SWORN STATEMENT

OF

JAMES F. HENRY, JR.

DATE: June 20, 1979

PLACE: Law office of Thomas M. Dattilo, 311 East Main Street, Madison, Indiana.

TIME: 4:00 P.M.

PRESENT: Thomas M. Dattilo, Attorney for Save The Valley, Incorporated.

Mr. James F. Henry, Jr., the witness.

Mrs. Patricia S. Torline, the reporter

PATRICIA S. TORLINE
SHORTHAND REPORTER
RT. 6, BOX 2A
MADISON, INDIANA 47250

The witness, JAMES E. HENRY, having been duly sworn by the reporter to tell the truth, the whole truth and nothing but the truth, testified as follows:

DIRECTIONS BY MR. BARTLO:

Q. State your name?

A. James E. Henry, Jr.

Q. Are you now or have you been an employee on or about the proposed Marble Hill nuclear site?

A. I was employed there for nine (9) months.

Q. For whom?

A. For U.S. Testing, Incorporated, from Hoboken, New Jersey.

Q. And what is the capacity or work of U.S. Testing?

A. U.S. Testing is the independent laboratory that supplies test data on materials to be used by Public Service of Indiana, the client, and Newberg Marble Hill for the later use to determine whether or not the materials are acceptable.

Q. What materials are you speaking of that are tested?

A. Concrete, grout, reinforcement bar, and they also do soil for compaction purposes.

Q. What was your specific occupation in employment with U.S. Testing?

A. I was a lab technician, Level I.

Q. What was your function?

A. I tested at various times concrete and re-bar, and I was documented in various laboratory procedures for

the purpose of determining acceptability of materials.

Q. Now, do you recall any specific instances regarding the testing of the materials that you were involved?

A. I can think that, most of all, other than specific, it was the attitude taken by the company. Many times -

Q. Now, I am interrupting you - I'm sorry - but I want you to speak with regard to what you know personally; so you understand that?

A. Yes sir.

Q. And you are under oath?

A. Yes sir.

Q. So, go ahead.

A. I personally feel that I have documents that will prove that poor grade concrete was used in certain structures with the knowledge of Public Service Indiana, and that certain testing apparatus on site are not new and of a quality that could give an accurate account of the materials. They have a machine called an ET-4000 which has been re-conditioned. Several of the mandrels are very badly worn.

Q. Several of the - ?

A. Mandrels; they're jigs used to bend the re-bar to a 45 or 90 degree angle to determine whether or not they will pass the specifications written out by Sergeant and Lundy.

Q. Now you mentioned Sergeant and Lundy; what is Sergeant and Lundy?

A. Sergeant and Lundy write the specifications and establish guidelines, and - guidelines set forth by the A.S.T.M., American Concrete Institute, and several other organizations who deal with materials and their quality. They are there to more or less interpret specifications and also write the specifications, and also change the specifications as the situations arise.

Q. Now, were there any particular Sergeant and Lundy specifications that were not complied with by U.S. Testing?

A. Yes sir.

Q. Would you be specific?

A. The testing of concrete is done in the field as it is made, and later cylinders are molded for the purpose of compression testing. These are tested at intervals set forth by Sergeant and Lundy. Sergeant and Lundy has written into the specifications that certain A.S.T.M. codes will be followed to the letter; they're very specific. They give what paragraph, what page, et cetera. The cylinders for one reason or another are not molded perfectly, and later need to be capped. The cap has a maximum thickness and - set forth in the A.S.T.M. - and it is impossible for certain cylinders to be tested within this specification because they can't be sawed. A cylinder saw is to saw the cylinder off at right angles, making it possible to cap either end of the cylinder so that it can be fed into the machine and tested properly. To my knowledge, at this

time there is no such thing there; and when I did work there, there was no saw and no correction factor being used.

Q. If there is no saw available, does that affect the quality of the inspection significantly?

A. The test cannot be considered completely accurate and conforming with the specification if the cap is thicker than is specified, and this sometimes results in a certain kind of break, a local break, at times. It's specified on this document here, number 6. By the cap being too thick, more pressure is exerted on one side than the other, and you get inconclusive tests.

Q. What is -- what does PSI mean -- Strength PSI; what does that mean?

A. Well, your machine gives you load and pounds; in other words, it tells you directly how many pounds are being exerted upon a specimen. This is recorded and then a computation is used to find the area that's being - that's in contact with the machine. This is then computed to pounds per square inch.

Q. Now with respect to pounds per square inch, are you aware of any instances in which the United States Testing made determinations that the concrete in or around the containment structure, or other category or category 2 structures, was not up to par?

A. I can think of several. I'm looking at a document right now that has a failing 91-day break; I'm not

changed. In the remarks at the bottom of the page, it was said that the cube was damaged while it was being made. The person that wrote this out was not in the employ of U.S. Testing at the time it was made, so there's really no way that he could assume that.

Q. Do you speak with personal knowledge of this situation?

A. Yes sir; I was there.

Q. Did you have any complicity in the situation, yourself?

A. I made aware the situation to the project supervisor, and also my direct superior who had changed the original data on the report. They said that it was - that whenever they had breaks that far apart that it was a rule of thumb to knock up the bottom by 10 percent, and if that wouldn't do it then they would say that the cylinder or the cube was damaged while it was being made or damaged thereafter.

Q. To the best of your knowledge this particular one item that says 4329 pounds per square inch, after 91 days from the first pour; has that concrete been changed on that particular area?

A. To my knowledge, no structure has been removed because of failing tests. Many structures are found later to have voids. They're now patched with gunnite; at one time they were patched with grout.

Q. Now the particular location we're talking about at this time is what?

A. The placement location was AM-3W6-7. It would indicate

that it was a wall at that particular elevation, probably used early in the pour as a foundation for the concrete to be poured upon top of the top of it. It's used almost like a footer.

Q. Now, in which building on the site would this AW-P-1-7 be present?

A. It's a code that is used by Newbeg. I'm not exactly sure. It could possibly be the Auxiliary Building, it could be any number of structures within a certain area. This is just an elevation.

Q. Are you aware of any other instances of possible misstatements on quality control reports of United States Testing?

A. Yes sir. I was present one day when a relative density sample was misplaced or contaminated with other materials. At the time we had just moved into the on-site laboratory. The relative density table had not been secured to the floor. It vibrates quite rapidly and would walk about if not anchored. Later, when it was anchored, the sample had been misplaced or contaminated, and the site supervisor suggested to a technician to go out in the approximate area that the original sample had been taken from and obtain another sample. The technician who was requested to do this had not obtained the first sample, thereby making it next to impossible to get a sample from the same area.

Q. Now, you have not been in the employ of U.S. Testing

for the (2) months. You are still working in the ground corrective, is that correct?

A. Yes sir.

Q. And you feel that the statements you have made today are true and correct?

A. Yes sir.

Q. And of your own personal knowledge?

A. Yes, they are.

Q. Is there anything else you would like to say?

A. I'd like to say that on the whole U.S. Testing has a very,very poor record in its attitudes; the technicians are underpaid; they are required to do work which is not within the scope of their responsibility.

Q. Can you be more specific?

A. I'd say mostly by people having a position of responsibility who are there because that they get along with their superiors, as opposed to being able to do the quality work that is demanded in the specifications; many, many people have been passed over for promotions. They have had a very high matriculation rate of technicians, which leaves them with the constant problem of having to train personnel to do the work. Many times the personnel performing the tests have no prior nuclear experience or prior testing experience, and their data is really the only data taker. Public Service of Indiana, to my knowledge, does very little testing on their own, and it's all left up to the

underground inventory.

Q. One other question. Are you aware that the concrete core samples are to be kept in a specific location by United States Testing on the site?

A. To my knowledge, U. S. Testing has no core samples.

Q. Are you aware that core samples exist and are kept under someone's supervision at the Marble Hill site?

A. At the time I worked there I never saw a core sample. To my knowledge, there was no one working there that was documented in that procedure.

MR. DARRIGO: No further questions.

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CONCLUSION OF STATEMENT

CERTIFICATE

STATE OF INDIANA)
) ss:
COUNTY OF JEFFERSON)

I, Patricia S. Darline, do hereby certify that I am a Notary Public in and for the County of Jefferson, State of Indiana, duly authorized and qualified to administer oaths; That the foregoing sworn statement of Mr. James E. Henry, Jr. was taken by me in shorthand and on a tape recorder on June 21, 1979, at the law offices of Thomas K. Dattilo, 311 East Main Street, Madison, Indiana; That this statement has been reduced to typewriting by me and contains a complete and accurate transcript of the testimony given by the witness; That the witness, James E. Henry, was duly sworn by the reporter to tell the truth, the whole truth and nothing but the truth prior to the taking of said statement; That present at the taking of this statement was Thomas K. Dattilo, Attorney for Save The Valley, Inc., Mr. James E. Henry, the witness, and this reporter.

I do further certify that I am a disinterested party in this matter.

WITNESS my hand and notarial seal this 21st day of June, 1979.

Patricia S. Darline, Notary Public
Jefferson County, State of Indiana.

My commission expires May 30, 1980.

HENRY: These are all documents of U.S. Testing. They all indicate that the actual test specimens on in-place concrete in many, many areas--category one areas and category two areas--all of these here;--they're not all of them; as many as I could get a hold of--show that the concrete was not properly cured, actual test specimens improperly cured.

DECKARD: Would it take an engineer or someone of your training to understand these?

HENRY: All the specification states is that concrete specimens will be cured until they are tested in a temperature range 60 to 80 degrees. Temperatures are recorded right here, and as you can see there isn't one in there that's between 60 and 80 degrees. This is 42 degrees, 48 degrees--near-freezing. Some of them are well over a hundred.

DECKARD: ...at least I know that much.

HENRY: Gives the locations, the type of mix, the whole thing. I have a document which shows that Public Service of Indiana is well aware of this problem, and apparently unable to have anything done about it.

DECKARD: Is that document included in here?

HENRY: No, sir, I have it with me.

DECKARD: Now all these papers that you have given me here have to do solely with curing temperatures; is that right?

HENRY: There are actual test failures included in there.

DECKARD: Would it be possible for me to run through these and indicate those portions where the parts of each report which indicate a failure to meet specifications, talk about the curing which should be between 60 and 80 degrees...

HENRY: ...yes, sir. It is clearly stated.

DECKARD: Let's take this first paper, for example. Is the curing the only problem on this?

HENRY: Well, it is incomplete right now. You can see this is the kind of concrete--it is 5500--it is required to have the strength of 5500 pounds per square inch at 91 days. This is partially completed, I got it out of a garbage can. That is why it is somewhat wrinkled up. The copy was made of it here, which is complete. These all here are ...

DECKARD: These meet specifications, required strength, pounds per square inch for 91 days?

HENRY: Yes, sir. Indicates the right dates, seven days, 28 days, 91 days. As you can see, these are above; there are test failures included in this collection right here.

DECKARD: Which one of these would be test failures?

HENRY: Well. Say for instance if these two figures here, were here instead... In other words, if any data is found to be less than 5500 (pounds) at 91 days...

DECKARD: Are all of these 91 days?

HENRY: No, sir. This is the identification set--this is the date they were made, these were dates they were supposed to be broken. These two are seven days; these two at 28 days; and these two at 91 days.

DECKARD: Now, at 91 days, it appears that they do meet specifications?

HENRY: Yes, sir.

DECKARD: Wouldn't that indicate then, that regardless of the curing temperatures, that they would meet specs at the end of 91 days?

HENRY: Well, sir, if curing was not important and not required, and not serious, (and they go to great lengths to secure these specimens), and to secure them properly, and cured improperly, which indicates a mis-handling of the specimens, and an inability of Public Service of Indiana to meet the specifications on that particular point.

DATILLO: Jim, let me interject this with the Congressman. You had a with the failure available right here

HENRY: These are in order. He has No. 521, it is a specimen ID 521, if he would like me to find it, I can. I have one that is even stamped. As you can see, these are the technicians that tested;--someone tested the

seven day break, someone else tested the 28 day breaks. Neither one of these individuals are working there at this time, and at the time they were working there, I believe they were advised that certain test failures could possibly come back to them, and show that they had run the tests incorrectly, or that they were incorrectly trained.

DECKARD: Do you know who these people are?

HENRY: Yes, sir.

DECKARD: Are these all copies that I can have?

HENRY: They are all xeroxed copies of actual control documents.

DECKARD: On the back of specimen ID 521, I'm going to write down the actual names of the testers and initials right now.

HENRY: Yes, sir.

DECKARD: Who is GH?

HENRY: Gary Harrel.

DECKARD: Is he still with U.S. Testing?

HENRY: No sir he is not.

DECKARD: Why not?

HENRY: I believe he left for a better position with a better company.

DECKARD: Who is DH?

HENRY: This is Daryl Hargrave-Thomas. All he did was check the computations.

DECKARD: Would he be in a position to know whether this report did not meet specifications?

HENRY: I believe he could...if he had looked at it, he could see that it did have a failure at the 91 day break.

DECKARD: What is his name again?

HENRY: Daryl Hargrave-Thomas.

DECKARD: Is he still with U.S. Testing?

HENRY: Yes, he is.

DECKARD: These other initials...

HENRY: That is Steve Cunningham. He is no longer with the company, either. He quit as a direct result of conditions in the compression laboratory.

DATILLO: Do you have personal knowledge of that?

HENRY: I was there when he quit.

DECKARD: He quit as a result of what?

HENRY. Conditions in the lab

DECKARD: The testing lab? What kind of conditions?

HENRY: Yes, sir. At the time all the testing done on site, was being done out of a semi-trailer. There was no laboratory at that time for the compression. The machine set on a table and was pumped by hand because the electric motor did not work.

DECKARD: Why was the use of the semi-trailer unsatisfactory to him. Was it from the standpoint of his own personal working conditions? Or because of... did he quit as a matter of principle because of those types of conditions? Or was it just unsatisfactory...

HENRY: I hesitate to offer an opinion on that, but he did quit because of the unsafe and irregular conditions...

DECKARD: Where does he live now?

HENRY: I really don't know.

DECKARD: Was he from...

HENRY: He was from New Washington, Indiana. His brother still works for the company.

DECKARD: Then he might have some problems. New Washington, Indiana?

HENRY: Yes, sir.

DECKARD: Do you have any idea where Gary Harrel is?

HENRY: I think he is in Paducah; I'm really not sure.

DECKARD: How about Daryl Hargrave-Thomas?

HENRY: He still works there, and he lives in Hanover, Indiana.

DECKARD: Does he commute or what. Is Hanover close?

HENRY: Very close.

DECKARD: These initials...

HENRY: The last initials are Daryl Lanham. That is DHT and then DL.

DECKARD: Two people checked the 28 days. What is the last name?

HENRY: Daryl Lanham. He is presently site supervisor.

DECKARD: Is he still with them.

HENRY: Yes. U.S. Testing. He is a level III.

DECKARD: Where does he live?

HENRY: I think Jeffersonville.

DECKARD: Now tell me again specifically on specimen ID 521 what the violation is?

HENRY: Improper curing and also...

DECKARD: Improper curing temperatures?

HENRY: And also, the results of this break did not meet the specifications.

DECKARD: This shows that at 91 days, 6300--but the required strength is only 3500. Doesn't that show that they are actually exceeding specs, instead...

HENRY: The specification requires that both cylinders pass the 91 day inspection.

DECKARD: Well, I don't understand this document, then. You say both cylinders...

HENRY: They make six cylinders--two are broken at one date, two at 28 days, and two more at 91 days.

DATILLO: They were made the first day; they are not broken until the 91st day.

HENRY: They are cured until that time.

DECKARD: So this cylinder is below specs?

HENRY: Yes, sir.

DECKARD: These are all xerox copies.

HENRY: Yes, they are all xerox copies. I made several copies of that because it did stand out. This does not appear that way in the permanent log. In the remarks area here, another individual...

DECKARD: ...now wait a minute. On specimen ID 521, what does not appear?

HENRY: This document has been changed. In other words it was submitted in another form than you see it right now.

DECKARD: What specifically has been changed on the other document?

HENRY: This particular cylinder was marked...

DECKARD: ... the second cylinder which is 4325 pounds?

HENRY: Right, it was marked as being improperly molded. This note was made by...at the time, the level II over concrete, who was not working at the time it was made, and he stated to me later that whenever you have a break like this that generally the bottom one is marked up 10 percent in order to appear that the test was run correctly.

DECKARD: Would both U.S. Testing and Public Service and Newburgh have copies of the same document?

HENRY: They are on their permanent records. Yes, sir.

DECKARD: All three companies would have copies of this document.

HENRY: Yes, sir. I would think so.

DECKARD: Would the document have been altered in all three cases?

HENRY: I would think so.

DECKARD: In other words it was altered by U.S. Testing before it was ever submitted.

HENRY: Yes, sir.

DECKARD: Indiana Public Service, NRC, Newburgh and so on.

DATILLO: Before you pass on, there is a point regarding Daryl Lanham that I think would be relevant. What did you say with regard to no NRC reports of Daryl Lanham?

HENRY: Mr. Lanham is presently site supervisor. At the time I started working there he was a level II Lab Technician; he was just doing testing like I was. At the time, we were not moved into the on-site laboratory. All this testing and compression were being done in a trailer. The cylinders were being cured in a trailer; they were being broken there.

DECKARD: The cylinders were being cured in the trailer? What type of cylinders are these? What size?

HENRY: Six by twelve.

DECKARD: Core samples of the containment vessel itself?

HENRY: They test concrete no matter where it goes.

DATILLO: Instead of adding the pour, or instead of pouring into the forms, they will pour some of that concrete into the wheelbarrow where there are samples.

HENRY: These are later cured and kept until the date that there has been...

DECKARD: It is presumed that the strength of the test sample is representative of the strength of the substance.

HENRY: Yes, sir.

DECKARD: Now we are continuing to talk about the containment vessels, aren't we? Concrete in containment vessels?

HENRY: No sir. This placement location indicates that it was not in a containment area.

DECKARD: What is ICS?

HENRY: I think it is a column.

DATILLO: All of these different numbers refer to a specific location; not all of them are containment. However, he has a statement regarding the footing.

DECKARD: On specimen ID 521, Source Main Batch Plant--in other words this is a sampling of the concrete in the Main Batch Plant.

HENRY: No, Sir. The concrete is produced on site by Newburg at the Main Batch Plant, and then transported from the Batch Plant to the actual core location by truck, and then later to the specific areas by feeders, buckets, or direct...

DECKARD: On specimen ID 521, the concrete that is being tested or 521, is concrete that was poured where? At what location in the plant?

HENRY: This location.

DECKARD: AW346-7.

HENRY: Yes sir.

DECKARD: Does the "W" mean anything to you?

HENRY: The "W" refers to a wall, and the 346-7 is an elevation at other locations on their map.

DECKARD: So we really can't be certain in all likelihood that this would be one of the containment vessels. Is that right?

HENRY: No sir. I don't believe...

DECKARD: ... not necessarily.

HENRY: Well if it was a containment area, it would be specified there as a containment area.

DECKARD: Do you have any containment area documents in here? As far as testing documents?

HENRY: Not to my knowledge.

HENRY: ~~But there are test failures for certain columns that are~~ columns used to ve[illegible]ical expanse of concrete used to support a flooring" above that components will be resting upon generating components.

DATILLO: You made mention earlier tonight that certain areas of containment where there was defective concrete. Can you tell the Congressman where that is and what you know about it?

HENRY: Okay. This is a rough sketch of the plant. Unit One here, Unit Two here.

DECKARD: Containment vessels?

HENRY: Containment merely means that it is poured within the confines of this area. From there down. In one specific location right here, there was a pour one day when it rained very heavily; the concrete was transported

from the truck to the location by a series of belts, which are open--[illegible] to the elements. I can think of one area which was in the very center [illegible]--these are hollow--circulatory water comes from the center up to cool. There is one non-conformance that I know of where out-of-spec concrete was placed here with the ...

DECKARD: ... in Containment Unit II.

HENRY: Yes, sir. ...with the full knowledge of Newburgh.

DECKARD: Who would have been the supervisor who would have been aware of ...

HENRY: John Ball.

DECKARD: Tell me everyone you know of who would have been aware of that problem?

HENRY: Well, everyone who was present during that, and anyone who reviews the actual reports, and processed reports.

DECKARD: Who was the supervisor when this took place.

HENRY: For which company?

DECKARD: For any of the companies--Newburgh, Public Service, U.S. Testing.

HENRY: Daryl Lanham was at the time acting site supervisor.

DECKARD: Would Daryl Lanham have been aware of that?

HENRY: Yes, sir. He would have had to review the paperwork.

DECKARD: Do you happen to know who the site supervisor would have been for Public Service?

HENRY: At the time, I believe it was Robert Peterson.

DATILLO: Did you advise Robert Peterson of the feedback?

HENRY: Not personally, but it was noted on the actual in-process report...

DECKARD: ... do you have a copy of that?

DATILLO: What did you do with that?

HENRY: I submitted it.

DATILLO: To whom?

HENRY: To my company.

DATILLO: Did you submit any copies to Robert Peterson?

HENRY: No, sir, but he was made aware of it.

DECKARD: But he was made aware of it. By whom?

HENRY: By myself. I have here... PSI had at one time monthly meetings with technicians at U.S. Testing over problems that were happening in the field and it got to be so serious that we called a special meeting and this

is a reply to that meeting which was August 7, 1978. You can see the title says, "Proposed Actions to be Taken by PSI." The very first one if PSI QC Inspectors will stay with the category I concrete placement until they are completed.

DECKARD: What does that mean?

HENRY: That means that they were going to try PSI--PSI was going to see if they could get more people--more PSI engineers to actually be there, present during category I pours which would be in this area.

DATILLO: Tell us the difference between category I and category II. It sounds like something

HENRY: Category I--Categories are merely safety categories. They are really just geographical locations. This is a rough outlay of the plant--I and II. This is what they call the "L" Wall.

DECKARD: What does that mean?

HENRY: It is just a wall that separates this area from this area.

DECKARD: Now, in category I, the containment vessels themselves are located?

HENRY: They are not category I. They are referred to as containment areas.

DATILLO: But they would be the same as category I wouldn't they?

HENRY: Right. Your specification goes from different levels, from site concrete to category II, from category I to ...

DECKARD: But what is this in the middle? Is that the auxilliary building or ...

HENRY: No, sir. That is the fuel handling section.

DATILLO: Which is as important as containment regarding safety. So category I and II both have to have the same prescribed methods for proper concrete curing.

DECKARD: Now what are the types of things that are contained in category II?

HENRY: Turbines, turbine slabs, the auxiliary buildings...

DECKARD: In other words, Category II is an area where safety factor, or at least nuclear contamination, is not a part of the safety factor. In other words, if something goes wrong in that area labeled Category II, you're not necessarily going to get emissions of radiation. We're concerned about Category I, right?

DATILLO: I don't agree. I think we're concerned with both Category I and II. What happens is that...am I correct...

DECKARD: Does any type of radioactive material, whether it's water or whatever it might be...

HENRY: Sir, I'm not an engineer--and I don't know the exact workings of the whole plant...

DECKARD: Well you see, if no radioactive material ever reaches the Category II area, as part of the process...

DATILLO: How about fuel? Take the fuel handling building itself.

HENRY: Storage pools.

DATILLO: It handles the fuel which is the radioactivity, so it's got to be, there has to be ...

DECKARD: So there are radioactive elements contained in both Categories I and II.

HENRY: I would say definitely in Category I.

DATILLO: Where do they unload the fuel?

HENRY: Well, the railroad comes in, crosses Highway 62 up here, comes on site. Here you have what they call the A-Cock unloading facility--it's a large series of platforms out there to unload very heavy... They refer to it as the A-Cock. I think that's the name on the structural steel. They unload components here, to my understanding. The fuel will then go to this area and through what they call fuel handling tunnels which are located on either side of the fuel handling section, below it.

DATILLO: I have the statements from the NRC Division 3 as to which building..

DECKARD: Okay. That's probably not as important right now. You know, what I really need... there's so much in these proposed actions sheets, there are so many initials and other kinds of technical things, what I really need is on each one an explanation of, first, what it means, and then two, the implications--the safety implications...

DATILLO: I have a response for what you need, the information. I'll see if I can get ahold of Dr. Cassaro.

DECKARD: Dr. who?

DATILLO: Cassaro. He's an expert on concrete.

DECKARD: Dr. Cassaro. Where's he located?

DATILLO: At U of L.

DECKARD: University of Louisville?

DATILLO: Yes. He's a professor over there.

DECKARD: Is he aware of these problems?

DATILLO: Not these specific ones...

DECKARD: Has he done any work for U.S. Testing, PSI or Newburgh?

DATILLO: No. He's an independent observer who has been requested by me to inspect the honeycombs at Marble Hill and he's the one who had turned down by PSI the list of...

DECKARD: PSI turned down Dr. Cassaro?

DATILLO: They refused to let him on the site. They had let [illegible] on the site, but they wouldn't let him on the site.

DECKARD: Who did you ask for permission for him to come on?

DATILLO: I asked the NRC first--they said they didn't have the authority; since PSI owned the land PSI would have to give the permission. I was denied permission to bring him independent onto the site.

DECKARD: Would you be willing to put in writing that type of thing? Because all we're relying on is a little tape recorder which may not even be picking you up.

DATILLO: Why don't you turn that off for a second. Just one second.

(Recorder off)

DECKARD: The time may come when it won't be confidential because if any action is going to be taken on any of this, obviously, it will eventually have to be made public.

DATILLO: OK. He has a request regarding confidentiality of those names, that he does not want to come out.

DECKARD: Confidentiality will be maintained throughout this entire time, until such time as I'm convinced in my own mind that there is enough documente evidence available to indicate falsifications of records, to indicate serious safety violations which carry implications for the possibility of emissions of radiation once that plant is in operation. Once I do accumulate such information, documented information, sufficient to prove what I've just said, then at that point I intend to go to the Chairman of the Energy Sub-committee that I'm a member of, for a Congressional hearing, and possible

subpoena power to subpoena some proprietary records of PSI, Newburgh and U.S. Testing. At that point, everybody comes out of the closet. That's what it amounts to.

DATILLO: I've already asked to subpoena those same records but the NRC is sitting on their duffs.

DECKARD: Well, I think they'll continue to, too. I don't know if this will ever reach that far or not. I hope it does. And I'm looking for the information that'll make it possible to reach that point. But I can't go in and ask for a Congressional hearing and subpoena power without substantial, documented evidence. (Datillo receives telephone call here) I will go ahead and shut it off for awhile.

(Recorder off)

DECKARD: Because, as I say, I'm not going to do anything public on this until I'm certain that--because you see my neck will be on the line too when you go public. And I'm not going to stick my neck out until I'm sure I know what I'm talking about.

DATILLO: Let me ask you if you would stick your neck out on another area when you knew what you were talking about, without any great problems. Would you be willing to go public today and ask that Save the Valley be allowed to have an independent engineer look at the honeycombs on the site? Would you have problems...

DECKARD: Let me ask first, who did you make the request to for you and Dr. Cassaro with PSI?

DATILLO: To Jim Pope, the attorney at Plainfield for Public Service.

DECKARD: Jim Pope, the attorney for PSI at Plainfield, said that you could enter the site today with the NRC engineers.

DATILLO: Also with Mr. Cutshall.

DECKARD: Now. Why did he refuse, what reason did he give for refusing to let Dr. Cassaro come with you?

DATILLO: That it is not their general policy to allow visitors on the site.

DECKARD: I don't know how much of that we missed. So the attorney Pope did give you permission to go onto Marble Hill today with the NRC inspectors. He refused permission for Dr. Cassaro for what reason?

DATILLO: He stated that it was not their normal policy to allow visitors on the site; that Save the Valley already had one "potential" expert as they

called Mr. Cutshall, who would be going on the site, that there was no need for an engineer to go on it. I suggested that it's normal general rules of discovery that you be allowed to bring on your own experts. They said it was company policy, that they did not want to set a precedent in this particular incident and if they allowed me they would have to allow others. But I would hardly say they allowed newsmen to go on at all times that I would think that they would have less proprietary interest than a disinterested engineer who has already checked a particular defect.

DECKARD: Well, one thing I have been considering as we have been talking (and I want to go through the rest of this information before I make up my mind on this), is perhaps trying to go site today myself with Dr. Cassaro.

DATILLO: Well, would you do me a favor?

DECKARD: OK

DATILLO: With all due respect, you wouldn't object if I accompanied you?

DECKARD: No, I have no objection to that. They're already given permission for you to to on today, haven't they?

DATILLO: Right, but you may have the problem if you go on site, You know that you're going to have to sign don't you?

DECKARD: I'll sign it--the indemnification thing?

DATILLO: Yes.

DECKARD: I'll sign it, and if anything happens to me, PCI, I believe,will have a few problems on their hands. Simply because of the appearance of it. I don't believe PCI is that dumb to intentionally cause any kind of injury, serious injury, or even worse,to a United States Congressman in order to, the very appearance of it—they wouldn't risk that. I'll sign any indemnification. I've signed it to visit other plants.

DATILLO:You don't mind if I hang onto your arm,do you (laugh).

DECKARD: No...Well, I don't know — we'll make that determination later--we're wasting tape--this is my last tape. ~~keith~~ We'll have to go through this Proposed Action thing--it's something that's going to have to be gone through at a different time, in order for me to be able to understand just exactly what it means...We can keep Mr. Datillo as a person who will be fully aware of any conversations you and I might have by telephone and at any meeting we might have personally Mr. Datillo would be present if possible. If it's possible for all of us to meet at the same time. You understand what I'm trying to say.

HENRY: Yes.

DECKARD: I don't intend to try to take this whole thing away from you...

HENRY: I understand. We couldn't work together--you and I wouldn't be this far.

DECKARD: ...What's your full name?

HENRY: James E. Henry, Jr.

DECKARD: Where do you live now?

HENRY: Lexington, Indiana.

DECKARD: What's the address there?

HENRY: I live there but my mail is sent to Madison. I have a post office box in Madison. It's Box 725, Madison.

DECKARD: Could I ask...is there any reason?

HENRY: Well, I just moved out there and I haven't changed my address yet. I just moved from Madison out there to Lexington.

DECKARD: What is your address in Lexington?

HENRY: State road 356. know what rural route that is.

DECKARD: Do you have a telephone there?

HENRY: No sir, I don't.

DECKARD: How would one get in touch with you if needed to get in touch with you in a hurry?

HENRY: Through Mr. Datillo, you'd probably be able to contact me.

DECKARD: How would Mr. Datillo be able to get in touch with you?

HENRY: He knows where I live.

(Datillo in background describes location of house)

DECKARD: Are you working out of your house?

HENRY: No.

DECKARD: What are you ...

HENRY: I'm just self-employed right now. I don't work for any specific ...

DECKARD: ...In other words, you work out of your house.

HENRY: Right.

DECKARD: Do you plan to have a phone put in any time soon?

HENRY: No sir.

DATILLO: He has a couple of other points -- major points -- you should at least have a small run down.

DECKARD: Do you know what points he's talking about?

HENRY: Yes sir. I've made some notes here.

DECKARD: OK. Why don't we go ahead and talk about those then.

HENRY: Well, this is really not a very good place to discuss this because I've got a lot of documents and there's really no place to put ...

DECKARD: You want to go back to my room?

HENRY: That would be better.

(tape turned off)

DECKARD: We have some different documents out here now? Where do you want to start?

HENRY: We're looking for an actual test failure. That's a test failure for a vertical expanse right there...

DECKARD: ...This is a vertical expanse?

HENRY: A column. It's a support column.

DECKARD: This is one of the things/where probably they've already been cited. The NRC did cite...

HENRY: 109 nonconformances in Category I.

DECKARD: There were only 3 specific violations that the NRC cited. One was a honeycomb, one was this expansion thing --I've got this written down somewhere--

HENRY: ...tension...

DECKARD: ...Yes, the tension thing. And using noncertified workers. Of course their response to that was that, well, we didn't use those people on this particular work until such time as they were certified. Well, who knows whether in fact they did. Now this test failure, I would suspect--we don't know for sure--may be one of those that the NRC cited in its report. If it isn't, this of course would be significant. In your opinion, this is, this particular document I'm looking at that shows the test failure, it's supplement location AC 346 23 to 29 AC346 3-37 date place 2/14/78. What's the document number

HENRY: There's a report number on it, and the precision identification ...

DECKARD: Project number 7107. That at it? It's either 7104 or 7014.

HENRY: I think it's 7014.

DECKARD: Box number 13, whatever that means.

HENRY: That's a core test.

DECKARD: Date, place 7/14/78. This says date tested. On-date molded 7/14/78, date tested -- that's at the end of 91 days they failed. One cylinder is 5170, that should be 5810, the other is 5150, and it should be 5510. Let's see what else we've got here.

HENRY: I just wrote some points down here. I don't really know what interest you have in the ...

DECKARD: Go ahead and give them to me.

HENRY: First of all U.S. Testing had an attitude in their testing frequency. They are required to run certain specific quality control tests for every 50 yards placed. An air test, which will give you an idea of the amount of air intrained in the concrete, temperature and also a slump. Also there are frequencies depending on the size of the pour and the category and the area and specific compression tests are made. We were instructed by the testing that it would be better to wait for a good truck. If you looked at a truck -- see, these are random tests, you can run them anytime within the 50 yards. We were instructed to wait until we got a good load of concrete.

DECKARD: How do you know what is a good load of concrete?

HENRY: After a while it's possible to visually inspect concrete for certain things, properties. After a while, when you are experienced with concrete you can look and visually see that certain properties are out -- if it's obviously too soupy or too dry.

DECKARD: Were you there when these instructions were given?

HENRY: Yes sir.

DECKARD: Who gave you the instructions?

HENRY: The second site supervisor, Mr. Don Hudler.

DECKARD: Don Hudler. He's an employee of U.S. Testing?

HENRY: He was site supervisor. He is no longer with the company?

DECKARD: Why not?

HENRY: He left because of problems with himself and PSI.

DECKARD: Voluntarily or involuntarily?

HENRY: Voluntarily.

DECKARD: Do you know what his problems were with PSI?

HENRY: Mainly, I think, problems with personalities, and also differences in procedures. Mr. Hudler thought that certain tests were relevant and that PSI was agitating the owners -- surprise surveillances and badgering technicians to keep them guessing about whether they

HENRY cont.) were doing good work or not.

DECKARD: Is his name Don Hudler?

HENRY: Yes.

DECKARD: Where does he live?

HENRY: I have no idea. The last I heard about Don Hudler was I think he went to work for a calibration company in Texas. But like I say, this is just hearsay. I have no personal knowledge of where he is at this time.

DECKARD: Calibration tester in Texas? Were you present when these instructions were given?

HENRY: Yes sir. They were given to me.

DECKARD: And Don Hudler is the one who gave you these instructions?

HENRY: Yes sir.

DECKARD: Did he indicate to you who told him to tell you that?

HENRY: No sir. The situation arose because -- it was when I was just hired, maybe a month or so after I was out there. I was working in field concrete and actually performing the tests on the concrete as it was being poured. And I had run a frequency, a testing frequency, with cylinders on a load that had a very high slump.

DECKARD: What's a slump?

HENRY: A slump is a test in which the workability and consistency of the concrete is determined.

DECKARD: Were there any other instructions that Mr. Hudler or anyone else gave you in regard to using procedures that were not standard procedures? In other words, procedures which would not lead to the highest quality result?

HENRY: yes sir.

DECKARD: Can you give me those instances? Do you have notes on those?

HENRY: The main thing was that he specified, he explained to me why -- at the time I didn't really realize what the problem was and he explained to me that if you did take a test frequency on concrete and it did fail, then the theoretical procedure would be to remove the structure, and he said that by taking a test frequency, even though it was random, on a certain area that had these failing properties that later it would show up in the compression test and it wouldn't be giving them a fair account.

DECKARD: Did you ever personally conduct a test in which the concrete failed, but yet no action was taken to rectify that failure?

HENRY: Many, many times. As I stated to Mr. Datillo, U.S. Testing has no rejection power on site. In other words, they're actually doing the tests, determining the properties of the concrete, yet there's nothing that they can do to stop the test. They have to rely upon Newburg to keep concrete from being placed.

DECKARD: To the best of your knowledge, did U.S. Testing indicate these failures to Bell and Newberg?

HENRY: I have no way of knowing. My paperwork was turned in and reviewed. What happened to it after that I had no knowledge except that several times I went back to look over existing logs to find information from a document that might have been misplaced, I noticed that my name had been misspelled on one of the documents, which would indicate to me that it wasn't my work. Also, every one of the reports ...

DECKARD: ...In other words, a report which you had initially made and which indicated a failure later to me a report indicating that it had passed? Is that what you're saying?

HENRY: Yes sir?

DECKARD: And you're required to sign or initial every report you make?

HENRY: Yes sir.

DECKARD: Which one — sign or initial?

HENRY: It depends upon which one it is. For concrete, for testing, it's initials-your original paperwork is signed.

DECKARD: And you have personally conducted tests which indicated failures. You later saw documents regarding those same tests which indicated they had passed, and the signature on the document was ostensibly yours but it was misspelled, your name was misspelled.

HENRY: On one of the early ones, yes.

DECKARD: Do you have any way of recalling specifically what those documents may have been? So in other words, if we would get into a discovery process we would know where to look to try to compare documents?

HENRY: No sir. As you can see on every piece of paperwork I did this mark appears in the top left hand corner. It's just to start the ink pen. Many times I would find papers I [illegible] that appeared on my reports would not be there.

DECKARD: Do you have any copies of documents which tests which were made by you and failed, which show failures, do you have any of those in your possession?

HENRY: no sir. At the time I wasn't really aware fully of what was going on.

DECKARD: This failure we mentioned a moment ago, this report number 7014 if that's what it is. It says QC representative notified Tom Keek, Bob Peterson. Time and date of notification 10/12/78. Reporting person R. Bruner. Is R. Bruner still employed by U.S. Testing?

HENRY: Yes sir.

DECKARD: To your knowledge, has Mr. Bruner been given the same instructions you said that you had been given that only the most favorable batches of concrete were to be tested?

HENRY: I couldn't offer an opinion on that. I don't know ...

DECKARD: ...Do you know Mr. Bruner?

HENRY: Yes, I do.

DECKARD: Have you ever talked to Mr. Bruner about these abnormalities in testing?

HENRY: Yes sir.

DECKARD: Did he express any opinion to you about that?

HENRY: Disfavor.

DECKARD: Do you think it's fair to say Mr. Bruner believes, of course he himself would have to personally give this, but in your opinion is it fair to say you believe he thinks that construction at Marble Hill is not being performed by the standards that it should meet. And that serious safety violations are involved?

HENRY: I think that Mr. Bruner was present many times in the field when poor quality concrete was put into the structures.

DECKARD: He was aware of it?

HENRY: I think he was.

DECKARD: Did he ever say anything about it?

HENRY: Everyone out there, to my knowledge, has brought these things, at one time or another, to the attention of the supervisor.

DECKARD: Were you ever told, or do you know of anyone else ever told, by PSI, Nuclear, or U.S. Testing officials to change documents -- falsify documents?

HENRY: Yes sir.

DECKARD: Have you been told personally to falsify documents?

HENRY: It was suggested to me early on, and when it was apparent that I had no intention of doing that, that it was easy to find someone else to do it, or they would do it themselves.

DECKARD: Who told you that?

HENRY: Mr. Daryl Larham. He suggested at one time that I falsify a temperature log -- this is it. Like I said, at one time before our lab was completed on site, we worked out of a house.

DECKARD: I'm going to mark on the back of this document you've just given me -- temperature log ...

HENRY: ..for curing room...

DECKARD: ..for curing room. Did you prepare this document yourself?

HENRY: No sir.

DECKARD: Who did, do you know?

HENRY: It's a xerox. It's posted. Every day, every working day...

DECKARD: There are some initials: AJS. Do you know who that is?

HENRY: Yes I do. It's the project manager for U.S. Testing Arthur J. Sperber.

DECKARD: What's his title?

HENRY: He is -- at one time was project manager of Marble Hill. He's presently at Black Fox, out in Oklahoma, as a site supervisor there.

DECKARD: Black Fox -- that's under construction now, too?

HENRY: yes.

DECKARD: He's still with the testing?

HENRY: Yes.

DECKARD: On this temperature log for the curing room, you were specifically told to falsify ...

HENRY: ..As you can see, you have a running tally of temperatures that are taken [illegible], and then here you have a few skips, then there's a long span. The reason being that compression cylinders, the 91 day break cylinders, were temporarily being stored in the basement of this house in a makeshift cure room, because we didn't have a facility at that time. The pump that was used to supply the water for the misted system lost its prime and for several days was inoperative. As a result the cylinders became bone-dry, the temperature was very, very high, and later we were instructed to wet down the cylinders, put them in the back of the trucks on a layer of sand and transport them to the on-site laboratory. No mention, I don't believe, of this condition was made by the supervisor to the inspector.

DECKARD: Now, this document we're looking at now, the temperature log for the curing room, is this the document which has -- is this the actual falsified document? Or is this the document prior to falsification? (HENRY) This document I found in the basement of the house at this time there is a permanent log for the cure room, and I believe very strongly that it does not appear as it does there.

DECKARD: What makes you believe that?

HENRY: For one thing, I was approached by Mr. Sperber who suggested that I...be told me, to the best of his knowledge he believed that the cure temperatures were correct and that, they'd been miscited and would I initial temperatures and fill it in — permit with it. And I refused.

DECKARD: (What did he say when you refused?)

HENRY: (No problem.)

DECKARD: So this is the original document indicating noncompliance with standards. It's your belief based on requests that Mr. Sperber made to you that the document which would now be officially on file would indicate curing temperatures within standards.

HENRY: Also it would indicate that curing temperatures were recorded on dates when there was no one present.

DECKARD: How can we prove that? How can that be documented?

HENRY: You'll just have to take my word that that was the one I found in the basement and that there is a permanent log now, and I doubt very seriously that it's as open as this.

DECKARD: OK. Let's move on to something else then. Are those papers down there ones we've already looked at?

HENRY: All these represent, at one time when I worked out there we had a problem for a long time with the curing boxes. The curing boxes being used had no facility whatsoever for keeping the cylinders cool. As you know, when concrete hydrates it becomes hot.

DECKARD: Hydrated? Does it begin a setting?

HENRY: As soon as cement and water are mixed you have hydration. It's a chemical reaction. From that point on, the concrete is supposed to be cured between 60 and 80 degrees in these tanks. The tanks were located all over the site. They had no ...

DECKARD: ...This curing was taking place in the semi trailer, is that right?

HENRY: Yes. Until there was no room.

DECKARD: What type of equipment did this semi trailer contain in order to keep the interior at a constant degree between 60 and 80?

HENRY: There was a fan and also a mist system.

DECKARD: What kind of heat arrangement did it have.

HENRY: To my knowledge there was no heat element in that cure room.

DECKARD: During this period of time that this was taking place, what part of the year was it? Did it cover an entire year's period?

HENRY: Up until from the beginning of U.S. Testing's involvement on site until June or July when we did move into the permanent lab, I believe it was in July, testing was being done for compression in this trailer. There was a compression testing machine--the electric motor did not work and it was pumped by hand.

DECKARD: Do you know of any other instance where either you personally or someone else that you know of were specifically directed or suggested to falsify documents?

HENRY: I can think of one incident which I have personal knowledge of -- I heard the site supervisor suggest...

DECKARD: ...Who was?

HENRY: Mr. Daryl Lanham. Who is still site supervisor. I heard him suggest to another technician, a lab technician...

DECKARD:...who was that technician?

HENRY: I think his name was Dean. Dean Morris.

HENRY: He suggested to Dean that since a sample had been lost or contaminated, a relative density sample, that he should go out to the approximate area that this sample was originally taken and get another similar sample. Mr. Morris had not collected the original; so it was impossible to get a representative sample. The relative density ...

DECKARD: What kind of contamination would have taken place?

HENRY: The samples sat in trays for a long time, and I believe it was possible either for material to be lost or introduced into it which was not part of the original sample.

DECKARD: Just any kind of thing--any kind of object, (or liquid, or that's what you mean by contamination)?

HENRY: Yes sir.

DECKARD: Are there any other instances you can think of where it was suggested or ordered that proper standards not be met or records changed?

[illegible]

[illegible]: You don't know who that [illegible] is?

[illegible]: Yes sir, I do.

[illegible]: Uh, is that?

[illegible]: [illegible]

[illegible]: Uh, is he?

[illegible]: [illegible]

[illegible]: Is he still with U.S. Testing?

[illegible]: No.

[illegible]: Where is he?

[illegible]: He's still in the area. I think, I'm pretty sure he still lives in [illegible].

[illegible]: Why is he no longer with them?

[illegible]: He was fired.

[illegible]: Why?

[illegible]: (I'm not really sure--I think they said [illegible].)

[illegible]: [illegible]

[illegible]: I think it was all over the report, my assistant which he never has, to my knowledge, surrendered.

[illegible]: Mr. Willis, you believe, still has copies of what?

[illegible]: [illegible]

[illegible]: In your opinion would these documents which you believe he may have [illegible] safety standard [illegible].

[illegible]: I have no personal knowledge of this. They mailed his check to the wrong [illegible] and he became quite upset about this -- they told him that he wouldn't get his check [illegible], he brought the logs back! And I think he expressed that he was not going to surrender them -- possibly for his own protection. (end of tape)

DECKARD: I believe we were talking about Mr. Willis. Where did we leave off.

HENRY: Mr. Willis, I believe, refused to surrender the documents [illegible] they threatened his check being withheld. To my knowledge, they have never been returned and I have knowledge that the cement and fly-ash log was trying to be updated from existing...

DECKARD: ...now what do you mean by updated?

HENRY: Well Newburgh has tickets from the trucks as they come in - cement fly-ash is brought in on trailers, and frequencies are taken from that. There are frequencies on the cement fly-ash. Those samples are sent to Hoboken for testing.

DECKARD: You don't mean - when you say updated - possibly anything wrong. It is just a normal procedure. Would there be something wrong with their updating their records. That is what I am trying to get at.

HENRY: Not unless the circumstances surrounding it would have been secretive.

DECKARD: Do you believe the documents Mr. Willis has will show serious safety standard violations? (to your understanding)

HENRY: I have no knowledge of this.

DECKARD: Could they conceivably?

HENRY: Possibly.

DECKARD: Why would he want to hold them for his own protection.

HENRY: Possibly because he had missed a frequency and had failed to submit, when a frequency came about, whenever so many hundred thousand pounds have been delivered a sample would be taken from that and the samples mailed up. [Hoboken.]

DECKARD: Would that be serious enough to warrant him giving up a paycheck in order to keep those records?

HENRY If it was a serious enough mistake.

DECKARD: You said earlier that you thought he was keeping the records for h's own protection.

HENRY: Yes, sir.

DECKARD: Why do you make that assumption?

HENRY: It's just rumor, hearsay. I have no personal knowledge of specific reasons why these documents were not surrendered when they were requested. But I do know that they were later - they tried to get their existing records updated and filled in for the loss.

DECKARD: Now, let me ask you again. Do you have recollection of any other cases where any of the three companies involved - PSI, Newburgh, or U.S.

or
Testing -- told any employee, suggested, that records be falsified or standards not be met.

HENRY: I know at the time I worked there, and probably to this date, there is no aggregate correction factor being employed in the usage and calibration testing of the air entrainment apparatus.

DECKARD: Now what does that mean in layman's terms?

HENRY: The aggregate correction factor is taken into account. The air entrainment is tested in a pot. It is calibrated for volume by noting the difference of a -- it is pumped to a certain pressure. When the pressure is released than the air actually in the paste, you will have a percentage. Now the aggregate correction factor accounts for the different kinds of aggregates used, and it specifically outlined that this should not be ignored. To my knowledge the aggregate correction factor was not used because it would employe a procedure that no one to my knowledge on site was familiar with, and it would cause extra computations for the technicians which could later cause a possible error. So there is a zero on all guages at this present time?

DECKARD: Who would have been responsible for that?

HENRY: (Site supervisor is in charge of all procedures)

DECKARD: He would have been aware of this? Mr. Latham, right? Is this one of the factors that goes into the honeycombing problem?

HENRY: By having an inaccurate account of the air, it is one of the three specific tests taken for the actual inprocess as far as it is -- it could be any estimation taken from that. I really don't know. But I do know that it is incorrect procedure and it is being ignored.

DECKARD: To your knowledge, NRC regulations require this?

HENRY: Yes, sir. It is written into the specifications. The calibration of the air pots requires that an aggregate correction factor be taken from time to time.

DECKARD: Do NRC regulations specifically require curing temperatures between 60 and 80 (degrees).

HENRY: Yes, sir.

DECKARD: You are certain of that.

HENRY: It is common, a very common...I have publications from the American Concrete Institute, and also the Portland Cement Association, that the specs are taken from, that indicate that this temperature is common and it is standard to the industry.

DECKARD: Did you in your capacity have occasion or need to actually read the regulations of the Nuclear Regulatory Commission?

HENRY: We were required to read the QCP (Quality Control Program) of the company, and also the specifications, Y2850, Y 2722, and keep abreast, or keep up to date on any changes that are made on them.

DECKARD: Any other known or suspected violations of safety standards, either inadvertently or by direction of supervisors of either of the three companies.

HENRY: Yes, sir, at the present time the cylinders are made and finished off. They are supposed to represent a specific volume. They are finished off flatly. Supposed to be put into the box on a level platform. This is impossible in many cases because the actual bottom of the cure box is made of expanse metal, as it is filled with these heavy cylinders, they become tilted, which means as the concrete is still in a liquid or plastic state, they will be cracked. There is a procedure outlined in the specifications for capping and also for breaking of compression specimens that state no cap will exceed certain thicknesses. Now unless these cylinders are sawed with the cylinder saw, which is also recommended in the specifications, it is impossible not to have a cap that exceeds this thickness. At times, I brought this problem to Mr. Daryl Lanham's attention, and he said that the company was working on it, but that they were limited to asking for so much money at a certain time and that a cylinder saw would be very costly and to my knowledge, at this time they still do not have one.

DECKARD: Any other examples.

HENRY: You might turn that off, and I will look over my notes.

DECKARD: Tell you what, before you begin to look over your records. Just for my purposes, can you tell me your background. Where did you go to high school?

HENRY: I went to high school in Madison, and when my mother remarried we moved to Florida, and I completed my high school education there.

DECKARD: Do you have any formal education, past high school.

HENRY: I had no engineering college credits, but I did attend college.

DECKARD: For how long?

HENRY: For one semester.

DECKARD: In what area of study?

HENRY: Social Science, minored in music.

DECKARD: How did you become acquainted with the technical aspects of this construction that you have been going over this morning?

HENRY: Well, sir, when I got out of school I went to work for the County, building fire trucks.

DECKARD: What county?

HENRY: Hillsborough County in Florida. I later went into various trades, labor, boiler makers, and had stayed...

DECKARD: ...did you serve apprenticeships?

HENRY: No, sir, I was admitted on permit because of my prior experience.

DECKARD: Prior experience in what?

HENRY: In Construction. I was a card holder in labor.

DECKARD: How much construction experience have you had, and in what areas?

HENRY: I have no nuclear experience beyond the nine months that I worked there, but on my own time I read, and have read many, many books upon construction and concrete.

DECKARD: Aside from the nine months that you spent at...When you applied for a job at U.S. Testing, how did U.S. Testing determine your qualifications to hold the position that you held as a tester?

HENRY: All people who have no previous... U.S. Testing does not account for any real experience other than testing experience or quality control experience. I entered employment there as a trainee. After my probation period on basis on the number of laboratory procedures and tests that I had acquainted myself with on my own time, I was promoted to Level I, and was working toward my Level II with the company.

DECKARD: How long did it take you to be promoted to Level I?

HENRY: It wasn't very long at all. But I did perform tests out there when I was a trainee, and many, many tests were performed by trainees.

DECKARD: Were you required to have any type of Nuclear Regulatory Commission certification for any of the work you did?

HENRY: We all went through a documentation process. You familiarize yourself with the written material, and then when you can satisfy company to whatever requirements they had at that time, you would be given responsibility to perform tests.

DECKARD: But prior to being promoted to Level I. When did that occur? That promotion?

HENRY: It was just a few months after I started out there. I think it was 90 days.

DECKARD: During your first 90 days of employment with U.S. Testing you were performing tests ... or official records?

HENRY: (Yes, sir.)

DECKARD: ... that regulations require Level I personnel to perform?

HENRY: Well, the way they got around that was - they would have a Level I do the paperwork, and that way only his signature or initials would appear.

on the permanent record, but the actual tests were being performed [illegible] times by [illegible].

DECKARD: During that 3 month period, can you give me some of the names of the people who were Level I and who took your testing results and put them to paper and either initialed or signed them as having been performed by themselves?

HENRY: Well, sir, the question itself I am not really sure I understand...

DECKARD: ...in other words, during your first three months of employment, you weren't Level I, but you were doing some testing that only a Level I person should do.

HENRY: That is what I was told.

DECKARD: Well in fact you did do that testing, and you gave your results to a Level I person.

HENRY: Many times there was not a Level I present.

DECKARD: But the papers did have to be filed by a Level I.

HENRY: And reviewed.

DECKARD: Who are some of the people who at that time took your test results put them on paper and signed their names to it as though they had done the testing, when in fact you were the one who had done the testing.

HENRY: There is no one presently employed by the company at this time. I think there are four people who are now working there who were there before I was. In other words, all these technicians are gone, they are gone to other jobs, other states...

DECKARD: These are the one you gave your test results to, to do, before your were Level II? They were Level I, right?

HENRY: Right, or Level II.

DECKARD: And they submitted the documents in their own names?

HENRY: Yes sir.

DECKARD: Do you remember their names, whether they are with the company or not?

HENRY: Mr. Willis was a Level II at the time. There was a Dwayne Richards, who was a Level I.

DECKARD: Dwayne Richards? He is no longer with the company?

HENRY: No sir.

DECKARD: Do you know where he is now?

HENRY: The last I heard Dwayne was working in New Jersey. I don't know the name of the company.

DECKARD: Where is he originally from?

HENRY: I don't really know.

DECKARD: Is it a nuclear facility that he is working on in New Jersey?

HENRY: I don't believe so.

DECKARD: Any other names?

HENRY: Bill Willis was a Level II. Jeff Curd.

DECKARD: Do you know where Mr. Curd is now?

HENRY: I have no knowledge where he is.

DECKARD: Do you know where he is originally from?

HENRY: Paducah.

DECKARD: Any other names?

HENRY: Joe Schlumpburger?

DECKARD: He is no longer with U.S. Testing?

HENRY: No sir he is not.

DECKARD: Do you know where he is?

HENRY: I think he is working for South Texas Project in South Texas? It is a nuclear facility.

DECKARD: Is that the one you mentioned a while ago?

HENRY: No sir, Black Fox is in Oklahoma.

DECKARD: So he is working on a nuclear project in South Texas?

HENRY: Yes sir. He was a Level II.

DECKARD: Who is he working with in South Texas? U.S. Testing? Is it a testing firm?

HENRY: Yes, it is another testing lab.

DECKARD: Do you know the name of that testing firm?

HENRY: No sir, I don't. It might be Pittsburgh. In fact I take back what I said. I think it is PTL.

DECKARD: Pittsburgh Testing Laboratory.

HENRY: Yes sir. I'm not sure of that, but I am sure that he went to work there.

DECKARD: Any other names.

HENRY: There were a lot of people.

DECKARD: These four people - Bill Willis, is still with U.S. Testing...

HENRY: No sir it is not.

DECKARD: Oh, he is gone too. Do you have any knowledge why these four are no longer with U.S. Testing. Let's take Bill Willis first.

HENRY: He was fired.

DECKARD: For what reason?

HENRY: They said attendance.

DECKARD: Do you have reason to believe there was a different reason?

Mr. Willis didn't get along with the personnel above...

DECKARD: It was a personality thing.

HENRY: Yes sir.

DECKARD: There was no particular objection on his part as to procedures that led to his dismissal?

HENRY: I think he just eventually got fed up with the company and left like the rest.

DECKARD: But basically you believe that it was a personality problem with Willis, and not a matter of principle over testing procedures. How about Dwayne Richards?

HENRY: Dwayne Richards left for more money. Jeff Curd left for more money, and Tom Schlumpburger left for more money.

DECKARD: Okay, did any of these four when you submitted these testing results during your first three months of employment, did any of them ever make any statement to you in regard to the impropriety of handling it this way?

HENRY: When I first started working out there they were in dire need of technicians. U.S. Testing does not pay very much; at the time there were many days when there was only one person per pour, and they would tell us when we were trainees, that if we saw someone like Dave Shuter, who is a PSI engineer, or someone like that, that we should just wash equipment. Which is basically what is going on out there now.

DECKARD: Wash equipment?

HENRY: The testing equipment comes in contact with the concrete and has to be kept clean after every test so that you don't have any buildups.

DECKARD: Did any of them ever have any kind of statement, or make any statement regarding the fact that you were performing testing that under, well I suppose NRC regulations, that you were performing testing you weren't qualified to...

HENRY: They said that we didn't have enough experience but they were working on a way to get around that.

DECKARD: Can you remember any specific conversation with any of these four people - Willis, Richards, Curd or Schlumpburger - where they indicated they knew that because of your inexperience at that time that you shouldn't be doing what you were doing, but nevertheless, we have technician shortage so...

HENRY: Yes sir. Thatwas the main thing right there. They had a very difficult time acquiring technicians because people who had the experience - nuclear experience, prior testing experience - could go work for another company.

DECKARD - Did any of them ever express any concern about what was being done then?

HENRY: I believe that --like I said, this is only an opinion--I it was discussed many times. I was promised a level 2 in six months that didn't occur. People that were less qualified, in my estimation, than me, were promoted because they got along and they played ball.

DECKARD: Did you ever at any time express your concern to a supervisor about any of the things that we have discussed up to this point, where procedures weren't followed properly?

HENRY: Yes sir, I have a document right here which my name appears upon which is an official verification, I guess, that I had expressed concern and that there was no way for them to deny them and that right here--number 13--it says " John Kaufman, safe-shooter and project construction group representativer are to meet with Jim", that was me, " Ken and Darrow of UST, to further discuss concrete problems."

DECKARD: This is on the document"Proposed Action to be Taken by PSI in Response to US Testing Personnel Concerns" ?

HENRY: Yes sir, there was a special meeting called.

DECKARD: What were these concrete problems? Go ahead--special meetings called.

HENRY: The meeting was called for many reasons. We were required to do specifi tests in specific areas. These tests, like I said, the whole plant is laid out, depending upon where the area is, the specs apply to that. If we don't know, or didn't have any knowledge of air entrainment was required or freeze thaw was required or things like that,we couldn't establish actual test criteri This is a copy of an In-Process report, it requires that you know whether it i a thin section , a moderately- massive section or massive section.

DECKARD: This is the containment area?

HENRY: All areas. Containment included. It requires that you know the categc the mix design number, the allowable limits of the slump are determined upon temperature, the allowable limits and extreme values for the air entrainment, the air content, has to do with whether or not freeze thaw protection is required. If a structure is exposed to the elements, then freeze thaw is required. Many, many times we would be sent out into the field with not enough equipment or personnel to handle it.

DECKARD: To handle what?

HENRY: To handle the requirements of this document right here.

DECKARD: The document that you are holding is the one that says that IN-Proces

Concrete Test Report, dated March 1978, down in the lower left-hand corner.

QCTS.2. Is that how you identify this document?

HENRY: Yes sir. All documents merely refer you back to the quality control program.

DECKARD: Now tell me, what were the safety standard violations / or did they occur. Let me put it that way), and if so, what were the safety standard violations from the problem you have just described that resulted that would have occurre

HENRY: OK. On this document here which is the one I have shown you before, the Proposed Actions, it shows that PSI will expedite issuance of a letter concerning information needed by USI for concrete placements, that is, category-1, freeze thaw, etc. Unless we had that information, you couldn't establish acceptance criteria for the actual area, and if that wasn't established then it would be possible for concrete that couldn't comply with it to be placed.

DECKARD: So in other words, what might be criteria for thick concrete, which I presure would be containment concrete, is that right?

HENRY: A massive section merely means its thickness, and the thicker the structure, the temperature requiremetns are changed because, as I said, the larger the structure, the more concrete is hydrating, the higher the temperature will increase as a result of the chemical process.

DECKARD: What, do you know of any specific cases where criteria were applied that didn't apply to the type of...

HENRY: I think I know what you're saying. In the Aycock Unloading Facility, which I mentioned earlier, there was no Newberg -quality assurance personnel present which means that whatever concrete arrives would be placed because US Testing has no rejecting powers.

DECKARD: You didn't know where that concrete came from?

HENRY: It all comes from the batch plant.

DECKARD: Yeah, but you didn't know where it was going to go? The technicalities of this are causing a problem in asking questions. I am not completely certain in my own mind what exactly the problem is that you are describing to me.

HENRY. First of all the very most basic requirement of quality control is that you have established acceptance criteria. If you don't have that then you can't have quality control. You can't have one without the other.

DECKARD: What occured that caused you not to have accepted.. what was the term again?

HENRY: Acceptance criteria.

DECKARD: Yes, acceptance criteria.

HENRY: We had ..I'll refer you to another thing here.. The thing is that we would get, eventually, at one time, we would be sent out on a pour. You would put your equipment on the truck, they would take you out there, they'd let you out. You would have paperwork, and this that and the other. And if you didn't know the things that I discussed, you couldn't establish acceptance criteria. In other words, you had no way to gauge exactly what was going on.

DECKARD: What did you do in that kind of case?

HENRY: The one in the Acock, as a result of us not being aware, or myself being aware--I was there by myself--that there was no Newburgh QA there and no PSI man there after the first truck, there was no way that we could keep the poor quality concrete from going into the structure.. Now, we could test it and we could get the results, but without knowing the acceptance criteria we wouldn't know if it was passing or failing.

DECKARD: Did you do any of those tests during your first three months of employment?

HENRY: Yes sir.

DECKARD: And then the results were submitted by other people, and I believe we have mentioned their names already haven't we? For the record?

HENRY: Some of them.

DECKARD: Some of them. Can you give me some more names then?

HENRY: Whoever was available. Like I said, that was about it as far as concrete.

DECKARD: These four names that you gave me awhile ago: Willis, Richards, Kurd and Schlumpberger.?

HENRY: and myself. We were the Concrete Deparment. Many many times there would be more pours than we had people and sometimes people from the lab would have to come in.

DECKARD: Is there anything else you want to add about this particular...

HENRY: This whole meeting took place because we didn't have any communication between the batch plant and the field. The company did not have enough radios Many times I would be doing paperwork for maybe, four points of placement, in other words, there were four differnet locations that concrete was being entered into the pour, with a testing crew on each one. Now, without radio contact it was impossible, and many times we didn't even have visual contact to let the other teams know that they were supposed to be testing a specific truck.

DECKARD: Who conducted this meeting?

HENRY: It was held between the entire, everybody in the lab, everybody that works for US Testing that could make the meeting, met with Mr. Robert Peterson [illegible].

DECKARD: Who are they?

HENRY: They were working for Public Service, Indiana, Quality Control. They were on-site engineers.

DECKARD: Robert Peterson and who?

HENRY: David Shuter.

DECKARD: And they are both Quality Control with PSI? How do you spell Shuter's name? SHUTER... And they conducted the meeting?

HENRY: Yes sir. (end side 3)

DECKARD: Tell me what they told you.

HENRY: This reply is dated August 7th, 1978. It was the day before, maybe two days before. But it was between the 3rd and the 2nd.

DECKARD: So the PSI people are meeting with the US Testing people.

HENRY: Yes, at our request.

DECKARD: At your request. Why did you request it?

HENRY: Because many of the technicians felt that they were unable to do their job without cooperation between the different contractors.

DECKARD: Who was the person from US Testing who made the request to PSI.

HENRY: You mean for the meeting itself?

DECKARD: yes.

HENRY: It was a joint request by myself, and several other technicians. It was not any one person.

DECKARD: Who was your supervisor at the time at US Testing?

HENRY: Daryl Lanham.

DECKARD: Was Daryl Lanham aware that you had requested the meeting.

HENRY: Yes sir, he set it up.

DECKARD: In other words, he agreed that the meeting should be held. What was his attitude about the meeting? Well, no... He agreed. Let's continue . What happened at the meeting.?

HENRY: The way it was set up, we met in one of PSI's larger offices and we went around the table starting with Daryl, who had no comments whatsoever. It went around the table and many of these comments here were brought to their attention.

DECKARD: In the Proposed Actions to be Taken by PSI in Response to NST Personnel Concerns.?

HENRY: Yes sir. The first one: PSI Q. Inspectors will stay with Category 1 concrete placement until they are completed," and at the time that was said, many times they weren't there at all, which meant that we had to deal with Newburgh, which was next to impossible. We got very little cooperation from Newburgh. They thought we were just in the way, a technicality, and many times our results were not taken seriously and Newburgh and Sargent Lundy, very many times cooperated, I am sure, on findings ways of getting around...

DECKARD: Who is Sargent Lundy?

HENRY: Sargent Lundy is another contractor on the site responsible for actual writing out of the specifications. Like I said, PSI was requested to stay with the Category 1 placement until they were completed. They were very very rarely there and almost never in a Category 2 area.

DECKARD: After this meeting did this situation improve?

HENRY: Not immediately, no sir.

DECKARD: But it did eventually?

HENRY: Yes it did. "PSI to give UST authority to reject concrete and to witness Newburgh-Marble Hill adding water to the concrete." That has not changed. The company still has no rejection power whatsoever. It is left up to Newburgh.

DECKARD: Which company has no rejection power.

HENRY: US Testing.

DECKARD: In other words, if US Testing tells Newburgh that something doesn't meet standards, US Testing has no authority to require Newburgh to make a change necessary to meet the standards.

HENRY: All we did was to furnish them with the information and it was their decision. We requested that they install field tile drainage under the fine aggregate storage pile. The storage pile sits on the ground. It is nothing but a large pile of sand which is directly exposed to the elements, it is constantly wet in the center. Many times, as the larger pours would go on, the batch plant operator that would be operating the in-loader actually furnishing the sand to the batch plant would get into wet spots which would increase the slump and eventually cause the concrete to go out of specs. Segregation in the coarse aggregate storage pile, there stockpiles are termed by Portland Cement Assn., is generally unacceptable, and to my knowledge they are in same shape as they were.

DECKARD: May I throw in a question here? As a layman, your knowledge of the technicalities involved, your expertise in this area seems to be valid. I am of course a layman and can easily be snowed. How confident are you to this point, everything you've told me would stand up under the scrutiny of

A highly trained construction engineer, specifically a nuclear construction engineer. Are confident that what you've told me would stand up under his critical evaluation of it?

HENRY: Yes, sir. The same information everybody reads - the ASTM's and the Portland Cement Association bulletins and the books that are put out, it is all the same information.

DECKARD: Do you have copies of all that information where .... I hope to be able to transcribe what we have put on tape ... do you have copies of those standards from Portland and Lehigh and so on, where it would be possible once it is transcribed to put on the paper the exact location in those company's documents which would verify what you have told me.

HENRY: Yes sir.

DECKARD: Let's move ahead.

HENRY: The rest of it is mostly about the cure boxes, and they pose a serious safety hazard. First of all, they were constructed out of heavy materials, I can think of one the lid was so heavy that it took two people to lift it. Now these are boxes that we have to be in and out of every day - maybe once a hour or more. The cylinders are stored in them. PSI was really not very helpful at all. They have right here - it says: PSI QC to review status of existing cure boxes on site and stay on construction to get them completed.

DECKARD: Let me ask you this. The lids may have been heavy, but how does that involve safety standards?

HENRY: Well, one person was injured because the lid fell on his head.

DECKARD: Okay, but here we are talking about more of an OSHA-type situation, than we are ...

HENRY: Right. The whole thing with the cure boxes is they are there for a reason. The curing of the cylinder is a process that takes place immediately after they are molded. You are very careful to put them intact in the cure boxes which are suppose to keep them within 60 to 80 degrees. Now there were available air conditioned cure boxes and I think one design was submitted by an employee of the company for a cure box which would work. Before they spent the money for air conditioning, they used ice. They put ice in the bottom of the cure box and a piece of expanded metal over the top. There was no ventilation possible, and as I have shown you many many of the cylinders were cured in near freezing temperatures. I myself have personally taken cylinders from boxes that were ... I had to dig them out of the ice ... and these were cylinders that were less than 24 hours old.

DECKARD: Does the heaviness of these lids, does that mean there may have been occasions where a tester would be required to get in, but wouldn't, as a use of that problem?

HENRY: Yes, sir. It got to the point where we got no cooperation from Newburgh whatsoever. Supposedly according to this, PSI construction to avoid signing off on concrete placement notifications until cure box and UST personnel are present, and it says that they will do it on category 14. On category 24 it was not possible.

DECKARD: Okay, does that cover most of the points on that document?

HENRY: On the proposed actions. Yes sir.

DECKARD: Let's move onto something else.

HENRY: You're asking about my knowledge. In the 9 months that I worked for U.S. Testing, this document indicates that this is the only mistake that was found to be directly made to me.

DECKARD: It was a mistake that was your responsibility?

HENRY: The mistake was a missed frequency, in other words, a test was not made within a 50 yard period of time because we did not have radio contact with another point of placement.

DECKARD: 50 yards?

HENRY: 50 yards. Yes, every 50 yards of concrete have to be tested.

DECKARD: Yes. Internal corrective Action Request Test Frequency. Copies went to PSI, Hoboken Files, Site Files, Jim Henry, E. Zadina, D. Edley. It says on 6/19/78, a testing frequency was missed on 7 AS3466, a math error (your number) was made prior to placement of ticket No. 3958, causing a testing crew to believe that they had performed the required test at 351 yards, the error was not discovered in time to correct it. This says 351 yards, you just said 50 yards. What is the difference?

HENRY: Well, in a 351 yard pour, you would theoretically have approximately 7 series of frequencies - every 50 yards you would perform these tests. Now in this case there was more than one point of placement which means that four, up to five concrete trucks could be discharging simultaneously, which represents 45 yards. A concrete truck can discharge very rapidly. Now I was told to - now this is an internal corrective action - in other words this mistake was mine officially, yet it was because we did not have radios at that time, the batteries would last a shift.

DECKARD: ON what particular part of the plant was this mistake made?

HENRY: I believe it was a slab.

DECKARD: What is a slab?

HENRY: It is horizontal - much like a driveway or a patio, only a much larger scale.

DECKARD: What part of the plant? The containment building?

HENRY: No sir. It was Category II area, I believe; possibly the auxiliary building.

DECKARD: What did they say to you about this mistake? Did they say exercise more caution when adding yardage; notify PSI. That was the extent of the action?

HENRY: Right. This is just an official slap on the wrist. I write this up myself.

DECKARD: Did it cause you any real problems; did they raise cain with you?

HENRY: No, they really couldn't, because it wasn't my fault, and they said it was a yardage error, and that it would be very non-serious, everybody gets I-CAR's and the only thing I would have to be was be more careful adding the yardage.

DECKARD: How many of the 50 yard intervals was missed? One, two or ?

HENRY: Just one.

DECKARD: So in other words you went from point A to point B, which was approximately 100 yards, when there should have been a test made right in the middle?

HENRY: We went 51 yards.

DECKARD: What do we have now.

HENRY: I have here a copy of New York Times article in which Pittsburgh Testing Laboratory and Research Control were charged with negligence for falsifying concrete reports. The exact same thing which we are speaking about right here. I don't know if you remember or not ...

DATILLO: Is that relevant to this particular inquiry, or is it additional information?

HENRY: Well it relates, I would say.

DECKARD: Specifically to Marble Hill? How does it? It is two different companies, two different plants.

HENRY: Yes sir, but the same mistake is being made. For instance, I showed you the cylinders are broken at intervals 7, 28, 91 days.

DECKARD: In order to save tape, we will simply make reference to this New York Times article, and at a later date I will read the article.

DATILLO: I also have the one's rejected those particular pieces of concrete in a West Virginia plant which could possibly be available.

DATILLO: Want the name put in there now?

DECKARD: Yes, we can.

DATILLO: Her name is Ruth [illegible], presently of 4235 South State Street, Indianapolis, Ind. 317 788 0108.

DECKARD: Who is she?

DATILLO: She is a wife of a law student from Indiana University Law School who was a concrete tester at the West Virginia plant. That is the only relevance it has.

DECKARD: Do you want some more time to look at your notes before we go on?

HENRY: At this time, I have no more documents in my own personal possession that would indicate any real proof in black and white that would show that these things did occur. But like I say I worked there for 9 months, I filled out literally thousands of these reports, I covered pours every day, sometimes two or three.

DECKARD: Do you have any recollection of how many test failures occured during your employment there - in 9 months?

HENRY: No.

DECKARD: Were there very many? Few? We do know of one?

HENRY: Test failures for what, sir?

DECKARD: Anything, regarding construction of the Marble Hill plant, which would indicate that proper safety standards weren't followed, and therefore it resulted in a test failure.

HENRY: Well, a test failure is....U. S. Testing tests the concrete as it is being poured. A slump is out of spec, an air content is out of spec, a temperature is out of spec, is a failure; but that does not insure that the concrete will not be placed. They have a thing called 'tighten' unintelligible sampling which at the time I worked there allowed for 5 known out of spec trucks to be placed before anything was done. Their way around that was to place 5 bad trucks. When they had one that was good, they would go in and put in a couple of yards, maybe place another truck with another couple of yards.

DECKARD: When did this occur?

HENRY: During the time I worked there. During the summer specifically.

DECKARD: You mean it occured more than once.

HENRY: Yes sir, it was a day to day problem, and part of that was the reason for the request of the personnel with PSI.

DECKARD: Has that problem been corrected?

HENRY: I really don't work there anymore.

DECKARD: By the time you left had it been correct?

DECKARD: Shouldn't that show as a test failure? Using bad concrete?

HENRY: It is recorded on an inprocess report.

DECKARD: A moment ago you showed me a test failure document that we already made reference to, 700A or 700IA, whatever that is, this occurred during your employment. Right?

HENRY: Yes sir.

DECKARD: Did anything else like this occur during your employment? Where they stamped on it test failure?

HENRY: Yes sir.

DECKARD: Do you have any estimate of how many times it occurred during your employment?

HENRY: Several per month.

DECKARD: What correctiveaction was taken as a result of this test failure?

HENRY: To my knowledge at the time I worked there, no removal, say for instance, this column, to my knowledge, this column is still there, and it says one yard placed, but as I expressed to Mr. Datillo, there is no way that you can look into the inside of a concrete truck and guage exactly how much concrete has been placed. That is left up to Newburgh to decide. It could have been more, it could have been less.

DECKARD: So you don't have any definite way of proving whether this test failure resulted in corrected action.

HENRY: The test failure was reported to Tom Keats and Bob Peterson. It probably appears that way in the log. In the permanent log I have no way of knowing, but to my knowledge no structure was ever removed because it had failing concrete.

DECKARD: Would you have been in a position to know whether it would have been removed?

HENRY: Yes sir. I was in the field every day.

DECKARD: How could you have been able to tell whether this particular column which falls below the strength standards had been removed. How would you have been able to tell?

HENRY: You would be able to see them chipping the structure away, removing the re-bar and then it would have to be repoured, theoretically.

DECKARD: It involves pretty massive type of correction.

HENRY: You would have to halt further progress until supposedly these are corrected.

DECKARD: Test failure during your employment occurred several times a month?

HENRY: To the best of my recollection.

DECKARD: Would all the rest of the test failures you recall also have involved such obvious measures that you would have known whether they were corrected?

HENRY: I would think so. So instance the fuel handling section was poured when I was there. The main batch plant broke down. There was a time period close to an hour, maybe longer, before the back up plant was able to operate, and the back up plant has no facility to (unintelligible) into the concrete, and as a result of that temperatures stayed high the rest of the pour. We stay on site for sampling for temperature for hours. This fuel handling section is still there. Honeycombs that appeared on the outside of the structure which were visually apparent were replaced with grout.

DECKARD: How many NRC inspections occurred while you were employed there?

HENRY: About five or six.

DECKARD: Were you part of those inspections? Did you play any role in it?

HENRY: I was surveilled by them in my capacity as a technician.

DECKARD: In other words you accompanied them during whatever it is...

HENRY: No sir. The NRC would supposedly come out for a surprise inspection, and of course, everybody knew when they were going to be there, and they knew what logs they were going to be examining and generally people would be advised.

DECKARD: How did they know that?

HENRY: I have no way of knowing that.

DECKARD: Who advised you that they were going to appear?

HENRY: I would hear from people talking that the NRC was going to be here on such and such date, and to clear up the lab, to recalibrate the scales, to get the dust off of everything. They threw away slump cones at one time that they had been using up to that point.

DECKARD: Who else is aware that those two slump cones were thrown away? Because of an impending NRC visit?

HENRY: The site supervisor at that time was Daryl Lanham; he told me, and at the time lab sheets to throw them away.

DECKARD: There was never any time during your employment a truly surprise NRC VISIT?

HENRY: Not to my knowledge.

DECKARD: Can you tell me of any specific examples of where test failures or honeycomb problems where cosmetic efforts were made to cover up that honeycomb problem so the NRC wouldn't be aware of it?

HENRY: It was a rule of thumb for the honeycombs to be patched with grout. At the time they weren't even performing all the tests on the grout that

were required. At this time...

DATILIO: Who are they who weren't performing...

HENRY: U.S. Testing.

DECKARD: So if you had a honeycomb problem the workers were instructed to cover up the honeycombs with grout so that it wouldn't be apparent to the NRC, is that right?

HENRY: It makes the outside of the structure look alright.

DECKARD: That order was given by whom?

HENRY: The construction and patching was done by Newburg. A lot of it on the weekends.

DECKARD: Were you ever present on the weekend when this was done? Did you every observe them putting grout over honeycombs?

HENRY: Yes sir.

DECKARD: Was this cosmetic surgery good enough that even an expert couldn't tell that it had been made?

HENRY: When you pour a slab and remove the forms, either it is smooth and without honeycombs, or it has honeycombs. In the event of the cold jointing section, there was, like I said, when grout was placed on the open area to keep the concrete alive, as they put it, so that it wouldn't set up and they had a cold joint...

DECKARD: Did this ever occur on the containment area itself? The two containment areas - the main containment area where the reactor is?

HENRY: I can think of one instance where a non-conformance was supposedly reported. The thing that happened was that concrete finishers were taking the concrete - we take a sample with a wheelbarrow - we test it and we dump it out. Concrete finishers were coming and getting the concrete out of these piles and using it to patch up areas. I'm sure that it happened in containment. I wrote the notes examining one of them myself.

DECKARD: Note to whom?

HENRY: I didn't write it out. I did write it out on the inprocessing report, but to my knowledge no extra notes that were attached to inprocess reports were actually submitted in the permanent log.

DECKARD: Is it common knowledge that these efforts were made to cover up deficiencies because of an NRC visit that was about to come about?

HENRY: It was to the testing personnel.

DECKARD: Some of the names we mentioned -- Willis, Richards, Curd, Schlumpburger - would all be aware of this. Harrel, Hargrave, Cunningham, Lanhan - they would all be aware that this coverup took place?

HENRY: They probably tested some of the grout that was used to do it.

DECKARD: In other words, they obviously would have had to be aware.

HENRY: They would have had to review the paper work.

DECKARD: Would they have known why they were doing it?

HENRY: I doubt it.

DECKARD: Well, is it normal procedure to cover up honeycombs with grout anyway?

HENRY: That was their procedure at the time, yes sir.

DECKARD: Is that accepted procedure, in the nuclear industry. Is this a peculiar thing?

HENRY: I for one took for granted it was because they were doing it.

DECKARD: I am trying to establish whether Newburgh Construction deliberately concealed deficient construction practices.

HENRY: I would say since a lot of the work was done on weekends and on third shift, and that sort of thing, many of the areas ...whenever you had a honeycomb it would be yellowtagged by QA inspector, and then the slab would be put under scrutiny. I have heard that when you have that problem you are suppose to take pour samples.

If the outside of the slab looks okay that is fine as far as the visual, but it occurs on the outside I would think it only logical to assume that it would occur on the inside as well.

DECKARD: Honeycombing is not unique to Marble Hill. Even the NRC admits that. What I am trying to establish. Well Tom you know what I am trying to establish. / I know...but I'm not sure that thing by the NRC is a factual statement. I think Dr. Cassaro will tellyou something else.

DATILLO:

DECKARD: Well I don't know. But for the moment let's assume that it is true. So honeycombing may or may not be unique to Marble Hill. What I am trying to establish is whether concealment of the honeycombing in order to get approval of the NRC is unique to Marble Hill. And so far we haven't come up a smoking gun if you know what I mean.

DECKARD: I am reading the letter to Daryl Lanham of U. S. Testing Company from D. L. Shuter of Public Service Company. "I would like to take this opportunity to thank you and your on-site personnel for their time and cooperation in assisting the Nuclear Regulatory Commission during their recent inspection which yielded no findings against U.S. Testing. During the exit conference, the NRC commended U.S. Testing stated that the laboratory had improved significantly since their last visit." What this document indicates is that during the previous visit there was in fact no laboratory at all. Is that correct?

HENRY: It was a house that the company had purchased about two miles from the site, it was not actually on the site, and adjoining semi-trailer which was owned by the company.

DECKARD: In your opinion, these conditions of this house and semi-trailer would that in itself constitute a violation of safety standards?

HENRY: I don't know about that. The only thing I can say is that it was impossible when we had a dust problem, there are very delicate scales, and they had to be cleaned constantly. There was dry wall and that sort of thing.

DECKARD: I am looking at a letter now to Daryl Lanham of U.S. Testing, Tertiary

END OF ALL TAPES

June 26, 1978	Representative Deckard met with NRC HQ personnel, [illegible] general areas alleged to be contained in the [illegible] allegations by name or detailed information concerning the allegation was not provided.
July 25-27, 1978	In response to the allegations, the U.S. Army Waterways Experiment Station (Corps of Engineers) was contacted by NRC and performed a detailed inspection of GE's testing facilities.
August 22, 1978	The Louisville Courier-Journal publishes specific information concerning the GE allegations.
August 28, 1978	A package of statements and documents concerning the allegations is sent to the Department of Justice by Representative Deckard.
September 22, 1978	Region III, NRC received copy of the August 28, 1978 package through NRC HQ from the Department of Justice.
November 28, 1978	Region III personnel coordinate a planned interview of the alleger with the New Albany FBI office.
December 5, 1978 (approx.)	Mr. Dattilo called New Albany FBI, and advises them he is the alleger's lawyer.
December 28, 1978	New Albany FBI personnel visit Mr. Dattilo's office or are advised by him that the alleger preferred not to have NRC personnel present when he is interviewed.
December 31, 1978	The alleger was interviewed at Mr. Dattilo's office by New Albany FBI personnel without NRC representatives.
January 5, 1981	Mr. J. Foster (RIII, NRC) calls Mr. Dattilo and requests his assistance in contacting and arranging an interview with the alleger.
January 6, 1981	Mr. Foster of RIII writes Mr. Dattilo and requests his assistance in arranging an interview with the alleger.
January 13, 1981	New Albany FBI personnel provide the allegers address and telephone number to RIII NRC.
January 23, 1981	Mr. Foster of RIII contacts the alleger and the alleger indicates that he was willing to talk to the NRC on December 31, 1979 but "you turned me down". That he was refused to talk to him. He was advised that this was incorrect. He also indicated that Mr. Dattilo was representing him, and that all communications should go thru Mr. Dattilo.

January [illegible], [illegible] — Mr. Foster of RIII contacts Mr. Dattilo requesting his assistance in arranging an interview with the alleger. Mr. Foster of RIII contacted the alleger and was told that calling him directly without going thru Mr. Dattilo was causing him distress.

January [illegible], [illegible] — Mr. C. Barth an attorney for the NRC in Washington, D.C. calls Mr. Dattilo to request his assistance in arranging an interview with the alleger.

February [illegible], [illegible] — Mr. Murray and Mr. Lieberman, attorneys for the NRC office in Washington, D.C., called Mr. Dattilo requesting his assistance in arranging an interview with the alleger.

February [illegible], [illegible] — Mr. Lieberman again calls Mr. Dattilo to request assistance in arranging an interview with the alleger.

February [illegible], [illegible] — Mr. Foster of RIII calls Mr. Dattilo to request his assistance in arranging an interview with the alleger and mentions that the issuance of a subpoena is being contemplated.

March [illegible], [illegible] — The subpoena is issued for the alleger to appear on March 31, 1988. RIII personnel contact the alleger and advise him of the subpoena. He states that he will comply with it.

March [illegible], [illegible] — An airline ticket and travel information is sent to the alleger.

March [illegible], [illegible] — Mr. Foster of RIII calls Mr. Dattilo and Mr. Dattilo indicates that the alleger will not appear in response to the subpoena. He states that this is a "joint decision".

March 31, [illegible] — The alleger does not appear in response to the NRC subpoena.

May & June [illegible] — NRC pursued enforcement of the subpoena through the Federal District Court in Mobile, Alabama through the Department of Justice. Alleger had left the jurisdiction of the Court and moved to Texas in the Armed Forces.

June [illegible], [illegible] — Arrangement made for voluntary interview to be conducted with the alleger in Louisville, Kentucky on this date after the U. S. Air Force issued travel orders for the alleger and the NRC paid expenses for travel.

SUSQUEHANNA STEAM ELECTRIC STATION

PROJECT NO. 1036

C-R04T

REPORT OF CONCRETE CYLINDERS

Date Placed: 6-2-76

Placement Location: AW-346-7

PLANT DATA | Source: MAIN BATCH PLANT | Cement: LEHIGH PORTLAND

Mix: 5561 | Specification: 5561 AE | Safety: ☒ YES ☐ NO | Req. Strength: 5500 PSI AT 91 DAYS

TEST DATA AT PLACEMENT | Ticket No.: 3256, 57, -58 | Truck No.: 8

Slump: NA inches | Air Content: NA % | Unit Weight: NA lbs/ft³ | Temperature Concrete: 74°F

Time of Holding: 11/2 HRS AT 9 YARDS | Molded By: [illegible] Cook | Temperature Air: 87°F

Initial Curing: 72°F to 78°F | Stripped: 6-3-76 at 11:40 HRS | Initials: C.A.

CONFORMANCE STRENGTH DATA — ASTM C 39-71

Specimen Identification	Date Molded	Date Tested	Age	Total Load in Pounds	Cyl Diam.	Cyl Area	Break Type*	Strength PSI
52	6-2-76	6-9-76	7	17,200		4"		4300
A		6-9-76	7	13,100		4"		3280
		6-30-76	28	27,200		4"		6800
		6-30-76	28	28,400		4"		7100
V		9-1-76	91	25,200		4"		6300
52A		9-1-76	91	17,300		4"		4320 (4)

Standard Cylinder ☐ 6" x 12" ☒ Cube ☐ Core ☐ Other

Equipment Identification

Age (Days)	Tested By	Checked By	Meets Acceptance Criteria YES	NO	N/A	I.D. No.	Calib. Expiration Date
7	G.H	D.H.T			✓	ETA 1.0	9-19-77
28	[illegible]	DHT			✓	ETA 1.0	9-19-77
91	[illegible]	[illegible]	✓			322	8-22-77

Remarks: * CUBE DAMAGED

*Type of Break: 1=Conical ☒ 2=Full Shear ☐ 3=Column ☐

Site Project Superintendent: [illegible] 6/12 [illegible] 6/13

DATE 9

QCP-3.1 (12/77)

Exhibit IV

Batch 12

7-14-78

AC 241 SC 19 AC 241 3 17

Main 5th Floor | Concrete: Lehigh Portland

Specification: 5500 psi | Mix: [illegible] | Req. Strength: 5500

Ticket No.: 6083 | Truck No.: 3

Slump: 8" | Air Content: 7.8 % | Unit Weight: NA lb/ft³ | Temperature: 7[illegible]

Time of Molding: 1130 HOURS AT [illegible] YARDS | Molded By: Bill Thomason | Temperature: Air 85

Initial Curing: 78 80 °F to 104 °F | Stripped: 7-14-78 at 908 HRS | Initial: [illegible]

COMPRESSIVE STRENGTH DATA ASTM C 39-71

Specimen Identification	Date Molded	Date Tested	Age	Total Load in Pounds	Cyl Diam.	Cyl Area	Break Type	Strength
7[illegible]	7-14-78	7-21-78	90	147,500	6.03	28.54	4	5170
7[illegible]3	7-14-78	7-21-78	90	145,000	6.03	28.54	4	5082

TEST FAILURE

[illegible] Bob Peterson

TIME & DATE: 1100 7-21-78

REMARKS: Brunet

Standard Cylinder: 6 x 12 | Cube | Core | Other

Equipment Identification

Age (Days)	Tested By	Checked By	Meets Accept. Criteria: Y/S	N/A	I.D. No.	Calib. Expiration
90	RB	KF	✓		322	8-22-78

Remarks: Cyl. made because of 8" cyl. not placed

Type of Break: 1=Conical ✓ 2=Full Sheer 3=Column 4=Sheer-Cone 5=Cone-Split 6=Other

Site Project Supervisor: S. Lenahan | DATE: [illegible]

DATE SUBMITTED 10-16-78

Exhibit V
Page 1 of 2

0418785024

0111795050

UNCONTROLLED COPY

Exhibit V-Page of

Curing Room Temperature Log

Date	time	high	low	actual	init.
7-31-78	1400	75	73	75	JC/DHT
8-1-78	0700	76	73	74	JC/DHT
8-2-78	1330	74	72	72	JC/DHT
8-3-78	0900	76	74	76	JC/DHT
8-4-78	0800	76	73	76	JC/DHT
8-5-78	0900	75	73	74	JC/VLL
8-6-78	SUNDAY				
8-7-78	0800	76	73	75	JC/KRC
8-8-78	0830	75	72	74	JC/~~K~~ LJH
8-9-78	1000	74	72	73	JC/KRC
8-10-78	0800	75	74	74	JC/KRC
8-11-78	0830	76	72	75	JC/KRC
8-12-78	0800	75	73	75	JC/KRC
8-13-78	SUNDAY				
8-14-78	0800	74	72	73	JC/JRS
8-15-78	0900	75	73	73	JC/LJH
8-16-78	1000	76	73	75	JC/JRS
8-17-78	0830	75	73	73	JC/KRC
8-18-78	0930	76	74	74	JC/RB
8-19-78	SATURDAY				
8-20-78	SUNDAY				
8-21-78	0900	74	74	74	JC/RB
8-22-78	0930	74	74	74	JC/RB
8-23-78	0700	74	74	74	JC/RB
8-24-78	0900	74	74	74	JC/RB
8-25-78	1500	74	72	72	JC/RB
8-26-78	SATURDAY				

Curing Room Temperature Log

Date	time	high	low	Actual	init.
10-20-78	1300	70	70	70	JC/RB
10-21-78	SATURDAY				
10-22-78	SUNDAY				
10-23-78	1400	72	.64	.69	JC/RB
10-24-78	1400	72	.69	71	JC/RB
10-25-78	1230	72	.69	70	JC/RB
10-26-78	1400	74	.69	72	JC/RB
10-27-78	1400	72	72	72	JC/RB
10-28-78	SATURDAY				
10-29-78	SUNDAY				
10-30-78	0800	72	.69	70	JC/RB
10-31-78	1500	70	.66	70	JC/RB
11-1-78	0800	70	70	70	JC/RB
11-2-78	0900	70	70	70	JC/RB
11-3-78	1200	70	70	70	JC/RB
11-4-78	SATURDAY				
11-5-78	SUNDAY				
11-6-78	1600	70	70	70	JC/GD
11-7-78	1620	73	.69	70	JC/GD
11-8-78	0930	76	.69	71	JC/GD
11-9-78	0930	76	70	72	JC/GD
11-10-78	1100	73	70	71	JC/GD
11-11-78	SATURDAY				
11-12-78	SUNDAY				
11-13-78	1330	.77	74	74	JC/GD
11-14-78	0730	.77	74	75	JC/GD
11-15-78	0800	.79	70	72	JC/GD
11-16-78	0900	.77	73	74	JC/GD

DATE	TIME	HIGH	LOW
6-20	1800	75	71
6-21	0800	74	71
6-21	1200	74	74
6-22	0700	74	72
6-23	0800	74	72
6-23	1500	75	72
6-24	1100	73	72
6-26	0700	74	72
6-27	0930	72	72
6-28	1400	72	72
6-29	0800	75	72
6-30	0500	74	72
7-2	1200	75	72
7-3	0700	74	72
7-5	1100	75	72
7-10	1500	74	72
7-11	1500	75	72
7-14	1500	76	72
7-17	1500	70	69

Exhibit VII,
Page 1 of 1

7-20	1500	
7-21	1500	
7-24	1500	

I, Arthur J. Sperber, make the following written statement to Mr. James Foster, who has identified himself to me as an Investigation Specialist of the NRC. I understand that I do not have to make a statement, and that any statement I do make may be utilized in legal proceedings.

I am Project Manager for U. S. Testing at the Marble Hill construction site, and have filled the position of Site Manager at various times.

When I first worked as Site Manager at Marble Hill, U. S. Testing facilities consisted of a trailer and small house (trailer located next to house). A concrete cylinder curing room was located in the trailer and house basement, and I initially found that temperatures were not being monitored. This condition was noted and a nonconformance report issued by Public Service of Indiana. In response to this report, I instituted a temperature log.

Mr. Foster has advised me, and I have been read from a transcript that Mr. James Henry, Jr. has stated that I requested him to enter, or initial as correct, missed temperature readings (falsify) into this log. I never ordered or requested Mr. Henry to enter any such information into the curing room log.

I was not aware of any missed temperature readings for this log or any "penciled-in" or falsified readings in the log.

My evaluation of the basement of the small house indicated that it maintained a stable temperature within requirements without regulation.

On some occasions, the mist pump did lose its prime, and had to be reprimed. However, concrete cylinders did not, to the best of my knowledge, become "bone-dry" nor were they subjected to high temperatures.

I am unaware of any falsification of the fly ash sampling log, but was aware that some test frequencies were missed during an individuals employment. I believed that these missed samples had been properly identified and disposed of.

I have read this statement, consisting of two typed pages, and made corrections where necessary. It is a true statement to the best of my knowledge and belief.

Witness: /s/ James E. Foster Signed: /s/ Arthur J. Sperber Date: _____

/s/ F. C. Hawkins

EXHIBIT IX

State of Indiana)
) SS
County of ~~Jefferson~~ Jefferson)

I, James Henry, of legal age & being duly sworn, state:

1. That I was employed by U.S. Testing Company with Marble Hill site from March, 1978 till December, 1978.

2. That I had occasion to advise NRC Region III investigator Gallagher of 1) failure of Newberry to comply with certain specifications regarding concrete, 2) use of improper vibrator techniques, & 3) that U.S. Testing was using some untrained personnel.) in mid to late 1978.

Further affiant sayeth not.

James E. Henry Jr.

Subscribed & sworn to before me this 28 day of September, 1979.

Thomas McDaniel

My Commission Expires:
2-13-83

Exhibit X
Page 1 of 2

Affidavit

State of Indiana

County of Jefferson SS:

I, James Henry, of legal age & being duly sworn, state:

1. That I was employed by U.S. Testing Company on the Marble Hill site from March, 1978 till December, 1978.

2. That I had occassion to advise NRC Region III investigator Gallagher of 1. Failure of Newberg to comply with written specifications regarding concrete, 2. Use of improper vibration techniques, & 3. That U.S. Testing was using some untrained personnel.\in mid to late 1978.

Further affiant sayeth not.

James E. Henry, Jr.

Subscribed + sworn to before me this 1st day of September, 1979.

Thomas M. Dattilo

My commission expires:
2.13.83

EXHIBIT X
page 2 of 2

MR. FOSTER: Let's go back on the record.

Q Okay, Jim, if we can kind of take up where we left off for lunch. In your interview by the FBI you mentioned that some of the methods used to place concrete you felt caused segregation.

A Yes, sir.

Q Could you give us some additional information on that?

A You are familiar with what the trimrie tube is?

Q Yes. And Frank is much more familiar than I am.

A Okay. I believe the specification reads that it is three feet, if I am not mistaken.

MR. HAWKINS: That is close enough.

A (Continuing) A combination of that and some of the forms were narrow, some of the walls. They would tend to pile up the concrete in the corners and then put the vibrators in at an angle in order to make it flow, as opposed to moving the trimrie unit in a steady rhythm from side to side in placing their courses.

Also there were times when you could observe, as I pointed out to Mr. Gallagher, the people that would have their vibrators in too long or that would

throw them, as opposed to moving from one place to the other. In other words, they would just kind of pitch them out and let them fall and then drag them in.

MR. HAWKINS: May I ask how far -- you mentioned the trimmies, or the end of the elephant trunks. What height were they dropping the concrete out of the end of the trunk?

WITNESS: I have seen people -- there was usually one man assigned to the bottom or two, depending upon how long the drop was, that sometimes would have to reach above their heads to stand out.

MR. HAWKINS: We are talking about a free fall of concrete unconfined. In other words, it is not confined within the bounds of the elephant trunk itself, it is a free fall higher than a man?

WITNESS: Yes, sir.

MR. HAWKINS: Did you, at times if they were dropping it that far, did you identify what you thought was segregation due to that height of drop?

WITNESS: Well, the paste in the aggregate, when it would fall from that height, it would strike the tie rods, some of the bars that went from side to side, it would splatter. And sometimes the aggregate would bounce out of the flow itself.

Q Okay. Other than that, was there

anything in the placing methods that would have caused segregation or placing methods that caused problems?

A As I mentioned before, the -- zone of the wall forms had the tie rods. It would have meant picking the trimrie and the boom up and dropping it and picking it up and dropping it in between these. Whereas you could see it stay in one spot for -- in other words, you couldn't hardly be placing a foot or two at a time. And people would stick the vibrators in, make the pile flow from one side to the other, and then pick the trimrie up beyond it. In other words, it wouldn't go from this slot up to the next slot. It would be picked up, moved three, four slots, and then dropped back down and stay.

MR. HAWKINS: How far would you judge that, on the average: if you remember any specifics, what is the furthest you recall in actually slumping the concrete or the -- in other words, from a pile -- between piles, what is that distance?

WITNESS: Six to eight feet.

MR. HAWKINS: Six to eight feet? How high were the piles?

WITNESS: It would depend, say for instance, if they were pouring a slab, something that wouldn't be two feet in its entire depth, they might have a -- the concrete would collect in one corner, maybe four

feet.

MR. HAWKINS: In other words, twice the depth of the slab they were pouring?

WITNESS: Yes, sir.

MR. HAWKINS: Do you remember any specific instances where you saw that happen?

WITNESS: I can remember once that I was standing on the edge of the hole. It was the same day that the boom dropped on one of the Kreeter cranes. Mr. Gallagher and I believe Dave Shuter were there. They were observing the pour from the side. And our crane was broken down. The operator was out of the crane itself, and the boom dropped and fell on one of the lights that they had on the edge.

MR. HAWKINS: Okay. So basically, to summarize your concerns, if I understand them, that are that they were piling concrete --

WITNESS: That they were placing the concrete with the vibrator, as opposed to the placing it with the trimmie.

MR. HAWKINS: But these piles that you are referring to were on the average of six to eight feet apart?

WITNESS: Yes, sir.

MR. HAWKINS: And then they would

slump the piles together?

WITNESS: Yes, sir.

MR. HAWKINS: Okay. Would they -- did you observe then, did they go back and vibrate the entire horizontal lift that was created by slumping the two piles together?

WITNESS: I don't recall.

MR. HAWKINS: That is all I have right now, Jim.

Q Okay. I want to come back to a couple of points a little bit later on if I might.

Another -- and I think this also pertains to placement mentioned, foreign matter entering some of the pours. I didn't fully understand that and I hope you will be able to explain a little bit more fully.

A Well, sir, the stockpiles were located on the ground by the batch plant. They weren't situated on a pad of concrete. At times the operator that would load the hoppers at the batch plant would scoop too low into the pile. Sometimes pick up soil along with the sand, the course aggregate. This would make its way into the concrete and, as you probably know, soil and concrete don't mix too well, and when it came out you could see chunks of soil, especially when it went up the belt from the hopper it would be washed out of the paste -

place on the joint; do you recall how long that was?

WITNESS: No, sir.

MR. HAWKINS: Did they -- were you aware of them checking the vibrators or something of that sort to see if they had actually obtained a cold joint?

WITNESS: No, sir.

MR. HAWKINS: Okay.

Q Okay. Since we are getting out of the area on placing concrete, you mentioned speaking with one of our inspectors. And I am very much interested in getting some details on that.

A Are you speaking about Mr. Gallagher?

Q I believe so.

A Okay. From time to time, as you know, the NRC would come out there and look around. Sometimes they would ask you questions. I believe I asked more questions of them than they did of me. And I asked Mr. Gallagher what he thought about this and that and the other just to clarify a few things. I had asked the same questions of Newburg and got answers and some of the questions I put to PSI, and I got answers from them. I merely wanted to see what the Nuclear Regulatory Commission had to say about some of the things they were doing.

Q Okay. Did Gene answer your questions

A He said that -- I talked to him for a time and then I believe there was a Hawkins or Hockings, possibly?

Q There is an inspector, Francis Hawkins.

A With red hair?

Q Uh-huh.

A Okay. I asked him about the -- in other words, was this an isolated case or did other construction companies have this same kind of problems that Newburg did.

Q Uh-huh. Do you recognize Mr. Hawkins?

A I don't know if I would or not.

Q This is Mr. Frank Hawkins by my side.

A How do you do?

MR. HAWKINS: Pretty good.

Q Okay. And what sort of responses did you get from Mr. Gallagher?

A They said that most of it was noted and that they had similar problems sometimes from one plant to the other. That working conditions of the testing labs were similar and that they weren't first as far as considerations. In other words, you more or less had to follow the pour and do whatever it was that they wanted you to do, wherever it was, whether it was rain or

shine,in a hole or in a flat spot, et cetera.

Q Okay. Were you unsatisfied with his response?

A It was unsettling in that I knew then that my position as an employee out there was really insignificant and that there really wasn't a whole lot that would be done about it.

Q Did you outline any specific concerns to Mr. Gallagher?

A The thing about the vibration in the concrete seemed to -- I guess he noted that. I think he and Dave Shuter had discussions on it. The -- they were spraying a -- I believe a curing agent on one particular date. It was being done improperly. He made Mr. Shuter aware of this.

Q Okay. I am not sure that I got an answer to my question. Did you point out what you believed were improper practices to Gene Gallagher?

A Yes, sir.

Q Okay. Specifically?

A The vibration, the cure boxes.

MR. HAWKINS: What about vibration? Let's do them one at a time.

WITNESS: Okay. We were standing on the edge of the hole and there was one fellow that was --

had a vibrator and he was smoking a cigarette and the vibrator had been in for maybe half a minute or so, and he finally pulled it out and gave it a throw to another spot. And I don't remember if he took down his hat number or what, but it seemed to make a little bit of an impact on him.

Q Uh-huh. Okay. Gene observed this gentleman doing the vibration?

A Yes, sir.

Q All right. Did he respond to you any way after that? Did he say he had looked at it, or get back with you?

A I believe he made some sort of a comment to that effect. In other words, he just didn't -- it didn't slide off of him. He did make -- he did see the fellow doing it. We discussed mostly the thing with Newburg, that Newburg and U. S. Testing just couldn't seem to agree upon what was to be done, when it was to be done. And that some of us were unsure as to what our role was.

Q Okay. Now you mentioned cure boxes. What kind of things did you talk about?

A The temperature, the availability, that some of them were not as safe as they could be.

Q Okay. And did Mr. Gallagher talk to

you about this, go take a look at them; what happened?

A We spoke briefly on it. He just kind of came by and spoke with some of the people on the crew and went on.

Q Okay. Were there any other things that you discussed?

A If you are indeed MR. Hawkins, or Hockings, whatever --

MR. HAWKINS: I have a driver's license with me.

WITNESS: That won't be necessary. You do remember possibly a conversation we had where we were sitting literally in a hole, a gravel hole, and testing --

MR. HAWKINS: I am trying to recall. I -- lately I have thought that I am losing my mind. That may be part of it. I really can't recall it. I am sorry.

WITNESS: You don't ever remember speaking with me?

MR. HAWKINS: To be honest with you, no. Was your hair longer then?

WITNESS: Oh, yeah.

MR. HAWKINS: I honestly don't. I probably wouldn't recognize you anyway.

WITNESS: I had a beard also.

were never --

MR. HAWKINS: You have to remember you are in a construction site too.

WITNESS: Well, I have been on one or two, but never a nuclear site. And I found out when I got there that just about everything was different.

MR. HAWKINS: I do recall what you are saying now. And he didn't follow up?

WITNESS: Well, from time to time we would -- at least we didn't have to move the cure boxes and level them and didn't have to run around trying to tel Newburg where they were and to bring them to us. Generall they were delivered to where we were working. There would be enough of them to contain all the cylinders we were required to make.

Q Jim, do you recall if you spoke to Mr. Hawkins and Mr. Gallagher on the same date?

A No. As I recall, I only spoke with you once. Whereas Mr. Gallagher, it seemed that he was out there several times.

Q Okay. Have you ever seen copies of any of our inspection reports?

A No, sir.

Q Okay. So if there had been some follow-up action on some of the things that you pointed

out you might not be aware of that?

A What kind of follow-up action are you speaking of?

Q Well, if you don't receive a report you may not know what an inspector leaves as an open item or notes as an item of non-compliance.

A Well, I was aware that at one point there were, I think a 100 non-conformances in one particular category at one time. I don't remember if that was a cumulative or whatever.

MR. HAWKINS: I believe you are referring to licensee non-conformances --

WITNESS: That is possible.

MR. HAWKINS: -- or PSI non-conformance which are completely different from the non-compliances we issue.

MR. FOSTER: There will be in a typical nuclear project, hundreds and in some cases thousands of non-conformance reports before the project is completed, as a normal course of events.

WITNESS: Uh-huh.

Q Okay. In general, and of course with Frank here also, were you disappointed in the response of the NRC inspectors?

A Well, I guess it was not so much

disappointed in your performance as it was the -- what I am saying is that when the NRC would come around it was more like when OSHA came around. People would clean up the walkways for a time and the trash barrels and skip pans would be seen flying back and forth. The crane operators would shim their booms before they went to lunch, et cetera. And then when it was over things pretty much went back to normal.

There were a lot of things that I brought up to PSI. And I really didn't see a noteable change in the attitude of Newburg, and with their cooperation with us. But to tell you the truth, I can't understand, with the many things that I saw out there, why it is that I didn't hear more about what the NRC was doing. In other words, I didn't feel the effects there. My company, for instance, in my estimation, had a lot of people working that didn't have any prior testing experien whatsoever. Some of us didn't have any prior construction experience. And yet they turned them loose to perform tests, et cetera. And it kind of made me wonder why that would be allowed and yet why I would have such a difficult time in obtaining a Level 2, even though I was doing a Level 2's work. See what I am saying?

Q All right. And I am certainly not here to justify anything the licensee or U. S. Testing ha:

done, but since we are talking about things in general terms, I think that we somewhat expect that, as a typical inspector, when people are aware that we are coming they will try and, by human nature, put on a good showing while the inspector is there. I would logically expect such a thing.

Someone who was not in the strear of our reports and discussion with management might well not be aware of any of our impact other than seeing us on site every once in a while. And at least one of our findings for the site was that in many cases things that were identified, it took some time to have them rectified. So I understand what you are saying.

Is there anything else concerning your discussions with NRC inspectors that you wanted to talk to me about?

A In what area? Or just in any area?

Q Any area you have in mind.

A I suppose my main question to you no since I do have this opportunity, is why is it that your being there was so brief, and that you didn't manage to - for instance, did you ever see the old laboratory while i was in operation?

Q Okay. Perhaps I will take a second to explain. I am not an inspector, Jim. I am an

are -- what that location was referred to.

Q Okay. My understanding is that is a wall rather than a column.

A Yes, sir.

Q Okay. All right. Fine.

MR. FOSTER: Do you want to address that now?

MR. HAWKINS: Why don't we take a break?

MR. FOSTER: Okay. That sounds like a good . . . Please, if we may, off the record.

[Whereupon, a short recess was had.]

* * * * *

[Following the recess, the appearance being the same as heretofore, the interview resumed, as follows:]

MR. FOSTER: Back on the record if we can.

Q Jim, let me, if I may, make -- be certain that we have any and all information about concern that you have passed on the NRC inspectors.

I guess my impression was that we had covered any information you might have, but I want to make doubly sure that we don't miss anything during this

opportunity.

So I ask you again if there is some question I haven't asked you, some piece of information concerning your contact with the NRC inspectors, that you describe it to me now.

A As I said before, I discussed things that were happening that day. Things that bothered me personally about my particular job and the job that Newburg was doing. And I just wanted to verify, to get a third opinion, to see if I was as dense as I was led to believe. And that was more or less the reason I was asking the questions that I did.

As far as -- the major matters I was concerned with, I didn't see a lot of change in Newburg. And up until the time I left there were still mistakes that were made from time to time.

Q Okay.

A Still things that happened. And right now I guess my only question is the things like the logs for tinsel steel. It always struck me as funny that no one ever had a retest failure. And the possibilit if I was -- this is just conjecture, of course, but if I were manufacturing rebar and trying to sell as much as possible, and making it as best I could for the amount of money that I was being paid, and I had a test failure for

one heat, it seems like I could go back and look and see what other heat did well, and maybe introduce that as a sample. Because it always struck me as funny, as things would consistently break --

Q Okay, Jim.

A -- until the retest, and then everything would be fine.

Q If we may, and if there is more that needs to be discussed on that, let us get back to it sometime in the future.

A Fine.

Q I had one question concerning the contact with the NRC inspectors, and I don't really see much reference to it either in the transcript of your sworn statement to Mr. Dattilo, the transcript of intervie with Mr. Joel Deckard, or the record of interview produced by the FBI.

Have we been provided with all of the statements that you have made concerning NRC inspecto:

A As far as I know.

Q Okay. Shall we proceed on to 521?

MR. HAWKINS: Sounds like a good ide to me.

Q All right. In all of the various transcripts of interview with you there is a good deal of

I think that about concludes the points that I wanted to cover. I wanted to make available to you some time on the record to cover any points that for some reason we may have not gleaned from the various statements and transcripts. Perhaps other policies or procedures by U. S. Testing that you had concerns about and that we have not otherwise covered.

A There was a letter that we received after one of your visits, from Dave Shuter, that stated that the lab was gam up and that they had presented no findings. This disturbed me to some degree, as there were at any given time things that could have been found. I don't think it is really a matter of the technicians being totally at fault and irresponsible. I don't mean to say that at all. It is just that there are -- there were times when there was chaos. Especially in the time we were moving from one place to the other. And as I said before, we were in a constant state of changing personnel and being shuffled from one job area to another. And -- that is -- that is about it.

Q Okay. I believe -- and I hope you will correct me if I am wrong -- that this letter was included as one of the documents in the package that Mr. Deckard had.

A That is correct.

Q And I have seen that letter. It was very short. Congratulating Mr. Lanham on having weathered an NRC inspection, basically.

A Yes. It was identified 0912785004. And I have a note here that says, "This reply would indicate that either the NRC didn't know about problems at 1036, or these problems were not reported to them by the proper supervisory personnel.

MR. HAWKINS: I was in the exit meeting. In fact, Gene Gallagher and I were the ones that made that comment. And I believe our precise comment to the licensee at that time was that we saw substantial improvement from the time -- from previous -- well, from previous conditions of the laboratory. So we did see substantial improvement. That is the truth. And we made that statement. In the areas that we looked at we saw no problems that we felt were substantial enough at that time to warrant any escalated enforcement action. Not escalated, but any enforcement action on our part.

WITNESS: At any time did -- upon any of your visits, either by yourself or Mr. Gallagher or any of the other NRC individuals that did come by from time to time, at any time do you know if Darryl Lanham himself, did in fact bring forward discrepancies about the company that we worked for or possibly intercompany

discrepancies?

MR. HAWKINS: Not that I am aware of. I can only speak for myself.

WITNESS: Yes, sir.

MR. DATTILO: Is it your opinion, Mr. Hawkins --

MR. FOSTER: I would have to review the file before --

WITNESS: I was just curious, really.

MR. DATTILO: Is it your opinion, Mr. Hawkins, that from, say approximately July of '78, that there was improvement in the vibrating techniques of the Newburg workers?

MR. HAWKINS: I don't see how it would be possible for me to address that because I didn't even work with the -- for the NRC until September or late August of '78.

MR. DATTILO: So then that was Mr. Gallagher?

MR. HAWKINS: It must have been. We weren't referring to vibrating techniques of Newburg. We were referring to testing methods and equipment and personnel at U. S. Testing, which was completely separate from Newburg.

MR. DATTILO: Well, is it correct

that -- or do you have information that the Office of Inspection and Enforcement with Region III, that you knew of the improper vibrating techniques going on at Marble Hill by the Newburg workers in the summer of '78?

MR. FOSTER: Tom, I am going to have to refer you to the inspection reports for that period of time. Beginning, I believe, with 7802, which are down in the public document room. And while not wanting to be rude, I can't answer your question personally. Not even having been associated with the site, and I really would like to, if possible, get more information from Mr. Henry, if we have missed any.

MR. DATTILO: Well, no, I do believe that this goes along with your original questions concerning Mr. Gallagher. That is why I think it is important. I believe that you may find that Mr. Kepler has sent a letter to my office with regard to this matter, admitting that the NRC was knowledgeable of th. problems in vibrating And my only question was, I had assumed that Mr. Hawkins was available along with Mr. Gallagher in the summer of 1978. If he wasn't, then certainly he would have a problem in answering that question. Possibly it would be more properly directed to Mr. Gallagher.

MR. HAWKINS: Your question, when it is addressed to me, I am afraid is out of line, since I

was working for a private corporation at that time.

MR. DATTILO: Possibly. But you did deal with Mr. Henry at one time or another at a different time other than the summer of 1978?

MR. HAWKINS: Yes.

MR. DATTILO: Okay. I don't have any other questions.

MR. HAWKINS: So he says.

MR. DATTILO: At least you remember the content of the discussion. Thank you.

MR. HAWKINS: Sure.

MR. DATTILO: Thank you for having this here in Louisville.

MR. FOSTER: Before we close, Jim, was there anything else?

WITNESS: No. I would just like to, for my own information, and make sure that I did, in fact, speak with an NRC inspector named Hawkins or Hockings at one time in the field. And that I did speak with a Mr. Gallagher at some time when I worked out there. I can't be completely specific about which day it was, but as far as Mr. Hawkins, I can specifically show him on your exhibit there, I think, where the conversation took place.

MR. FOSTER: That is fine. I have been with the NRC Region III office for some four some odd

years and Mr. Frank Hawkins is the only gentleman with a last name even vaguely similar to that that I have ever been acquainted with. This has to be he.

WITNESS: Yes, sir.

MR. FOSTER: Okay. I do have with me, and either this evening or tomorrow, and I will make the choice yours, I am at your disposal. I have the concrete break sheets that were generated during your employment with U.S.T. And we will also be available for any other discussion you want to have with us.

For the sake of the economy, I would like to close the record of the statement and interview under oath at this time, if you don't have anything else that you wish to discuss with us on the record.

WITNESS: I believe that is all.

MR. FOSTER: All right. Please let the record be closed.

[Witness excused.]

[THE TIME BEING 5:00 P.M., THE RECORD WAS CLOSED.]

* * * * *

[REPORTER'S NOTE: The exhibits referred to throughout the interview, having been marked for identification as Exhibits #1 through #9, are attached hereto and made a part hereof.]

PROPOSED ACTIONS TO BE TAKEN BY PSI IN RESPONSE TO UST PERSONNEL CONCERNS

1. PSI QC inspectors will stay with Cat. I concrete placements until they are complete.

2. PSI to give UST authority to reject concrete and to witness N-MH adding water to the concrete.

   This item has been taken under advisement. However for the time being, PSI Construction will make every effort to have field engineers available at the Cat. II concrete placements to better coordinate N-MH's work.

3. PSI to request that N-MH install field tile drainage under the fine aggregate storage pile.

4. PSI to request that N-MH maintain a water spray continuously over the coarse aggregate pile during concrete production.

   The water spray problem may stem from a shortage of construction water currently available. Therefore, spraying water during the day may not be feasible at this time but will be pursued as soon as possible.

5. PSI will meet with UST and N-MH to discuss segregation in the coarse aggregate storage pile.

6. PSI will expedite issuance of a letter concerning information needed by UST for concrete placements (i.e., Cat. I or Cat. II, freeze-thaw required, and massive, moderately massive or thin section).

7. PSI QC will plot daily and incoming coarse aggregate gradation test results to establish trends.

8. UST personnel in batch plant and lab are to better coordinate information concerning FM test results on fine aggregate.

9. PSI QC to review N-MH track record pertaining to estimating concrete placement yardages and have N-MH take appropriate actions as necessary.

10. Problems encountered by UST personnel on Cat. II work are to be brought directly to the attention of Bill Muenstermann. Cat. I problems are to be brought directly to the attention of Dave Shuter.

    If UST has any problems that are reported to PSI to which they do not feel adequate attention has been given, they should report these conditions to Bob Peterson or Dick Brown. UST problems should be reported to PSI as soon as possible.

11. PSI QC to review status of existing cure boxes on site and stay on

12. PSI QC to plot initial curing temperature versus cylinder compressive strength to verify that initial curing temperature has not had an adverse effect on concrete strength.

13. John Coffman, Dave Shuter and Project Construction Group representatives are to meet with Jim, Ben and Lowell at [illegible] to further discuss concrete problems.

14. PSI to inform M-DH that M-DH is responsible for placing ice in the cure boxes, not UST.

15. PSI Construction to avoid signing off on concrete placement notifications until cure boxes and UST personnel are present. PSI QC to do this on Cat. I pours.

16. PSI Construction to be more cooperative in aiding UST to determine elevations of soils work and backfill.

17. PSI Construction to contact M-DH about first aid on night shifts.

18. PSI QC to discuss with UST management the possibility of having first aid training for UST personnel on site.

RSP/vrh
8-7-78

Q: James Foster and Francis Hawkins performing an interview with Individual "H" of the Marble Hill site. Today's date is July 9, 1980. I am interviewing Individual "H" concerning a test that was performed at the United States Testing Laboratory to determine the maximum amplitude of the relative density table. I would like to ask you to make a sworn statement in this regard. Is that acceptable?

A: Yes.

Q: I will ask you to raise your right hand. Do you swear that the information you are about to provide is true and correct to the best of your knowledge and belief?

A: Yes, sir, I do.

Q: Okay, thank you. Individual "H", you and I have been discussing a test form and a resultant graph that was made by personnel in U.S. Testing and we have been discussing some anomalies in the form and in the resulting graph. I wonder if you would go through the points that we have been discussing about the test form and the graphs.

A: Point 1 is that the test wasn't begun in the 80's; it was begun somewhere in the 70's. According to the test, it was started at 82.

Q: By the 70's you are speaking to the rheostat setting on the relative density table?

A: Yes, sir.

Q: Thank you.

A: Okay, and the results on a maximum amplitude - there would have been more than four test points on the form to determine amplitude.

Q: So the form that has been submitted to PSI has four test points and you believe that there were more than these four test points performed?

A: There should have been.

Q: From what you have said, do you recall performing more than four test points?

A: Yes, I do.

Q: Can you tell me what happened after you had provided your initial test results to Mr. Lanham ?

A: He advised me that there were some mathematical errors and that he had to make adjustments for them.

Q: Did he describe the nature of these errors or adjustments?

The figures that are the sheet that was provided the PSI as part of the formal record, are these to your recollection, the results from your test?

A: No sir.

Q: The signature on the document - is this your signature?

A: It's my name, but not my signature.

Q: Have you discussed this piece of paper with Mr. Lanham?

A: No sir, I have not.

Q: The graph that was generated on the basis of the test results in the sheet we are discussing, does it appear as the rough draft that you indicated you generated when you finished your test?

A: It would not have indicated whether my figures were no.

Q: On your best recollection, what was the optimum rheostat setting that you established in your test results?

A: In the high 70's, low 80's - very low 80's.

EXHIBIT XIII

3 of 4

Q: Are there any other details concerning this test form and graph that you want to bring out?

A: No.

Q: I will close this sworn statement then. Thank you very much.

EXHIBIT XIII

4 of 4

Q: This is James Foster of the NRC interviewing Mr. Darrel Lanham of the United States Testing Company at the Marble Hill site with Mr. Francis Hawkins present. Today's date is July 9, 1980. Darrel, I would like to ask you to make a sworn statement in regard to some tests of the lab that we have been discussing. Is this acceptable with you?

A: Yes, it is.

Q: Darrell, if you would please, raise your right hand. I swear that the information which I am about to provide is truthful and accurate to the best of my knowledge and belief.

A: I swear that the statement and the information that I am about to provide is truthful to the best of my knowledge and belief.

Q: Okay, Darrell we have been discussing some tests that were done on the relative density table at the United States Testing Lab, both some old tests and some tests that are reasonably recent, and we have been discussing in particluar some tests to determine the maximum amplitude, the most optimum rheostat setting on the relative density table, and I would like to go over some of the points that we have been discussing. For the original set-up of the relative density table, what rheostat setting was used?

A: As best as I can remember the rheostat setting was about 100.

Q: And when was this changed?

A: It was changed after Dave Shuter checked our table and thought that the table was not working to its best ability and wrote an FNR No. 45 and we responded to it by running a series of tests on the table to try to establish a maximum amplitude.

Q: And you and I have been discussing the documents found in PSI's file number FNR-45 which include your answer to FNR--45 and a second test and letter, sheet of paper, however it be characterized, that the company did. We have been particularly discussing this second test, and I wonder if you would please, in your own words, tell me the background of this second test?

A: The second test was run basically for my own information. I was interested in seeing what the difference would be, if any, in the maximum amplitude settings in the old lab that we were in to the new lab. Individual "H" was the technician that ran the test and gave me the information. At that time when I looked at his results and compared it to the graph that we had already made up for the response to the FNR, I was that the weights or the densities were much lower than the ones that I had on that graph. I was interested at that time to see what the curve was in relation to - the two curves - compare them to see how they how they fit togeter with - to see what kind of a sine curve I was going to get and so I took

the information that he had given me and adjusted the weights of the density, dry densities, up to approximately the same weights as I have in the response to the FNR.

Q: Darrell, were you ever - do you have or have you been able to locate any of Individual "H's" original test results?

A: No I have not. The original test results that I had used that he had given me, I had scribbled on so much that I just threw it away because it was not really of any importance to me.

Q: Do you recall how many test points were on the test that Mr. Morris did?

A: There would have to be four or six. I guess just four. Yes, four points.

Q: You mentioned that you adjusted the densities of the results that Individual "H" provided. What was the reason for this?

A: I thought at that time that - to be able to accurately compare the two curves on the graph that I would have to have approximately the same density ranges, but that was because of my ignorance of the subject at that time. Now I realize that I didn't have to adjust it to be able to do it.

Q: How did you do this adjustment?

A: I recalculated the figures that were on the original report to try to get approximately the same percentage over the four points to raise it up to meet the other curve and it involved adjusting the whole information that we have here, except for the initial dial readings.

Q: If I can, I would like to refer to the test paper as Exhibit A to this statement and the graph following it as Exhibit B. Looking at the graph which was generated on the basis of the test results, when you did your adjustments, did you change any of the numbers for the thermostat setting?

A: No I didn't.

Q: This curve, however, is adjusted upward on the basis of the adjustments you made to the densities?

A: That's right.

Q: What was the purpose of this test overall? Was this to be submitted?

A: Not originally. It was original for my own information. I was interested in comparing the two curves to see if there was any difference in the fluctuation of the electricity that would make a difference in the sine wave.

Q: As a result of your adjustment of the final densities, are any of the numbers reflecting dial readings, average dial reading, initial dial, height, volume change - are these actually measured numbers?

A: No, they weren't measured numbers - they were calculated.

Q: The signature that indicates Individual "H" down at the bottom of the page, is that his signature?

A: No, I wrote his name on there to identify who ran the tests.

Q: Following that, the signature of the Level II technician, is that an actual signature?

A: Yes, it is an actual signature.

Q: The signature of yourself, Mr. D. Lanham, I note that that is done in a different pen than was used to make Individual "H's" signature. Is there a particular reason for this?

A: They were done at different times.

Q: Okay, Mr. Hawkins, does anything come to mind that I haven't covered?

Q: Would you explain to me the sequence of events where you asked Individual "H" to sign this piece of paper?

A: After I had adjusted the weights and everything to it and came up with the curve that I wanted that would combine the two curves together, I took it back to him and asked if he would sign it and he refused to sign it because they were not his figures or his writing and I tried to explain to him at that time that it was for my own information, but he would not listen to what I was saying. He was, I guess, angry with me because I had changed it. That is just an assumption, okay? But he refused to sign it.

Q: I see. Whether from adjusted figures or not, does the test report and graph accurately portray the optimum rheostat setting that was found from this test?

A: Yes, it does. The rheostat setting - the actual point, 85.4, I cannot attest to, but I do know that it was around 85. Okay?

Q: We have been given information that there was another test reflecting an optimum rheostat setting somewhere in the high 70's. You have shown me another test which indicates results in this area. Can you give me some information on it? Let's make this Exhibit (C) to the statement, please.

A: Okay, this test was also run by Individual "H". It's on 33 stone, and the maximum amplitude on this material came up to be about 79. - something - I am not really sure - but we called it 80. But it was in the high 70's, the actual reading, so our rheostat settings only have one increment. They don't have the sub increment, so we had called it [illegible]

Q: Does this mean that when doing a relative density test on 33 stone you would use a different rheostat setting?

A: Yes, you would use 80.

Q: And for the number 53 stone?

A: At this time we would use 88, because of the lab results that we have, then we used 85.

Q: The 88 number is based on recent tests?

A: Yes, we have done three recent tests, one last night, one on March 29, 198[illegible], and one on June 16, 1980 and they all came out 88.

Q: In your opinion, the test which reflects an optimum rheostat setting in the high 70's, would that be the one reflecting tests on No. 33 stone?

A: There is a very good possibility because of the fact that there was confusion about this test on the 33 stone. My present lab chief thought that this was 53 stone test and then last week we had a discussion about this test and she checked into the logs and it was found to be 33 stone, not 53 stone. She was concerned that we had been running the relative density tests at 85 all this time and she thought it was 79, so then we checked it and it was not 53, it was 33 stone.

Q: So there was some misunderstanding that an earlier test on 53 stone indicated the rheostat setting in the 70's?

A: That's right.

Q: All right. Mr. Hawkins, any questions? Okay, Mr. Lanham, thank you very much. I will close this statement now.

CLASSIFICATION:			
MOLD	EQUIPMENT	I.D. NO.	CALIBRATION DUE
DIAMETER 4.01 IN	E D MOLD	226	
VOLUME 1/30 FT³	DIAL	226 12	
WEIGHT 5 POUNDS	OVEN	290	
END AREA 20 IN²	SCALE	271	

SOILS TECHNICIAN [illegible] Date 6-27-78

LEVEL II TECHNICIAN [illegible] Date 6-30-78

SITE PROJECT SUPERVISOR D. Lanham Date 6-30-78

CDF 10-3 (6/77)

Exhibit A - Page 1 of 1

The Human Relative Humidity is recorded between the
Human settings of 60 and 80. The dial is in 1%
increments, therefore we must set our dial on 85.
85
85.4
90
95
99

#33 cl'd

Date 4/12/79

Project MORELD HILL N.G.S. (1) Job No. NA

Sample Identification AUD TA... No. of Points Special

"MAXIMUM" DENSITY

Test No.			1	2	3	4
Weights, lb	Mold + soil (at test)	W_t	57.05	56.89	58.15	57.48
	Mold (or tare)	W_m	20.00	20.00	20.00	20.00
	Soil	W_s	37.05	36.89	38.15	37.48
Wet density, lb/cu ft = W_s / V		γ_t	74.40	74.08	76.61	75.27
Max. dry density, lb/cu ft (average)				lb/cu ft		

"MINIMUM" DENSITY

Test No.			1	2	3	4
Estimated			70	78	80	76
Calculated				Calculated		
Test No.			1	2	3	4
Height, in	Left side reading	h_1	0.583	.025	0.691	.525
	Right side reading	h_2	0.751	.053	0.777	.557
	Average soil = $(h_1 + h_2)/2$	h_m	0.667	.039	0.734	.541
	Mold reading	h_o	1.856	.858	1.858	.858
	Height change = $h_o - h_m$	Δh	1.191	0.819	1.124	.317
Vol., cu ft	Volume change = $\Delta h \times A_o$	ΔV	0.066	0.045	0.062	.032
	Volume of soil = $V_o - \Delta V$	V	0.432	0.453	0.436	0.468
Weight, lb	Mold (or tare) + soil	W	57.05	56.89	58.15	57.48
	Mold (or tare)	W_m	20.00	20.00	20.00	20.00
	Soil, dry	W_s	37.05	36.89	38.15	37.48
Max. dry density, lb/cu ft = W_s / V		γ_d	85.76	81.43	87.50	79.95
Max. dry density, average				lb/cu ft		

CLASSIFICATION

MOLD		EQUIPMENT	I.D. NO.	CALIBRATED
DIAMETER	10.99	R.D. Table & Equipment + Scales	228.6	4-6-8 C
VOLUME VM	0.448		271.0	6-1-8-79
WEIGHT WM	20.00 lbs			
END AREA AM	0.66 ft²			

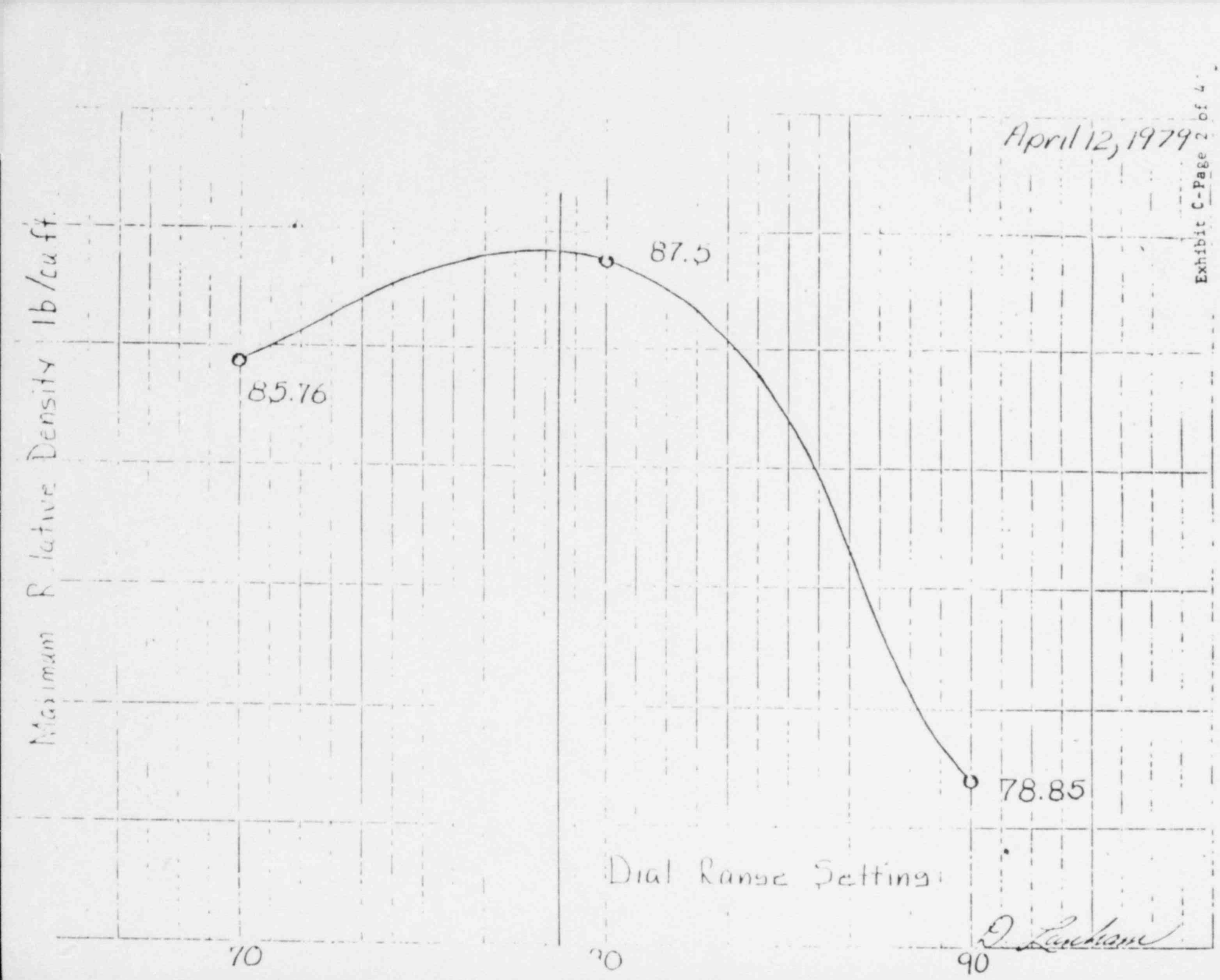
SOILS TECHNICIAN Dean Moses Date 4/17/79

LEVEL II TECHNICIAN Grover L. Cole Date 4-13-79

SITE PROJECT SUPERVISOR [illegible] Date 4-13-79

DDD-TC.3 (8/78)

April 12, 1979



RELATIVE DENSITY ASTM 2049

Minimum and Maximum Density Determinations

Date 4/12/79

Project MARBLE HILL N.G.S. (1036) WR AUTH. NO. NA

Sample Location ACID TANKS Unit No. N/A Sample No. SPECIAL

MINIMUM DENSITY

Trial No.			1	2	3	4
Weight, lb	Mold (or tare) and soil, dry	W	59.15	58.22	57.63	
	Mold (or tare)	W_m	20.00	20.00	20.00	
	Soil, dry	W_s	39.15	38.22	37.63	
Min dry density, lb cu ft = W_s/V		γ_d	78.61	76.75	75.56	
Min dry density, average			lb/cu ft			

MAXIMUM DENSITY

Method used			82	84	86	
Condition of sample			Oven-dried		Moisture	
Trial No.			1	2	1	2
Height, in	Left dial reading	h_1	1.521	1.144	1.299	
	Right dial reading	h_2	1.434	1.151	1.207	
	Average dial = $(h_1 + h_2)/2$	h_{av}	1.478	1.148	1.253	
	Mold dial reading	h_m	1.858	1.858	1.858	
	Height change = $h_m - h_{av}$	Δh	0.380	0.710	0.605	
Vol, cu ft	Volume change = $(\Delta h/12) \times A_m$	ΔV	0.021	0.039	0.033	
	Volume of soil = $V_m - \Delta V$	V	0.477	0.459	0.465	
Weight, lb	Mold (or tare) and soil, dry	W	59.15	58.22	57.63	
	Mold (or tare)	W_m	20.00	20.00	20.00	
	Soil, dry	W_s	39.15	38.22	37.63	
Max dry density, lb cu ft = W_s/V		γ_d	82.08	83.27	80.92	
Max dry density, average			lb/cu ft			

CLASSIFICATION

MOLD		EQUIPMENT	I.D. NO.	CAL. EXP. DATE
DIAMETER	10.99	R.D Table & Equipment	228.6	4-6-80
VOLUME VM	0.448	SCALES	271.0	6-28-79
WEIGHT WM	20.00			
END AREA AM	0.66 ft			

SOILS TECHNICIAN Dean Davis Date 4/12/79

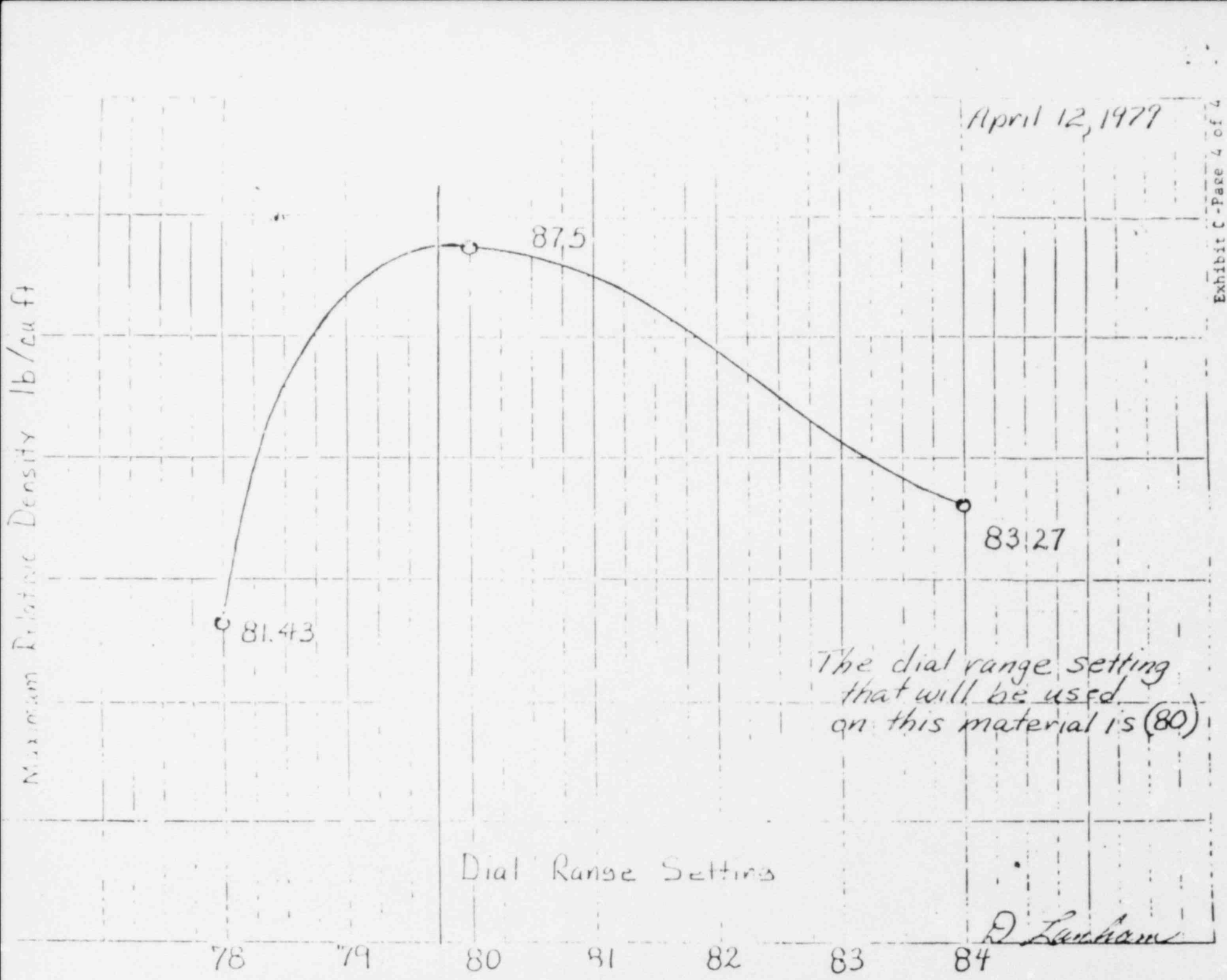
LEVEL II TECHNICIAN [signature] Date 4-13-79

SITE PROJECT SUPERVISOR [signature] Date 4-12-79

OCP-10.3 (8/78)

April 12, 1977

Exhibit C-Page 4 of 4



The dial range setting that will be used on this material is (80)

D Lanham

Curing Room Temperature Log

Date	time	high	low	actual	init.
-23-78	Saturday				
-24-78	Sunday				
-25-78	1500	·80	70	76	JC/RB
-26-78	1000	75	72	73	JC/RB
-27-78	0900	73	73	73	JC/RB
-28-78	1300	74	73	74	JC/RB
-29-78	1200	74	71	72	JC/RB
-30-78	Saturday				
0-1-78	Sunday				
0-2-78	1300	74	·69	·69	JC/RB
0-3-78	1000	72	72	72	JC/RB
0-4-78	1300	72	72	72	JC/RB
10-5-78	0900	74	72	72	JC/RB
10-6-78	1130	74	71	72	JC/RB
10-7-78	Saturday				
10-8-78	Sunday				
10-9-78	1300	74	·69	70	JC/RB
10-10-78	1000	72	70	72	JC/RB
10-11-78	1300	72	70	72	JC/RB
10-12-78	1300	74	·69	74	JC/RB
10-13-78	1000	74	72	72	JC/RB
10-14-78	Saturday				
10-15-78	Sunday				
10-16-78	1300	74	·69	·69	JC/RB
10-17-78	1300	·69	·69	·69	JC/RB
10-18-78	1300	·69	·69	·69	JC/RB
10-19-78	1000	70	·69	70	JC/RB

Curing Room Temperature Log

Date	time	high	low	actual	init
9-27-78	~~1000~~ TC	SUNDAY			
9-28-78	~~0900~~ TC 1000	76	72	74	TC/RB
9-29-78	0900	74	72	74	TC/RB
9-30-78	0700	75	72	74	TC/DL
10-31-78	0800	76	72	74	TC/DL
11-1-78	0830	74	72	72	TC/DL
11-2-78	0700	72	70	72	TC/DL
11-3-78	0700	73	72	72	TC/JDL
11-4-78	0700	74	70	73	TC/JEH
11-5-78	0730	76	70	74	TC/DL
11-6-78	0900	76	72	72	TC/DL
11-7-78	0800	74	70	70	TC/RB
11-8-78	0800	74	70	70	TC/RB
11-9-78	1200	72	70	70	TC/RB
11-10-78		SUNDAY			
11-11-78	1000	80	69	78	TC/RB
11-12-78	1000	82	70	79	TC/RB
11-13-78	0800	80	70	76	TC/RB
11-14-78	1145	76	74	74	TC/RB
11-15-78	1200	74	72	72	TC/RB
11-16-78	1300	74	74	74	TC/RB
11-17-78		SUNDAY			
11-18-78	1300	74	74	74	TC/RB
11-19-78	1700	74	74	74	TC/RB
11-20-78	1500	74	74	74	TC/RB
11-21-78	1300	74	74	74	TC/RB
11-22-78	1300	74	72	72	TC/RB