ORIGINAL

OFFICIAL TRANSCRIPT PROCEEDINGS BEFORE

NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

DKT/CASE NO. 50-266-OLA and 50-301-OLA

TITLE

WISCONSIN ELECTRIC POWER COMPANY
(Point Beach Power Plant Units 1 and 2)

PLACE

Two Rivers, Wisconsin

DATE

November 17, 1982

PAGES

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LIMITED APPEARANCE SESSION

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1	UNITED STATES OF AMERICA		
2	NUCLEAR REGULATORY COMMISSION		
3	BEFORE THE ATOMIC SAFETY AND LICENSING BOARD		
4	x		
5	In the Matter of :		
6	WISCONSIN ELECTRIC POWER COMPANY : Docket Nos.		
7	(Point Beach Power Plant : 50-266-GLA and		
8	Units 1 and 2) : 50-301-0LA		
9	x		
10	Conference Rooms A and B		
11	Carlton on the Lake		
12	1515 Memorial Drive		
13	Two Rivers, Wisconsin		
14	Wednesday, November 17, 1982		
15	The limited appearance session in the		
16	above-entitled matter convened, pursuant to notice, at		
17	8:09 p.m.		
18	BEFORE:		
19	PETER B. BLOCH, Chairman		
20	Administrative Judge		
21	JERRY R. KLINE, Member		
22	Administrative Judge		
23	HUGH C. PAXTON, Member		
24	Administrative Judge		
25			

1	APPEARANCES:
2	On behalf of Applicant:
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8	
9	On behalf of the Regulatory Staff:
10	RICHARD BACHMANN, Esq.
11	Washington, D.C.
12	
13	On behalf of Intervenor,
14	Wisconsin Environmental Decade, Inc.:
15	PETER ANDERSON, Esq.
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1	PROCEEDINGS
2	(8:09 p.m.)
3	JUDGE BLOCH: The meeting will please come to
4	order.
5	I am Peter Bloch. I am Chairman of the
6	Licensing Board for the license amendment application
7	for the Point Beach Nuclear Plant.
8	On my left is Dr. Jerry Kline, and on my
9	right, Dr. Hugh Paxton.
10	In fact we preside over two different
11	proceedings. The first involves an application to
12	sleeve tubes at the Point Beach plant and thereby repair
13	degenerated tubes which have been affected by
14	corrosion. And the second application involves a plan
15	to repair by more extensive replacement parts of the
16	steam generator.
17	The nature of our jurisdiction is limited. We
18	are not charged with the licensing of the plant in its
19	entirety. That was done earlier. Our responsibility is
20	to hear the contentions related to the effect of
21	licensing the amendments, the repair procedures, on the
22	safety of the community and on the environment.
23	To some extent the concerns that you bring to
24	us tonight may fall within our jurisdiction. To some
25	extent they may be fears or concerns with previous

- 1 decisions of the Nuclear Regulatory Commission, with the
- 2 rules of the Nuclear Regulatory Commission, or with laws
- 3 passed by the Congress of the United States.
- 4 I would not want people who are here tonight
- 5 to think that we can resolve all of the problems that
- 8 you may raise. We are here to hear the concerns of the
- 7 community, but we don't want you to think that we can
- 8 solve them all.
- 9 Where is the list of the people who have
- 10 signed up? Could that be passed forward so that I could
- 11 begin by calling the first person on the list?
- 12 We ask that each person who makes a statement
- 13 should limit the oral statement to five minutes. If you
- 14 feel that you need longer than five minutes to make your
- 15 oral statement, please explain why you need more time,
- 16 and we will consider whether we can grant you an
- 17 extension.
- In addition, you may file a written statement
- 19 of any reasonable length with us, and that statement
- 20 will become part of the record of our proceedings.
- 21 The first limited appearance statement is by
- 22 David Estes. Would Mr. Estes please come forward and
- 23 take the microphone on that table?
- 24 STATEMENT OF DAVID ESTES
- 25 MR. ESTES: To the Commissioners and the

- 1 audience tonight, the existing corrosion problem in the
- 2 steam generators at the Point Beach Nuclear Plant
- 3 presents to my mind --
- 4 JUDGE BLOCH: Mr. Estes, I'm sorry. The noise
- 5 from outside is distracting. If we can close the doors,
- 6 we'll be able to hear much better.
- 7 MR. ESTES: The existing corrosion problem in
- 8 the steam generators at the Point Beach Nuclear Electric
- 9 Plant presents, in my mind, a clear and present danger.
- 10 Some solution must be found. Ignoring the corrosive
- 11 weakening or delaying the corrective measures would be
- 12 reckless.
- 13 The proposed sleeving technique is unproved in
- 14 stopping tube leakage in a working reactor. It will be
- 15 performed by minimally experienced laborers who can work
- 16 only a limited number of hours before reaching the
- 17 maximum radiation exposure limits. It may cause further
- 18 excessive strain on the present weakened tubes and
- 19 thereby increase rather than decrease the risk of tube
- 20 rupture. It may provide additional crevices in which
- 21 corrosive action has proceeded, and it will continue to
- 22 proceed.
- 23 If steam leakage and tube failure were a
- 24 simple economic problem, the NRC need not be involved,
- 25 and the plant managers and WEPCO executives might enjoy

- a free rein to solve the problem.
- But the tube corrosion is not an economic
- 3 problem alone. The damaged and weakened tubes are
- 4 bearing high pressure radioactive water. Scientists
- 5 both inside and outside the nuclear industry doubt the
- 6 efficacy of this quick fix. If, as they say is
- 7 possible, steam generator tube rupture can lead to a
- 8 loss of coolant accident, then the core of the plant and
- 9 the surrounding countryside risk the catastrophe of a
- ic meltdown.
- 11 Commissioners, if you lived in the Two Rivers
- 12 or Manitowoc area, if your children were attending a
- 13 local school at the time of a tube failure and could not
- 14 be immediately evacuated, if you owned a business or
- 15 farm which could be rendered useful by failure of the
- 16 emergency core cooling system which might follow a tube
- 17 rupture, if all that you had and cherished where here,
- 18 then your reasons for questioning this move would be as
- 19 personal and compelling as they are for all of us.
- 20 It is in your power to recommend rejection of
- 21 this plan and to require replacement, as costly as that
- 22 may be, of the entire crippled steam generating system.
- 23 Short of a plant shutdown only this is a prudent
- 24 solution.
- 25 Thank you.

- 1 JUDGE BLOCH: Thank you, Mr. Estes.
- 2 (Pause.)
- 3 JUDGE BLOCH: Just to clarify your statement,
- 4 are you objecting only to the sleeving project but not
- 5 to the replacement project?
- 6 MR. ESTES: I would like to see the entire
- 7 steam generator replaced with one as safe as can be made.
- 8 JUDGE BLOCH: Just one other clarification is
- 9 that we are not Commissioners. We are members of the
- 10 Licensing Board, and we have independent
- 11 responsibilities to decide these cases according to our
- 12 own conscience and the laws and rules of the
- 13 Commission. But there is a Commission which is
- 14 appointed with the consent of Congress who are our
- 15 superiors.
- 16 Mr. Klessig. Is it Mr. Klessig?
- 17 STATEMENT OF EDWARD KLESSIG
- 18 MR. KLESSIG: Good evening, the Licensing
- 19 Board and the audience.
- 20 My name is Edward Klessig, and my family and I
- 21 are dairy farmers in southern Manitowoc County. We
- 22 protest the proposed sleeving of the degraded steam
- 23 generator tubes of the Point Beach Nuclear Power Plant.
- 24 These steam generator tubes are susceptible to
- 25 all kinds of extremely serious ailments, like

- 1 uncontrollable corrosion, pitting, plugging up, thinning
- 2 and actually leaking. Supposedly, small steam generator
- 3 leaks are relatively common, but large-scale ruptures
- 4 are also possible and probable.
- 5 JUDGE BLOCH: Mr. Klessig, I'm sorry. We have
- 6 disruption from the next room. If you'll wait and talk
- 7 around it, please don't be concerned about your time.
- 8 MR. KLESSIG: These steam generator tubes are
- 9 susceptible to all kinds of extremely serious ailments
- 10 like uncontrollable corrosion, pitting, plugging up,
- 11 thinning, and actual leaking. Supposedly, small steam
- 12 generator leaks are relatively common, but large-scale
- 13 ruptures are also possible and probable.
- We need only to recall that a site emergency,
- 15 the second most critical emergency level, was called at
- 16 the Ginna plant in Ontario, New York less than a year
- 17 ago. which resulted in direct releases of radioactive
- 18 steam.
- 19 Point Beach is also a safety hazard. The
- 20 venting measures are not good enough to ensure safety to
- 21 us. In fact, degraded tubes can cause the plant safety
- 22 system to fail and result in a worst case catastrophe.
- 23 We pride ourselves on being practical
- 24 farmers. We service most of our own equipment. The
- 25 proposed sleeving repair process reminds us of fixing a

- 1 sophisticated hay baler or combine with a piece of
- 2 baling wire.
- 3 As farmers and food producers we love the
- 4 land. We don't want to risk contaminating the pracious
- 5 soil and the food chain with radioactive isotopes, at
- 6 best, or total disaster at worst.
- 7 Point Beach is a safety hazard. We should not
- 8 spend a hundred million attempting to sleeve those steam
- 9 generator tubes in which the ever-progressing corrosion
- 10 is worse when we are aware of the inevitable futility
- 11 and risk. It is like saying whom to a falling tree.
- 12 The path to take is the path of energy
- 13 conservation, conservation of energy, particularly in
- 14 the promotion of safe, renewable energies makes the most
- 15 sense economically and environmentally.
- 16 I'm also very concerned about the extremeness
- 17 of the tubes, 1/500 of an inch thick. And when I try to
- 18 comprehend sleeving 7/8 inch tubes into existing
- 19 corroded one-inch tubes of that thickness with the
- 20 extreme conditions that they are subjected to. I fail to
- 21 understand how this can have merit and be a working
- 22 solution.
- 23 Thank you.
- 24 (Applause.)
- 25 JUDGE BLOCH: Mr. Klessig, thank you for your

- 1 statement.
- The conservation recommendation of course is
- 3 not within the jurisdiction of the Nuclear Regulatory
- 4 Commission. That is something that you should take up
- 5 with Congress or with local legislatures.
- 6 I would like applicant, if they would, to
- 7 respond to the statement about the thickness of the
- 8 tube. Could you clarify the record on the actual
- 9 thickness of the tube?
- 10 MR. PORTER: Yes. The thickness of a tube is
- 11 50 thousandths of an inch or 1/20 of an inch thick, not
- 12 1/500 of an inch thick.
- 13 JUDGE BLOCH: Mr. Hanley.
- 14 STATEMENT OF WILLIAM HANLEY
- 15 MR. HANLEY: Gentlemen of the Board, I have
- 16 been involved in the safe energy movement for
- 17 approximately nine years, and whenever I go to speak
- 18 some place in the state and bring up the horrendous
- 19 record of nuclear power in general, somebody would
- 20 always ask well, what about Point Beach. Of course, I
- 21 would have to admit that for a nuclear plant Point Beach
- 22 had a relatively admirable record, but I also had to say
- 23 that I thought it was an aberration rather than an
- 24 indication of any further trend in nuclear power.
- 25 For the last several years, however, as I have

- gone out I haven't been confronted with this cuestion.
- 2 As expected, the much revered Point Beach has joined its
- 3 fellow nuclear plants in the mire of problems that this
- 4 technology is heir to.
- I would suggest that the plummet of Point
- 6 Beach from its heralded place of grace is rivaled only
- 7 by the fall of Lucifer and Richard Nixon.
- 8 We are now confronted with the problem of how
- 9 to get Point Beach off the skids and try to get it back
- 10 into the sanctified position again as perhaps the only
- 11 good nuclear plant in the country.
- 12 Well, the public relations status of Point
- 13 Beach doesn't really concern me that much. It is doing
- 14 the job of delivering energy safely, efficiently and
- 15 workably. That is of the utmost importance to me
- 16 personally.
- 17 In opting for the sleeving procedure for the
- 18 temporary repair of the steam generator tube problem it
- 19 is quite obvious that the utility involved. Wisconsin
- 20 Electric Power, and the Nuclear Regulatory Commission
- 21 are opting for a quick fix and an untried technology
- 22 which may buy some short-term grace again from the
- 23 public, but which we feel with eventually be proven to
- 24 be once again unworkable.
- 25 Frankly, I don't feel that I'll be giving away

- 1 any Safe Energy group strategy if I explain to you
- 2 exactly what we plan to do in regard to this situation.
- 3 The first thing, of course, is that we are going to be
- 4 informing all of our member groups and all of the people
- 5 in the area about the sleeving problems, and we will be
- 6 pointing out that millions and millions of dollars are
- 7 going to be spent on an untried technology or an
- 8 unproven technology.
- Then, if and when the failure of the sleeving
- 10 has become apparent, we will make ourselves at every
- 11 possible forum, pointing out we told you so. And that's
- 12 the message we are going to take to the Governor, to the
- 13 Public Service Commission, to the state legislature, and
- 14 to the stockholders.
- 15 We will say, quite simply, that every inch of
- 16 the way in the nuclear debate no one has ever listened
- 17 to us, but they have always saddled us with the cost of
- 18 their mistakes. We no longer wish to accept those costs.
- 19 The chances that Point Beach will ever again
- 20 return to its position of glory are greatly lessened by
- 21 the stopgap attitude. I consider this to be a break in
- 22 WEPCO's integrity. WEPCO has always confronted us with
- 23 Point Beach, and we've always had to admit that yes,
- 24 Point Beach was a gem of a plant in a field of rocks.
- 25 Well, with the sleeving procedure we feel that

- 1 Point Beach becomes just another plant in an already bad
- 2 lot. Whatever claim it once had to excellence, even if
- 3 in a rather derogatory field of competition, it's now
- 4 going to relinguish.
- Were our only concern about the public
- 6 relations and strategic angles for the safe energy
- 7 movement, I would welcome the sleeving. It would
- 8 provide us with enough ammunition to guarantee the
- 9 demise of nuclear power in this state. But we must be
- 10 concerned with the safety of the people of Wisconsin
- 11 today and for generations to come.
- 12 I recommend that the sleeving procedure be
- 13 avoided. And if there is only one other necessary
- 14 alternative, that being to shut down the plant, so be it.
- 15 Thank you.
- 16 (Applause.)
- 17 JUDGE BLOCH: Mr. Hanley, that is our
- 18 responsibility, by the way. I'd like to thank you for
- 19 this statement. If we felt the sleeving project were
- 20 not safe for this community, it would be our
- 21 responsibility to recommend that we not approve the
- 22 amendment.
- 23 Ms. Matthews.
- 24 STATEMENT OF SUSAN MATTHEWS
- 25 MS. MATTHEWS: I am here today to speak on

- 1 behalf of Safe Haven, Limited, a citizens group of which
- 2 I am president and which has long been concerned with
- 3 safe energy matters.
- 4 Safe Haven has often participated as an
- 5 official intervenor in such diverse matters as the
- 6 advance plan for wisconsin state utilities' proposed
- 7 construction of the Six Council Haven Nuclear Fower
- 8 Plant, information of the state's Radioactive Waste
- 9 Review Board and the Citizens Utility Board, the
- 10 investigation of a permanent Wisconsin repusitory for
- 11 nuclear waste. And we are even now a party to the NRC's
- 12 own radioactive waste competence proceedings.
- 13 Cur 400 members live mainly in Sheboygan
- 14 County and Manitowoo County within five miles of the
- 15 Point Beach Nuclear Power Plant. We wish to express
- 16 here -- I wish to express here Safe Moven's official
- 17 opposition to the Point Beach steam generator sleeving
- 18 project.
- 19 I am not an engineer, and I am not capably of
- 20 giving advice on technical matters. These are being
- 21 argued in another forum. But I am able to provide you
- 22 with the perspective of a well-educated, well-read
- 23 layperson who has long been interested and involved in
- 24 this and other related matters.
- 25 Firstly, I have no hope that the repairs being

- 1 discussed today will provide a permanent solution to the
- 2 steam generator degradation problems at Point Beach.
- 3 The sleaving procedure has never been tested or proven.
- 4 It has been implemented on a large-scale only in the San
- 5 Onofre plant which has since operated so infrequently
- 6 that the effectiveness of the procedure cannot be
- 7 determined.
- 8 So for a cost of anywhere between \$20 to \$85
- 9 million we who live in this region will have the dubious
- 10 distinction of becoming the guinea pigs of the NRC and
- 11 the nuclear industry.
- 12 While there's little evidence that sleeving a
- 13 leaky steam generator will be even a short-term success,
- 14 much less a permanent or long-term solution, there is
- 15 considerable indication based on the past record of
- 16 nuclear power plant problems and their makesnift
- 17 solutions that this repair will be insufficient and
- 18 indeed may trigger other more serious problems in the
- 19 future.
- 20 The decade-long history of steam generator
- 21 water chemistry problems with their guess-again fixes is
- 22 a prime case in point. Your inability to find a correct
- 23 answer to that problem has led directly to the steam
- 24 generator tube degradation which plagues so many nuclear
- 25 power plants here in this country and abroad.

1 Even today there are reservations about the

- 2 current water chemistry fix which could result in new
- 3 nuclear plants or repaired or replaced steam generators
- 4 experiencing the same problems we see today.
- 5 The prospect of spending huge amounts of money
- 6 on iffy repairs is not one that pleases. Combining that
- 7 chancy nature of these repairs with the fact that the
- 8 Point Beach Power Plant has another extremely serious
- 9 problem, namely reactor vessel embrittlement, makes the
- 10 high cost of steam generator repair seem doubly
- 11 foolhardy; for even if the steam generator problem is
- 12 eventually resolved, the incredible safety hazard
- 13 presented by a weakened reactor vessel could be expected
- 14 to considerably decrease the original design lifetime of
- 15 the Point Beach plant and undermine the already dismal
- 16 economies of steam generator repair and replacement.
- 17 The debate over spending large amounts of
- 18 consumer dollars must also take into consideration the
- 19 problematic future of the plant.
- 20 Another matter which must be given serious
- 21 thought is the health hazard presented by these
- 22 repairs. Every year temporary workers are exposed to
- 23 radiation while inspecting and repairing flawed steam
- 24 generators. With the growing generator degradation
- 25 problem and the increased need for inspection and

- 1 repairs, the amount of radiation absorbed by workers has
- 2 skyrocketed.
- 3 As many as 2,000 local temporary workers will
- 4 be needed to make the Point Beach repairs. These
- 5 workers will be allowed to sponge up ten times the
- 6 amount of radiation allowed the general public, give or
- 7 take the 50 percent inaccuracy allowed by NRC on
- 8 individual dosimeters. For some jobs in some areas this
- 9 may represent less than one minute of work.
- 10 The implications of this radiation exposure in
- 11 regard to cancer and genetic defects has not been
- 12 treated seriously. I find the continuing callous
- 13 disregard for the future of these radiation sponges to
- 14 be morally reprehensible, because I feel that the NRC
- 15 has not adequately considered the matter.
- 16 And because the NRC, the Wisconsin Public
- 17 Commission, and the nuclear utilities have neclected to
- 18 adequately investigate alternatives to sleeving, I find
- 19 it incredible that you can approach sleeving as a
- 20 solution to this problem with any degree of confidence
- 21 that it will work or that it is the best solution until
- 22 the effectiveness and the consequences of sleeving the
- 23 steam generator tubes have been determined that further
- 24 consideration should be given to using this procedure at
- 25 Point Beach.

- 1 If concern for the occurrence of a serious
- 2 Ginna-type accident is an overrriding consideration --
- 3 and it certainly is -- then the solution is a shutdown
- 4 of the unit. And that would be the perfect time for us
- 5 to investigate the possibilities of a nuclear-free
- 6 Wisconsin. I am certain that our money could be spent
- 7 on other, safer, cleaner methods of producing
- 8 electricity.
- 9 Thank you.
- 10 (Applause.)
- 11 JUDGE BLOCH: Ms. Matthews, I'm sure you are
- 12 aware that as a public utility commission, the Public
- 13 Service Commission is responsible for the money being
- 14 spent. In fact, we haven't had any testimony at all on
- 15 the cost of repairs. It's simply not relevant to the
- 16 issues before us.
- 17 The rest of what you have raised are public
- 18 safety questions that are of concern to us.
- 19 Mr. Russart.
- 20 STATEMENT OF FRANCIS RUSSART
- 21 MR. RUSSART: Some potentially serious
- 22 problems exist in Unit 1 of the Point Beach Nuclear
- 23 Plant due to steam generator tube corrosion and the
- 24 methods proposed to repair the corroded steam generator
- 25 tubes.

- 1 JUDGE BLOCH: May I ask if the people in the
- 2 audience can hear Mr. Russart? There are people in back
- 3 who have difficulty hearing. I think speak loudly into
- 4 that and they will hear.
- 5 MR. RUSSART: Some potentially serious
- 6 problems exist in Unit 1 of the Point Beach Nuclear
- 7 Plant due to steam generator tube corrosion and the
- 8 methods proposed to repair the corroded steam generator
- 9 tubes.
- 10 Can you hear me now?
- 11 (Pause.)
- 12 Some potentially serious problems exist in
- 13 Unit 1 of the Point Beach Nuclear Plant due to steam
- 14 generator tube corrosion and the methods proposed to
- 15 repair the corroded steam generator tubes.
- 16 It is my belief that these problems could
- 17 adversely affect the safety, feasibility and economic
- 18 practicality of Unit 1's operation.
- 19 Some of the problems facing the Point Beach
- 20 facility are the possibility that significant steam
- 21 generator tube corrosion could hamper the operation of
- 22 the unit's emergency core cooling system in the event of
- 23 a loss of coolant accident and the primary cooling
- 24 system.
- 25 The inability of either all-volatile or

- 1 phosphate chemical treatments to clear up the corrosion
- 2 problems and corrosion problems showing up in nuclear
- 3 plants, including new design features such as Prairie
- 4 Island 2 and North Anna 1 reactors, lend doubt to the
- 5 success of steam generator tube sleeving or even the
- 6 replacement of the steam generator, and the cost of
- 7 overhauling the existing facility as opposed to equal
- 8 investment into energy conservation methods.
- 9 Although I personally like technical expertise
- 10 in metallurgy, groups such as the American Physical
- 11 Society recognize steam generator tube corrosion is a
- 12 serious safety problem. However, the expertise that I
- 13 do possess makes me uneasy with the steam generator
- 14 corrosion problem in nuclear plant operations in general.
- I am employed as a computer programmer for a
- 16 manufacturing firm. It is my job to program control
- 17 units for packaging machines. These machines are quite
- 18 complex, and the possibilities for errors are many.
- 19 When a machine does not operate correctly, the whole
- 20 system must be considered since failures can arise from
- 21 many places. Electrical and mechanical devices could
- 22 fail. And as machine complexity increases, the number
- 23 of these devices also increases.
- 24 Computer programs could fail for a variety of
- 25 reasons. Errors in typing or in the logic of the

- program could exist. Timing errors could cause
- 2 incorrect data to be used or correct data to be missed
- 3 by the computer.
- 4 Interdependencies may exist among machine
- 5 functions, such as problems in one area could adversely
- 6 affect seemingly unrelated machine functions. These
- 7 interdependencies also make it difficult to add new or
- 8 delete old machine functions. The actual scan time of
- 9 the program -- that is, the time that it takes the
- 10 computer to do its task -- cannot be too long if
- 11 accuracy is to be maintained. When the correct switches
- 12 are thrown and the pushbuttons are pressed, the
- 13 appropriate responses are expected from the machine.
- 14 However, when incorrect switches or pushbuttons are
- 15 activated, the machine should do nothing.
- 16 Making the machine fcolproof or preventing it
- 17 from operating incorrectly may in fact be more difficult
- 18 than making it operate correctly. The most dreaded and
- 19 bewildering problems facing a programmer usually occur
- 20 after the machine has been running for a while. It is
- 21 intermittent problems that appear and disappear without
- 22 warning or apparent reason. These problems are
- 23 difficult to analyze since the problem may not recur for
- 24 minutes or hours or days or weeks, et cetera.
- 25 Sometimes problems do not make their first

- 1 appearance until after the machine has been in operation
- 2 for some time. One such problem I encountered did not
- 3 happen until a year after the machine was shipped out.
- 4 Fortunately, it was not a serious problem. Some
- 5 problems cannot be simulated at the factory. In other
- 6 words, some problems only occur when the machine is in
- 7 the actual plant conditions.
- 8 Because of all the possible problems mentioned
- 9 previously, success in my profession is measured in
- 10 relative rather than absolute terms. I believe this is
- 11 true for much of the manufacturing industries,
- 12 especially those producing complex machinery.
- 13 Three Mile Island, Browns Ferry, the corrosion
- 14 problem and other problems indicate a similar situation
- 15 in the nuclear industry. Problems such as the corrosion
- 16 problem, which was not anticipated, can occur in this
- 17 industry. Solutions to one problem can cause other
- 18 problems as in the switching from all-volatile chemical
- 19 treatment to phosphate treatment.
- 20 But the constraints on this industry are more
- 21 severe. Margins of error acceptable in other industries
- 22 could result in catastrophic problems in this industry.
- 23 It is because of the unresolved corrosion
- 24 problems and the general lack of confidence in the
- 25 nuclear power industry I recommend the operation of

- 1 Point Beach Units 1 and 2 be halted.
- 2 (Applause.)
- 3 JUDGE BLOCH: Thank you, Mr. Russart.
- 4 I realize there's a certain impoliteness
- 5 involved in not having introduced the people who are at
- 6 the forward tables here.
- 7 Mr. Bachmann represents the staff of the
- 8 Nuclear Regulatory Commission. I would like to point
- 9 out that the obligation to assure the safety of the
- 10 amendments to this plant are shared by us and by the
- 11 staff. The staff has independent responsibilities,
- 12 regardless of what the Board says, to make sure that the
- 13 amendment is safe before it is authorized.
- 14 And on my left are representatives of
- 15 Wisconsin Electric Power Company, Delissa Ridgway.
- 16 And with you, Ms. Ridgway?
- 17 MS. RIDGWAY: With me is Mr. David Porter of
- 18 Wisconsin Electric.
- 19 JUDGE BLOCH: And, of course, the utility
- 20 itself has important responsibilities for the safety of
- 21 the community.
- 22 Ms. Bast.
- 23 STATEMENT OF SANDRA BAST
- MS. BAST: Good evening.
- In the absence of total assurance from WEPCO

- 1 or the Nuclear Regulatory Commission that we are indeed
- 2 seeing the last of stopgap measure repair, and because
- 3 the cost of these repairs are significant, over ters of
- 4 millions of dollars, and because the utilities are now
- 5 operating at excess capacity due either because of the
- 6 recession, overbuilding, or simply that the people can
- 7 no longer afford to be consumers of this product, I
- 8 suggest that while WEPCO has this unique opportunity,
- 9 they shut down Point Beach, gather their experts and
- 10 come up with a full and complete resolution to the
- 11 engineering, technical and safety problems confronting
- 12 Point Beach Nuclear Power Plant. After all, as
- 13 producers of this product, they have a legal and moral
- 14 obligation not only to the consumer but also to the
- 15 residents of the lakeshore area.
- 16 As a lakeshore resident, I am tired of
- 17 worrying whether or not the said repairs are working or
- 18 whether the individuals brought in to make these repairs
- 19 are even capable.
- 20 In the past I have expressed serious concerns
- 21 over the storage of spent fuel at the plant, but I have
- 22 not advocated a shutdown until now. It seems to me
- 23 after reviewing the reports that the problems at the
- 24 plant are not dissipating but rather are increasing and
- 25 are only going to further increase as the plant ages.

1 Perhaps we should seize this opportunity to 2 take a breather and implement conservation measures that 3 would not be rewarded with increased utility bills. If this is not possible, I suggest that WEPCO corporate 5 headquarters be moved to the lakeshore area. 6 (Applause.) 7 And that a mandate be issued that all further 8 Nuclear Regulatory proceedings affecting Point Beach be held also in the lakeshore area. And that way our 10 community will receive needed increased economic 11 benefits, and in the end we can all bask in the same 12 glow. 13 Thank you. 14 (Applause.) JUDGE BLOCH: I would like to comment that we 15 16 were prepared to hold the hearing in this room for the 17 entire time, but that the parties objected that the expense was too great for all the witnesses; and we 18 therefore acceded to moving the hearing to Milwaukee but 19 20 coming here for the hearing this evening. 21 Ms. Gratz. 22 STATEMENT OF LINDA GRATZ

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MS. GRATZ: The League of Women Voters of

Manitowoc would like to commend the NRC for holding this

evidentiary hearing in Manitowoc. We feel it's very

- 1 important for the people living in the immediate
- 2 vicinity of a nuclear power plant to be informed and
- 3 updated on all changes and new technologies being
- 4 introduced.
- 5 There's a growing concern in our community
- 6 over the sleeving process in regards to safety and
- 7 increased utility cost. It is estimated that the
- 8 sleeving will cost in the neighborhood of \$100 million
- 9 after cost overruns and replacement power are taken into
- 10 account.
- The question is who will pay for this and will
- 12 it even work. In these tight financial times it's a
- 13 real hardship for people to pay for these escalating
- 14 utility rates.
- 15 Another area of concern is whether the
- 16 sleeving process is safe and effective, or if it is
- 17 going to lead to further deterioration of the steam
- 18 generator tubes and future leaks. Since sleeving of
- 19 steam generator tubes is a costly new technology which
- 20 has not been proven safe or effective in solving the
- 21 problem of degradation of the tubes, we would hope that
- 22 other alternatives would seriously considered and the
- 23 opinions and concerns of local people be noted and taken
- 24 under advisement before the NRC grants permission to
- 25 WEPCO for the sleeving.

- 1 Thank you.
- 2 (Applause.)
- JUDGE BLOCH: Mr. Hurle.
- I hope people will mention their own names as
- 5 they start, because it's obviously difficult to read
- 6 some of these names.
- STATEMENT OF WILLIAM HURLE
- 8 MR. HURLE: Bill Hurle. I'm a small builder
- 9 in the area, and I would like to comment on the kinds of
- 10 people who will be doing the work.
- 11 They will be young jumpers who come on in for
- 12 a quick buck. They haven't got any books right now.
- 13 A:d I've worked with hundreds of them as a contractor in
- 14 the last three years in this area.
- I understand their emotional set. They are
- 16 going to be nervous. They're going to be putting rather
- 17 delicate tubes down a corroded tube. If things get a
- 18 little tight, their tendency is going to be to push it a
- 19 little, to kink it perhaps. Their tendency is going to
- 20 be to rush it, to get as much done as they can get
- 21 done. They can be trained perhaps to not do this, to be
- 22 very cool, if there's any resistance to stop; but at the
- 23 end of the day on Friday and they are running in and out
- 24 as fast as they can run, there are too many
- 25 opportunities for these guys to make a mistake and keep

- 1 in rolling.
- That's all I want to say.
- 3 JUDGE BLOCH: Thank you.
- 4 (Applause.)
- 5 JUDGE BLOCH: I think a lot of the comments
- 6 have been along those same lines. I'm interested in
- 7 knowing whether either Wisconsin Electric Power Company
- 8 or the staff would like to make any brief comments and
- 9 respond to any of the comments that the public had made
- 10 at this point.
- 11 MS. RIDGWAY: I don't think we wish to do so
- 12 this evening. Thank you.
- 13 JUDGE BLOCH: Mr. Bachmann, do you have any
- 14 brief comments?
- 15 MR. BACHMANN: I think the Board has pretty
- 16 much explained its position. You made things as clear
- 17 as they could be.
- 18 JUDGE BLOCH: A comment I would like to make
- 19 is that the community may not be satisfied with the
- 20 testing that has been done to try to establish the
- 21 safety of the sleeving process. We have been studying
- 22 it carefully. It has been the subject of extensive
- 23 discovery by Mr. Anderson on bahalf of Wisconsin
- 24 Environmental Decade. There have been expensive and
- 25 extensive tests done concerning the integrity of the

- 1 sleeving process, and we are very concerned with what
- 2 those tests have been and have considered them in our
- 3 previous decision on summary disposition, and are still
- 4 studying very carefully the eddy current testing
- 5 procedures which are to be used to assure that
- 6 weaknesses in the tubes do not occur during operation of
- 7 the plant.
- 8 Mr. Smith.
- 9 STATEMENT OF LARRY SMITH
- 10 MR. SMITH: I am a resident of Green Bay and
- 11 have long been concerned with the apparent desire of our
- 12 economy to seek as much of this sort of energy as it
- 13 could get. And I see this issue that we are dealing
- 14 with now as part of that question, although we are on a
- 15 sort of fading side of it.
- I appreciate the fact that your purview has to
- 17 do with the safety of the resleeving process, but my
- 18 concern is along the lines of many of the concerns that
- 19 have been expressed earlier. The last one is exemplary
- 20 in that regard. That the safety of the sleeving process
- 21 itself is intimately related to the safety of processes
- 22 in general and really cannot be separated completely
- 23 from them, although obviously the failure of a resleeved
- 24 tube is perhaps measurable or identifiable.
- 25 But the entire system, the entire industry is

- 1 fraught with risky questions. And we now know much more
- 2 than we did when this plant was designed about our
- 3 potential to deal with this problem in other ways. And
- 4 so while I realize that it is somewhat outside the realm
- 5 of your specific purview, I don't see how you can
- 6 conscionably ignore the interactive risks that are
- 7 attendant with the question even of a successful
- 8 resleeving project associated with things like failures
- 9 of other systems, things that have been addressed before.
- 10 I realize that in some legal and restrictive
- 11 sense you are charged with paying attention to the
- 12 success of the resleaving process, but inevitably the
- 13 success of that process or that specific subproject, at
- 14 least as an investment for your company, involves the
- 15 continued success of the whole enterprise. And while
- 16 there aren't too many people in this room tonight. there
- 17 are a lot of people with sentiments around the country
- 18 that include the expressed ability to reduce their
- 19 demand for this product.
- 20 And it is my view that this is, although it
- 21 may not appear so on paper now, a seriously questionable
- 22 economic project, and that the risks and the economics
- 23 of it are not separable is the point I am trying to
- 24 make, while I do appreciate your role.
- 25 But I feel very strongly that we should, as

- 1 many other people have said tonight, accept the
- 2 opportunity here to slow down. And I feel that while it
- 3 is questionably your specific role that you do have a
- 4 role in that process, that you can't not have a role in
- 5 it. And that while we may quibble about legalities of
- 6 responsibilities, you have two kinds of responsibilities
- 7 -- a moral responsibility and a responsibility which
- 8 borders on morality, in these days of economic hard
- 9 times to see that the resources are well spent,
- 10 independent of the specific issue of whether you can put
- 11 tubes in the situation and they will survive for X
- 12 number of years, because the subsystems are also
- 13 questionable.
- And more importantly, we represent, the people
- 15 in this room largely, I think, at least the ones who
- 16 have spoken so far, represent a contingent of the
- 17 economy who are prepared to show both the Commission and
- 18 this power company and other power companies that we
- 19 don't need that much electricity, and we can get along
- 20 fine without it. And you will see that. You are seeing
- 21 it. You will see more of it. And that enters into the
- 22 calculus of the risk as well, because how important is
- 23 whatever risk we're taking. Granted, it's your
- 24 responsibility to measure somewhat in some sense the
- 25 magnitude of that risk, but what is the game being

- 1 played for is a very important related question, I think.
- JUDGE BLOCH: Mr. Smith, before you go, dollar
- 3 and cents issues have to go to the Wisconsin Electric
- 4 Power Company.
- 5 MR. SMITH: I'm aware of that.
- 6 JUDGE BLOCH: If you feel that the plant
- 7 cannot be made safe because of problems that exist in
- 8 the plant now, the principal remedy you could try is a
- 9 rulemaking procedure before the Nuclear Regulatory
- 10 Commission in which you argue that without certain
- 11 changes plants that don't meet those requirements must
- 12 be shut down. That is more in the nature of a political
- 13 process to ask for a rulemaking.
- 14 And, in addition, if you feel that nuclear
- 15 power is not a solution for this country's problems, the
- 16 Congress is extremely important.
- 17 Our problem is that we do serve under the laws
- 18 of the United States. The government of the United
- 19 States I believe is a good system. I just don't want
- 20 you to stop, if your concerns are of this political
- 21 nature, to stop before this Board. And, incidentally, I
- 22 don't think this is a small turnout on an issue of this
- 23 kind. This is a very impressive turnout from this
- 24 community.
- 25 Thank you very much.

- 1 (Applause.)
- I believe the last person is Mr. or Ms. Stein,
- 3 and I can't tell. When I said the last person, if there
- 4 are others, we do have time so that we would allow
- 5 others to speak.
- STATEMENT OF COREE STEIN
- 7 MS. STEIN: Hi. My name is Doree Stein, and I
- 8 live in rural Kewaunee County, not only close to the
- 9 Point Beach 1 and 2 reactors but also to that of
- 10 Kewzunee. I'm going to speak very briefly. There have
- 11 been many eloquent statements made before me.
- I wish to register my objections to the
- 13 sleeving process as well as to the other -- I don't know
- 14 the technical term for it -- where you are going to
- 15 replace all of the tubes.
- I think peor! a have already said we're not
- 17 sure of the safety of both of those processes. It is a
- 18 lot of money, and you said that this is not the place to
- 19 object to that.
- 20 But I just want to say as a rural resident I
- 21 am very concerned about having Point Beach nearby.
- 22 There are a lot of problems with the plant, not only the
- 23 issue of the sleeving and the tubes being corroded but
- 24 other things. And I don't think that this will stop the
- 25 problems. And as a Girl Scout leader and as a teacher I

- 1 know my students are not only concerned about nuclear
- 2 weapons, but they are also very concerned about plants.
- 3 And I am involved through the League of Women
- 4 Voters and other organizations in the political
- 5 process. But I could never forgive myself as a teacher,
- 6 as an educator, as an human being if something were to
- 7 go wrong at that plant I didn't speak up. And I know
- 8 the children would not forgive me either. And as a
- 9 young person I've still got both feet very much in the
- 10 future, and I plan on raising my family here. And I
- 11 don't think that \$100 million or even \$200 million or
- 12 any amount of money will make that plant safe. And that
- 13 is all I have to say.
- 14 Thank you, gentlemen.
- 15 (Applause.)
- 16 JUDGE BLOCH: Do we have any other individuals
- 17 who have not signed up? Please step forward, sir.
- 18 Please introduce yourself for the record before you
- 19 begin.
- 20 STATEMENT OF DALE SCHMOOCK
- 21 MR. SCHMOCCK: I am Dale Schmoock. I operate
- 22 a dairy farm adjoining the Point Beach Nuclear Plant. I
- 23 believe I'm the only one here tonight who does live in
- 24 the area.
- 25 I didn't come here tonight prepared to make a

- 1 statement. We will send you a written statement. But I
- 2 want you to know there are people here who live
- 3 adjoining to the plant, and we will make a statement.
- I wish to thank you people for coming here,
- 5 for giving us an opportunity to hear all the people that
- 6 have made comments tonight.
- 7 And that is all I have to say at this time.
- B JUDGE BLOCH: Thank you, Mr. Schmoock.
- 9 Is there anyone else who wishes to speak this
- 10 evening?
- 11 Sir.
- 12 STATEMENT OF DON BALLEAU
- 13 MR. BALLAEAU: My name is Don Balleau. I'm
- 14 from Sheboygan, Wisconsin.
- 15 I want to say that we know that sleeving is a
- 16 technical problem. We know it's an economic problem. I
- 17 believe sleeving is also a human problem because repairs
- 18 will have to be carried out by jumpers or temporary
- 19 workers. My short talk is about the human problem.
- 20 There were 1700 workers needed to resleeve the
- 21 San Onofre plant in California. It is claimed that
- 22 workers may be getting larger doses of radioactivity or
- 23 radiation than we think because the dosimeters aren't
- 24 accurate.
- 25 I am troubled by the idea that we have

- 1 thousands of unemployed who are searching for jobs.
- 2 Unemployment is considered by many to be the nation's
- 3 number one problem. A lot of men who will find work at
- 4 Point Seach will be desperate for jobs. Many will be
- 5 aware of the dangers. Many won't. How many jumpers
- 6 will be used up if they decide to resleeve Point Beach I
- 7 don't know. As I said, 1700 were used at San Onofre.
- 8 There's been enough testimony in countless
- 9 hearings about the danger of radiation and resultant
- 10 cancers, hereditary disorders and miscarriages. I have
- 11 to feel sorry about the idea of hiring people who are in
- 12 tough economic straits. They feel they must have jobs,
- 13 and they will be subjected to the limit of supposedly
- 14 safe exposure levels.
- 15 Thank you.
- 16 (Applause.)
- 17 JUDGE BLOCH: Mr. Balleau, I would like to
- 18 comment there are no regulations. Our dose regulations
- 19 are the regulations of the Nuclear Regulatory
- 20 Commission. Therefore, we don't have the authority to
- 21 vary those dose regulations and say that a dose is
- 22 impermissible.
- 23 You have a right to petition the Nuclear
- 24 Regulatory Commission to change the dose regulations,
- 25 and that now is a recourse that would be open to you.

- 1 If won't be in time for this particular project, but if
- 2 you feel strongly that those regulations should be
- 3 changed, that is the part of the government that could
- 4 be responsive.
- 5 MR. BALLEA!: Thank you. I have seen some
- 6 statements to the effect that the dosimeters are not
- 7 accurate and that it may be that perhaps workers are
- 8 getting higher radiation levels than the NRC wants.
- 9 JUDGE BLOCH: I do believe the dosimeter
- 10 problem is being looked into at this time by the staff.
- 11 That is my understanding from the press accounts as well.
- MR. BALLEAU: Thank you.
- 13 (Applause.)
- 14 JUDGE BLOCH: Have we further statements?
- I would like to remind people that we are
- 16 holding our hearing in Milwaukee at the Federal Court
- 17 Building. We will be meeting starting at 9:00 in the
- 18 morning tomorrow. We anticipate the likelihood of an
- 19 evening session tomorrow night as well; and I would
- 20 encourage people who can afford the time away from their
- 21 jobs to come to see the hearings that we do hold.
- 22 Thank you for attending this evening.
- 23 (The prepared statement of Francis J. Russart
- 24 follows:)

25

TESTIMONY BEFORE THE NUCLEAR REGULATORY COMMISSON ON THE GENERATOR TUBE PROBLEMS AT THE POINT BEACH NUCLEAR PLANT

Some potentially serious problems exist at Unit 1 of the Point Beach Nuclear Plant due to steam generator tube corrosion and the methods proposed to repair the corroded steam generator tubes. It is my belief that these problems could adversely effect the safety, feasibility, and economic practicality of Unit 1's operation. Some problems facing the Point Beach facility are:

-the possibility that significant steam generator tube corrosion could hamper the operation of the unit's emergency core cooling system in the event of a loss of coolant accident in the primary cooling system:

-the inability of either All Volatile or Phosphate chemical treatments to clear up corrosion problems and corrosion problems showing up in nuclear plants incorporating newer design features such as the Prairie Island 2 and North Anna 1 reactors lend doubt to the success of steam generator tube sleeving or even the replacement of the steam generator;

-the cost of overhauling the existing facility as opposed to an equal investment into energy conservation methods.

Although I personally lack technical expertise in metallurgy, groups such as the American Physical Society recognize steam generator tube corrosion as a serious safety problem.

However the expertise that I do possess makes me uneasy with the steam generator corrosion problem and nuclear plant operation in general. I am employed as a computer programmer for a manufacturing firm. It is my job to program control units for packaging machines. These machines are quite complex and the possibilities for errors are many.

When a machine does not operate correctly the whole system must be considered since failures can arise from many places. Electrical and mechanical devices could fail, and as machine complexity increases, the number of these devices usually increases. Computer programs could fail due to a variety of reasons. Errors in typing or in the logic of the program could exist. Timing errors could cause incorrect data to be used or correct data to be missed by the computer. Interdependencies may exist among machine functions such that problems in one area could adversely effect seemingly unrelated machine functions. These interdependencies also make it difficult to add new or delete old machine functions. The actual "scan" time of the program (the time that it takes the computer to do its tasks) cannot be too long if accuracy is to be maintained.

When the correct switches are thrown or pushbuttons are pressed, the appropriate response is expected, however when incorrect switches

or pushbuttons are activated, the machine should do nothing. Making the machine "foolproof" or preventing it from operating incorrectly may in fact be more difficult than making it operate correctly.

The most dreaded and bewildering problems facing the programmer usually occur after the machine has been running for a while. It is the intermittent problem that appears and disappears without warning or apparent reason. These problems are difficult to analyze since the problem might not reoccur for minutes or hours or days or weeks etc. Sometimes problems do not make their first appearance until after the machine has been in operation for some time. One such problem that I encountered did not happen until a year after the machine was shipped out. Fortunately it was not a serious problem.

Some problems cannot be simulated at the factory. In other words some problems only occur when the machine is in actual plant conditions.

Because of all the possible problems mentioned previously, success in my profession is measured in relative rather than absolute terms. I believe this is true for much of the manufacturing industries, especially those producing complex machinery. Three Mile Island, Brown's Ferry, the corrosion problem and other problems indicate a similar situation in the nuclear industry. Problems such as the corrosion problem, which was not anticipated can occur in this industry. Solutions to one problem can cause other problems as did switching from All Volatile chemical treatment to Phosphate treatment. But the constraints on this industry are more severe. Margins of error acceptable in other industries could result in catastrophic problems in this industry.

It is becaus of the unresolved corrosion problems and a general lack of confidence in the nuclear power industry that I recommend the operation of Point Beach Units 1 and 2 be halted.

Francis J. Present Route # 2 Sheboygan, Wis 53081

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                 (Whereupon, at 9:00 p.m., the hearing was
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     adjourned.)
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NUCLEAR REGULATORY COMMISSION

This is to certify that the attached proceedings before the

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

in the matter of: Wisconsin Electric Power Company (Point Beach
Power Plant Units 1 & 2)

· Date of Proceeding: November 17, 1982

Docket Number: '50-266-OLA & 50-301-OLA

Place of Proceeding: Two Rivers, Wisconsin

were held as herein appears, and that this is the original transcripthereof for the file of the Commission.

ALFRED H. WARD

Official Reporter (Typed)

alber MILLA

Official Reporter (Signature)