes occur prior to November 1, 1974, and the cost of repair to Dairyland is in excess of $1 million.

(c) Under the existing contract, AEC has a continuing obligation for ten years to keep the reactor in an operable condition. Under the proposed sale, AEC has allowed $650,000 to provide for all expected modification necessary to permit Dairyland to obtain the required AEC provisional operating license. (The $650,000 would be offset from Dairyland's $2,750,000 purchase price.)

(d) AEC currently has the responsibility to replace the third feed water heater if necessary at any time during the ten-year operating term. Under the proposed sale, this obligation is limited to November 1, 1974.

(e) AEC, under the existing contract, has the responsibility to provide for the decommissioning of the facility in the event the plant is not determined to be an economic and reliable power producer at the end of the ten-year term. Under the proposed sale, the AEC obligation for decommission is limited to $1 million and to that extent only if permanent shutdown for valid technical reasons occurs prior to November 1, 1974.

With the exception of the three contingencies (summarized below), all of the funding necessary for the Commission to satisfy its obligations under the proposed sales contract is included in the $7.4 million which is currently obligated for the operating cost of the facility up to November 1, 1971. The three contingencies not funded and which would require additional appropriations if the events covered by the contingencies occur are as follows:

$1 million to cover decommissioning; approximately $500,000 to cover replacement of carbon steel piping; and approximately $2.5 million to provide for replacement power.

The maximum estimated amount of additional funds which might be needed to cover these contingencies is estimated to be $4 million. In the technical judgment of the AEC staff, the decommissioning and replacement power contingencies are remote.

In view of the foregoing, it would appear that the proposed sale of the plant is in the best interest of the Government in that: (1) AEC has already obtained all of the information it needs from the operation of the plant; (2) AEC's expenses for the operation of the plant beyond November 1, 1971, will be eliminated; (3) AEC's risks beyond November 1, 1971, are reasonable, for the most part remote, and in any event, less than under the existing contract; and (4) manpower resources which are applied to the LACBWR program would be available to programs of greater scope and urgency.

The economic value of the plant to Dairyland depends on how well the plant operates and for how long. If the plant is operational over a life of 20 years, for example, Dairyland will have purchased for $2.1 million an asset whose economic value is about $7.1 million ($4.5 million for the reactor and $2.6 million for fuel). But Dairyland, by purchasing the reactor as of November 1, 1971, is giving up the rights it has under the existing contract for an additional three or possibly eight years in which to demonstrate the plant's reliability and economics. If risks do materialize, the economic value of the reactor could be reduced practically to zero and Dairyland could lose the use of its turbine-generator set in which it has an investment of about $7 million until an alternate steam source is acquired.

APPENDIX 2

PROPOSALS AND ARRANGEMENTS

U.S. ATOMIC ENERGY COMMISSION,
Washington, D.C., July 9, 1973.

Hon. MELVIN PRICE,
Chairman, Joint Committee on Atomic Energy,
Congress of the United States.

DEAR MR. PRICE: A mutually satisfactory arrangement for the sale of the La Crosse Boiling Water Reactor (LACBWR) to Dairyland Power Cooperative (Dairyland) has been negotiated and approved by the Commission. The arrangement was discussed with JCAE staff on June 12, 1973. Herewith submitted as an amendment to the Revised Program Justification Data provided last year are: a contractual modification signed by Dairyland, but as yet unexecuted by the Commission; Dairyland's proposal which formed the basis for agreement; and a comparison of the major points of this agreement with the one which formerly was negotiated but never executed.

Under date of July 5, 1972, the Commission submitted to the Joint Committee as Revised Program Justification Data for the LACBWR a negotiated arrangement, together with supporting data, for the proposed sale of the LACBWR to the operating utility, Dairyland. The material submitted, together with the JCAE staff analysis of the proposed sale, was placed in the Congressional Record by Senator Pastore on July 19, 1972.

On August 7, 1972, Mr. Bauser advised us that the Committee had waived the remainder of the 45-day waiting period with respect to the proposed sale. However, when the implementing contractual modification was submitted to Dairyland for execution, the utility declined to consummate the sale principally for the reason that it had failed to appreciate fully the potential dollar magnitude of obtaining a full operating license. Since that time, the Committee has been kept advised by the Commission of its continued efforts to arrive at an acceptable basis upon which the sale of the reactor plant to the utility could be accomplished.

The only substantive difference between this negotiated sale and the one which we submitted last year (the background and analysis of which was published in the July 19, 1972, Congressional Record) is that this arrangement provides for Dairyland to acquire the reactor plant and the two fuel cores presently at the site for the nominal sum of $1; whereas, last year we had negotiated a purchase price of $2.7 million for these items. Otherwise, the analysis and the basis supporting the logic of the sale and the mutual advantages to Dairyland and the Commission are the same as previously stated, subject only to escalation in the dollar figures and, of course, the additional operating cost to the Commission from November 1, 1971, to date. It is the judgment of the Commission's technical staff that the costs to obtain a full operating license after transfer of title to Dairyland, if the sale is consummated as now agreed upon will probably equal or exceed this $2.7 million. The contingent liabilities retained by the Commission under this sale arrangement and the savings to the Commission which would accrue as a result of this sale, subject to some upward escalation, remain essentially as decribed in last year's submission.

The Commission believes that this arrangement, as negotiated, is in the best interests of the Government; and both we and the utility desire that it be implemented at the earliest possible date. It should be noted that, anticipating the

sale, the Commission has not included in its request for funds this fiscal year any money for continued operation of the reactor plant beyond June 30, 1973. Should the sale not be consummated as negotiated, it will be necessary to provide about $4 million to cover net operating costs ($6 million gross costs, less $2 million anticipated revenue) for fiscal year 1974.

For the Committee's convenience the documents referred to above are enclosed for ready reference, as is the material which appeared in the July 19, 1972, Congressional Record.

We shall appreciate the Committee's expeditious consideration of this submission and will be happy to furnish any additional information the Committee may desire.

Sincerely,

JOHN A. ERLEWINE,
Acting General Manager.

Enclosures:

1. Proposed Contract Modification signed on behalf of Dairyland
2. Dairyland Proposal dtd Mar 3, 1973
3. Comparison of Proposals
4. Extract, Jul 19, 1972, Congressional Record (see appendix 1, p. 13.)

[ENCLOSURE NO. 1]

Modification No. 15
Supplemental Agreement to
Contract No. AT(11-1)-851

SUPPLEMENTAL AGREEMENT BETWEEN DAIRYLAND POWER COOPERATIVE AND THE U.S. ATOMIC ENERGY COMMISSION

This supplemental agreement is entered into this day of , 1973, between the United States of America (hereinafter referred to as the "Government"), acting through the U.S. Atomic Energy Commission (hereinafter referred to as the "Commission"), and Dairyland Power Cooperative, a corporation organized and existing under the laws of the State of Wisconsin and having its principal offices at La Crosse, Wisconsin (hereinafter referred to as the "Contractor").

RECITALS

Under Contract No. AT(11-1)-851, the Contractor has been operating the Government-owned reactor plant as a source of steam for use in the Contractor's Generator Plant to produce electric power for the Contractor's system. By agreement of the parties the ten-year operating period specified by the said contract commenced on November 1, 1969. Under said contract the Government has an obligation to offer to sell the reactor plant to the Contractor upon the expiration of the ten-year term, November 1, 1979, and has a right to offer the reactor plant for sale at the end of five years, November 1, 1974. The parties have reached an agreement under which the Contractor has offered to purchase the reactor plant prior to November 1, 1974, and the Government has accepted that offer. This supplemental agreement modifies the contract to provide for the sale as agreed upon by the parties and sets forth the terms under which title to the reactor plant will transfer to the Contractor coincident with the issuance of a provisional operating license.

This supplemental agreement is authorized by law, including Section 302(c)(15) of the Federal Property and Administrative Services Act of 1949, as amended, and the Atomic Energy Act of 1954, as amended.

AGREEMENT

Now Therefore, the parties hereto mutually agree that notwithstanding any provisions of Contract AT(11-1)-851 as previously amended to the contrary, the Commission agrees to sell and the Contractor agrees to purchase the reactor plant, the two fuel cores and their spares currently at the reactor site, spare parts, operating supplies, and all other Commission-owned property at the site,

except for those Government records created pursuant to Contract No. AT(11–1)–850 and Contract No. AT(11–1)–851, the title to which shall remain in the Government, subject to and in accordance with the following terms and conditions.

I. Undertakings of the Contractor

1. The Contractor shall immediately apply for, shall do all things necessary, and shall use its best efforts to obtain a provisional operating license under 10 CFR Part 50 to operate the reactor plant and an appropriate license for the acquisition, use and transfer of special nuclear material required by 10 CFR Part 70. It is understood and agreed that there is no representation nor inference by the Commission that an AEC provisional operating license or special nuclear materials license, or any other governmental license, permit or approval which may be required, will necessarily or in fact be issued.

2. In consideration for the conveyance by the Commission of title to the reactor plant, fuel cores and other Commission property to the Contractor, and assumption by the Commission of the obligations under Paragraph II hereof, the Contractor agrees that the Commission, its successors and assigns shall not thereafter be obligated to Contractor for any further claims, charges or demands whatsoever, under or pursuant to Contract AT(11–1)–851, or otherwise, and shall be relieved of all further obligations and responsibilities with regard to the reactor plant. The Contractor agrees to accept such conveyance of title and shall pay to the Commission the sum of one dollar ($1.00).

II. Undertakings of the Commission

1. Concurrently with the issuance to the Contractor of the provisional license to operate the reactor plant, all the Commission's right, title and interest in and to the reactor plant, the two fuel cores and their spares now at the reactor site, spare parts, operating supplies, and all other Commission property at the site shall pass to the Contractor, except those records created pursuant to Contract No. AT(11–1)–850 and Contract No. AT(11–1)–851 which will remain Government property. The Contractor shall, however, have the right of possession and use of such records as are necessary to comply with the requirements of 10 CFR 50.

2. In the event the determination is made prior to November 1, 1979, that the extrapolation from available data indicates that for safety reasons, any or all of the carbon steel forced circulation piping must be replaced by November 1, 1982, the Commission will compensate the Contractor for all direct costs of labor, services, and materials related to such replacement, subject to Paragraph III below.

3. If the reactor plant is shut down before November 1, 1974 because of a reactor plant failure, as hereinafter defined, and there is mutual agreement that the estimated cost to the Contractor of repairing the reactor plant will be in excess of $1,000,000.00, the Contractor shall be reimbursed by the Commission for the replacement power in the following manner:

a. Reimbursement will be made of 80% of the Contractor's net increase in power cost due to the necessity of replacing power that would have been produced by the nuclear power plant under what would have been the planned mode of operation, with power from other sources; provided, however, that such reimbursement by the Commission shall in no event exceed the cost of power which would have been produced by the nuclear power plant. The net increase in power cost will be determined by deducting the cost of power had it been produced by the nuclear power plant, from the cost of replacement power. For purposes of this calculation, the cost of power which would have been produced by the nuclear power plant shall include, but not be limited to, nuclear fuel cost, operations costs, maintenance cost and all fixed costs. Replacement power cost shall include energy charges, demand charges, and any related transmission charges;

b. This reimbursement shall be made for a period or periods from the date on which the reactor plant ceases to operate as a result of the failure(s) until the date the Contractor, using its best efforts, returns the reactor plant to operational capability, but in no event shall reimbursement be made under this section for more than a total of 36 months for all such failures;

c. If, after the period or periods as defined in b. above has commenced to run, the Contractor decides for valid technical reasons not to restore the reactor plant to operational status, the Commission will, in addition to the

payment provided by Section 4 hereof, continue to reimburse the Contractor for the cost of replacement power in the manner described in a. above until the earlier of the following dates: (i) the date on which the 36-month period as provided in b. above expires, or (ii) the date on which the generator plant is restored to operation through the availability of steam from other sources. Payment of the amounts provided for under this subsection and under Section 4, shall relieve the Commission from any and all liability of any kind or nature whatsoever for any costs associated with shutting down or decommissioning the reactor plant, and for all further responsibility in connection with the reactor plant;

d. The determination of the estimated cost of repairing the reactor plant, for the purposes of this Section 3, shall be consistent with the applicable provisions of the Uniform System of Accounts prescribed by the Rural Electrification Administration, in effect on the date the reactor plant is shut down.

4. Should the Contractor for other technical reasons than a reactor plant failure as hereinafter defined, decide before November 1, 1974, to close down the reactor plant permanently, the Commission shall pay to the Contractor the sum of $1,000,000.00, and the Commission thereafter shall have no liability for replacement power, for any costs associated with shutting down or decommissioning the reactor plant, nor any further responsibility or liability of any kind or nature whatsoever in connection with the reactor plant.

5. The parties recognize that the contingencies for which the Commission has assumed responsibility under Sections 2, 3 and 4 of this Paragraph II are extremely remote and the Commission's liability therefor is subject to the availability of funds appropriated by the Congress. In the unlikely event that one or more of such contingencies should occur, the Commission will affirmatively seek, and will use its best efforts to obtain, appropriation of the necessary funds to enable it to fulfill such responsibilities.

6. Any disagreement with regard to any of the provisions of this Paragraph II shall be resolved in accordance with the Article of the contract entitled "Disputes".

III. Costs of Plant Modifications

Should any of the carbon steel forced circulation piping for which the Commission retains responsibility pursuant to Section 2 of Paragraph II be required, the parties shall, prior to the performance of such modification, negotiate in good faith to determine a lump sum amount in lieu of reimbursement to the Contractor of direct costs of labor, services and material, upon the payment of which amount the Commission shall be relieved of all further responsibility or liability for any such modification. Any such agreement shall be subject to the Article of this contract entitled "Examination of Records", and failure to reach agreement concerning any such payment shall be resolved in accordance with the Article of this contract entitled "Disputes".

IV. Continuing Applicability of Contract At (11–1)–851

1. It is understood and agreed by the parties that until the sale of the reactor plant is consummated and title transferred to Contractor as provided in this Supplemental Agreement, Contract AT(11–1)–851 shall be and remain in full force and effect. Upon such sale and transfer of title as herein provided Contract AT(11–1)–851 shall thereupon cease to be effective and neither the Contractor nor the Government shall thereafter have any further rights or obligations thereunder; provided, however, that nothing in this paragraph shall in any way relieve either party of any obligation or responsibility specifically undertaken or assumed under this Supplemental Agreement in connection with or in consideration of the said sale.

2. The Commission's liability for costs incurred by the Contractor pursuant to Contract No. AT(11–1)–851 shall be limited to those costs which have been paid by the Contractor before title is transferred to the Contractor. The Contractor shall be responsible for any costs incurred which are unpaid at the time of title transfer.

3. Disagreements with respect to any matters related to the sale of the reactor plant as contemplated under this Supplemental Agreement, shall be resolved in accordance with the Article of this contract entitled "Disputes" only where specifically so provided in this Supplemental Agreement.

V. Definition of Reactor Plant Failure

The term "reactor plant failure" as used in this Supplemental Agreement means a failure of any component or equipment supplied by the Commission which is an integral part of the reactor plant required for operation at 165 MWt, with the following exceptions: a) since the Commission has made no warranty for fuel burnup or integrity, any failure confined to the fuel is excluded from this definition; b) any failure arising from gross negligence of the Contractor is also excluded from this definition.

IN WITNESS WHEREOF, the Government and the Contractor have executed this Supplemental Agreement effective as of the date first above written.

UNITED STATES OF AMERICA

By: ----------

(title)

Chicago Operations Office,
U.S. Atomic Energy Commission.

By: JOHN P. MADGETT, *General Manager.*

I, Ann J. Malin, (attestee), certify that I am the Secretary to the General Manager of the Contractor named under this document; that John P. Madgett (signatory), who signed this document on behalf of said Contractor was then General Manager (title) of said Contractor; that this document was duly signed for and on behalf of said Contractor by authority of its governing body and is within the scope of its legal powers.

IN WITNESS WHEREOF, I have hereunto affixed my hand and the seal of said Contractor.

(SEAL) ANN MALIN.

[ENCLOSURE NO. 2]

DAIRYLAND POWER COOPERATIVE,
La Crosse, Wis., March 3, 1973.
In reply, please refer to LAC–1488

Subject: Sale of LACBWR Contract No. AT(11–1)–851.

Mr. MILTON SHAW,
Division Director, of Reactor Development and Technology,
U.S. Atomic Energy Commission, Washington, D.C.

DEAR MR. SHAW: As a result of our meeting at your office last week, we have reviewed our position regarding the purchase of the reactor plant. Bearing in mind the alternatives which were discussed concerning the future of the plant, we think the best approach to be taken should be a positive effort to continue to operate the plant as an integrated nuclear power plant. Although there are some improvements or modifications necessary to upgrade the plant, we believe it has a good future. We are proud of our efforts to date to have operated the facility safely and to have overcome numerous technical difficulties since operations began. The past improvements which have been achieved in plant performance attest to our capability to operate and maintain the plant.

We are now interested in purchasing the plant. In this regard, there are two proposals or plans which are being submitted for your review and consideration.

The principal point of concern in taking ownership of the reactor plant is the unknown expense associated with the requirements for a full term or permanent license. We are offering a plan which would reduce our financial risk in this regard and in turn reduce your obligations under the present contract. As the owner of the plant, we think that we could reduce the costs of repairs or modifications below earlier estimates. By taking prompt action to uprate the plant

and anticipating further improvements in plant systems and components resulting from modifications and other changes required for the permanent license, our predictions of production costs now indicate that the plant would compare favorably with other system power generating costs.

Our preferred plan therefore is based on the following agreement; Dairyland Power Cooperative will take ownership of the reactor plant for a purchase price of one dollar ($1.00), obtain a provisional operating license, take title coincident with the issuance of the provisional operating license and immediately pursue the attainment of a permanent license. The dollars which would have otherwise gone into the payment for the plant would be used by Dairyland to pay for the work and modifications necessary for a permanent license.

The purchase would be handled within the framework of the proposed Modification _____ to Contract No. AT(11-1)-851. A copy of this document is enclosed with this letter. You will note that the proposed modification has been streamlined considerably in comparison to earlier versions. Coincident with transfer of title, there would be an adjustment of accounts to the date of sale. These accounts would cover accrued costs and revenues associated with the operations of the reactor plant. Additionally, the Commission's existing LACBWR technical support contracts with Gulf United Nuclear Fuels Corporation and Southwest Research Institute would continue to the end of Fiscal Year 1973 (June 30, 1973) at no cost to Dairyland Power Cooperative.

The specific technical support tasks which would be funded by the Commission until the end of FY 1973 are:

Southwest Research Institute Tasks:	
Main steam and forced circulation stainless steel pipe repair	$48,930.00
Evaluation of new studs	14,532.24
Radiation and corrosion surveillance program	7,047.46
In-Service inspection equipment	9,866.00
In-Service inspection—1973 Spring outage (estimate)	30,000.00
Total	110,375.70
Gulf United Tasks:	
L-18—Fiscal year 1973 licensing	$390,000.00
L-17—Significant problem areas	

RESPONSES TO RECENT AEC REGULATORY QUESTIONS

L-1055—Pipe Break Outside Containment

The contingencies due to a reactor plant failure or shutdown due to other technical reasons would remain in the agreement. It is important to point out that we are assuming significant risks in the event capacity is lost and it becomes necessary to obtain a satisfactory and acceptable alternate steam source for the generator plant. The lead time to install a boiler is estimated to be four years and costs could amount to $14,790,000. Our assumption of risks related to the final determination of the ECCS question could amount to $1,000,000. (See attached estimate.)

The responsibility for compensation to us for replacement of carbon steel forced circulation piping, if necessary, would remain with the Commission.

An alternate plan based on Modification 15 is also presented for your consideration. This plan gives the Commission the payment for the plant but places the financial burden for modifications and licensing upon them. Dairyland Power Cooperative would take ownership upon payment of the purchase price and the issuance of a provisional operating license. The commission would compensate Dairyland for all costs of labor services and material related to the attainment of a permanent operating license. Additional agreements would be necessary to permit Dairyland to own the plant but have Commission funding for licensing efforts and certain modifications. Other accounts would be adjusted to the date of sale. This plan could become very complicated to administer and involves Commission control and influence beyond the transfer of title. We prefer the first plan discussed in this letter.

I realize that the time to consider and act upon the proposals is short. If there is a need for further discussion on the matter, we are available at your convenience. We do hope that the proposed sale and purchase terms can be worked out to the mutual benefit of both parties.

Very truly yours,

JOHN P. MADGETT,
General Manager.

Enclosures (2).

Enclosure A

	1971 Price
1. 1 Stirling power boiler 705,000#/hr	
Boiler, furnace, and air heater	
Economizer and air heater	
2-Cyclone furnaces with accessories and lighter control	
Flues and ducts	
Structural steel, platforms, and supports	
F.D. fan and motor drive	
Electrostatic precipitator	
Slag tank	
Coal conditioner	
Freight	
Startup service	
Subtotal, power boiler	$2,700,000
2. Boiler Erection including supervision, labor, tools, rigging refractory, insulation and lagging	1,700,000
3. Building foundations and substructure	383,000
4. Boiler house superstructure	649,000
5. Coal bunkers	143,000
6. Coal feeders	74,000
7. Coal conveyors	454,000
8. 500' Concrete stack and foundations	1,206,000
9. Combustion controls	152,000
10. Pipe covering insulation	44,000
11. Flue from precipitator to stack	130,000
12. Ash handling systems	465,000
13. Fire protection	22,000
14. Electrical work and apparatus	460,000
15. Auxiliary equipment	168,000
16. Site work	89,000
17. Engineering and design	300,000
18. Contingency	400,000
Total LACBWR boiler—1971 prices	9,548,000
Escalation to 1973 cost	11,040,000
Estimated cost of SO_2 removal based upon $60/KW at 62.5 MW	3,750,000
Grand total	$14,790,000
Cost of boiler addition w/o SO_2 removal	$176.64/KW
Cost of boiler addition with SO_2 removal	236.64/KW

Modification No.
Supplemental Agreement to
Contract No. AT (11-1)-851

Enclosure B

SUPPLEMENTAL AGREEMENT BETWEEN DAIRYLAND POWER COOPERATIVE AND THE U.S. ATOMIC ENERGY COMMISSION

This supplemental agreement is entered into this day of , 1973 between the UNITED STATES OF AMERICA (Hereinafter referred to as the "Government"), acting through the U.S. ATOMIC ENERGY COMMISSION (hereinafter referred to as the "Commission"), and DAIRYLAND POWER COOPERATIVE, a corporation organized and existing under the laws of the State of Wisconsin and having its principal offices at La Crosse, Wisconsin (Hereinafter referred to as the "Contractor").

RECITALS

Under Contract No. AT(11-1)-851, the Contractor has been operating the Government-owned reactor plant as a source of steam for use in the Contractor's Generator Plant to produce electric power for the Contractor's system. By agreement of the parties the ten-year operating period specified by the said contract

commenced on November 1, 1969. Under said contract the Government has an obligation to offer to sell the reactor plant to the Contractor upon the expiration of the ten-year term, November 1, 1979, and has a right to offer the reactor plant for sale at the end of five years, November 1, 1974. The parties have reached an agreement under which the Contractor has offered to purchase the reactor plant prior to November 1, 1974, and the Government has accepted that offer. This supplemental agreement modifies the contract to provide for the sale as agreed upon by the parties and sets forth the terms under which the Government will convey title to the reactor plant to the Contractor concurrently with the issuance of a provisional operating license.

This supplemental agreement is authorized by law, including Section 302(c)(15) of the Federal Property and Administrative Services Act of 1949, as amended and the Atomic Energy Act of 1954, as amended.

AGREEMENT

NOW THEREFORE, the parties hereto mutually agree that notwithstanding any provisions of Contract AT(11-1)-851 as previously amended to the contrary, the Commission agrees to sell and the Contractor agrees to purchase the reactor plant, the two fuel cores and their spares currently at the reactor site, spare parts, operating supplies, and all other Commission-owned property at the site, except for those Government records created pursuant to Contract No. AT(11-1)-850 and Contract No. AT(11-1)-851, the title to which shall remain in the Government, subject to and in accordance with the following terms and conditions:

I. Undertakings of the Contractor

1. The Contractor shall immediately apply for, shall do all things necessary, and shall use its best efforts to obtain a provisional operating license under 10 CFR Part 50 to operate the reactor plant and an appropriate license for the acquisition, use and transfer of special nuclear material required by 10 CFR Part 70. It is understood and agreed that there is no representation nor inference by the Commission that an AEC provisional operating license or special nuclear materials license, or any other governmental license, permit or approval which may be required, will necessarily or in fact be issued.

2. In consideration for the conveyance by the Commission of title to the reactor plant, fuel cores and other Commission property to the Contractor, and assumption by the Commission of the obligations under Paragraphs II hereof, the Contractor agrees that the Commission, its successors and assigns shall not thereafter be obligated to Contractor for any further claims, charges or demands whatsoever, under or pursuant to Contract AT(11-1)-851, or otherwise, and shall be relieved of all further obligations and responsibilities with regard to the reactor plant. The Contractor agrees to accept such conveyance of title and shall pay to the Commission the sum of one dollar ($1.00).

II. Undertakings of the Commission

1. Concurrently with the issuance to the Contractor of the provisional license to operate the reactor plant, the Commission shall convey to the Contractor all its right, title and interest in and to the reactor plant, the two fuel cores and their spares now at the reactor site, spare parts, operating supplies, and all other Commission property at the site, except those records created pursuant to Contract No. AT(11-1)-850 and Contract No. AT(11-1)-851 which will remain Government property. The Contractor shall, however, have the right of possession and use of such records as necessary to comply with the requirements of 10 CFR 50.

2. In the event the determination is made prior to November 1, 1979, that the extrapolation from available data indicates that for safety reasons, any of all of the carbon steel forced circulation piping must be replaced by November 1, 1982, the Commission will compensate the Contractor for all direct costs of labor, services, and materials related to such replacement, subject to Paragraph IV below.

3. If the reactor plant is shut down before November 1, 1974 because of a reactor plant failure, as hereinafter defined, and there is mutual agreement that the estimated cost to the Contractor of repairing the reactor plant will be in excess of $1,000,000.00, the Contractor shall be reimbursed by the Commission for the replacement power in the following manner:

a. Reimbursement will be made of 80% of the Contractor's net increase in power cost due to the necessity of replacing power that would have been

produced by the nuclear power plant under what would have been the planned mode of operation, with power from other sources; provided, however, that such reimbursement by the Commission shall in no event exceed the cost of power which would have been produced by the nuclear power plant. The net increase in power cost will be determined by deducting the cost of power had it been produced by the nuclear power plant, from the cost of replacement power. For purposes of this calculation, the cost of power which would have been produced by the nuclear power plant shall include, but not be limited to, nuclear fuel cost, operations cost, maintenance cost and all fixed costs. Replacement power cost shall include energy charges, demand charges, and any related transmission charges;

b. This reimbursement shall be made for a period or periods from the date on which the reactor plant ceases to operate as a result of the failure(s) until the date the Contractor, using its best efforts, returns the reactor plant to operational capability, but in no event shall reimbursement be made under this section for more than a total of 36 months for all such failures;

c. If, after the period or periods as defined in b. above has commenced to run, the Contractor decides for valid technical reasons not to restore the reactor plant to operational status, the Commission will, in addition to the payment provided by Section 4 hereof, continue to reimburse the Contractor for the cost of replacement power in the manner described in a. above until the earlier of the following dates: (i) the date on which the 36-month period as provided in b. above expires, or (ii) the date on which the generator plant is restored to operation through the availability of steam from other sources. Payment of the amounts provided for under this subsection and under Section 4, shall relieve the Commission from any and all liability of any kind or nature whatsoever for any costs associated with shutting down or decommissioning the reactor plant, and for all further responsibility in connection with the reactor plant;

d. The determination of the estimated cost of repairing the reactor plant, for the purposes of this Section 3, shall be consistent with the applicable provisions of the Uniform System of Accounts prescribed by the Rural Electrification Administration, in effect on the date the reactor plant is shut down.

4. Should the Contractor for other technical reasons than a reactor plant failure as hereinafter defined, decide before November 1, 1974, to close down the reactor plant permanently, the Commission shall pay to the Contractor the sum of $1,000,000.00, and the Commission thereafter shall have no liability for replacement power, for any costs associated with shutting down or decommissioning the reactor plant, nor any further responsibility or liability of any kind or nature whatsoever in connection with the reactor plant.

5. The parties recognize that the contingencies for which the Commission has assumed responsibility under Sections 2, 3 and 4 of this Paragraph II are extremely remote, and the Commission's liability therefor is subject to the availability of funds appropriated by the Congress. In the unlikely event that one or more of such contingencies should occur, the Commission will affirmatively seek, and will use its best efforts to obtain, appropriation of the necessary funds to enable it to fulfill such responsibilities.

6. Any disagreement with regard to any of the provisions of this Paragraph II shall be resolved in accordance with the Article of the contract entitled "Disputes".

III. Costs of Plant Modifications

Should any of the carbon steel forced circulation piping for which the Commission retains responsibility pursuant to Section 2 of Paragraph II be required, the parties shall, prior to the performance of such modification, negotiated in good faith to determine a lump sum amount in lieu of reimbursement to the Contractor of direct costs of labor, services and material, upon the payment of which amount the Commission shall be relieved of all further responsibility or liability for any such modification. Any such agreement shall be subject to the Article of this contract entitled "Examination of Records", and failure to reach

agreement concerning any such payment shall be resolved in accordance with the Article of this contract entitled "Disputes".

IV. Continuing Applicability of Contract AT(11–1)–851

1. It is understood and agreed by the parties that until the sale of the reactor plant is consummated and title conveyed to Contractor as provided in this Supplemental Agreement, Contract AT(11–1)–851 shall be and remain in full force and effect. Upon such sale and conveyance of title as herein provided Contract AT(11–1)–851 shall thereupon cease to be effective and neither the Contractor nor the Government shall thereafter have any further rights or obligations thereunder; provided, however, that nothing in this paragraph shall in any way relieve either party of any obligation or responsibility specifically undertaken or assumed under this Supplemental Agreement in connection with or in consideration or the said sale.

2. Should it ultimately be agreed by the parties that the said sale and conveyance of title to the reactor plant as contemplated under this Supplemental Agreement cannot be consummated as herein provided, this Supplemental Agreement shall thereupon become null and void and of no effect whatsoever, and the rights and obligations of the parties shall continue under Contract AT(11–1)–851 as if this Supplemental Agreement had never been executed.

3. Disagreements with respect to any matters related to the sale of the reactor plant as contemplated under this Supplemental Agreement, shall be resolved in accordance wih the Article of this contract entitled "Disputes" only where specifically so provided in this Supplemental Agreement.

V. Definition of Reactor Plant Failure

The term "reactor plant failure" as used in this Supplemental Agreement means a failure of any component or equipment supplied by the Commission which is an integral part of the reactor plant required for operation at 165 MWt, with the following exceptions: a) since the Commission has made no warranty for fuel burnup or integrity, any failure confined to the fuel is excluded from this definition; b) any failure arising from gross negligence of the Contractor is also excluded from this definition.

In Witness Whereof, the Government and the Contractor have executed this Supplemental Agreement on the date first above written.

THE UNITED STATES OF AMERICA

By: _____

U.S. Atomic Energy Commission,
Chicago Operations Office.

DAIRYLAND POWER COOPERATIVE

By: _____

_____
(title)

Modification No. 15
Supplemental Agreement to
Contract No. AT(11–1)–851

I, _____, certify that I
(attester)
am the _____ of the Contractor
(title)
named under this contract; that _____
(signatory)
who signed this contract on behalf of said Contractor was then _____
_____ of said Contractor; that this
(title)
contract was duly signed for and on behalf of said Contractor by authority of its governing body and is within the scope of its legal powers.

IN WITNESS WHEREOF, I have hereunto affixed my hand and the seal of said Contractor.

(SEAL)

_____ _____.

[ENCLOSURE NO. 3]

PROPOSALS FOR SALE OF LACBWR

[In thousands of Dollars]

	Previous Mod 15		March 3, 1973 letter: Preferred		March 3, 1973 letter: Alternative	
I. Sale price (including fuel)	$2,750		(1)		$2,750	
II. Title transfer	(2)		(3)		(3)	
	AEC	DPC	AEC	DPC	AEC	DPC
III. Financial Responsibility for the following:						
(1) Identified modifications						
(2) Additional eng/mods to get POL						
(3) Additional eng/mods to get full op. lic.						
(4) Tubing—FWH No. 3	$650	(4)	0	[5] ($2,700)	[5] ($2,700)	0
(5) Emergency Core Cooling System Modification						
	Fiscal year 1973		Fiscal year 1973		Fiscal year 1975	
IV. Elimination of significant RDT/CH involvement						
V. Program costs, net of revenue, accrued from Nov. 1, 1971 assuming proposal acceptance			$856		$3,556	
VI. Net income (cost) to AEC	$2,100		($856)		($806)	
VII. Contingencies (considered remote; funding subject to appropriation). No changes from original proposal. AEC assumes liability for the following in every case:						
(1) Through Nov. 1, 1979—Replace CS section of FW piping			[5] ($500)			
(2) Through Nov. 1, 1974—Dismantling contribution of $1,000,000			[5] ($1,000)			
(3) Through Nov. 1, 1974—Net cost of replacement power for three years			[5] ($2,500)			

[1] Token $1.
[2] Subsequent to, but as nearly as possible concurrent with, conversion of POA to POL.
[3] Simultaneous with conversion of POA (Provisional operating authorization) to POL (provisional operating license).
[4] Overrun.
[5] All.

APPENDIX 3

From the Office of the
Joint Congressional
Committee on Atomic Energy

Press Release No. 718
For Immediate Release
August 2, 1973

JOINT COMMITTEE ON ATOMIC ENERGY ANNOUNCES PUBLIC HEARING ON THE PROPOSED SALE OF THE LA CROSSE BOILING WATER REACTOR TO THE DAIRYLAND POWER COOPERATIVE

Chairman Melvin Price of the Joint Committee on Atomic Energy today announced that the Joint Committee would hold a public hearing on Friday, August 3, 1973, to consider the new terms of a proposed sale of the AEC's La Crosse Boiling Water Reactor (LACBWR) to the Dairyland Power Cooperative (DPC).

LACBWR is a 50 megawatt (net) nuclear steam plant, located on the east bank of the Mississippi River, about 19 miles south of La Crosse, Wisconsin. The LACBWR project was authorized in 1961 under section 109(c) of Public Law 87–315. The reactor is Government-owned and is operated by Dairyland under a contract with the AEC for a 10-year period which ends on November 1, 1979.

Terms of a proposed sale of the reactor had been previously submitted to the Joint Committee and approved in August 1972. However, by letter dated July 9, 1973, the AEC informed the Committee that the parties had agreed upon certain modifications to the terms of the sale of which had been submitted to the Committee. Under the authorization act, the new terms of the proposed sale must lie before the Committee for a period of 45 days while Congress is in session, unless the Committee waives the balance of the 45-day period. Excluding the August recess, the 45-day period will expire on or about September 25, 1973.

The hearing is scheduled to be held in the Joint Committee's public hearing room, S–407, in the U.S. Capitol, beginning at 10:00 a.m. It is expected that representatives of the AEC and the Dairyland Power Cooperative will testify.

AUGUST 1, 1973.

SUPPLEMENTAL APPENDIX 1

Joint Committee on Atomic Energy Comparative Staff Analysis of Proposed Sale by AEC of the La Crosse Boiling Water Reactor to the Dairyland Power Cooperative

By letter dated July 9, 1973, the AEC informed the Committee that the parties had agreed upon certain revisions to the terms of the sale of the La Crosse Boiling Water Reactor (LACBWR) to the Dairyland Power Cooperative (DPC). The terms of the proposed sale had been approved by the Joint Committee in August 1972 and, therefore, the revised arrangement must lie before the Committee for a period of 45 days. Excluding the August recess, the 45-day period will expire on or about September 25, 1973.

In July 1972 the Commission advised the Joint Committee of its intent to sell LACBWR to the DPC. That letter and other background information on the proposed sale was inserted in the Congressional Record of July 19, 1972, (pages S 1187–1189). Under the terms of the sale, Dairyland would have paid the AEC a net of $2.1 million for the reactor and the two fuel cores now at the site and assumed the cost of operating the reactor as of November 1, 1971. At that time, the terms of the proposed sale of the reactor were thought to be in the Government's interest inasmuch as the continued operation of the reactor was no programmatic value to the AEC, and relieving the Commission of its responsibilities under the contract with DPC would have resulted in an economic benefit of approximately $5.6 million to the Government.

In reevaluating the terms of its original offer, DPC felt that it had seriously underestimated the potential costs of obtaining a full-term license for the plant, and declined to execute the contract on the basis originally submitted to the Joint Committee. DPC subsequently submitted a revised proposal to the AEC which reduced the purchase price from a net figure of $2.1 million to a nominal sum of $1.00 and postponed the date for adjustment of accounts under the contract from November 1, 1971, to the time of the issuance of a provisional operating license.[1] DPC has stated that it would utilize the $2.75 million which it would have paid the Government for the plant for work and modifications necessary to obtain a permanent license.[2] The AEC agrees that the cost of DPC's obtaining a full-term license for the facility will probably equal or exceed the $2.75 million figure.

The AEC has advised that otherwise, the analysis and basis supporting the logic of the sale and the mutual advantages to Dairyland and the Commission are the same as previously stated, subject to the escalation of the dollar figures in the previous analysis.

This document illustrates the difference in the terms of the sale between the present and the former arrangement and revises a number of figures to compensate for the passage of time since the first submission and the effect of escalation. Changes from the provious staff analysis are indicated by enclosing deleted material in brackets and placing new material in italics.

The Commission, by letter dated July 5, 1972, to Chairman Pastore, has advised the Joint Committee of its intent to sell LACBWR to DPC.

LACBWR is a 50-megawatt (net) electrical nuclear steam plant, located on the east bank of the Mississippi River, about 19 miles south of La Crosse, Wisconsin. The LACBWR project was authorized under Section 109(c) of Public Law 87–315 (September 26, 1961). The reactor is Government-owned and is operated by Dairyland under a contract with AEC for a ten-year period which

[1] These accounts cover accrued costs and revenues associated with operating the reactor plant. The net operating costs from November 1971 through August 1973 (the assumed date for the conversion of existing operating authorization to a provision operating license) are estimated to be $700,000.

[2] Under the former arrangement the AEC would have used approximately $650,000 of the $2.75 million purchase price to make certain modifications to the plant.

ends on November 1, 1979. The AEC has no unilateral right to terminate the contract.

Under its contract with AEC, Dairyland operates the AEC-owned nuclear plant on a cost reimbursable basis; purchases from AEC the steam produced by the reactor for use in the generation of electricity; and has the use of the reactor as an integral part of its electrical system for a period of ten years.

Under the existing contract, November 1, 1974, is the earliest date on which the reactor could be sold to Dairyland. The contract requires the Commission to offer to sell the reactor to Dairyland upon expiration of the operating term of ten years (November 1, 1979), but the Commission may offer to sell the reactor at any time during the second five years of operation (that is after November 1, 1974). Under the contract, Dairyland has an obligation to buy the reactor if it is determined to be an economic and reliable power producer. Justification data for the arrangement which led to the existing contract was submitted to the Joint Committee as required by the authorizing legislation. Sale of the reactor prior to November 1, 1974, will require an amendment to the arrangement which was submitted to the Joint Committee. Before the Commission can sell the reactor, the proposal must lie before the Committee for a period of 45 days while Congress is in session, unless the Joint Committee, by resolution in writing, waives the conditions of all or any portion of such 45-day period.

The Commission's reason for the proposed sale of the reactor prior to November 1, 1974, is premised on the fact that continued operation of the reactor is of no technical value to AEC and termination of AEC's contractual responsibilities would benefit AEC economically (at least approximately [$5.6 million] *$5.7 million*). Dairyland would pay AEC [$2,750,000] *$1.00* for the reactor and for two fuel cores now at the site. Sale of the reactor this year would reduce the Commission's term for paying costs for operation of the reactor from a certain [three additional years] *fourteen* additional *months* (November 1, 1974) and a probable [eight] *five* additional years (November 1, 1979).

The Commission would undertake no obligations under the proposed sales arrangement which it does not already have under the existing contract. As summarized below, the sales arrangement will actually result in a sizeable reduction in the costs which AEC must obligate for reactor operation and significantly limit the contingency-type AEC risks under the existing contract.

(a) AEC currently pays the operating costs for the reactor. Operating costs through [November 1, 1971] August 1973, the [agreed upon] *assumed* date for purposes of financial settlement are estimated to be [$7.4] *$9.0 million.*[3] In the absence of a sale, the AEC could continue to have the responsibility to pay operating costs to November 1, 1979, which would involve an estimated [$10] *$4.7* million additional dollars. *The $4.7 million of costs through 1979 are the difference between estimated gross costs of $18.9 million and revenues of $14.2 million.*

(b) The Commission currently has an obligation to provide replacement power if LACBWR is shut down for nuclear causes. The AEC has already paid Dairyland $2.3 million for this purpose. Under the proposed sale, the AEC liability for replacement power would be limited to a maximum of 36 months and then only if a shutdown for nuclear causes occurs prior to November 1, 1974, and the cost of repair to Dairyland is in excess of $1 million.

(c) Under the existing contract, AEC has a continuing obligation for ten years to keep the reactor in an operable condition. [Under the proposed sale, AEC has allowed $650,000 to provide for all expected modification necessary to permit Dairyland to obtain the required AEC provisional operating license. (The $650,000 would be offset from Dairyland's $2,750,000 purchase price.)] *Effectuation of the sale arrangement would relieve AEC both of further operating responsibility for the plant and any further obligation to modify the plant for operating license purposes. It would also relieve the Commission from decommissioning costs which would be incurred, probably after 1979, by the AEC if the plant is not sold.*

(d) AEC currently has the responsibility to replace the third feed water heater if necessary at any time during the ten year operating term. Under the proposed sale this obligation [is limited to November 1, 1974] *would be eliminated.*

(e) AEC, under the existing contract, has the responsibility to provide for the decommissioning of the facility in the event the plant is not determined to be

[3] This is a gross figure which is offset to some extent by revenue.

an economic and reliable power producer at the end of the ten-year term. Under the proposed sale, the AEC obligation for decommissioning is limited to $1 million and to that extent only if permanent shutdown for valid technical reasons occurs prior to November 1, 1974.

With the exception of the three contingencies (summarized below), all of the funding necessary for the Commission to satisfy its obligations under the proposed sales contract is included in the [$7.4] $9.0 million which is currently obligated for the operating cost of the facility [up to November 1, 1974] through *August 1973*. The three contingencies not funded and which would require additional appropriations if the events covered by the contingencies are as follows: $1 million to cover decommissioning; approximately $500,000 to cover replacement of carbon steel piping; and approximately $2.5 million to provide for replacement power.

The maximum estimated amount of additional funds which might be needed to cover these contingencies is estimated to be $4 million. In the technical judgment of the AEC staff, the decommissioning and replacement power contingencies are remote.

In view of the foregoing, it would appear that the proposed sale of the plant is in the best interest of the Government in that: (1) AEC has already obtained all of the information it needs from the operation of the plant; (2) AEC's expenses for the operation of the plant beyond [November 1, 1971] *August 1973* will be eliminated; (3) AEC's risks beyond [November 1, 1971] *August 1973* are reasonable, for the most part remote, and in any event, less than under the existing contract; and (4) manpower resources which are applied to the LACBWR program would be available to programs of greater scope and urgency.

[The economic value of the plant to Dairyland depends on how well the plant operates and for how long. If the plant is operational over a life of 20 years, for example, Dairyland will have purchased for $2.1 million an asset whose economic value is about $7.1 million ($4.5 million for the reactor and $2.6 million for fuel)].

The economic value of the plant to Dairyland depends upon how well the plant operates, for how long, *and efficiencies and economies that can be effectuated by Dairyland in its operation. If the plant, as presently staffed and supported, operates well, at a capacity factor of about 80%, its economic value compared to that of a fossil-fueled plant of similar size is marginal. However, if Dairyland could reduce operating costs by say 1 mill per kwh this would represent a present economic value of about $3.5 million which would be essentially offset by the initial cost to DPC of about $2.7 million for plant modifications to enable it to obtain a full operating license. Accordingly, for $1.00, Dairyland would obtain reactor fuel having a present value of approximately $5 million and a reactor with a presently marginal or doubtful value, but with the optimistic expectation that some operating economies could be achieved.*

But Dairyland, by purchasing the reactor under the proposed arrangement is giving up the rights it has under the existing contract for an additional [three] *one* or possibly [eight] *six* years in which to demonstrate the plant's reliability and economics. If risks do materialize, the economic value of the reactor could be reduced practically to zero and Dairyland could lose the use of its turbine-generator set in which it has an investment of about $7 million until an alternate steam source is acquired.

SUPPLEMENTAL APPENDIX 2

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
August 1, 1973.

MEMORANDUM

To: All Committee Members.
From: Edward J. Bauser, Executive Director.
Subject: Proposed Sale by AEC of the La Crosse Boiling Water Reactor (LACBWR) to the Dairyland Power Cooperative.

By letter dated July 9, 1973, the AEC informed the Committee that the parties had agreed upon certain revisions to the terms of the sale of the La Crosse Boiling Water Reactor (LACBWR) to the Dairyland Power Cooperative (DPC). The terms of the proposed sale had been approved by the Joint Committee in August, 1972, and therefore, the revised arrangement must lie before the Committee for a period of 45 days. Excluding the August recess, the 45-day period will expire on or about September 25, 1973.

In July 1972 the Commission advised the Joint Committee of its intent to sell LACBWR to the DPC. That letter and other background information on the proposed sale was inserted in the *Congressional Record* of July 19, 1972, (pages S 1187–1189). Under the terms of the sale, Dairyland would have paid the AEC a net of $2.1 million for the reactor and the two fuel cores now at the site and assumed the cost of operating the reactor as of November 1, 1971. At that time, the terms of the proposed sale of the reactor were thought to be in the Government's interest inasmuch as the continued operation of the reactor was no programmatic value to the AEC, and relieving the Commission of its responsibilities under the contract with DPC would have resulted in an economic benefit of approximately $5.6 million to the Government.

In reevaluating the terms of its original offer, DPC felt that it had seriously underestimated the potential costs of obtaining a full-term license for the plant, and declined to execute the contract on the basis originally submitted to the Joint Committee. DPC subsequently submitted a revised proposal to the AEC which reduced the purchase price from a net figure of $2.1 million to a nominal sum of $1 and postponed the date for adjustment of accounts under the contract from November 1, 1971, to the time of the issuance of a provisional operating license.[1] DPC has stated that it would utilize the $2.75 million which it would have paid the Government for the plant for work and modifications necessary to obtain a permanent license.[2] The AEC agrees that the cost of DPC's obtaining a full-term license for the facility will probably equal or exceed the $2.75 million figure.

The AEC has advised that otherwise, the analysis and basis supporting the logic of the sale and the mutual advantages to Dairyland and the Commission are the same as previously stated, subject to the escalation of the dollar figures in the previous analysis.

The terms of the proposed sale are clearly less attractive to the Government than those of the previous arrangement. The difference between the two arrangements represents a loss of over $2.8 million to the Government. This figure is composed of the loss of the net $2.1 million in the purchase price and the assumption of the liability for the cost of operating the reactor for the additional period from November 1, 1971, to the date of the sale.[3] The net operating costs from November, 1971, through August, 1973, are estimated to be $700,000. Furthermore, it is estimated that the cost of operating the reactor during the first part of fiscal year 1974 would accrue at the rate of approximately $200,000 per month.

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[1] These accounts cover accrued costs and revenues associated with operating the reactor plant.

[2] Under the former arrangement the AEC would have used approximately $650,000 of the $2.75 million purchase price to make certain modifications to the plant.

[3] The transfer title would take place upon the issuance of a provisional operating license by the Commission. Without committing the AEC's Regulatory Staff, the parties believe that DPC may be able to obtain a provisional operating license within a month after the contract is executed.

The principal advantage to the Government from this sale would be that it would be relieved of the financial responsibility under the contract for the cost of operating and possibly decommissioning a reactor which has no further programmatic value. In this regard, the Commission estimates it will be necessary to provide about $4 million to cover the net operating cost ($6 million gross cost less $2 million anticipated revenue) for fiscal year 1974. Moreover, the Commission's appropriations for fiscal year 1974 do not include any funds for continued operation of the reactor plant beyond June 30, 1973. Therefore, funds for the continued operation of the reactor would have to be taken from other Commission programs in accordance with established procedures.

The economic value of the plant to Dairyland depends upon how well the plant operates, for how long, and efficiencies and economies that can be effectuated by Dairyland in its operation. If the plant, as presently staffed and supported, operates well, at a capacity factor of about 80%, its economic value compared to that of a fossil-fueled plant of similar size is marginal. However, if DPC could reduce operating costs by say 1 mill per kwh this would represent a present economic value of about $3.5 million which would be essentially offset by the initial cost to DPC of about $2.7 million for plant modifications to enable it to obtain a full operating license. Accordingly, for $1.00, DPC would obtain reactor fuel having a present value of approximately $5 million and a reactor with a presently marginal or doubtful value, but with the optimistic expectation that some operating economies could be achieved. But DPC, by purchasing the reactor under the proposed arrangement is giving up the rights it has under the existing contract for an additional one or possibly six years in which to demonstrate the plant's reliability and economics. If risks do materialize, the economic value of the reactor could be reduced practically to zero and Dairyland could lose the use of its turbine-generator set in which it has an investment of about $7 million until an alternate steam source is acquired. DPC would also have to bear the cost of decommissioning the plant. In view of the nature of the risks assumed by the DPC under the terms of the proposed sale, the sale of the plant on the basis presently proposed would not appear to result in a windfall to DPC.

In view of the foregoing, it would appear that the proposed sale of the plant continues to be in the best interest of the Government in that:

1. AEC has already obtained all the information it needs from the operation of the plant;
2. AEC's expectations for the operation of the plant beyond the fall of 1973 will be eliminated.
3. AEC's risks beyond the fall of 1973 are reasonable, for the most part remote, and, in any event, less than those under the existing contract; and
4. Manpower resources which are applied to the LACBWR program would be available for programs of greater scope and urgency.

The proposed sale cannot be executed until the proposed revisions to the cooperative arrangement have laid before the Committee for a 45-day period, unless the majority of the Committee waives the balance of this period. The 45-day period began to run on July 9, 1973, and would be extended by the length of the August recess. Hence, it appears that the statutory period would not expire until the latter part of September, 1973. There are no funds for the operation of this reactor in fiscal year 1974, and the Commission will be incurring costs at the rate of approximately $200,000 a month for July, August, and September. The $600,000 would have to be taken from other AEC programs. Hence the favorable consideration of granting such a waiver may be in order.

SUPPLEMENTAL APPENDIX 3

JOINT COMMITTEE ON ATOMIC ENERGY,
U.S. CONGRESS,
Washington, D.C., August 3, 1973.

MR. ROBERT E. HOLLINGSWORTH,
General Manager, U.S. Atomic Energy Commission, Washington, D.C.

DEAR MR. HOLLINGSWORTH: The Joint Committee on Atomic Energy has given careful consideration to the new terms of the proposed sale of the La Crosse Boiling Water Reactor to the Dairyland Power Cooperative. The terms of the sale were described in the material submitted with your letter of July 9, 1973 to Mr. Price and the testimony presented at the public hearing on August 3, 1973. The Committee has concluded that it will interpose no objection to the proposed sale on this basis, and, by written resolution, has waived the balance of the statutory 45-day period.

Sincerely,

EDWARD J. BAUSER,
Executive Director.