

AFFIDAVIT

STATE OF TEXAS

§

COUNTY OF TRAVIS

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BEFORE ME, the undersigned authority, on this day personally appeared George F. Clancy who, having been first duly sworn, on his oath deposes and says as follows, to wit:

My name is George F. Clancy. I am over 21 years of age and am in excellent physical and mental health, and am competent to make this affidavit.

I served in the U. S. Navy from April 30, 1957 to January 17, 1967. During that time, I served on the USS Nautilus and the Polaris Missile Submarine Daniel Webster. I then transferred to the U. S. Army and retired from the Army in 1977.

My first civilian job after retirement was at the Comanche Peak Nuclear Power Plant as a quality assurance inspector. I worked at the Comanche Peak Nuclear Power Plant from late November, 1977, until mid-March, 1979, as a quality assurance inspector.

I have not been hospitalized for any mental or emotional problem since I left my job at Comanche Peak, in March of 1979.

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I have given two statements to representatives of the Nuclear Regulatory Commission. The first one, Attachment A, was given on September 7, 1979, in Arlington, Texas. The second one, Attachment B, was given on August 19, 1983, in Austin, Texas.

I made several notations on the copy that was provided to me of the transcript from the interview dated September 7, 1979, because of errors made by the transcriber. These are the handwritten notes on Attachment A.

I hereby reaffirm and adopt the statements that I have previously given in regard to the quality assurance problems and the intimidation of quality assurance personnel at Comanche Peak. I believe that mismanagement and poor quality control has resulted in Comanche Peak being unsafe to operate.

I voluntarily left my job at Comanche Peak because I was in school in both Ft. Worth and Arlington, pursuing a degree in mechanical engineering. The commuting between school and work became too difficult. Attached are true and accurate copies of letters of reference provided me before I left Comanche Peak. These letters reflect the quality of my job performance at Comanche Peak as assessed by representatives of Brown and Root, Westinghouse, and others (Attachment C).

Further, affiant sayeth not.

George F. Clancy
George F. Clancy

Sworn to and subscribed before me by the said George F. Clancy, this 26th day of October, 1984, to certify which, witness my hand and seal of office.

My commission expires 11-2, 1987.

Dorothea Kiker
NOTARY PUBLIC IN AND FOR
THE STATE OF TEXAS
DOROTHEA KIKER

ATTACHMENT A

NRC INTERVIEW OF GEORGE CLANCY ON SEPTEMBER 7, 1979

Q: Your name is....?

A: Brink, B-R-I-N-K

Q: And who are you with?

A: I'm with one of the intervention groups.

Q: O.K. Does it have a name?

A: Citizens for Fair Utility Rates.

Q: Citizens for Fair...?

A: Utility Rates. It's a long name. CFUR if you want to do it.

Q: What is it?

A: CFUR.

Q: And you are...?

A: I'm Dick Fouke. F-O-U-K-E.

Q: Are you with the same organization? F-A-U-L-K?

A: No, F-O-U-K-E.

Q: (by Mrs. Brink) And your names were?

A: Bob Stewart

A: I'm Wesley Gilbert.

Statement by Mr. Bob Stewart: First the subject matter is the article in the Shoat (?) form, what we had. In order to keep things in the proper perspective we go through rather routine questioning and we try to get your background, what I understand, well..... what is your background in nuclear energy?

A: I spent ten years aboard a nuclear submarine and nuclear weapons school and nuclear power plant operator. I'm retired from the Army. And I worked for, I was paid by Brown and Root, attached most of the time on THE STAFF of TUGCO WHF. QA STAFF ON THE DISCO QA STAFF

Q: Under Brown and Root payroll?

A: Brown and Root paid me...I worked under Tolson and Hawkins. TOLSON

Q: Do you have any construction experience?

A: Any construction? Submarine construction.

Q: Submarine?

A: Construction overall & OVERHAUL

Q: Where was that?

A: Portsmouth Underground ?

NAVY YARD & NEW LONDON ... THAT THE
THE OVERHAUL OF THE NAUTILUS & THE CONSTRUCTION
OF THE DANIEL WEBSTER

Q: With no other nuclear plant construction?

A: This is the first civilian job I've had since I retired from the service.

Q: What was the period of employment with Brown and Root?

A: It was from just after Thanksgiving, '77 until the 15th of March this year. (79)

Q: What we are concerned primarily about is the reference to your last paragraph relative to the questioning asked... "if there was any possible defects in the Comanche Peak construction...have not been caught. And he said 'and how likely is that possibility?'" and you went on to say that "you don't know how many such cases there are in that" (Q Do you have a reference to that?)

A: (NRC) I didn't bring my glasses so I've got a problem. ?

Q: Just take this and you won't have to read that. (SHORT HORN COPY)

A: O.K.

Q: I think this is probably more handy to him. Says "do you know how many such cases there are like that?". He says "No" And they say "More than ten?" "Yes". "More than 100?" "Sure". "More than 500?" It says "long pause...Possibly." That is the basic area that I would like to expand on if you have some specific instances that you know of. Now I mean, in general it appears this is an opinion of yours rather than specific cases. Making references to this nuclear safety components. We know you had a problem with THE TUGCO BUILDING (ville or drilling?). This is out of our jurisdiction.

A: I'm well aware of that.

Q: Do you know of any specific instance that you can give us that we can follow up on?

A: Yes sir.

Q: O.K.

A: First thing I'm going to make my point? The first thing I want to make perfectly clear here is I'm not overly impressed with the way the NRC is keeping their thumb on the nuclear industry, such as Brown and Root construction people and the operating people. That would include the people at Three Mile Island and the new bunch they've got out at TUGCO who is going to be doing the operating. I was raised under the Rickover ~~system~~ who is in total control of the situation at any given instance in time. And the situation nowadays is not that way. And whether the NRC and the industry realizes it or not they have an enormous project bearing down on the THU? called "a scared and distrustful public". Brown and Root doesn't seem to be able to follow a blueprint. Last night when I was coming back from my calculus class in Fort Worth, on the radio they reported where they had left some reinforcing ~~pours~~ bars out of the dome. Have you heard about that yet?

A: Yeah.

A: The biggest area that's gotten the news has been in the area of civil engineering and now they're starting to get into welding. The civil engineering department, well, the construction people and the Q. E. and the Q. E. of all THAT Brown and Root business, it was almost completely taken over and needed pinpoint supervision by Fleck. Do you know who Mr. Fleck is?

A: Yeah. Ron Fleck.

A: ~~we even stopped out at Forbes, we got into where they~~
~~leaving stuff out of books~~ Ron Fleck. We got into Cadweld hassles, we got into.. that wasn't certified to sign anything off, electrical, mechanical for ~~underneath~~ the whole nine yards. It all goes back to piss poor supervision. Either the bosses aren't down there watching what their troops are doing or they don't know what's going on themselves. When Fleck finally took over, complete control, what it amounted to was the q. c. and the construction bunch...the construction department has some inspectors that signs things off, you know, they go down there, check whatever it is they got to check, make their measurements and make sure things are in the right place and where it's supposed to be there. Then q. c. goes down and they do their checks. And everything is all signed off. And at that point in time, theoretically, they're ready to pour concrete. Fleck and Hawkins would go down there and I've seen them for three days changing things around and putting things in that they've left out and putting them in the right place and cleaning the garbage and the hard hats and the tool boxes and the lunch buckets, banana peels and all that shit out of there. O. K? And that indicates to me that the people that were doing the supervising, I mean the inspecting, initially, didn't know what they were doing or didn't care, or a combination of the both.

Q: Well, you must understand that's why you were there. As an inspector. You cannot inspect quality in the work. Now if that sort of thing was going on it should have been brought to the attention of management.

Q: Mth Which management?

Q: ~~Mth~~ TUGCO management. Are you not part of the Q. A. program?

A: Yeah. How long... when a dog keeps crapping on the rug, you don't say "You pooped on the rug again". You stick his nose in it and you throw him outside until he gets the hang of it that he's not supposed to do that. O. K? Fleck would turn it, we'd get everything all straight in areas of Cadweld. ~~They~~ they completely reorganized the whole Cadweld welding bunch and inspection and everything else.

(?)
Q: Do ~~men~~ attempted to correct the deficiency?
~~TWO MEN~~

A: Right. They turn around and they get on something else. Within a month Brown and Root would be right back way they were doing. They were not signing off some of the ~~weld~~ inspections, I guess some of the welders were making the inspection. They had two sets of marks on them, no sets of marks on them, they were leaving the packing in there. Devinney ~~and~~ and I spent 10 days crawling all over the side of that thing and we inspected between, I don't know, between 3,000 and 5,000 ~~welds~~ welds before they let them pour anything. CAD

Q: You mean, this is a Q. A. function rather than, and what you're saying is Q. C. inspectors, first line inspection, wasn't doing their job?

A: Right. That Cadweld inspector when he says it's o.k., that should be the end of it. And once in awhile, maybe someone should go up and run a spot check. But then, it, the thing always came to light when a piece of ~~rebar~~ pulled apart or failed in the test and they found out the guy had the thing stuck in that far, and then TUGCO would go back in and start checking stuff, it would be completely out of control again. It was a pattern. It wasn't an

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isolated circumstance. So why TUGCO management didn't grab Brown and Root by the neck that's over my head. I don't know.

Q: NRC Well, I can see your point. But you can see our position. We are not a militant organization and we cannot go in and tell these people how to run their business.

A: GFC I know, but you can shut them down.

Q: NRC We can shut them down in a very justifiable situation. The fact is that you people as quality assurance inspectors are finding these things. They may have to reorganize every other month to obtain the quality of the work that we expect you to see that's in that plant. See, the quality assurance people are, their function is to do the very same thing that you were doing. I mean, that's your responsibility. It might have been one helluva job, trying to get it straight, but unless you tell me that those things that you found did not, or that nobody paid attention to you, that they went ahead and did the work anyways, you know, we're...our hands are tied. Unless you can tell me specifically that garbage was left in those ~~plants~~, that they did not change the defects to make it a corrected situation when you say the Cadwelds were wrong, or the reinforcing steel was wrong, or whatever, unless it was corrected, we can't pursue the area. We can pursue the management type thing, which we have, and we always do, but there is a certain point that we can not go beyond. I mean, great, if we were Admiral Rickover our job would be very simple. But you must remember we are

A: GFC Well, there is no ^{POSITIVE} ~~part~~ of control over the system, that's what the problem is.

Q: NRC Well, the positive control is supposed to be handled by the licensee, and if he hires people like you that see these things and make the corrections before the work is completed, that's the very function that you were to do.

A: GFC Yeah, but usually you find these things after ^{THE FACT} you're at this point in time, but they start all the way from here. But you can only check back that far. What's ^{IS WITH} ~~with~~ this segment that you can't look at anymore?

Q: NRC All right, give me a specific. Give me an area that you say....

A: GFC Cadwelding, there's a good example, and concrete testing. There is a good example of....

Q: NRC Specifically. We've spent a month and a half on concrete testing and investigations. I personally went a month and a half and interviewed fifteen people, and not one situation came up that we could put some meat into it and say, "This is a fact".

Q: Well, what given situation is something that you call meaty? A ^{side} ~~pack~~ of a lunch box sticking out of ^{THE} ~~a~~ side of containment? Would that finally entitle a bad pour? ^{THE}

Q: NRC No. You tell me where there was a pour made that you know that something was wrong with that pour. Give me a specific pour in a structure.

A: GFC I can't give you a specific pour by number.

Q: NRC Do you know any that you passed over? As an inspector?

A: GFC I never passed over anything.

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There was two people in my office. Myself and Devinney(?). And we can't keep after 4,500 people out there. We had a hard enough time trying to figure out what Brown and Root q.c. was doing most of the time. The welding inspection absolutely stinks. I know of a number of occasions, you know Botkin(?), he works under Hawkins too. He's their welding whiz bang. We caught those people with unauthorized disassembly of valves ~~to do~~, with ~~them~~ ^{seams} on the inside where they oxidized the weld. Anything you want to look at in the welding department today was continually screwed up. They have the (?) ^{push} gas going in and out of the same end of the pipe and they were welding down here. Botkin came on up to a number of conferences and he had Brown and Root by the throat a couple of times, but nobody wanted to do anything about it.

Q: NRC In what regard?

A: GFC Correcting it. Firing the people that were involved. Getting somebody in there that knew what was going on. I'm not a manager. I'm still in school. I'm still trying to learn how the civilian system works. But they didn't take any positive action. The same people would be back down there doing the same identical thing the next day and we would go through the whole routine again.

Q: NRC I understand what you are saying. On the other hand, you are also telling me that you done a damn good job as an inspector, by identifying these things and telling somebody about it and trying to get something done about it.

A: GFC If I catch 1/2 of one percent, that isn't a very good

Q: NRC How do you know you caught a half of one percent? Are you saying that you were the only inspector down there that was doing his job?

A: GFC I really believe that you came over here to discredit me.

Q: NRC I don't know why.

A: GFC I really think that you had your mind made up before you came in the door. Now as far as... coming up with a hard number of how much percent that I'd find or how much percent I didn't find, I can't do it. All I know is that I could go in the building and walk around and in five minutes I could find more stuff than Rosenberg could in a week. He'd go in the vault, or he'd go in the d.c.c. and he'd get a ^{document} ~~document~~ ^{picture} ~~picture~~ and he'd look at it for a while and then he'd want me to take him down there and show him where this thing was, and we'd go down there and he'd be stepping over violations and ducking under them and all the way down there and he'd look at that thing and they'd fool around for a while, and they'd come back and they'd fiddle around and come up with some unresolved item and then go back to Arlington.

Q: NRC It sounds like it's the other way around. That you are going to discredit me before I came. You have no basis to make that statement. Because I asked you some questions why do you come up with the opinion that I'm here to discredit you?

A: GFC Your problem out there is lack of control over the workers and the management.

Q: NRC O.K. And again I say I can understand your opinion and at this point in time it is an opinion, unless you give me a factual situation that has some impact on the health and safety of the public, I can't chase wild goose chases, or stories, or opinions. If I followed up on everybody's opinion I'd be inundated with project of chasing everybody. I'm the reactor inspector. You follow? My jurisdiction is limited as an inspector.

A: GFC I know of a group of bad welds out there in a primary pipe.

Q: NRC That have been passed, and accepted?

A: GFC That have been passed and accepted.

Q: NRC And on what basis are they bad? When you say they are bad?

A: GFC Doing unauthorized welding and repairs on them for one thing.

Q: NRC Unauthorized repair? In what regard?

A: GFC Where they ground down to the stainless steel into the carbon steel.

Q: NRC Wait a minute. What system was this? (Third party)

A: GFC On the primary loop.

Q: NRC That's all stainless. There is no carbon.

A: GFC There is carbon steel in areas of some of that... of the reactor vessel.

Q: NRC Now, you're talking about the reactor vessel?

A: GFC Yes sir. The reactor vessel. I know the welder that done it. And his boss told him to weld over it. They got down into the carbon.

Q: NRC From the outside?

A: GFC Apparently so.

Q: NRC Well, first of all, the reactor vessel is carbon exterior and clad interior.

A: ~~NRC~~ I realize that. But on the ^{SAFE END} you also have a carbon steel that's clad too.

Q: NRC But not on the outside?

Q: GFC What weld was that where they went down and ran into carbon steel and they didn't put their intermediate presses, do you remember? (By Witness)

Q: NRC Where did you get the number from?

A: GFC Pardon me?

Q: NRC Now, you've given me a specific. Now I've got something I can go on. If you can give me the weld number...?

A: GFC Weld 19 and Weld 20.

Q: NRC On the nozzle?

A: On the NOZZLE (unclear)Anytime you go from a stainless to a carbon steel there is an interface alloy that goes in between or a different type of Series 300.

Q: Westinghouse delivered the... REACTOR VESSEL

A: Right, that's so that you don't get carbon migration and what not from the stainless into the, or from the carbon into the stainless. If you get the situation where you get a metallurgy problem then you get cracking problems. And then if your ~~hot~~ carbon goes from zero to ~~20~~ ^{200°} ~~NDT CURVE~~ ^{A200?}

Q: Mr. Gilbert is a welding engineer, metallurgist.

A: Fine. Then you agree that the guy's foreman doesn't have the authority to go ahead and then just to cover that over. Right?

Q: He shouldn't have. He probably doesn't have the procedure for it, but we need the specific thing to follow up on.

A: It's Weld 19.

Q: Weld 19?

A: You think I'd be willing to talk about that?

Q: ~~MC~~ (By third party): You thinking of the steam generator?

A: ~~SE~~ It might have been on the steam generator. Is Weld 19 on the steam generator?

A: ~~NBC~~ I think so.

A: ~~SE~~ It might have been on the other end of that pipe. Anyway, they got into it.

Q: ~~NAC~~ On the hot leg, cool leg?

A: ~~SE~~ Probably, the hot leg.

A: ~~NAC~~ (By third party): Or it might be the leg from the steam generator to the pump.

A: ~~GFC~~ Or across from the pump to the steam generator.

A: ~~NAC~~ (By third party): It's the intermediate pump.

Q: It is the steam generator the pump's on?

A: (By another party): I'm not sure which end it's on, whether it's the hot leg or the cool leg coming out of the steam generator.

DISCUSSION:

That kind of leaves....

Well, 19, y'all know you don't use...

~~NAC~~ Well, for every system you may have a 19....

~~DF~~ Yeah, but out there it's one, it's on Unit One.

~~GFC~~ Unit One.

That's the one George is thinking about.

Definitely Weld No. 19?

~~GFC~~ 19 and 20. They had a lot of problem with 20 too. They covered a lot of things up on.

Q: ~~NAC~~ Yeah, but who has evidence that it went into the carbon steel?

A: ~~GFC~~ The welder that was doing it.

Q: ~~NRC~~ Only him?

A: ~~JE~~ And his boss. The fellow that covered up.

Q: And you didn't see this? You didn't see them?

Q: ~~NRC~~ (By third party): Do you know a name?

A: (Unclear) _____ I don't know if he'll want to talk about it.

DISCUSSION: (Unclear)

Well I hope you appreciate we attempt to keep these things in confidence. And we say we can do it, but then, you know a court of law can come in and demand that we have to give it up, but we will do everything that's possible to protect the guy.

(By Ms. Brink): I'll let him know. You can appreciate the problem _____ (unclear)

~~THE WELDERS WITH THE PEOPLE OUT THERE~~
Oh yeah, certainly, and we don't want to jeopardize the job either, but, you know, again somebody can hear something and it's hearsay, you know, we're chasing a shadow somewhere, and spend 90% of our time chasing these things down.

~~DICK~~ (Unknown-voice): We'll pass the information on to him and let him do what he feels is the proper thing to do. (Possibly Mr. Fouke).

~~BRINK~~ (By Ms. Brink): Are you working out of the Arlington office?

~~NRC~~ ~~BRINK~~ A: Yes, I work out of the Arlington office.

Q: ~~NRC~~ Do you have any other items like this that we can...

A: ~~NRC~~ I think you'll wind up with a whole raft of bad welds very shortly.

Q: ~~NRC~~ You mean from individuals or...

A: ~~NRC~~ ~~Bad concrete pours~~: We fought with them for a year on using proper welding grounds. Their ~~staggered~~ ground out there was to take, on stainless steel or carbon steel, was take the welding ~~ground~~, loop it around the pipe, and clamp it back on itself with the alligator clip as clamped back on the cable, just laying on the side of the pipe. And somebody would come along and stumble over it and get arc strikes all over it.

~~NRC~~ ~~ON THE PIPE?~~
~~CPC ON THE PIPE?~~ And Westinghouse raised hell with them and we raised hell with them and they just kept on doing it. It was just like a locomotive gone out of control. You know most of the time you can't get on the end of the pipe that you're working on, so they just ~~erry~~-rigged the thing. There was pipes down there I think the Westinghouse ~~ENGINEER~~ told me there was something like 300 some odd arc strikes down around our reactor coolant pump ~~facing~~ Westinghouse requires them to etch all those things and grind them out and most of those welding ~~CLIPS~~ ~~HIT - CADRUM PLATED~~

~~LEADS~~ ~~FUSED~~
We've even found welding leaves that were ~~pierced~~ to the plate. And knock them off with a hammer.

Q: ~~NRC~~ Were they repaired? Corrected?

A: ~~NRC~~ I doubt it.

Q: Then you don't know of any that ^{WERE} ~~PERASUSED~~ ^{USED} TO FIND OUT IF THEY ^{WERE} ~~REPAIRED~~ ^{OR NOT}?

A: ~~GC~~ After it gets a couple of days worth of dirt on it it's kind of hard to tell a arc strike from all the rest of the crap,

~~unclear~~ ONE ON THE COMPIMENT COOLING WATER PIP
IT WAS CARBON STEEL BUT
They had it clamped to a piece of rope that was hanging down. It was clamped to the rope and laying on the side. Of course the pipe was so big and they couldn't get the ~~NO. 6 MCR LEAD~~ around the backside of the pipe and down between the wall ~~AND THE PIPE~~ ~~unclear~~

Q: ~~NK~~ Did you tell somebody about this?

A: ~~SE~~ Sure.

Q: ~~NK~~ Was it ever corrected?

A: ~~GE~~ No. It would get up as far as Tulsa and that would be the end of it. ~~TOLSON~~

Q: ~~NK~~ Did you write an NCR or document this sort of ^{VIOLATION} ~~unclear~~

A: ~~SE~~ I would take it to Hawkins, who a turn would give it to the responsible parties.

Q: ~~NK~~ Did Hawkins write it up?

A: ~~GE~~ No. He dragged the welding people in there and tear their ass up and then they'd go right back and do it anyway. Just to write an NCR everytime isn't going to solve a thing. I've seen them where they've had NCR's written on a number pieces of equipment and then go down there and they'd dig through the NCR tags to find the one that they were looking for to clear, and clear it and just leave all the other stuff there. But not to take those steps to insure that it didn't happen again. We got into that thing over the electrical conduits where they was using regular dies to thread the end of the conduit and there was 2 or 3 different NCR's they had written on this one, but anyway, collectively it was a problem. So they would go down and clear that one particular NCR and just forget about the other ones. Not to take measures to tell the people that was doing the thread cutting that the pipe thread is tapered and a regular thread isn't.

Q: ~~NK~~ Well, you know their system is such that TUGCO and B&R Q-A is most to verify the ^{corrected} ~~corrected~~ measures have been taken and to ~~accept~~ ^{suppose} those ~~containers~~ ^{containers}. And if they're not satisfied, you know your systems fallen apart.

~~A: Unclear~~ ~~GC~~ THAT IS WHAT I TOLD YOU RIGHT OFF THE BAT

Q: ~~NK~~ You're saying within the Brown and Root Q-A organization also?

A: ~~GC~~ Sure.

Q: ~~NK~~ Did you ever complain about this to Hawkins?

A: ~~GC~~ ~~Unclear~~ ~~FE~~ HE AGREED WITH ME.

Q: ~~NK~~ And ^{WHERE} ~~what~~ did you talk ^{TOLSON} ~~to~~ Colson ... ~~unclear~~ ^{NOTHING WAS DONE?}

A: ~~GC~~ ^{THAT'S RIGHT} We had a problem with the diesel generator from the millwrights putting the thing together. They didn't have a procedure. Somewhere along the line someone decided they wanted to just throw all the pieces in there then build a roof over it. Without the ~~unclear~~.

ALIGNING THE THING

Just kind of stuff it down in the building. Well, I went down there the next morning after they had the generator and the starter and the rotor and the bearing ^{JUST} ~~unclear~~ ^{HAWKINS} and the rotor was sitting down on the starter, so I went and dug up the manual on it and it said in the manual that while threading the rotor through the starter ^{STATOR} (could possibly be statter) it is permissible for short periods of time to let it sit on the starter (statter?) ^{STATOR}. The way we interpreted that, that's when you stick it through there and you reposition your ~~horses~~ ^{HOUSING} so when you can pick it up you can block it up. Not for six months or a year. ^{WE GOT INTO IT WITH THEM} ~~unclear~~ the millwrights and over a period of about three weeks it took before we finally got that rotor up off the statter (starter?) ^{STATOR}. Of course, they jacked up one end and they put it up against the top of it, and then they had it over against one side then over against the other side, then they piled a bunch of wood and junk under it. Every morning I would go down there and the thing would be settled down again. ^{IN THE} ~~unclear~~ and we went round and round and round over that. They finally built a steel ^{STRONG BACK UNDER IT} ~~unclear~~.... They ~~wasn't~~ ^{WERE} clever enough to figure out that that rotor had two ends to it, so when they had to center for the generator, for the engine end of it, centered in the statter (starter) ^{STATOR} the other end of was down, and back and forth and so on and so forth and it took about another ten days to get that thing all straightened away. Every day was a whole new world ^{AND THAT IS NOT THE WAY IT'S SUPPOSED TO BE} ~~unclear~~ and Brown and Root electrical and q.c. didn't know anything about it. They didn't even know they had a generator down there, I don't think. And Brown and Root's approach to installing the generator was for and the whole ~~deal~~ ^{THEY} generator unit, "well we don't have a procedure for it, so we'll write down what we did and then call it procedure and you approve it". ^{WRITE WELL} Hawkins ~~and I was~~ ^{ALMOST WENT} going through the roof.

Q: ^{NRC} I don't blame them...but didn't they use the installation manual?

A: ^{GR} They had a tech rep down there off and on, wandering in and out. Any of the times I was down there when Brown and Root was doing anything there wasn't a tech rep anywhere in the State of Texas. They were just down there monkeying around with it.

Q: ^{NRC} Were they using the procedures as specified in the manufacturers manual?

A: ^{GR} They didn't have procedures, they didn't have anything. Their manufacturers manual was definitely lacking as far as...
 APPENDIX B REMARK

Q: ^{NRC} Did not Hawkins or TUGCO Q-A write up a NCR? Installing it without procedures? I mean, that's a basic ~~unclear~~ remark.

A: ^{GR} By the time I had left it hadn't been installed yet. They were still running around trying to figure out how to get it done. What they wanted to do was to install it without the procedure and write down what they did and then call that a procedure and sign it off after the fact.

Q: ^{NRC} You say Hawkins wouldn't buy that. So did they eventually come up with a procedure?

A: ^{GR} I don't know. I left before that.

Q: ^{NRC} So where was this activity taking place. In the warehouse?

A: ^{GR} No. It was out ^{ON THE} ~~in front of~~ the pedestal.

Q: ^{NRC} It was on the pedestal? Essentially, set in place?

A: ~~SEC~~ Set in place. Right. You know, it's kind of hazy what they call installed and set in place, and not installed and stored in place, so whatever... absolutely incredible that it would take somebody that long to figure out that that thing wasn't supposed to be touching or sitting on it.

Q: ~~NRC~~ Would you say there's any damage to the diesel generator?

A: ~~SEC~~ I hope not. Hopefully they caught it in time. I hope ~~WE~~ they did. They will probably do the same thing on Unit Two. They don't seem to learn anything. They turn around and do the same thing the next day. Just like the Cadwelding. They had three major Cadweld ~~unclear~~ the time I was there. All three of which I got in on eventually. Crawling around and inspecting Cadwelds. There was one that was pulled out, and then there was one when they had something hooked to the rebar(?). That was the last one ~~unclear~~...and it looks to me like they should of had a maximum one ~~unclear~~ and they would have had command supervision down there to assure that it didn't happen again.

Q: ~~NRC~~ Well those specific items have been looked into by our people to see that they were corrected.

Q: ~~SEC~~ (By Mr. Clancy): What about the system though?

Q: ~~NRC~~ Their system?

A: ~~NRC~~ (By NRC staff member): They have a program. The implementati^{MANAGEMENT} of the program is their ~~unclear~~... responsibility. We cannot tell a company how to manage their business. I hope you understand that. You know, we are in sympathy with you, if there is something wrong with the management program, we have to have some evidence, some reason to shut them down. Until it's corrected. And we have done so. There have been any number of stop order^{order}son any number of ~~plans~~ that until they have satisfied us they have taken corrective measures, they don't start up again.

A: ~~SEC~~ (By Mr. Clancy): I can remember when they were starting out, I ~~reacted~~ a little ~~unclear~~ nothing went right. They got caught welding on the parameters ~~unclear~~ I don't know how many times. They had a guy down there who was getting ready to start excavating ~~unclear~~ ^{LOCK OF POSITION IN AN} anything ~~unclear~~ you'd think they would have an inspector and a foreman down there sitting on that guy's head 24 hours a day to make sure that nothing ~~WENT HAYWIRE~~

Q: ~~NRC~~ Well, the fact that they have had some 65% repair or rejection rate indicates that somebody is doing some inspections to detect those defects. Would you agree? I mean who's identifying those defects of that repair rate?

A: Granted. Those things are ^{radioactive} ~~unclear~~ and rejected as a result thereof. But how about all those times they got caught welding out of parameters that never got as far as the first ~~unclear~~ gram?(unclear). How long was the guy welding ~~unclear~~ parameter before they went down there and caught him?

Q: What sense (?) of parameter?

A: Welding speed.

Q: Amperage?

A: Amperage.

Q: Greater input? Has that caused a defect of weld? You must remember that these parameters are established for a number. It doesn't mean that every time a guy is out of parameter that it's going to be a defect.

A: GRC I know that. But they did arrive at that number by some engineering deduction. Right? So there's a reason.

Q: NRC To establish a number.

A: GRC To establish a number.

Q: NRC And you may go twenty percent, thirty percent either side of that and not have any problem with that weld.

A: GRC That's correct. You may not. Then again, you may. It's not the welder prerogative though, is it?

Q: NRC No, I agree. That's what the inspectors board is seeing that he stays within those parameters.

A: GRC How come Taylor is the one that had to catch them?

Q: NRC That's a good question. But the fact that they were having a 65% reject rate indicates that somebody was doing some inspection. Somebody was finding these defects. Whether they were out of parameter...that doesn't mean that the weld itself, in toto, is only caused radiographs(?). A defect can be found visually as well. I mean, that's in the 65% realm of rejection. So unless you look at the total picture as to what all these rejects were, you'd probably find that there is a scattered amount of each type of defect.

A: GRC I think it was a crack that they had in one of the welds that the Westinghouse engineer found. Brown and Root didn't find it.

Q: Surface crack unclear

A: Surface crack unclear. It was probably ^{HIGH HEAT INPUT} FET unclear
I'm not sure. Brown and Root generated(?)

DISCUSSION UNCLEAR

A: GRC I went down in the valve room one day and found ^{IN THE SAFEGARD} ~~a~~ and it looked like absolute chaos. There were valves hanging from their operator, ^{NOT FROM THE OPERATOR} from ~~each~~ which is a no-no there was no caps on the ~~left~~ ^{right} valves there was ^{GRINDING & WE} pouring concrete and splashing it all over the place, they had water lying in and out of pipes, concrete water, there was dirt all over everything, and right in the middle of the whole thing sits a welding inspector. EATING A BANANA

Q: NRC Did you write it up?

A: GRC I went over and I got hold of Pat Clark, his boss, and went up one side and down the other. The problem is, his boss isn't going down to check on him and see what he's doing. He had been ~~sitting~~ in there all morning, sitting in the middle of the same general disaster area, and I think an inspector is obligated to go down and look at more than his little two inches of weld, if there is caps off of pipes, if there is dirt and crap in the lines, if there is people dumping concrete all over, if there's things hanging from the valve operator where there not supposed to be, he's obligated to get it rectified.

ATTACHMENT B