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1 fatigue crack propagation analysis of the EDG blocks at  
2 Shoreham, did you?

3 A No.

4 Q Dr. Anderson, you do not consider yourself, by  
5 training, education, experience or knowledge, an expert in  
6 fatigue of cast iron, do you?

7 A Well, as a materials engineer person, I have to  
8 be aware of it. I have to be aware of all types of  
9 materials and their behavior, so it does fall under what I  
10 normally do.

11 Q In your degree or expertise in the field of metal  
12 processing rather than metallurgy generally?

13 A Yes, that's correct. My Ph. D. is in the area of  
14 process metallurgy which of course is all types of  
15 fabrications such as casting and welding.

16 My thesis was on high temperature metallurgy,  
17 elevated temperature metallurgy, and my interest has focused  
18 primarily on high temperature metallurgical reactions, and I  
19 consider myself a chemical metallurgist, if you wish another  
20 term for it. And that's my Ph. D.

21 Before that I was a chemical engineer, and before  
22 that a chemist, so I have a rather broad background.

23 And now I am Department Chairman and in charge of  
24 the entire materials program at our university.

25 Q You did not do any independent calculation or

1 analysis of the fatigue of the cast iron in the EDG blocks  
2 at Shoreham, did you?

3 A No.

4 MR. BRIGATI: Objection, because I'm not sure  
5 that I know or the witness knows what the term "analysis"  
6 means. Mr. Farley has been using it fairly regularly, and  
7 this may be a little late, but I am getting confused about  
8 the term.

9 JUDGE BRENNER: I am going to overrule the  
10 objection. I think the witness had no trouble that I've  
11 observed, nor would I expect him to have any trouble in  
12 explaining, in the course of giving their answer, what  
13 they've done or not done in a particular question. And  
14 while that term can be subject to some generalities, I think  
15 it's a reasonable way to put the question, and you can come  
16 back later if you think there are any remaining problems.

17 If I thought there was a great potential for  
18 trouble now I'd correct it, but I don't think there is.  
19 So the objection is overruled.

20 BY MR. FARLEY:

21 Q Dr. Anderson, have you--

22 JUDGE BRENNER: No, wait; I think there is a  
23 pending question.

24 MR. FARLEY: I beg your pardon.

25 WITNESS ANDERSON: It was answered.

1 MR. FARLEY: It was answered "No."

2 JUDGE BRENNER: All right. I'm sorry. I missed  
3 the "No," or if I had it I forgot it.

4 BY MR. FARLEY:

5 Q Dr. Anderson, you have not published any articles  
6 or papers which address fatigue in cast iron, have you?

7 A (Witness Anderson) No.

8 Q Mr. Bridenbaugh, you are not qualified by  
9 training, experience, education or knowledge to analyze  
10 fatigue in cast iron, are you?

11 A (Witness Bridenbaugh) I have not ever had a job  
12 where I was required to do such a task, so the direct answer  
13 to your question, Mr. Farley, I presume would be "No."

14 I have, however, had a considerable amount of  
15 experience in the field evaluation of failures of many kinds  
16 of different components, including some cast iron ones, and  
17 so I guess I would give a qualified "Yes" in the analysis  
18 end of things. I have had occasion to inspect failed  
19 components and evaluate how to repair or replace such.

20 Q Have you ever done any fracture mechanics  
21 analysis on a structural component?

22 A Not personally, no.

23 Q Professor Christensen, have you ever done a  
24 fracture mechanics analysis on any structural component?

25 A (Witness Christensen) No, not as such.

1 Q Mr. Eley, have you?  
2 A (Witness Eley) No.  
3 Q Mr. Hubbard, have you ever performed any fracture  
4 machanics analysis of a structural component?  
5 A (Witness Hubbard) No, I have not. Like  
6 Mr. Bridenbaugh, when I was manager of quality assurance at  
7 GE, I was involved in the analysis of field failures as  
8 part of my responsibilities.  
9 Q It is also true, isn't it, Dr. Anderson, that the  
10 extent of any analysis or review of the fracture mechanics  
11 evaluation on the cylinder blocks at Shoreham by you has  
12 been limited to an examination of the FaAA report of June  
13 1984?  
14 A (Witness Anderson) Yes, that is all I've had  
15 available to me.  
16 Q Mr. Bridenbaugh, you are not sponsoring any  
17 testimony in this proceeding, are you, dealing with a  
18 fracture mechanics evaluation on the cylinder blocks at  
19 Shoreham?  
20 A (Witness Bridenbaugh) I think, Mr. Farley, you  
21 asked that same question of Dr. Anderson with regard to the  
22 answer on page 163, and I believe he responded that that is  
23 about the only area where fracture mechanics is discussed.  
24 Q So the answer to my question is No?  
25 A The answer to your question is no, as far as

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1 fracture mechanics.

2           There are, however, some general conclusions that  
3 we have reached on the testimony that we jointly sponsor,  
4 but it does not specifically address fracture mechanics.

5           Q       We'll get to those. Thank you.

6           Professor Christensen, you are not sponsoring any  
7 fracture mechanics evaluations of the Shoreham cylinder  
8 blocks in this testimony, are you?

9           A       (Witness Christensen) I cannot recall now. I'm  
10 sorry.

11          Q       Mr. Eley, are you sponsoring any testimony in  
12 this proceeding pertaining to a fracture mechanics  
13 evaluation of the EDG cylinder blocks?

14          A       (Witness Eley) Not that I can recollect, no.

15          Q       Mr. Hubbard, you are not sponsoring any testimony  
16 in this proceeding, are you, dealing with the performance of  
17 a fracture mechanics evaluation of the EDG cylinder blocks?

18          A       (Witness Hubbard) No, other than the reliance on  
19 some of the FaAA conclusions.

20          Q       But you have not made any independent  
21 investigation or analyses of any of those opinions, have  
22 you?

23          A       No, other than reading the underlying documents,  
24 inspection reports, and non-destructive examination reports,  
25 LDRs, the various Q reports and things that back up the