

AFFIDAVIT OF J. R. DILLINGHAM

My name is Arvill Dillingham, Jr., better known as "J.R." I live in Glen Rose, Texas. I worked for Brown & Root for approximately ten years, including about seven years at the Comanche Peak nuclear power plant. During that time I was a boilermaker, and later a boilermaker General Foreman for about three or four years. While I was performing my duties as a general foreman, I saw a lot of things at the Comanche Peak plant which were not according to procedures and travelers, many of which could jeopardize the health and safety of the public.

I knew that something needed to be done before the fuel came in for the plant. I thought it over and decided that I would go to Houston to the Brown & Root main office and report these violations to the President of Brown & Root direct, Mr. Thomas Feehan. I went to Houston and met with Mr. Feehan. I told him of some violations that were going on and told him that after ten years of experience, I thought some of those people might know better and show better craftsmanship and intelligence than they had used at the nuclear plant in Southport, North Carolina.

I told him about working at the North Carolina plant on some weld seams that were not supposed to lose more than an ounce of radiation per year (we were told). These seams, some of which were approximately 100 feet long, were in some instances leaking as much as 65 lbs. every three seconds, according to what was indicated when we turned the gauge off and watched the gauge drop. At first we took the test channel off and started repairing the bad welds, which took several days. We were getting approximately 28 pin holes and indications per foot. This was taking too much time to repair properly, apparently, so somebody in Brown & Root's organization came up with the brainy idea of having us take the first foot or eighteen inches off, repair the weld, replace the eighteen inches of test channel, block it off, and just hydro the one-foot area. QC assumed we had the whole 100 feet under pressure and bought it off as is. In my opinion, that is lack of craftsmanship or experience or just downright sabotage. Personally, I think some of these people should go to prison for this, and I told Mr. Feehan that.

I also gave Mr. Feehan a letter with some things I knew about and that other people had told me about. He said he would send an investigation crew to investigate the Comanche Peak charges, and he did. I know of much more that I did not tell him or the investigative crew and have not in the past reported to the local NRC office because I feel the NRC is not interested in protecting the people's welfare and it will be covered up. I have been told by CASE (Citizens Association for Sound Energy), the intervenor in the Comanche Peak operating license hearings, that I am required by law to report any problems which might affect the health and safety of the public to the Nuclear Regulatory Commission. I am therefore asking CASE to send this affidavit to the NRC as my method of reporting it, in the hope that by doing so it will force the NRC to really look at the problems I've identified. I would like to get this information to Congress or someone who's really interested in the safety and welfare of the people of Texas.

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Some of the stuff that goes on, for instance: My superintendent had us install some light poles. These poles are underwater lights inside the stainless steel liner around the reactor cavity. They are used when unloading the reactor underwater so the people can see what they are doing. They are nothing but stainless steel pipes with one end capped off and holes drilled in them. As we were drilling the holes, drill shavings fell inside the pipe. We also used some cutting oil. My superintendent came out to the shop where we had the holes drilled and said "You don't have those poles in the hole yet?" And I said, "No, we're going to take a pencil grinder and deburr them, and take a steam hose and steam all the oil and shavings out." He said, "That's bull. Get those poles on down to the hole so the electricians can install the lights on the poles." By our not taking about 15 minutes a pole to clean them right, the poles are now installed in the proper location. They pose a serious safety problem. When they're refueling, the shavings can be washed out of the pipe by the current when removing the reactor head underwater, and also, removing the old fuel cells causes a current. The shavings can be washed inside the reactor, which can jam the fuel cells, could even fuse to the control rods and possibly cause a meltdown. I feel that their doing that is lack of sense, lack of experience, or sabotage. Maybe Brown & Root's got an explanation for it, but I'd like to hear it.

I also have information which indicates that during the early stages of construction around the time when the reactor cavity was being poured, concrete aggregate material from a reject pile was used. My concern is that if the 700 ton reactor is sitting on rejected concrete, it could result in the weight shifting to the loop pipe, causing it to crack or shear off, which could result in a meltdown.

I am convinced that because I went to the Brown & Root Houston office with my concerns about the safety of the Comanche Peak plant and also the one in North Carolina, I am no longer employed with Brown & Root. They already had my name pulled off the board as General Foreman when I got back from Houston before the investigation group ever got to the plant. My future was already decided before I ever got back and before the investigation was ever started. Later I was confined to one area of the shop for five weeks. I called Mr. Rice in Houston and asked him how long I was going to be confined and told him that if I was going to be confined, the people I had made the charges against should also be confined because they were still violating procedures. I had called TUGCO before I called Houston and they removed me from standing in the shop and put me in a little tool room in the shop. Mr. Rice said, "As far as I'm concerned, the investigation has been over with and furthermore, you called TUGCO. If I worked for Brown & Root, I'd call Brown & Root. If I worked for TUGCO, I'd call TUGCO. If I worked for the federal government, I'd call the federal government. But you called TUGCO." I said, "I tried to call you guys first, but you weren't there." He replied, "You think we're going to sit by this G.D. phone and wait for you to call?" I said, "Well, maybe they're trying to discourage me here until I quit." He said, "Maybe you're finally getting the idea." I said, "As long as you guys can pay me General Foreman's wages, I'll sit in this little tool room forever." And he said, "We'll see about that."

Then the next Monday morning, I was given the choice of either working as a pipe journeyman, which would have greatly reduced my salary and relieved me of all my responsibility as a supervisor. So they ROF'd me (laid off as part of reduction of force). But they were increasing my department at the same time and after I left.

The information preceding was given to CASE in the form of an affidavit on December 18, 1982. However, I did not want them to turn it in in the hearings or to turn it over to the NRC or the utility. I gave the information to some newspaper reporters, and an article ran in the FORT WORTH STAR-TELEGRAM on January 7, 1983. A copy of that article is attached. After that interview, I was shot at and have been on the run ever since and have been in touch with CASE a few times by phone from different states. One night when I came home, I found my cat; its head had been cut off smooth and its body was missing. Since the article appeared in the paper, I have had a front-end problem with three different vehicles (one truck and two cars); they all appear to have the same problem -- the nuts were just about to fall off the tie-rod ends. I've been scared to go back and sign up every six weeks for my unemployment because I'm scared someone may shoot me.

Some of the reasons I'm scared is because of the things I know about at Comanche Peak and another nuclear plant where I've worked, the South Port, North Carolina, Brunswick Project Nuclear Plant. As I mentioned before, there are weld seams around the Reactor Core and new spent fuel pools which we were told were not supposed to lose 1/2 ounce of contaminated liquid per year per seam. These seams were approximately 100 feet long; when we tested these seams, some of them were losing approximately 65 lbs. a minute. Instead of repairing some of these seams, the gauge was blocked off and pressure was put on the gauge only. When the inspector passed the weld seam, he thought the whole 100 feet was under pressure, not just a few inches. Also, some of the stainless liner walls broke loose from embedded plates that are in concrete walls which some of these plates were improperly welded. By these walls breaking loose they sprang out several inches from concrete wall; therefore, when refueling the reactors, the stainless steel liners were flooded with water. Of course, the weight of the water will push the liner walls back to the concrete. After the refueling process is over, and water is drained out of the liner, the walls will spring back out, which could result in welds cracking or walls splitting. When I reported these violations to Brown & Root's Vice President, he told me he was not that concerned about the gauges being blocked off but he was concerned about the walls breaking loose. If I had told him of improper welding on these walls, I wonder if he would have been concerned at all? I feel these problems should be repaired.

Regarding Comanche Peak nuclear plant, there are safety violations such as torquing. For instance, quality control is supposed to verify the torquing of piping support that should be torqued at 130 lbs. The hanger is on a 20 foot ceiling with a scaffold built to them. Quality control is on the floor; the torque wrench is sent down to get QC to verify the number and setting of the torque wrench and carried back up and placed on the nut before torquing. QC hears a torque wrench click twice on each nut and buys off (approves) the hanger. What QC did not know was that the construction personnel had a second torque wrench and also had a nut welded on the scaffold. The second torque wrench was set at a low torque poundage such as 3 lbs. and they clicked it twice. Therefore, the nut on the hanger was never torqued; only the nut on the scaffold was torqued.

There were also violations such as pipe supports around the pipe. For instance, 3/16" clearance is supposed to be maintained on each side and on top and the pipe is supposed to be resting gently on the bottom of the support. For instance, a 2" pipe: a construction supervisor will climb on the pipe and get some of his crewmen so when QC comes to inspect the support, the weight will push the pipe to the bottom. In some cases, the pipe was binding so tight they would use a timber to jack the pipe down from the ceiling while QC bought off the pipe.

In some cases, when they can't get the right clearance on each side of the pipe, they take a grinder and grind between the pipe and tube steel, which in some cases results in a reduction of wall thickness of pipe. I believe this could result in a rupture of the pipe. Construction has also tried to straighten a pipe support by using a sledge hammer; this is done quite often. An employee told me that while hitting on the hanger he also hit the pipe and caved in the side of the 2" pipe 1/2 inch or more. He reported it to his supervisor who said not to tell anyone and covered it up with I.D. tags.

Another incident is improper personnel designing and engineering pipe supports. For instance, one helper told me while he was employed at the plant he designed many pipe supports for engineers. One day he wondered if they were using his engineering and if they were then checking his work, so he decided that he would design a hanger improperly and send it to engineering. The engineer passed it on to construction which built the hanger and it is presently installed improperly. The helper said that he did not want to go to any NRC hearing but he would love to have a showing and he could show many things if he was allowed to take investigators and actually show them the supports in the plant. Other helpers have also been involved in making major decisions for which they are not qualified.

Another violation is a sensor in a dam was run over and broken by a bulldozer. I understand that these sensors are placed in the dam in a vertical position in order to tell whether the dam moves or not. This sensor was not removed or repaired. It was held up and dirt packed around it while being embedded in the dam.

The construction company, Brown & Root, lost a \$3 million contract at Crystal River Power Company in Florida, by a dam breaking, I was told by one of the Vice Presidents of Brown & Root. What concerns me is that if this dam breaks, they will lose more than a \$3 million contract; it will endanger many lives.

There is also a violation that concerns me regarding the use of rejected concrete material in the early stages of the plant when the reactor core was poured. A friend of mine told Brown & Root's Vice President's investigating crew that he was a front end loader operator at the concrete plant and one day a QC inspector told him that the concrete should be thrown away because it was hard and dried. The inspector walked away and my friend started throwing it away and a supervisor told him to put it back in and use it and they did.

My friend also told the investigating crew of some type of sampling machine that tells whether there are good samples or bad samples in the concrete. It had a wire run to it while QC watched the machine to verify the use of good samples. Personnel would pull the wire to make it read good when it was not. My friend also told of other people that know of these violations and as far as I know, Brown & Root did not contact any of these people, but talked with one of their supervisors and his brother that worked at the batch plant; they, of course, told them that they knew nothing of this incident and since the superintendent is deceased, they did not see any further investigation of this incident. I am sure that the NRC is aware of this statement, because it was in the FORT WORTH STAR TELEGRAM article (attached). Undoubtedly, they are not concerned about the situation. I have not been contacted and neither has my friend.

If indeed a 700 ton reactor is setting on rejected concrete, you have a very serious problem as the reactor gets hot and begins to move around, the concrete can give putting stress on the reactor piping, which could cause it to shear or crack, which could even result in a meltdown. This could also be a problem in case of an earthquake.

I know of many, many more problems and violations than I can remember right now. What is funny to me is the big deal everyone made of Russia's 300 lb. nuclear satellite falling back into earth's atmosphere, when we have a possibility of a 700 ton reactor setting on rejected concrete and no one is concerned. If all nuclear power plants in the U. S. are built the way the ones that I have worked at are, we are in trouble. We'd better make friends with Russia so we will have somewhere to go.

But speaking seriously, I think this should be investigated by someone with a little construction experience or common sense. It has been drawn to my attention that I am not a civil or a mechanical engineer and that it is not up to me to decide whether these plants are safe or not. But I feel it does not take a civil or mechanical engineer. Even a 6-year-old would know these violations should be corrected.

I have read the foregoing 5-page affidavit, which was prepared under my personal direction, and it is true and correct to the best of my knowledge and belief. The thoughts and words expressed therein are my own thoughts and words (with the exception of minor grammatical changes, either to correct spelling or to clarify what I meant, which did not change the intent of my thoughts).

Arvill Dillingham Jr.

Date: March 31, 1983

STATE OF TEXAS

On this, the 31st day of March, 1983, personally appeared Arvill "J. R." Dillingham, Jr., known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes therein expressed.

Subscribed and sworn before me on the 31st day of March, 1983.

Loretta Payne
Notary Public in and for the State of Texas

My Commission Expires: 2/28/85

FRIDAY MORNING, JANUARY 7, 1983

s Comanche Peak charges

ingham is not qualified to make statements on potential problems that involve the concrete walls.

"I am not qualified to be talking about that," Vega said. "I am a structural engineer. He's a civil engineer. He's not qualified in engineering concrete."

"The most significant problem is the two alleged safety violations that could result in a nuclear core meltdown if the nuclear core is not properly maintained," Vega said. "I made the allegation and signed the statement."

"I will not take his charges

to the Nuclear Regulatory Commission because he does not trust the federal agency to conduct an impartial investigation.

Opponents of nuclear energy have questioned the commission's impartiality in hearings before the federal Atomic Safety and Licensing Appeal Board.

Last month, a former welding inspector at the plant, who charged that he was fired in reprisal for testimony he gave before the NRC, was ordered reinstated with back pay by a Department of Labor administrative law judge.

The inspector, Charles Atchison,

was fired three separate times from construction jobs at two different nuclear plants after testifying at regulatory hearings about faulty welds at Comanche Peak, which is under construction near Glen Rose.

Juanita Ellis, president of the Citizens Association for Sound Energy, said at least a dozen nuclear plant employees backed out of testifying before the NRC because they feared reprisals.

One of Dillingham's charges was that rejected aggregate material was mixed with the concrete that was poured to form the base for the nuclear reactor.

He said the improperly poured base could shift under the weight of the 700-ton reactor, causing the pipe that supplies cooling water to the reactor to break.

Larry Witt, a former Brown & Root front-end loader operator, told company investigators last August that he was ordered to use the rejected aggregate material by a superior. Investigators talked to two other men who worked in the area who said they knew nothing of the incident. Witt's supervisor at the time is dead.

Please see Comanche Peak on Page 22

returning. The shavings can be washed inside the reactor, which can jam the fuel cells (and) could even fuse to the control rods," Dillingham said in his statement.

If the metal particles fused to the removed rods, it is possible that they could prevent the rods from being replaced properly and could cause a meltdown, he said.

Vega — who said he would need more information before discussing the allegation — dismissed Dillingham's claims that any of the alleged violations pose a safety problem.

Another allegation by Dillingham involved the alleged practice of drilling holes through steel-reinforced concrete retaining walls at the plant. Special authorization must be given before holes are

drilled through the metal reinforcements. Dillingham claims to have knowledge of walls being weakened by improperly drilled holes.

Danny Grisso, who supposedly witnessed such holes being drilled, cooperated in the company's August investigation. In an interview Thursday, he said he is satisfied now that proper paperwork was done and proper authorization was given.

Vega denied Dillingham's accusation that Vega warned him not to contact the press with his charges. He said Dillingham called him in December and asked if he could help get his job back. He said Dillingham threatened to make the charges public if he was not put back to work.

Vega, who said his job is concerned only with safety, said he

didn't have the authority to put Dillingham back to work. "But even if I did, I wouldn't let him blackmail us," he said.

Vega said Dillingham lost his job because the number of employees is being reduced as work at the plant slows down.

Dillingham, however, questions the timing of his layoff. He said that in August, when he returned to work after meeting with Brown & Root officials in Houston, he had been stripped of his work crew.

After being assigned to work in one area of the shop for several weeks, he called Vega and then W.M. Rice, group vice president of the Brown & Root Power Division, Dillingham said. He said he was laid off the next work day.

Utility official denies C

By ERIC HARRISON
Star-Telegram Writer

A safety official for the company responsible for the Comanche Peak nuclear power plant dismissed charges Thursday that procedural violations at the plant could cost millions of dollars to repair and, if not corrected, could mean the potential for a nuclear disaster.

The allegations were made by a former foreman who charged that officials were conducting a "cover-up" to hide safety hazards that he and others brought to their attention.

The foreman, Arvill Dillingham

Jr., was laid off in October, weeks after his charges prompted an investigation by Brown & Root Construction Inc. The investigation failed to substantiate any of Dillingham's charges. Brown & Root is under contract to build the plant for Texas Utilities.

A second investigation, conducted by Texas Utilities Generating Co., one of three sister companies that form Texas Utilities, substantiated two of the charges.

However, Antonio Vega, TUGCO's quality assurance supervisor, said the violations do not pose a safety hazard.

Vega said Dillingham is not qualified to make judgments on potential safety hazards that involve the condition of concrete walls.

"He's not qualified to be talking about things like that," Vega said. "He's not a structural engineer, not knowledgeable in engineering technology or in concrete."

Dillingham's most significant charges involved two alleged violations that he said could result in a meltdown of the nuclear core if not corrected. He made the allegations in a sworn statement signed Dec. 18.

He said he did not take his charges

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A report on the investigation said tests on the concrete failed to show any impurities.

Dillingham said the concrete was never tested. Witt could not be reached for comment Thursday.

One of Dillingham's allegations that was never investigated involved the construction of underwater lamps in the pool surrounding the reactor. Dillingham charged that he was prevented from cleaning drill shavings from the lampposts by his superintendent. The supervisor, Dillingham said, was in too much of a hurry.

Dillingham said the shavings, which remain inside the hollow lampposts, could become dislodged by underwater currents when the reactor head is being removed for

refueling. The shavings could jam the reactor core, even fuse together.

If the meltdowns were removed, the reactor could prevent replacement of the core during a meltdown.

Vega — who has provided more information on the allegations — said Dillingham's charges were a "big problem."

Another allegation involved the drilling holes in the concrete. The holes, if forced into the plant, must be grouted.

Comanche Peak charges

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The shavings can be used to build the reactor, which has fuel cells (and) could be used to control rods," Dillingham said in his statement.

If particles fused to the rods, it is possible that they would prevent the rods from being inserted properly and could cause a meltdown, he said.

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Allegation by Dillingham that he alleged practice of using shavings through steel-reinforced concrete retaining walls at Comanche Peak. Special authorization required even before holes are

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