THE CRITICAL BALANCE OF NUCLEAR POWER

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(B)

July 11, 1982

Lawrence Brenner
Administrative Judge
Atomic Safety Licensing Board
U.S.N.R.C.
Washington, D.C. 20555

Dear Judge Brenner,

Please find enclosed one copy each of an interview and a handwritten statement from an Assistant Business Manager for the Boilermaker's Union and a worker at the plant. These reports were collected as part of a documentary about the Shoreham Nuclear Power Plant.

After my interview with William Koneig I reported the defect in construction to Mr. Charles Gallenia, an NRC Inspector at the King of Prussia Office, and he began an investigation. In the investigation the NRC found no evidence of excessive scratches and no significant damage to the tubes. Mr. Koneig's statement is so strong and since Mr. Gallenia did not have the opportunity to read the transcipt of Mr. Koneig I thought it appropriate that you have an opportunity to read the transcipt. The other handwritten report, which was not reported to Mr. Gallenia, has recently been given to me and may serve in your decision making.

Currently our film crew is planning to interview many of the principals in the licensing of the Shoreham Plant and we would be very interested in talking with you about your considerations regarding the licensing of the plant in August or as soon as a decision on the license has been made. Till that time we would be most interested in keeping abreast of the current shedule for the Shoreham Licensing Hearings and any other news associated with the Shoreham Plant. Would it be possible to have our address placed on your mailing list?

If I can be of any further assistance to you in your efforts to gather petinent information regarding the plant's operating safety please do not hesitate to call me at the number above.

Very truly yours,

John L. Hall Jr.

John L. Hall, Jr.

Interview with William Koneig, Assistant Business Manager for Boilermaker's Union, conducted by John L. Hall, Jr. for documentary on the Shoreham Plant on November 28, 1979.

J.H. What are the problems associated with the condenser at the Shoreham Power Plant?

W.K. In my capacity as the Assistant Business Manager for the Boilermaker's. Members who were employed at the Shoreham Power Plant complained that the condenser box tube sheets were not alined properly and the tubes could not be put in a method that the manufacturer had intended it to be done. They brought this to my attention, they brought it to their foreman's attention, and LILCO's attention. And the only response they even had was that you were told to do it go ahead and do the work or else go down the road. Since that time they have contacted various publications to tell them what they thought was wrong because of the problems associated with using titanium tubes in this condenser box, its a brittle metal and is not intended to be overolled or beaten into place. It was intended to be slid into place by one man. Instead it would take four men with a sledge hammer to drive these things into place. The mis-abutment of the tube sheets is so bad that the condenser box was cut apart over three times to a point that the para-metal was eroded and they had to use backing strips as filler.

J.H. You mean that they actually drove the titanium rods into place with sledge hammers?

W.K. Using sledge hammers with a piece of cribbing inbetween so the end of the tubs wouldn't be mushroomed so the expander would fit it.

J.H. Is this a standard practice?

W.K. No not at all, it would never be done. There's no reason for it if you have proper alinement of the tube sheets. The tubes could be put in by one man sliding it into place. But right now in the beginning the tube sheets were never alined properly. In fact to the point that they had to cut tube sheets, internal tube sheets, loose and let them float so they could slide those forty foot long tubes into place.

J.H. What are the problems associated with titanium?

W.K. Titanium has some very high qualities that are ideal for salt water cooling useage. But the problem with titanium is that it is a brittle and very non-ductile metal. It can't be overolled or overexpanded. It must be worked in very close tolerances and if you exceed these tolerances it would result in cracks that would not be visible to the naked eye. You would probably be able to detect through a radiograph.

J.H. Are these the same metals used on DC 10's?

W.K. Yes, they were bolts that wre used to hold on the engine of the D.C 10's and eventually resulted in the engine falling off and I understand that it is a common practice that titanium bolts are always x-rayed because these cracks are not visible to the naked eye.

J.H. Is LILCO x-raying these titanium parts?

W.K. As to our knowledge LILCO does not intend to x-ray them. All they intend to do is to put a hydro on the condenser box to test its water integrity.

J.H. Was there a hydro test of the condenser this year and were there any problems associated with the test?

W.K. I believe there was a hydro test. I believe it passed the hydro test, but all the hydro test tells you is that it will hold water. It doesn't tell how much of the para-metal is left seated against the tube sheet which is the critical question. Did they overroll the tube sheet or did they scar or mar them in any way? Did they set up some type of stress in the titanium metals?

J.H. What have been the complaints of the workers associated with the condenser?

W.K. Well the main complaint is that they'll end up bearing the brunt when the failure eventually occurs, if it ever occurs. It always comes back to the worker on the job. Whereas, I think its not the workers' fault. You've got an excellant bunch of union craftsmen working out there. The only trouble is the supervision over them isn't sympathic or caring enough as to what the problems are to correct them before they what could become a possible disaster.

J.H. Do you think LILCO has the technical depth to construct and operate the Shoreham Nuclear Power Plant?

W.K. Personally it would be unfair for me to answer something like that because I don'T have the personal knowledge. I don't think I would be critical of someone else, but what I would criticize them for is not paying more attention to the craftsmen's complaints on the job, verifying it and if its false then they should explain to him why its false or at least examine it throughly, not hiding it in some manual or keeping the blueprints secret. This is what leds the guys to believe more and more who live on Long Island (to say) "Jesus, I'm not sure that I want them to start it up."

J.H. Do you think that the NRC inspector on site will help to improve quality assurance at the Shoreham Power Plant?

W.K. It certainly can't hurt it, but until its brought out and hard hats, union members, realize that some people who are making noise about Shoreham are not against nuclear power per se. They're just against shoddy construction. And its really a protection for their own being, because they have a trade and if they want that trade to continue they have to make sure they're putting out a quality product. The only way they can turn out a quality product is by having their contractors and the utilities enforce strict standards (that) are applied and heeded to on the entire construction progress, not only when it suits LILCO's needs or the contractor's needs.

J.H. Do you think the workers are concerned about the quality of the Shoreham Power Plant because it reflects on their (craftsmanship)?

W.K. That's right, its going to be the first thing, just like they're bearing a burnt for the exceessive amount of time it took to construct Shoreham in comparison to other nuclear power plants across the country. One of the reasons it took the lenght of time it did at Shoreham was not the inability of the mechanic and craftsman there, but the inability of LILCO to properly manage the site of that type. They have never built one before. They have gone through contractors such as Dravos, Stone and Webster. They have tried different methods. Meantime who bears the brunt of the productivity being down? But again who was the one that oversees the productivity? It's got to go back to them somewhere along the line. In almost every report I see published they're always knocking the low productivity of the union worker which is not the issue at all. I believe the men are willing to work given tools to work with, the right conditions to work with, and a reasonable set of standards.

J.H. Do you think the skills of the workers at the Shoreham Plant can now be transformed in to alternative energy like solar or other forms of alternative energy?

W.K. That's one of the attributes of most unions that I know. They have union craftsmen, building trades people that have the ability to adapt themselves to most mechanical situaations whether it be solar generator or nuclear generator or a fossil fuel plant, a coal burner what ever you want. These people have beenable to historically to be able to adapt too. When we went from coal to oil plant we knew how to do it. We knew how to go nuclear. But they still need the expertise (and) guidance from the engineers and the supervision of the utility if they chose to be the supervision. An maybe that is one of the problems that they have that LILCO might have choosen somebody who was more experienced at supervising the construction of a nuclear power plant and has a proven track record. I think they tried to take on too much of the share on their own being inexperienced in that form of construction. And I've seen this at the Northport fossil fuel plant. The terrible part of this is that terrible construction like this will pass the hydro and almost 100% sure that the plant will go on line and within nine months or 8 months they will end up retooling that condenser and our utility rates will go up. Then they are going to say it was the terrible craftsmen who did the job. And it wasn't that at all because the guys can do the job given the right materials and the right standards they can perform.

J.H. How do the welders feel about going into the plant after its become radioactive?

W.K. Well, I think the general feeling is that the contractors and utilities tend to abuse exposure levels that they subject the workers to. Right now the NRC sets a standard that each worker is allowed to be exposed to and the plant under its operating license tells the NRC how much they are going to allow workers, outside or inside workers, to be exposed to. But because of the poor pre-planning of a job they put men into hot rad areas where they suffer much greater exposure then what they would have if the job had been pre-planned, but again the men are expenable. The thing that really scares me about this is that all these levels of (radiation) that the NRC says that the men are going to be exposed to are theoretical. Nobody can tell

my men that you are allowed to get 3000 mr per year of 5000 mr's per year and in 10 years what happens if we find something? Is there a fund being set up? It could be another black lung disease situation 10 years down the road. And we would like to see more money put into it to give our membership more assurance that we do have concern for your welfare and your health in the next ten (10) years. We don't want to see you dying of some disease whatever may be the cause. Or at the lest being assured that there is no danger there is no danger there.

J.V. Thank you very much Bill.

W.V. Pleasure.

Some Questions For LILCO

Faulty Valves: In mid Jan. 82 a memo was written signed by Carlos ? calling attention to 14" Butterfly valves in salt water piping in the screen well. These valves were badly eaten away from corrosion. LILCO supervision knew about this, (M. Lewis, Terricinni) the steamfitters were ordered to put them back - as is.

There are check valves in this same piping whose internal parts are held in place with common steel springs. The old valves were shot, - corroded - replaced with the same type - NOT designed for use is salt water.

This piping was made of fiberglass which would NOT stand up under pressure tests. Much of it was replaced with cement lined iron pipe, but not ALL of it - A patch job.

C. Chiller Room - EL. 44 - Turbine Building

this same type of fiberglass was used for water (salt water) to cool the A.C. machines. This piping blew apart during many pressure tests. It has been patched, re-patched & patched again over the last 2 years. Like fixing a broken skull with a band-aid.

Now! LILCO knows this fiberglass piping is faulty + fully expects it to rupture during operation. They are going to put water tight doors on this room. (there are electric panels + transformers just outside it.) And are going to drill 8" dia. holes thru the 2 foot thick walls, at floor level, to the outside of the building to let the water out when the piping ruptures.

I gave John Strong permission to use my name But don't let it be known, please. I would be imediatly fired.

I know many other construction men who would also speak their piece at any hearing as long as our names were not used until the proper time. You may get in touch with me at any time.