



OFFICE OF THE  
COMMISSIONER

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555

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(5)

Docket: 70-0036

September 5, 1989

MEMORANDUM FOR: James M. Taylor  
Acting Executive Director for Operations

Harold R. Denton, Director  
Office of Governmental and Public Affairs

FROM: Maria E. Lopez-Otin  
Special Assistant to Commissioner Roberts

SUBJECT: PUBLIC MEETING IN HILLSBORO, MISSOURI

Commissioner Roberts would like information on the August 24, 1989 public meeting concerning the planned expansion of operations at the Combustion Engineering Nuclear Fuels Manufacturing facility near Hematite, Missouri. The Commissioner would like to have copies of the public statements or representative samples if these are too numerous, the list of participants and a synopsis of the major concerns voiced during the Q&A period.

cc: Chairman Carr  
Commissioner Rogers  
Commissioner Curtiss  
SECY

W-7

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EDO---004729

FROM: James M. Taylor  
Acting Executive Director for Operations

SUBJECT: PUBLIC MEETING IN HILLSBORO, MISSOURI

This memorandum is in response to your request concerning the public meeting conducted by the NRC staff on August 24, 1989, in Hillsboro, Missouri. The following enclosures are provided: (1) the meeting agenda, (2) the moderator's introductory remarks, (3) overheads for the Hematite Fuel Production Facility Plant Manager's presentation, (4) NRC overheads for the licensing presentation, (5) NRC overheads for the response to issues raised by State Senator Nixon and the Coalition for the Environment, and (6) a synopsis of major concerns raised during the question and answer period.

James M. Taylor  
Acting Executive Director  
for Operations

Enclosures: As stated

*Tell him that fuel transcript is coming.*

cc w/encs: Chairman Carr  
Commissioner Rodgers  
Commissioner Curtiss  
Harold R. Denton, GPA  
SECY

Contact:  
LCRouse, NMSS  
DAMcCaughey, NMSS

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### Synopsis of Major Concerns Voiced During Q&A Period

State Senator Jeremiah J. Nixon - Expressed appreciation for the public meeting. Stated need for performance excellence by CE, not just compliance with limits.

Martha Dodson - Concerned that CE monitor all wastes. Asked if the NRC made unannounced inspections. Did not feel comfortable with terms such as "acceptable doses;" wanted to know "safe limits."

Karen Sisk - Concerned about air effluents, water contamination, and safety of the plant. Asked questions concerning when limits in 40 CFR 190 were established, whether the old pelletizing building would be upgraded for earthquake resistance, and whether there would be any plant inventory increase.

Dr. Greg <sup>Pernoud</sup> ~~Pernoud~~ - As a dentist, concerned about fluoride releases. <sup>Questioned</sup> ~~Wanted~~ CE <sup>as to their</sup> ~~to install~~ a "machine" that removes fluorides. *Knowledge of*

Herb Biehle - In favor of plant expansion to protect jobs.

Gary Surdyke - Presented an 80 signature petition favoring plant expansion.

Phillip <sup>Sgro</sup> ~~Sgro~~ - Member of Coalition for the Environment concerned about plant safety, the definition of low level waste, and NRC defending the industry.

Bill Scheifler - Questioned CE's liability for 20,304 burial pits which existed when CE bought the plant. Requested that a decommissioning plan for the pits be provided and that no plant expansion be granted prior to decommissioning of the burial pits. Asked about CE's drug testing policy.

Pete Papin - <sup>Questioned C.E.'s commitment to quality.</sup> Rebutted Mr. Surdyke's statements.

Pam Midgett - Wife of CE employee. In her opinion, CE treats employees well and *did not hide expansion.*

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Final Marked Copy

C. E. Norelius

10/2/89

NUCLEAR REGULATORY COMMISSION ~~HEARING~~ PUBLIC MEETING

AUGUST 24, 1989  
JEFFERSON COLLEGE, HILLSBORO, MISSOURI

Present:

Charles Norelius  
Lee Rouse  
George Bidinger  
Jim Rode

1 MR. NORELIUS: Good evening ladies and  
2 gentlemen. My name is Charles Norelius. I'm the director  
3 of the division of radiation safety and safeguard in  
4 N.R.C.'s region three office near Chicago, Illinois. The  
5 purpose of our meeting tonight is to provide you with  
6 information regarding plan changes in the operation at  
7 Combustion Engineering's plant at Hematite and also  
8 information on the N.R.C. staff evaluation of the changes.  
9 I have with me tonight the following members of the N.R.C.  
10 staff. Sitting first here is Lee Rouse, who is the chief of  
11 the fuel cycle safety branch out of our headquarters in  
12 Washington. Next to him is George Bidinger. He's the  
13 leader of the uranium fuel section also out of N.R.C. <sup>Headquarters.</sup> ~~1~~ Dave  
14 ~~McCaughey~~ <sup>McCaughey</sup>, nuclear processing engineer and <sup>Merri</sup> ~~Mary~~ Horn  
15 environmental engineer both ~~at the base of staff of~~  
16 ~~headquarters.~~ <sup>from our regional office,</sup> I have Dr. Bruce  
17 ~~Mallett~~ <sup>Mallett</sup>. He's the chief of our nuclear material safety  
18 branch and next to him is George <sup>France</sup> ~~Franks~~ who is the project  
19 inspector for the Hematite facility. In the front here is  
20 Russ Marbito who is our public affairs man and I might just  
21 say if there are anyone here, reporters who are here Russ  
22 should be your point of contact this evening. I would also  
23 note that Combustion Engineering is participating with us in  
24 this meeting and Mr. Jim Rode the manager of the Hematite  
25 plant is sitting back here and he will be addressing you

1     shortly. We also have Dave Bedang<sup>f</sup> who is from the Missouri  
2     Department of Natural Resources. Dave, okay. And if there  
3     are questions pertaining to the state permit Dave will  
4     answer those. [Excuse me, would you please turn up your  
5     speaker a little more or whatever you do to make it louder?]

6             Okay. We'll try that. Is that better? The  
7     N.R.C. has a responsibility to show that ~~pro~~posed uses of  
8     radioactive material can be carried out with due regard for  
9     public health and safety off site by the N.R.C. is  
10    accomplished through the review and approval of any planned  
11    activity proposed by an applicant and through subsequent  
12    field inspections of ongoing activities once they have been  
13    approved. In the case of Combustion Engineering at Hematite  
14    Mr. Rouse and his staff are responsible for licensing  
15    activities and I <sup>and</sup> ~~in~~ my staff are responsible for onsite  
16    inspection activities. Let me explain that ~~so~~ there is a  
17    difference between a public formal hearing as we are having  
18    here tonight and a hearing which is provided for under part  
19    two of our regulations. During this past June Senator Nixon  
20    and the coalition for the environment requested a hearing to  
21    address the proposed expansion of uranium processing  
22    activities by Combustion Engineering at the Hematite site.  
23    The request from the coalition was signed by Martha Dodson,  
24    Karen Sisk and Arlene Sandler. These requests have been  
25    evaluated according to <sup>10 CFR</sup> ~~474~~ part two sub part <sup>L</sup> ~~two~~ of our

1 regulations. And on August 18, 1989, Judge Beckhoffer  
2 issued an order granting the request for a hearing to Martha  
3 Dodson and deferring action on the other petitions. The  
4 order also set out the time frame for continuing that  
5 proceeding. The N.R.C. staff has perceived our based on the  
6 previously mentioned letters input from the Missouri  
7 Department of Natural Resources and supporting letters from  
8 members of the U.S. Congress that a general meeting  
9 conducted by the N.R.C. staff and open to the public would  
10 be beneficial. Combustion Engineering also suggested that  
11 such a meeting be held. That is our purpose here tonight.

12 The management of Combustion Engineering Hematite  
13 plant has agreed to participate with us in describing the  
14 operations at the plant. And we, the N.R.C., plan to  
15 describe our evaluation of the safety of the operations. We  
16 hope that the information presented this evening addresses  
17 your concerns. In Judge Beckhoffer's order he acknowledged  
18 that this public formal hearing was planned. He also  
19 stated, and I quote, "that this meeting, of course, is  
20 separate and apart from the hearing sought by the  
21 petitioners in this proceeding. Attendance at the formal  
22 meeting would not affect a petitioner's opportunity to  
23 become a party to this proceeding. Or if a petitioner  
24 through this formal meeting determined that any or all of  
25 its concerns were not warranted it should so advise me."

1 That's quoting Judge Beckhoffer. I would also note that  
2 while this is not a hearing as provided for in the  
3 regulations it is being transcribed so that if there is a  
4 need to refer back to the statements by individuals at this  
5 meeting at a later time we will have a record of the  
6 comments made here tonight.

7           What we plan to do here this evening is first have  
8 a presentation by Mr. Jim Rode plant manager as to the  
9 changes they have made in or are planning to make in their  
10 operation at Hematite. He also will address ~~the specific~~,  
11 some of the specific questions raised by Senator Nixon in  
12 recent letters both to the plant and to the N.R.C..  
13 Specifically questions one through five and A through E  
14 regarding waste storage. Secondly, Mr. George Bidinger will  
15 describe the N.R.C. licensing process and specifically the  
16 status of reviews as they relate to the Combustion  
17 Engineering request. He will respond to the remaining  
18 questions raised by Senator Nixon and to the issues raised  
19 by the coalition for the environment in their request for a  
20 hearing. After that time we will take statements by members  
21 of the public who are here. I will first give opportunity  
22 for statements from Senator Nixon and then from Martha  
23 Dodson and Karen Sisk and after that I will take statements  
24 from other people who are visiting here. We placed a pad of  
25 paper back on the chair. It's probably under the chair now



1 where that gentleman is sitting and one back there. And if  
2 you wish to make a statement tonight I would ask that you  
3 sign up and we believe in that way we will give everybody a  
4 fair and equitable time to make those statements. If we  
5 still have time available after the persons who indicate  
6 they would like to make statements we will then open the  
7 meeting for public questions and answers.

8 I believe we will proceed and I'll ask Mr. Jim  
9 Rode if he will come at this time and describe the  
10 operations currently under way at the plant.

11 MR. RODE: Good evening. My name is Jim Rode.  
12 I'm the plant manager for Combustion Engineering's  
13 operations in Hematite. The Hematite plant and the C.E.  
14 employees have been members of this community for fifteen  
15 years. I hope that we have been good neighbors and that we  
16 will continue to be. The efforts that we are making to  
17 modernize our plant are intended to make us even better  
18 members of the community than we have been in the past. I  
19 am pleased to be here this evening to talk to you about what  
20 we're doing to modernize our facility and consolidate our  
21 manufacturing operations. Our local applications for  
22 building permits and the documents we have submitted to the  
23 Nuclear Regulatory Commission have been publicly available  
24 for sometime but there is no substitute for face to face  
25 discussion. We welcome and support this meeting.

1 I would like to start by briefly describing in  
2 non-technical terms what we do at the Hematite plant and  
3 just as importantly some of the things that we don't do.  
4 Our plant performs some of the manufacturing steps in the  
5 process that transforms uranium or as it is mined from the  
6 ground into suitable fuel for use in nuclear power plants.  
7 We do what you might call the middle steps. The early step  
8 uranium mining and milling transforms the ore into uranium  
9 concentrate generally referred to as <sup>yellowcake</sup> ~~yellow-K~~. This part of  
10 the operation deals with daughter products and uranium  
11 refining plant and conversion to uranium hexafluoride  
12 removes the daughter products. The daughter products are  
13 somewhat hotter than the uranium that we process at our  
14 plant. That uranium has been purified then sent on to the  
15 gaseous diffusion plant where we enrich, where the uranium  
16 is enriched by the Department of Energy. Subsequently sent  
17 to our plant as a solid in cylinders under vacuum. This  
18 comes to us generally today from the <sup>Portsmouth</sup> ~~Port Smith~~ gaseous  
19 diffusion plant in Ohio. Occasionally we receive uranium,  
20 enriched uranium also from overseas enrichment plants. In  
21 a series of steps we transform this material into a powder.  
22 This powder is referred to as uranium dioxide. Some of this  
23 powder is pressed into small cylindrical pellets about this  
24 big. We ship the pellets or the powder to the Connecticut  
25 plant where the manufacturing process is completed. In

1 recent years we have been producing considerably more  
2 pellets than we had in the past. Our plant has always  
3 however been converting the uranium hexafluoride to uranium  
4 dioxide. We've been doing this safely for over fifteen  
5 years and we have been pelletizing the uranium dioxide  
6 during that time as well. It's important to note that in  
7 our work we deal only with the forms of uranium that have  
8 very low levels of activity. Both the material coming in  
9 and the material going out. We handle it with appropriate  
10 caution and care. We continuously monitor the working  
11 environment inside the buildings. Contamination is  
12 controlled to levels well below those which might be  
13 hazardous to our employees. The air discharge from the  
14 manufacturing process areas of the plant are filtered by  
15 double high efficiency filters to remove traces of low level  
16 radioactive dust. The average releases from our plant  
17 through the filtering system are about currently four  
18 hundred milligrams per day. That is approximately the  
19 weight of an aspirin. We have always remained well below  
20 the conservative limits set by the federal and state  
21 regulations for release from our plant and we expect to  
22 continue.

23 Now let me emphasize some of the things we do not  
24 do. We do not handle highly radioactive fuel that has been  
25 in a nuclear power plant. As a matter of fact, we don't

1 even complete the manufacturing process for fuel assemblies.  
2 We only produce uranium oxide powder or pellets that I  
3 described. Our plant modernization does not anticipate  
4 anything beyond this. Because of this, because we do not  
5 handle highly radioactive material we do not need to take  
6 some of the extra nor extraordinary planning steps that are  
7 done at nuclear power plants such as plans for off site  
8 evacuation. We simply do not deal with that type of  
9 material. We do however, <sup>make</sup> certain that we are prepared to  
10 deal with accidents at the facility should they occur. We  
11 maintain an emergency response plan. It's been discussed  
12 with the local sheriff, fire fighters, the local hospital  
13 personnel, Barnes Hospital, the State of Missouri Emergency  
14 Management Agency and the local civil defense office. We  
15 hold emergency drills once a year. We have our own site  
16 brigade that's been trained by the Hematite fire department.  
17 We have arrangements with local ambulance personnel and area  
18 hospitals to transport injured personnel if they have been  
19 contaminated by some of the low level radioactive material.  
20 I think it's fair to say that our emergency planning exceeds  
21 that of most comparable industrial facilities in the area.

22 Let me now talk briefly about the changes we are  
23 in the process of making in our facilities. Basically they  
24 fall into two catagories. We're installing more modern  
25 equipment. After all, some of our equipment is thirty years

1 old now. We are increasing our capabilities to produce and  
2 ship more pellets and less powder. As a ~~rule~~<sup>result</sup> our plant will  
3 look somewhat larger. Our modernized facility will include  
4 additions in this central area. I would point out that the  
5 pelletizing building, this building here, has been designed  
6 to survive an earthquake of substantial magnitude. The  
7 design standards are those of institutional buildings such  
8 as hospitals in the same seismic zone in Missouri. Also our  
9 new buildings are at a higher elevation than the existing  
10 buildings and are above the hundred year flood level  
11 established by the Army Corps of Engineers.

12 Now I'll show you the general floor plan in  
13 somewhat more detail. This is the Hematite facility before  
14 the modernization. There are several points that I would  
15 like to make. One of them, you notice there is considerable  
16 open space between the buildings. At one time this made  
17 alot of sense when the plant was built in the '50's. The  
18 idea was to try and keep areas separated so that in case of  
19 an accident you would limit the injury to employees. It has  
20 alot of disadvantages. One of them is tracking of uranium  
21 out of doors between the plants. We have already a pellet  
22 facility and I'm not sure that you can see it very well.  
23 Right there this building is the pellet line and our  
24 expansion doubles the size of that building. The reason  
25 that we're doubling the size of the building is that plant

1 is currently in operation and is required to satisfy the  
2 requirements of our customers. We can't shut it down for  
3 construction. The phase two pelletizing building has been  
4 erected and we are in the process and have been for some  
5 while now of installing equipment in that building while we  
6 are continuing to produce in the pellet line. In order to  
7 accomplish this the dark area that you see in the new  
8 pellets building was our warehouse. This had to be removed  
9 to make way for the new pellet building. To accomplish that  
10 we had to have a new warehouse installed and the warehouse  
11 was installed then behind the existing building allowing us  
12 to continue operations, continue shipping oxide and pellets  
13 to the Connecticut plant. The warehouse is now operational.  
14 The pellet building is near operational and we are in the  
15 process of excavating and decontaminating the ground in the  
16 storage utility building area. It's a requirement that we  
17 decontaminate the land before we can put up new structures  
18 in the area. I would like to stress again the things that  
19 we are not doing. We are not changing the basic process  
20 that we have performed here over the years. And as a result  
21 we should not increase the risks of an industrial accident.  
22 We are not increasing the overall output of our facility.  
23 The total amount of uranium that we have on hand will remain  
24 about the same. There will not be an increase in traffic  
25 around the plant or a change in the traffic patterns. We

1 expect the results of this program will be <sup>as</sup> ~~two~~ followed <sup>5:</sup>.  
2 First a more modern facility. One that is more efficient  
3 and up to date and as a matter of fact this will be the  
4 first time that we have had as an example adequate women's  
5 locker facilities in the plant. This reflects the changing  
6 nature of the work force as well as the age of the  
7 facilities that we have been working with. We will continue  
8 to train our employees and inform them of any hazards  
9 associate with their work. We will continue to provide  
10 radiation monitoring and annuals for all of our employees to  
11 make sure that we continue to stay within all federal  
12 requirements. We'll be shipping more pellets and less  
13 powder. The pellets are easier to handle. They are not  
14 ~~readily~~ <sup>readily</sup> dispersable. They are easier to transport and  
15 since the pellets will be produced here there will be a  
16 somewhat smaller quantity, about ten percent less shipments  
17 going to Connecticut. And the amount of material being  
18 shipped back from Connecticut to our plant in Missouri for  
19 rework will decrease.

20 I hope that these remarks have been useful and  
21 have provided you with some of the answers to your  
22 questions. Let me recount, though. We are installing more  
23 efficient air filtration systems to reduce emissions.  
24 Substituting indoor traffic patterns for outdoor traffic  
25 patterns and thereby reducing the spread of contamination

1 out of doors. We are decontaminating large areas of the  
2 site. We have enclosed the UF6 vaporizer area to minimize  
3 the consequences of release of UF6. We are improving the  
4 ventilation system to reduce work or exposure and installing  
5 continuous air monitors to detect deviations in the air  
6 concentration within the plant rapidly. Automating  
7 pelletizing equipment to reduce operator exposure to the  
8 uranium and we are reducing the shipping traffic. These  
9 improvements would not be possible without the modernization  
10 program which we have undertaken.

11 Now, I would like to address some of the questions  
12 that have been raised by Senator Nixon. First question is  
13 why is Combustion Engineering requested permission to handle  
14 fuel containing higher percentages of uranium than  
15 previously processed at Hematite? While the facility  
16 modernization has nothing to do with the increased  
17 enrichment level we have, in fact, we have been, in fact,  
18 handling the higher enrichment uranium up to five percent  
19 now for well over a year. The utilities, we're doing this  
20 because the utilities uses slightly higher enriched fuel at  
21 power plants to improve their fuel cycle economics. Other  
22 fuel manufacturers also have licenses which allow the use of  
23 five percent enriched uranium. Before we obtain<sup>ed</sup> our license  
24 amendment to use five percent enriched uranium we performed<sup>d</sup>  
25 extensive analysis to show the adequacies of our equipment



1 and our procedures. And including criticality safety  
2 analysis. These analysis are based on conservative  
3 assumptions approved by the Nuclear Regulatory Commission.  
4 Question number two, the total discharged pollutants into  
5 the river and air have decreased by substantial percentage  
6 in the last decade. In view of this fact why is Combustion  
7 Engineering requesting permission to increase air emissions  
8 and water effluents? We were not requesting permission to  
9 increase air emissions or water effluents. Our plant does  
10 not release any significant amount of radioactive air  
11 emissions nor do we discharge radioactive liquid effluents  
12 from the production processes to the creeks. In fact, we  
13 have always stayed well below the federal limits for  
14 airborne radioactive releases stated in the federal  
15 regulations 10CFR20. After the plant modernization these  
16 limits will remain at the same low levels. But our ability  
17 to remain well within them utilizing our proposed state of  
18 the art improvements will be enhanced. It's expected that  
19 the nonradioactive sanitary and laundry waste water from the  
20 plant will increase about twenty percent. This is largely  
21 due to the additional jobs created by the modernization of  
22 the Hematite plant. The sanitary waste water from the plant  
23 passes through the plant sanitary treatment facility and is  
24 then discharged to the creek. The laundry waste water is  
25 filtered, held in a storage tank and sampled prior to

1 release and will be going through the sanitary systems as  
2 well. As a final point there will be no adverse effect on  
3 ground water quality since there are no plant activities  
4 related to plant modernization that will introduce foreign  
5 substances into the ground water. The next question, has  
6 the State of Missouri given it's okay for any increased  
7 emissions? This question assumes an increase where there is  
8 none as I have stated earlier. The plant modernization will  
9 not significantly increase airborne releases and radioactive  
10 liquid discharges. What plans have been prepared to reduce  
11 emissions? Once the modernization is completed and put into  
12 operation the Hematite plant will use modern equipment and  
13 controls which will enhance our ability to remain well below  
14 the established federal limits. Has the state or national  
15 agency requested such a plan? The answer is no. The  
16 additional questions now deal with waste on site. It is my  
17 understanding that large amounts of waste are stored on  
18 site. If this is correct, how is the waste stored? All of  
19 our low level nuclear waste is put into N.R.C. approved  
20 shipping containers and sent to license burial grounds while  
21 awaiting shipment. The low level waste is placed in  
22 approved containers kept at the plant. What type of waste  
23 is stored? Low level nuclear waste, which generally is in  
24 the form of solid. Any liquids that we have are solidified  
25 before we store them. The present inventory is less than

1     fifteen hundred cubic feet of current operational waste.  
2     And a bit less than ten thousand cubic feet of  
3     decontamination waste. Primarily decontaminated or  
4     contaminated earth, which we have removed during  
5     decontamination of the retention pond behind the plant and  
6     excavation prior to N.R.C. release for construction on the  
7     site. Unless some of this material is found to meet the  
8     requirements for unrestricted release it will be shipped off  
9     site to burial. Additionally there are about two thousand  
10    to three thousand tons of spent limestone, a mixture of  
11    calcium flouride and calcium carbonate, which is stored on  
12    the site awaiting release from the Nuclear Regulatory  
13    Commission. This material contains about the same low level  
14    of radioactivity as flash from typical coal fired utility  
15    boilers. Do you consider this a temporary or permanent  
16    solution? At the present time we consider shipment of our  
17    low level nuclear waste to Barneswell, South Carolina to be  
18    a permanent solution. Are there plans to make a different  
19    permanent disposal of the waste? Yes, if our low level  
20    waste will not be accepted for burial at Barneswell we plan  
21    to ship to the Midwest Compact State Facility. At present  
22    we are in the planning stages to construct a temporary  
23    storage facility at the plant to hold the waste until the  
24    Midwest Compact State Facility is operational. Is there a  
25    clear record duplicable for state inspection of what and

1 where these wastes are buried? I presume this refers to the  
2 burial grounds on the site at Hematite. Prior owners of the  
3 Hematite site have recorded the burial of twenty-seven point  
4 four 0 five kilograms grams of U235 in thirty-nine on site  
5 burial pits. These pits were established in conformance  
6 with the A.E.C. regulatory requirements in existence between  
7 1957 and 1970, <sup>10 CFR 20.304</sup> ~~10 CFR 20 point three 0 four~~ and appear to  
8 contain in the burial pit that is approximately two point  
9 five parts per million U235. There are burial logs  
10 available. The boundaries of the burial grounds are  
11 defined in maps provided by the prior owners but not the  
12 specific location of the individual burial pits. R.M.C. and  
13 N.R.C. contractors conducted tests of the burial grounds in  
14 1983 and concluded that the buried material was essentially  
15 stable and that the burial pits had no detectable effect on  
16 the population or the surrounding environment. Subsequently  
17 we have determined that samples of water from wells on the  
18 periphery of the burial grounds are not only within the  
19 release requirements for the Nuclear Regulatory Commission  
20 within the E.P.A. drinking water standards. There are  
21 currently no plans to decommission the burial pits.

22 MR. NORELIUS: Thank you, Mr. Rode. I believe  
23 we will proceed right on and ask Mr. Bidinger if he would  
24 come and describe the N.R.C. licensing evaluations?

25 MR. BIDINGER: Good evening, ladies and

1 gentlemen. I'm George Bidinger section leader in the fuel  
2 cycle safety branch. My section has the responsibility for  
3 preparing or for performing the environmental and safety  
4 reviews prior to our branch taking any <sup>licensing</sup> ~~safety~~ actions.  
5 Senator Nixon has invited us here this evening to discuss  
6 potential health and environmental impacts of the Combustion  
7 Engineering plant expansion and operation. Since protecting  
8 the public and the environment is the primary responsibility  
9 of the Nuclear Regulatory Commission I think it's more  
10 appropriate that we be here and discuss the proposed project  
11 with you people. Answer your questions, if we can. We're  
12 certainly going to try and do that. Let you know a bit  
13 about the Combustion Engineering license, The licensing  
14 process and the status on the current project, the  
15 expansion. I wish we could have rehearsed our performances,  
16 Mr. Rode and I could have rehearsed our performances  
17 together. Much of what he said I was prepared to say, you  
18 will see it on my view <sup>graph</sup> ~~draft~~ but I intend to skip over it  
19 where I agree with him and even though it's been said it's  
20 already been said, in the economy of time I'm not going to  
21 repeat it but you will see it on the view <sup>graph.</sup> ~~draft~~. After  
22 discussion of the licensing process I intend then to respond  
23 to the rest of the questions from Senator Nixon and take up  
24 the issues that have been raised by the coalition and the  
25 two Jefferson County residents in their request for a

1 hearing. That does not affect the hearing process at all  
2 but I want to speak to those issues so that we pass the  
3 information on to everybody <sup>while</sup> ~~why we're~~ here this evening. To  
4 understand what we were doing on the amendment process to  
5 approve or to consider approval of the project by an  
6 expansion.

7 I wanted to spend a few minutes going back and  
8 discussing what was in the license at the time of the last  
9 renewal which occurred in 1983. In the renewal process we  
10 looked at all aspects of the Combustion Engineering  
11 operations here at Hematite. We performed an environmental  
12 assessment. We did a safety evaluation of their operations  
13 looking at their organization and administrative practices  
14 to protect people and the environment. We looked at their  
15 health physics, the radiation protection program. We looked  
16 at their nuclear safety <sup>criteria</sup> ~~craft~~ to see that they had  
17 criticality practices that were adequate in all respects in  
18 handling and processing enriched uranium. At that time the  
19 process as they are now consisted of processing the UF6 into  
20 UO2 powder and/or pellets at the site and shipping those  
21 products off to their sister plant in Connecticut. They  
22 would receive scrap material back from that Connecticut  
23 plant and ~~in the~~ process that scrap and the scrap that they  
24 themselves generated in their ~~scrap~~ plant. The enrichment,  
25 the uranium enrichment that they were handling at that time

1 was four point one weight percent, U235. Another feature of  
2 the license was that the environmental or excuse me, the  
3 E.P.A. offsite environmental limits for fuel facilities and  
4 ~~re~~tractors were reimposed on Combustion Engineering. At  
5 that time they were all subject to them and we reimposed  
6 those limits on Combustion Engineering. Those limits are  
7 very, very low. One of the limits is twenty-five ~~kilograms~~ <sup>millirems</sup>.  
8 The whole body dose equivalent, sort of technical, but  
9 twenty-five ~~kilograms~~ <sup>millirems</sup> is a very small number. It was  
10 established by the Environmental Protection Agency and we  
11 have no choice but to impose that on our licensees.  
12 Licensees, all licensees in the fuel cycle ~~have no~~, have to  
13 live with that limit. In the process of type operations  
14 changed here we had to amend that license that was renewed  
15 in '83. There have been thirteen amendments. I'm only  
16 going to mention two or three of them this evening. Also  
17 over a year ago we amended the license to authorize uranium  
18 enriched five weight percent in the U235 isotope. This did  
19 not change their health physics program. It modified their  
20 criticality safety program slightly because the uranium is  
21 slightly more reactive than the four percent but their  
22 original responsibilities and administrator's  
23 responsibilities in the license remain unchanged. The plant  
24 manager was still responsible to see ~~if~~ <sup>that</sup> they operated with  
25 written procedures. He was responsible to see that their

1 people were trained in safety practices and processing  
2 practices. He was responsible to see that audits were  
3 performed to see that they were living up to their license.  
4 I might divert just a minute. When I talk about the license  
5 some of you may have no idea what we're talking by a  
6 license. The license consists when Combustion Engineering  
7 applied for the license back in 1982 they submitted  
8 thirty-five pages of committments. We took those  
9 thirty-five pages and incorporated them into the license.  
10 We added roughly twenty-five additional conditions. We  
11 imposed, you might say, twenty-five more committments on  
12 Combustion Engineering so our conditions and their own  
13 thirty-five pages of committments became their license. So  
14 when I talk about a license I'm talking about a big thick  
15 document. And periodically it does get amended. So at the  
16 time that this project started then we had basically a  
17 facility that looked like this. You have already seen it  
18 but the things that I want to point out here are that this  
19 little building right here, the little square building is  
20 the oxide building. That's where all of the powder is  
21 produced. That little building is not being changed by the  
22 revisions to the plant site. This building here is where  
23 the old pellet line was but then you notice that any scrap  
24 produced in these two buildings had to be taken out into the  
25 open over to the scrap building, an undesireable practice



1 because there is a chance for contamination spills, anything  
2 else. So at the time that we started this project there  
3 were four buildings, four main production buildings on site.  
4 As we, the first communication on this project came to us  
5 formal way in July of '88 so we have been working on it now  
6 for over a year. Since that time they asked us for  
7 permission to tear down those two buildings in the middle of  
8 the plant site. We required them to decontaminate the  
9 buildings and provide us with surveys that they were  
10 decontaminated. Our region three staff went out and  
11 conducted their own survey to make sure that the buildings  
12 were decontaminated. Then they were allowed to put up the  
13 shell of the building but they had to then, Combustion  
14 Engineering then had to survey the soil, remove the  
15 contaminated soil. And then our consultant, a contractor  
16 from Oak Ridge, Tennessee, went to the site and performed an  
17 independent soil sampling survey for ourselves. Once we  
18 were convinced that the soil had been, the contaminated soil  
19 had been removed they were allowed to pour the floor for the  
20 phase two building, the pellet line building. That same  
21 process is now going on in the phase three area. We will  
22 see that in just a minute. Our contractor has already been  
23 out and sampled the soil. We're waiting for the results but  
24 if the soil is properly or all of the contaminated soil is  
25 picked up we will then authorize the or we expect then to

1 authorize the pouring of the floor for the last phase. So  
2 we, okay. So then let's me move on then. Combustion  
3 Engineering then applied for a license amendment. That  
4 license amendment was to authorize them to operate the new  
5 pellet line building, the phase two building with depleted  
6 uranium. When we talk about depleted uranium we're talking  
7 about the uranium that's had the U235 removed from it. Most  
8 of the U235 removed from it. That U235 has been  
9 concentrated and will be used in reactors and what was left  
10 over was the uranium depleted. And U235 has, and it is  
11 being used, Combustion Engineering asked to use some  
12 depleted uranium to test the new plant by using depleted  
13 uranium to take away the risk of criticality safety. It's a  
14 reasonable approach for them, the building with uranium but  
15 not have any of the criticality concerns while you're  
16 testing it. I think there is also an economics incentive  
17 for Combustion Engineering to do it that way but that's  
18 their business. They also presented with us a second  
19 amendment application in May of '89. This was to operate  
20 the plant with the enriched uranium. Once we received these  
21 two applications we performed an environmental assessment as  
22 required by the <sup>National Environmental Protection Act</sup> ~~the PAAC~~ and our own regulations. In  
23 performing this assessment we came to the conclusion that  
24 the doses that would be, let me change that slightly, the  
25 uranium that would be released by the operation of this

1 plant would result in doses to the public that would be well  
2 below the E.P.A. limits that have been mentioned before.  
3 We're talking in terms of less than a <sup>millirem</sup> ~~kilogram~~ to a real  
4 person here in the Hematite area. Again remember that I  
5 mentioned before the limit that E.P.A. has put out is a  
6 twenty-five <sup>millirems</sup> ~~kilograms~~ whole body dose. We're talking about  
7 less than one <sup>millirem</sup> ~~kilogram~~ dose ~~or kilogram per year, dose.~~  
8 Because of this small increments in dose we made a finding  
9 of no significant impact and we published this in the  
10 federal register. Now when we published this in May we had  
11 to live with new rules which had been imposed on us by our  
12 own commission and this required that when we publish a  
13 finding of no significant impact in the federal register we  
14 also have to publish a notice of <sup>opportunity for</sup> ~~a~~ hearing. We published  
15 that notice of a hearing and we received two requests for a  
16 hearing from Senator Nixon and from the coalition and two  
17 residents here in the county. Discussions with Senator  
18 Nixon ~~it~~ lead to this public meeting and here we are  
19 tonight. Now, since that time we have gone ahead with our  
20 safety evaluation, our safety review of the first  
21 application for Combustion Engineering to test the plant  
22 with the depleted uranium and we have authorized Combustion  
23 Engineering to test their new plant with depleted uranium.  
24 That was, that amendment was issued in July. We <sup>also</sup> ~~always~~ are  
25 reviewing their application to use the new pellet line with

1 the enriched uranium. That review, that safety review is  
2 ongoing. We have developed some concerns. We have not  
3 communicated them formally to Combustion but we will do that  
4 as soon as we're away from this public meeting. So if we  
5 could look quickly at the view graft and you seen most of it  
6 before but again the important features are that the oxide  
7 area is still this small building. That's where all of the  
8 powder is produced and that really limits the through put to  
9 the plant. We're not changing the amount of uranium they  
10 can bring on site in the amendments. This old pellet line  
11 is still here. The two new pellet lines will be here when  
12 phase three is completed. Then there will be one,  
13 essentially one building and then all of the scrap from the  
14 oxide line, the pellet line can be transferred over to the  
15 scrap plant without going outdoors. It will be an  
16 enhancement of environmental concerns on site.

17 I'm going to move now to the questions the rest of  
18 the questions that Senator Nixon has posed to us. We have  
19 ~~view graft~~ <sup>viewgraphs</sup> here; the questions are here, the answers are  
20 here also. Some of them the answers are redundant with  
21 those that Mr. Rode have given you. He's already explained  
22 how their will be an increase in the volume of laundry and  
23 sanitary waste because you have more people flushing toilets  
24 and you have more clothes to be washed. All of that, the  
25 volume of water will increase, the concentration of uranium

1 is not expected to increase. There will be no other liquid  
2 released into the surface water here. All of the process  
3 wastes are solidified and sent to low level burial. We  
4 don't expect any significant increase in airborne activity  
5 except that again there is a larger building there is more  
6 air being released but all of the new exhausts are being  
7 filtered twice by very high efficient filters. We call them  
8 ~~hepas~~ <sup>HEPAs</sup>. If I refer to them tonight I apologize for that but  
9 they are very, very high efficiency filters at removing  
10 particles of dust that are in the respiration range. So  
11 there will be a very small increase in the amount of  
12 contaminated air going out of the building, contaminated  
13 material going out of the building in the very large volume  
14 of air being exhausted from the building but the amount of  
15 uranium going out is miniscule. The air and the liquid  
16 effluent, the air going up the stacks going into the surface  
17 streams are all well below the regulatory limits. Those  
18 limits that are imposed by the N.R.C. and by the  
19 Environmental Protection Agency. They are going to continue  
20 at less than the E.P.A's limits. So therefore, we have  
21 concluded that there are no significant impacts on the  
22 health, public health or the environment. Our next question  
23 deals with the effects of the approval of the application on  
24 water quality. The radioactive aspects of water quality are  
25 regulated ~~totally~~ by the Nuclear Regulatory Commission. The

NPDES  
1 state issues an ~~N.P.T.S.~~ permit. That's a National  
2 Pollutant <sup>Discharge</sup> ~~Elimination~~ <sup>System</sup> ~~Test~~ Permit, you can understand, but  
3 the state issues the permit for the chemical effluents going  
4 ~~from the~~ <sup>to</sup> Joachim Creek. Those limits remain unchanged.

5 The volume of the water will increase again  
6 because of ~~more of, increase again because of~~ more employees.  
7 But again no process liquids, those coming out of the scrap  
8 plant which are the only wet process in the building, no  
9 process liquids are being released to the environment. They  
10 are all being solidified. The solids are being sent to  
11 waste burial. The conclusion is that water quality is not  
12 being impacted by this proposed action. Will there be any  
13 change in transportation patterns. Mr. Rode again has  
14 talked about the ten percent less material that's being  
15 shipped to Windsor and less material being shipped up there  
16 and possibly becoming scrap. There will be less scrap  
17 coming back from the Windsor Connecticut plant. There will  
18 be some additional chemicals associated with pellet  
19 production shipped to the site for the operation of the  
20 ~~sintering~~ <sup>sintering</sup> furnaces, for example. But overall there is going  
21 be no significant change in the transportation patterns, ~~so~~  
22 ~~be~~ perhaps a slight decrease from the number of radioactive  
23 material ~~shipped~~ <sup>shipments,</sup> a slight increase from the chemical  
24 material shipments. Our next two questions concern the  
25 volume of waste produced at the plant and where would the

1 waste be taken for disposal. The waste that we're talking  
2 about here consists of the solidified process, residue  
3 filters, air filters that are contaminated with uranium. We  
4 were told by Combustion Engineering people that they produce  
5 about two thousand cubic feet of this waste a year. That's  
6 equivalent to two hundred seventy fifty-five gallon drums  
7 and it contains about eighty kilograms of uranium, not  
8 uranium 235 but uranium. That's a hundred and seventy-six  
9 pounds that's shipped over to a licensed commercial burial  
10 site. Each year this volume of waste is going to increase  
11 slightly. They have more filters, for example, in the  
12 plant. Those filters end up as being waste and be shipped  
13 off but they have estimated that waste at about one percent.  
14 We don't have any reason to challenge it. All of the waste,  
15 this kind of waste is disposed of at a licensed burial site  
16 so whether it increases by one percent or ten percent it's  
17 only more expensive for them to ship ten percent more but  
18 there is space available now for them to ship the waste.  
19 There is an issue on the limestone. They have requested  
20 that it be declared nonradioactive or that they be  
21 authorized to dispose of it as nonradioactive waste. They  
22 have done some studies that we have requested. We have not  
23 made a decision yet on that request. Will the facility have  
24 capacity to store the waste if it is unable to use the usual  
25 disposal site? Well, when you are talking about two

1 thousand cubic feet per year of solid waste and the big  
2 warehouses that we saw in their drawings and our drawings  
3 it's not, it's easy to store that volume of waste for  
4 several years in their warehouses or bring trailers on site  
5 to store it. We don't see it as a problem. I think some of  
6 you may know that there are some of the waste disposal  
7 issues are changing from day to day with waste compacts and  
8 all that maybe the basis for the question, I'm not sure.  
9 But even if they can't send it to Barneswell until the  
10 Missouri compact is available they can store the waste for  
11 two, three, four years at those volumes. It's not a  
12 difficult problem. Okay. The next two questions deal with  
13 is there going to be more production on site? Is there a  
14 danger of increased accidents with the increased capacity  
15 and are the accidents likely to be more serious? First of  
16 all, in our response, our consideration of these questions  
17 the possession limits the amount of material that they were  
18 authorized to have on site does not change by and will not  
19 change by this amount processed. When you think about it as  
20 a production plant the way they want to make money is  
21 convert the uranium hexafluoride into truck load quantities  
22 of powder or pellets and ship it off to the next site and  
23 get paid for it. So it's, we're not changing the possession  
24 limit. I don't think <sup>they</sup> ~~their~~ wanting to run up the inventory  
25 in the plant but even if they run up their inventory we have



1 already established a maximum limit they can have in the  
2 plant. So the possession limits, at least, do not change.  
3 As far as <sup>accidents,</sup> ~~acting~~ emergency planning already considers ~~first~~  
4 ~~or explanation,~~ nuclear criticality reactions, uranium  
5 releases, chemical releases and off site transportation  
6 events. We haven't been able to think of any other accident  
7 scenarios that need to be considered in this, any other  
8 accidents of this magnitude that need to be considered. And  
9 there are no changes in the types, as far as we're  
10 concerned then there are no changes in types or consequences  
11 of accidents for emergency planning.

12 The next question deals with emergency procedures  
13 being revised. Combustion Engineering already has an  
14 emergency plan and procedures backing that ~~plant up~~ in  
15 place. This is a document of something like a hundred and  
16 fifty pages. I mentioned thirty-five page notice the rest  
17 of their license. It's a big thick document. It deals with  
18 the on site emergency organization. It deals with training  
19 of people, the on site people and the off site people who  
20 would respond to any emergency at the plant. It deals with  
21 drills so that the people <sup>are</sup> not only trained, but they get to  
22 exercise their training so that the N.R.C. and Combustion  
23 Engineering management can see that the training is  
24 effective. It deals with arrangements for off site support  
25 by the local police, hospitals, fire departments, ambulance

1 services. The plan also provides for dedicated emergency  
2 equipment on site that can be used in the event of an  
3 accident. Now, there are going to have to be some emergency  
4 procedures revisions. They have got, you know, new egress  
5 door, doors where people leave the buildings. New equipment  
6 that has to be shut down as people leave but these are all  
7 minor procedural revisions that have to be made so we don't  
8 see any significant changes having to be made in their  
9 emergency procedures. Will the modifications require  
10 changes in the local emergency response capability? Again  
11 the local emergency response capabilities will remain the  
12 same, okay. That includes the existing fire department,  
13 hospitals, sheriff department and ambulance arrangements.  
14 These are all part of the plan. We don't see any ~~accident~~  
15 ~~new~~ type senarios or new types of accidents that need to be  
16 protected against so we don't see that there are any changes  
17 needed in the off site response capabilities. I now want to  
18 go through the issues that have been raised by the coalition  
19 for the environment Mrs. Dodson and Mrs. Sisk. This first  
20 issue really deals with changing from four point one percent  
21 uranium to five percent uranium. From a criticality safety  
22 standpoint this is really a small change. Granted it's my  
23 opinion when I say that but I have worked in this field for  
24 the last thirty years. I compare it to someone coming home  
25 with eighty-nine octane gasoline and telling their children

1 not to strike a match around the gasoline. Don't pour it  
2 down the drain, don't drink it. And the next week they come  
3 home with ninety-one octane gasoline. The safety programs  
4 for your children are the same. You still don't strike  
5 matches, you don't pour it down the drain, you don't drink  
6 it. It's more powerful gasoline but it's not significantly  
7 different. And going from four percent uranium to five  
8 percent enriched uranium is about the same. It's more  
9 powerful uranium. It makes the reactor run a little longer  
10 but it does not change the basic rules for handling enriched  
11 uranium in the plant. But if they jump up to ninety-three  
12 percent enriched uranium like the plant used to handle many,  
13 many years ago before it was Combustion Engineering's plant  
14 that would be a major change and we would require a much  
15 longer time to review their proposed safety limits. But  
16 when you go a small change from four percent to five percent  
17 it's not a big change from a criticality safety standard.  
18 But in our safety evaluation review of the nuclear  
19 criticality safety principal the safety controls and the  
20 limits were adjusted so that the same margins of safety were  
21 maintained in the plant. They already were used to dealing  
22 with like two <sup>To four percent.</sup> ~~safely~~ <sup>safely</sup> maintained in their plant  
23 for two percent, three percent, four percent material and  
24 when they added the five percent they added another line to  
25 safe ~~mass quantity~~ <sup>mass quantity</sup> to their table. They already had a

1 standard in place. When they were dealing with two percent  
2 they used the two percent limits. When they were dealing  
3 with three percent they were dealing with the three percent  
4 limits. ~~But all they had to do to establish effluent by the~~  
5 ~~process of imposing that limit on material and process~~  
6 ~~remaining the same so by the nature of five percent enriched~~  
7 ~~uranium and the control at four percent.~~ The modifications in  
8 going <sup>To</sup> at five percent were not <sup>seen as</sup> ~~see~~ a significant increase in  
9 the potential to criticality accidents when we authorized  
10 that amendment of June, '88. The next question is rather  
11 long and it's going to appear on two slides. This has to do  
12 with the lack of adequate emergency response capabilities of  
13 Jefferson County and other counties within the state in the  
14 event of radiological accidents. Talking about inadequate  
15 roads for evacuation, ~~of emergency responders to plant~~ <sup>our</sup> or  
16 transport routes, inadequate emergency health care facility.  
17 First of all, the response requirements are not affected by  
18 this plant modification. The quantity of uranium at the  
19 plant is the same. The processes are the same. The  
20 responsible capability of the plant staff remains the same  
21 so the basic response capabilities do not change. As far as  
22 the evacuation route goes really very little need for  
23 evacuation. Even the potential for evacuation is very small  
24 to begin with by any accident that would happen would be  
25 basically a localized event much as a truck event where the

1 local police would isolate the accident but you would not  
2 consider that to be an evacuation. The accidents that we're  
3 dealing with here don't have the potential impact like you  
4 have with a reactor where you do evacuate over miles. We're  
5 talking about evacuation over meters or yards, hundreds of  
6 feet. And Combustion Engineering does have the on site  
7 capability. We have already been through that so there  
8 really is not a great deal of change there. As far as the  
9 local emergency response capabilities we both have touched  
10 on that. Combustion Engineering has arrangements with two  
11 different hospitals, the ambulance, the sheriff and the fire  
12 departments, two of them, so that the local response  
13 capabilities of their own emergency responses and the local  
14 support governmental agencies and service agencies are  
15 adequate for the, deemed adequate for the current plant and  
16 the changes to the plant as well. As far as the off site  
17 response to transport the shipping containers that  
18 Combustion Engineering are allowed to use are designed to  
19 withstand severe accident. If there is an accident, a truck  
20 overturned the local police are equipped and qualified to  
21 isolate the truck accident until there is assistance at the  
22 site by either Combustion Engineering or while the federal  
23 radiological assistant deals are ready to move. Frankly if  
24 there was a truck accident in the state we would expect  
25 Combustion Engineering to be on the way to lend radiological

1 assistance before we even heard about it back in Washington.  
2 The next issue is the potential to increase in the plant an  
3 unplanned release was of radioactive and <sup>non</sup>~~en~~radioactive dust,  
4 liquid and gasses. We have already covered water. We have  
5 covered the air going out of the plant. The one thing I  
6 want to address is raydon. I think we all know that the  
7 uranium that is in the ground is put there by mother nature  
8 does decay through a series of different elements and it  
9 ends up with radium and finally raydon. And in some places  
10 in the United States that is a problem. The uranium,  
11 though, that we are dealing with here in the plant does not  
12 have a raydon problem associated with it. If you remember  
13 the first view <sup>graph</sup>~~draft~~ that Mr. Rode put up he showed the  
14 uranium coming out of the ground and going through a uranium  
15 mill and then it goes on to a UF6 production plant before it  
16 ever goes to the D.O.E. enrichment plant, before it goes to  
17 the Combustion Engineering plant. ~~And enriched UF6,~~ The  
18 radium that is associated with that uranium ore coming out  
19 of the ground is essentially left in the first two chemical  
20 processing steps up there at the uranium mill, ~~And~~ then at  
21 the UF6 production plant, ~~About~~ ninety percent of it stays at  
22 the mill and that's why the mill ~~tailings~~ <sup>tailings</sup> are sources of  
23 raydon. Because all of the radium has been dropped out of  
24 the process and left on the talings pile. So that the  
25 uranium that arrives at this plant has had all of the radium

1 remove from it, all of the daughter product radium removed  
2 from it. It takes something like, what is it, sixteen  
3 hundred, sixteen thousand, sixteen thousand. The decaying  
4 of the radium to ~~ray~~don has a half life, this is sort of  
5 technical but I have to do a little bit of that, has a half  
6 life of sixteen thousand years, sixteen hundred is the half  
7 life, okay, excuse me. Sixteen hundred years of half life.  
8 So that means that for that equilibrium stage to develop  
9 where there is radium and ~~ray~~don equilibrium takes something  
10 like ten half lives or sixteen thousand years. That uranium  
11 is not going to be in this plant that long so if it is  
12 they're out of business. So radium is not an issue.  
13 They're going to have, perhaps have more ammonia on site.  
14 That could be a significant issue if they had<sup>an</sup> ammonia  
15 release. It can be knocked down by water and they have it.  
16 The next issue the importing of radioactive and hazardous  
17 material in. The only materials that they are importing is  
18 uranium and the chemicals we have mentioned. There are no  
19 other hazardous materials being imported. The next issue is  
20 the impact of the expanded operations <sup>on</sup> ~~of~~ the health and  
21 safety of employees. The N.R.C. safety standards are going  
22 to be in place for the new employees as well as the existing  
23 ones. Combustion Engineering radiation protection program  
24 will apply for the expanded operations, new employees, new  
25 uranium handling and combination techniques to improve the

1 employee's environment inside the plant. Our inspection  
2 findings in the past since the renewal for that in health  
3 and ~~staff~~<sup>safety</sup>, in the area Combustion Engineering has had four  
4 violations. That inspection program is going to continue  
5 during the testing program and if we get around to it during  
6 the operation with the enriched uranium. I'm not, the  
7 impacts of floods and earthquakes have already been used by  
8 Mr. Rode so I'm going to call it at this point. Thank you  
9 very much. I hope that this answers some of your questions  
10 and all of your questions and all of your concerns.

11 MR. NORELIUS: Okay. We will try to move  
12 quickly into the statements and, Senator Nixon, welcome you  
13 to start, if you care to make a statement. I would ask  
14 again that for those of you making statements we would  
15 appreciate if you could limit them somewhat hopefully to  
16 about five minutes to start with so that anyone who wishes  
17 to make a statement to do so. And we ask that you sign up  
18 on one of our sheets if you would like to make a statement.  
19 There is one back there and there is one here. So why don't  
20 we go right to that. Senator Nixon, you're first. Would  
21 those of you who make statements would you please state your  
22 names and home town locations so we can have a record of  
23 that, please.

24 SENATOR NIXON: My name is Jay Nixon. I  
25 reside in Hillsboro, Missouri. I'm a State Senator



1 representing the 22nd District which includes the plant  
2 location of Combustion Engineering. I also like to give Mr.  
3 Norelius a copy of the letter I sent on August 17th. This  
4 is the questions that they referred to and ask that it be  
5 marked Exhibit A and be made part of the record. I want to  
6 thank very much the members of the N.R.C. ~~and P.R.C.~~ staff  
7 who have come down from Chicago and Washington and other  
8 places around the country tonight to bequest us to answer  
9 the questions. I would also like to thank Morris Case and  
10 people from the Environmental Protection Agency who have  
11 answered the questions that have been posed to them. I  
12 would like to thank the Department Of Natural Resources  
13 State of Missouri which has worked with us as  
14 representatives here tonight and has answered also  
15 separately in writing and I have available for anybody who  
16 would like those the sixteen questions that I presented for  
17 the hearing this evening and answer to those in writing to  
18 me yesterday. I would also like to give special thanks to  
19 the union steward and fine workers of Combustion Engineering  
20 who were very helpful in helping me to secure a tour and  
21 going with me in the tour of the facility. Martha Dodson  
22 and I spent the better part of four hours walking through  
23 everything and frankly we were taken wherever we wanted to  
24 go, I should note, and answered questions by workers as well  
25 as members of management of Combustion Engineering as we

1    toured that particular facility. They were very courteous  
2    and answered each and every question that we had at that  
3    time. I would like to just very briefly indicate to  
4    everybody why I instituted the request for a hearing in this  
5    matter and it all comes back to the May 24th publication in  
6    the Federal Register. I would like to read very quickly  
7    three sentences from that. One is under the environmental  
8    impact of proposed action and it says trace amounts of  
9    radioactivity entered the system from sinks and showers  
10   control liquid for the liquid effluent radioactivity remains  
11   the same. However the volume increase would be  
12   approximately twenty percent the impact from this liquid  
13   discharge is expected to be minimal. Secondly it said  
14   Combustion Engineering's objective is to increase pellet  
15   production with no significant increase to existing raise in  
16   effluent release. Our radioactive releases are expected to  
17   increase. With these statements being made in the public  
18   record I felt it was essential as a State Senator  
19   representing this area that we got the questions about these  
20   things answered in open forum and I thank the folks for  
21   being here tonight to help us with that. I wish that  
22   everybody had the opportunity that I have had to review the  
23   records that I have done and spent the hours looking at the  
24   facility as well as take the record and tour it. It's a  
25   going facility. It has the capability of holding over fifty

1 tons of product worth in excess of fifty million dollars.  
2 One of my major worries when we began this process was the  
3 burial pits that had been referred to before containing the  
4 waste from the ninety percent pure uranium that was used  
5 there in years past not recently. I am very proud of the  
6 State Department of Natural Resources in they answered my  
7 questions concerning that issue, which is not directly  
8 affected by what we're doing tonight. But I would like to  
9 treat the two sentences of Tracy Mehan's letter to me  
10 yesterday concerning that material. It indicates the  
11 material may apply to this waste as well as the Missouri  
12 Department of Natural Resources' position is that the buried  
13 waste should be investigated under these laws and regulation  
14 to determine what further action, if any, is required. The  
15 Missouri Department of Natural Resources will pursue this  
16 issue with the N.R.C. and E.P.A.. I think that's an  
17 allowable standard of their's and I think it's an important  
18 step forward to move this thing forward in a very quick and  
19 effective manner. The Joachim Creek valley is very  
20 important to me. My grandmother lived within sight of the  
21 Joachim Creek at Victoria before World War One. My father's  
22 family grew up in Hematite. My grandfather and cousin who  
23 was killed in the Vietnam war are buried in a cemetery  
24 overlooking the nuclear plant. I have floated and fished  
25 every inch of the Joachim Creek in Jefferson County in my

1 life. I am not here to, my purpose is to set the highest  
2 standards of cleanliness not merely compliances but complete  
3 cleanliness. I am an environmentalist and want to fight to  
4 protect our environment. I know we can and must do better.  
5 Meeting in hearings like this show we are interested. We  
6 demand the best of Combustion Engineering, the N.R.C. and  
7 the Missouri Department of Natural Resources. D.N.R. as I  
8 had indicated promised me continuing inspections. Hopefully  
9 we will get the same treatment from the N.R.C.. We don't  
10 want series of the types that has caused so much  
11 environmental nightmares and fears of the past. Not just  
12 compliance cleanliness, not secrecy but open cooperation.  
13 Not just permissable levels but improving limits of waste  
14 throughout this system. Our county ranges thirty-second in  
15 the entire country of all counties in toxic waste and I was  
16 elected to fight that and I'll continue to fight that and  
17 try to clean up the best we can and tonight is not for me it  
18 is for you to ask the questions that you have concerning  
19 this process. And I thank you for coming and look forward  
20 to you getting the answers to the questions that you need.  
21 Thank you.

22 MR. NORELIUS: Thank you, Senator Nixon.  
23 Martha Dodson, would you like to come up here and make a  
24 statement?

25 MS. DODSON: May I speak from here?

1 . MR. NORELIUS: Why don't you try it and if we  
2 can't hear we'll do something else.

3 MS. DODSON: I'm Martha Dodson. I am one of  
4 the requesters for a hearing this evening as others. I am  
5 very pleased that you called and I thank you from Jefferson  
6 County. I have very little knowledge of nuclear fuel  
7 production and rely heavy upon your expertise. I have no  
8 complaint against Combustion Engineering but I do know that  
9 they are in the business of business and therefore it is  
10 essential to me as a citizen living in close proximity to  
11 the plant to have someone who is not in the business and  
12 hasn't been in the business for thirty years guarding me.  
13 That's what I understand your role to be. I am fully  
14 convinced that it is essential to me as a citizen that  
15 experts not in the business inspect the plant regularly with  
16 and without notification and monitor all of the emissions  
17 waste and products of the operation. Does the N.R.C., you  
18 are people that I can really shake <sup>hands</sup> ~~house~~ with and talk to.  
19 Do you make those on site inspections? If you have not been  
20 able to do so it would seem to me that common sense would  
21 dictate that expansion permit would be withheld until  
22 existing facilities were determined to be safe. That is to  
23 say if <sup>error</sup> ~~air~~ must exist it must exist on the safe side as what  
24 is done in Hematite cannot be undone. Do you agree? It was  
25 with great dismay that I read last week that Jefferson

1 County ranks number thirty-two among the nation's  
2 approximately four thousand counties in toxic chemical  
3 release. It is impossible for Jefferson countians not to  
4 wonder why we have achieved this dubious distinction and  
5 perhaps make more serious demands upon our protective  
6 agencies to say enough is enough. Is that not reasonable?  
7 In much of my reading and much of what I have heard this  
8 evening I am struck by phrases acceptable permissable  
9 regulation levels. Permissable levels of radiation,  
10 permissable levels of toxic releases to air, permissable  
11 levels of water pollutants. I can't understand permissable  
12 but must concentrate on safe. Safe levels of radiation,  
13 safe levels of toxics, safe levels of water pollution. Can  
14 you tell me that the air and water emissions and the waste  
15 on site above and below ground at Combustion Engineering and  
16 surrounding areas are safer?

17 MR. NORELIUS: Let me, let us try quickly to  
18 respond to those questions before we go to the neck speaker.  
19 Since I'll deal with this subject of inspections we have and  
20 continue to make routine unannounced inspections at the  
21 plant. We get there two to three times each year and the  
22 areas that we have covered include radiation protection,  
23 nuclear criticality safety, management organization,  
24 controls operations, training and operator retraining,  
25 maintenance and surveillance activity at the plant, the

1 transportation of radioactive materials and environmental  
2 activities, emergency preparedness, the management of liquid  
3 and solid waste and emergency preparedness. We do those  
4 sometimes separately sometimes with a team so those are the  
5 issues that we have covered. Mr. Franks here, who I  
6 introduced as our project inspector, you asked for a person  
7 who you could shake and he's our head inspector. We have  
8 our specialists who come from time to time. Mr. Rouse will  
9 address the second part of your questions.

10 MR. ROUSE: Thank you. Lee Rouse. I wanted  
11 to add one thing. By the way part of your question Mrs.  
12 Dodson had to do with are the inspections announced or  
13 unannounced. Most of those inspections are unannounced.  
14 The plant does not know that George <sup>France</sup>~~Franks~~ is here until he  
15 shows up at the gate. I certainly appreciate the second  
16 question. <sup>The</sup>~~In a~~ world of radiation protection and alot of  
17 other scientific areas you will hear people say permissable  
18 and acceptable and I suppose we are guilty of that tonight  
19 and in some of our documents certainly you have seen that.  
20 I don't set the limits for this plant. ~~As you indicate or~~  
21 As I think George indicated, the limits in the nuclear fuel  
22 cycle including the reactors are established by the  
23 environmental protection agency ~~in~~ which the federal agencies  
24 including the N.R.C. have to implement. The limits that  
25 we're talking about as opposed to some of the ones in the

1 older days, The limits <sup>today</sup> ~~tonight~~ are based on a risk  
2 approach. I can't tell you honestly that the risk is zero  
3 but I can say honestly in my view the emissions from this  
4 plant, C.E., are safe. When you compare them with the other  
5 risks that we face each and everyday and I'm only going to  
6 give you one comparison I'm not going to throw out alot of  
7 numbers, I just note that the radiation that we have  
8 projected from this plant even with the expansion of the  
9 pelletizing lines will be less than one ~~millogram~~ <sup>millirem</sup> for the  
10 residents in Hematite. The closest residents are less than  
11 one ~~millogram~~ <sup>millirem</sup> per year. The background radiation on the  
12 average throughout the United States and I assume it's about  
13 the same here in Hematite, is about three hundred ~~millograms~~ <sup>millirems</sup>  
14 per year. That's a whole body equivalent. That's the only  
15 comparison I'm going to give you but I consider the levels  
16 at this plant as operated and emissions we project for the  
17 expansion to be safe. Thank you.

18 MR. NORELIUS: Karen Sisk, would you like to  
19 come next? We would appreciate you coming up here.

20 MS. SISK: Hi, my name is Karen Sisk. I'm  
21 from Imperial, Missouri. I'm a registered nurse. I have  
22 two kids five and seven who have allergies and my concern  
23 basically living in Imperial is air effluent. I have a past  
24 history of contaminated ground water from wells that have  
25 affected my children so I'm also concerned with the water



1 quality. I have basically been involved with organic waste  
2 as far as the water is concerned. I don't have resources to  
3 test for chemicals. I do have a few questions as far as the  
4 one thing I'm concerned is basically the safety of the  
5 plant. Like Mrs. Dodson I am not that familiar with the  
6 plant I'm just learning about it. I wondered when the  
7 E.P.A. limits were originally set what year as to when these  
8 were actually set and to what amounts. My other question  
9 was as far as the old pellet building is that going to be  
10 utilized and that is this state of the art as the new one is  
11 is it earthquake resistant. And as Jay Nixon also  
12 discovered the decontamination of the previous evacuation  
13 pond and such is concerned with also and contaminating the  
14 ground water. And the other question was there was a  
15 statement that there would be no change in the increase of  
16 the products brought to the plant but it was also mentioned  
17 that there would be a maximum amount of the product that was  
18 going to be allowed unless I misunderstood. And I was  
19 curious as to what the maximum amount was going to be  
20 allowed. And other than that that's basically all I have to  
21 say and I appreciate everybody coming in.

22 MR. NORELIUS: Would you run through your  
23 questions quickly again. I think we can address them  
24 quickly.

25 MS. SISK: The first one was when the E.P.A.

1 limits were set what year and how did they come about these  
2 limits. The other one was is the old pellet building that  
3 they were originally using is it as state of the art as the  
4 new one, is it earthquake resistant as these are. The  
5 decontamination I already mentioned and what is the maximum  
6 amount of the product that's going to be allowed to be  
7 brought to the plant. Right now there is not going to be a  
8 change but what is the maximum amount that will be allowed?

9 <sup>ROUSE:</sup> MR. ~~NORELIUS~~: Jim, you don't get off the hook  
10 here. Come on down, Jim, I would rather have you speak to  
11 the old pellet plant. Wait a minute, Jim Rode the plant  
12 manager is coming down to help us out. Let me answer the  
13 first question, when were these E.P.A. limits that we were  
14 referring to set? The particular limits we're talking about,  
15 uranium fuel cycle standards were put into application by  
16 the environmental protection agency, <sup>(EPA)</sup> in 1979, became  
17 effective in <sup>December, 1979.</sup> ~~December, 1979~~. In January of <sup>1980</sup> ~~1983~~ N.R.C.  
18 issued an order to C.E. here at the Hematite plant with an  
19 evaluation and some action levels to assure that they were  
20 well within that limits. So it's been since 1980 that that  
21 particular limit was established. Before I turn it over to  
22 Jim I wasn't quite sure of the question about  
23 decontamination of the ponds. I may have missed that. Did  
24 you get it? The question related to decontamination of the  
25 ponds?

1 MS. SISK: When I talked to Martha Dodson  
2 and Jay Nixon when they had viewed the plant the evaporation  
3 ponds were still present with the sludge and I was wondering  
4 how and when they were going to evacuate all of that. I  
5 thought that was taken care of in 1979 as far as getting  
6 rid of the contaminated sludge.

7 MR. ROUSE: I'm going to have to turn that  
8 one over to Jim also. Let me answer one question and then I  
9 may help him out. The maximum amount, of the possession  
10 limits of the license is eight thousand kilograms of uranium  
11 235, ~~as contained in the uranium process.~~ Jim, you want to  
12 go?

13 MR. RODE: Martha, do you understand what her  
14 question is about the ponds? I'm not quite sure I  
15 understand that.

16 MS. SISK: Evaporation ponds, what do you  
17 expect to do with the evaporation ponds?

18 ~~MR. RODE:~~  
MR. RODE: Okay. The sludge has generally  
19 been removed from the ponds. We have surveys of the ponds  
20 that have been completed. The submission of the data on the  
21 ponds I believe is at present incomplete. We are putting  
22 together the plans for finalizing, that is dedicating the  
23 ponds at this point. We have among the <sup>waste</sup> ~~burials~~ that we  
24 listed the less than ten thousand cubic feet of  
25 decontamination materials. Among that is the remaining

1 earth that was removed from the ponds. Martha, did you see  
2 the ponds when you were there?

3 MS. DODSON: I did in fact see the ponds  
4 when I was there, yes.

5 MR. RODE: The depth of the original pond  
6 was about three feet as I recall below grade. We are quite  
7 some distance below that at this point and have achieved  
8 levels which will allow us to make it a dedicated site  
9 within the regulations. The old pellet building is not  
10 designed for any special earthquake requirements. That's  
11 one of the advantages that we have for modernizing the  
12 facilities. One that will accrue to us. It is not a state  
13 of the art plant. It was a state of the art plant in 1959.

14 MR. NORELIUS: Let me just add that we will  
15 continue to monitor the activity regarding those ponds and  
16 the sludge material that is there. Okay. I have some  
17 other people who have signed up and I may do damage to your  
18 names so I would ask that you again repeat your name and say  
19 it right and give the location of your home. Greg Pernoud.

20 MR. PERNOUD: Okay. I'm Dr. Greg Pernoud and  
21 I'm a practicing oral maxillofacial surgeon in the community  
22 so I kind of represent the dental community as well and I  
23 have a couple of questions to ask Combustion Engineering.  
24 Certainly Mr. Rode has presented us with fine answers to  
25 many questions. At least we have certainly met alot of

1 standards here tonight I think. Whether those standards  
2 are appropriate or not we don't really know. Years will  
3 test that. But my question has to deal with another  
4 chemical that hasn't been mentioned tonight. If you look at  
5 the original slide we have a chemical hexafluoride going to  
6 a dioxide. Now if my chemistry serves me correctly there is  
7 about two and a half molecules of fluoride produced for  
8 every molecule of U232 or whatever. 235, excuse me. And  
9 there has been no question or no answer either raised to  
10 what happens with all of this fluoride. In this community  
11 as a dentist I have seen quite a bit of fluorosis. Now, I  
12 am not making any accusations here but it does exist and it  
13 does exist other places as well. I would like to know what  
14 exactly happens to the fluoride that is produced. I also  
15 know that many states have regulations regarding the output  
16 of fluoride in their state. Missouri does not. There is  
17 also a machine that will take fluoride out of the air  
18 discharged by these types of plants. I would like to know  
19 if this modernization that we have heard about tonight does  
20 include this machine to take the fluoride out of the air.  
21 So my questions are that as well as how many hundreds of  
22 pounds of fluoride maybe discharged from the plant currently  
23 and how much will it increase and if you have any studies on  
24 the environment from fluoride and what exactly happens to it  
25 and does not end up in our drinking water.

1 MR. RODE: Give me a moment to get my data  
2 together. I do happen to have some of the environmental  
3 monitoring data which we do routinely. I'm relatively  
4 certain that the data is kind of data that you want. I'll  
5 have to find the specific samples, the sample results. The  
6 first answer that you are looking for is really do we scrub  
7 the off gasses from the plant to remove the flouride from  
8 those gasses. The answer is yes. They are passed through  
9 crushed calcium carbonate limestone rock. The calcium  
10 carbonate reacts with the gasses which are systic hydrogen  
11 flouride producing calcium flouride which is an extremely  
12 insoluable form of flouride. We subsequently do monitor  
13 both the soil and we monitor the run off water for flouride  
14 levels. It is all drained with the water from the plant,  
15 put out into a pond and we sample at the exit from the pond  
16 and I'm trying to locate that flouride level. Do you have  
17 that information, Harold?

18 ~~MR. ESTRIGE~~ <sup>ESKRIDGE</sup> I'm Harold ~~Estrige~~ <sup>Eskridge</sup>, manager of  
19 licensing and safety at the plant. As Jim said we routinely  
20 monitor the storm water and drain water run off absorbing  
21 any flouride emissions from the plant. This is required  
22 also by our N.P.D.E.S. permit any levels generally run less  
23 than one part per mill which I understand is quite  
24 acceptable.

25 MR. PERNOUD: You didn't answer my other

1 question. How many hundreds of pounds is put out the  
2 calcium carbonate that you use? Is not the standard of care  
3 as you might say to reduce of flouride emissions out of  
4 smoke stacks? The machine I'm talking about does not run on  
5 calcium chloride or calcium carbonate and do you plan on  
6 modernizing it with this machine?

7 MR. ROUSE: Well, when Jim comes back up to  
8 respond to the quantities which he's going to know alot  
9 better than I. I would like to make one comment. <sup>For</sup> ~~the~~  
10 environmental assessment the N.R.C. did for the <sup>license</sup> ~~renewal~~ back  
11 in 1983, we did make an assessment of the quantity of  
12 flouride being released. Even after being treated with the  
13 calcium carbonate we recognized that the state and we were  
14 looking at the gaseous emissions where most of it would be  
15 released, the State of Missouri does not have a standard, at  
16 least at that time, <sup>the releases</sup> ~~we~~ compared ~~it~~ against the standards that  
17 the state of Washington established. <sup>The</sup> ~~A~~ State of Washington  
18 had established and I'm not, I don't know the numbers, you  
19 know, but the state of Washington was very sensitive to  
20 flouride releases because of the aluminum plants up there,  
21 which because of the nature of the process were releasing  
22 large quantities of flourides. So we compared it against  
23 that <sup>standard, concluded</sup> ~~and we arrived at~~ that very close ~~into~~ the plant, very  
24 close in essentially within the site perimeter, ~~You~~ might  
25 see something ~~pulled~~ in the vegetation. I don't know that





1 somewhere in the neighborhood of one to two thousand pounds.

2 MR. NORELIUS: Next we have Herb Biehle.

3 MR. BIEHLE: Herb Biehle and I live in the  
4 DeSoto area. I am chief shop steward at Combustion  
5 Engineering in Hematite. I'm also a Jefferson countian and  
6 concerned Jefferson countian. I have worked for C.E. for  
7 eight years and during those years I have seen alot of  
8 changes. The changes I speak of are improvements to the  
9 plant, some of them required by the <sup>Nuclear</sup> ~~National~~ Regulatory  
10 Commission and all have been to improve the health and  
11 welfare of the employees and the surrounding community. Our  
12 safety record with the N.R.C. has been outstanding. As I  
13 look around I see a lot of fellow employees. The reason for  
14 their attendance is of concern. Concern for the expansion  
15 of their plant. The Hematite plant has been a small arm of  
16 the nuclear power submission of C.E.. We at Hematite feel  
17 that this expansion is a definite security of our jobs and  
18 also improves the environmental impact on the community as  
19 well as the safety at the work site. I also see some of the  
20 residents of Hematite. Some of these are employees who  
21 would not have moved or built so close to the plant had they  
22 felt there were hazardous conditions. Their knowledge of  
23 the safety at the plant as well as the safety factor  
24 employed by the plant as set by the N.R.C. are reason of  
25 their saying that living in the area is safe. As said by a

1 neighbor of C.E. it is the fear of the unknown that  
2 frightens people. C.E. has strived to be a good neighbor to  
3 the community. In closing the future of the Hematite plant  
4 is also the future of the fifty-five union and sixty company  
5 employees. The company is also in the process of hiring a  
6 number of new employees. This is an economical plus to the  
7 county in addition the safety factors of the new equipment  
8 being installed at the time. Thank you.

9 MR. NORELIUS: Next we have Gary Surdyke.

10 MR. SURDYKE: That's better than some people  
11 have done. My name is Gary Surdyke. I'm from Hematite,  
12 Missouri. Live with my wife and our family of ten have  
13 lived there for about twenty years, close to it. I come  
14 here representing nobody but myself, my family and my kids.  
15 I have been asked and have agreed to both sign and to  
16 present to this body a petition of approximately eighty plus  
17 signatures of people who and let me read what it says. We  
18 the undersigned petitioners do hereby give notice to all  
19 concerned that as local neighbors of Combustion Engineering,  
20 Incorporated we support their efforts to modernize and  
21 expand operations at the Hematite, Missouri plant. I would  
22 like to present this. Also there is a letter in there from  
23 one of the residents, one of our Hematite characters. Okay.  
24 I share Senator Nixon, Martha Dodson, Mrs. Sisk's concern  
25 about Jefferson County. I think that it is something that we

1 need to be concerned about. The county does have some  
2 problems. Dr. Pernoud brought up something that's quite  
3 interesting that sometimes with our focus on nuclear because  
4 nuclear has become such a hot word that we lose sight of the  
5 real problem and it could be that the real problem is  
6 flouride, it's not radioactivity. It may well be. Sounds  
7 like it is something that's been looked at and considered.  
8 I believe that the objective of the coalition for the  
9 environment is to stop nuclear in its tracks and to  
10 eventually eliminate it completely. Why else would they  
11 come after an operation as innocuous as the Hematite plant  
12 and not take time to compare nuclear to petroleum, coal and  
13 wood as sources of energy as far as the potential damage to  
14 the environment. We all are much aware of some of those  
15 problems. I believe that the coalition for the environment  
16 is part of the problem rather than part of the solution as  
17 it applies to energy production and use. I believe that  
18 the, their time, the coalition for the environment's time  
19 would be better spent concerning themselves with sewage,  
20 trash and litter dumped in our beautiful county and maybe  
21 flouride. If they did I imagine that everybody in this room  
22 would join them in their endeavor. Nuclear has the  
23 potential that would eliminate the environmental damage done  
24 to our planet by the use of oil and coal. I predict that  
25 sometime in the future whether it be not too distant future

1 or centuries and centuries it may depend upon how successful  
2 the coalition for environment is, that sometime in the  
3 future our personal transportation vehicles, our cars our  
4 motorcycles, I am in that business, will run for years on  
5 the electricity generated by very small amounts of nuclear  
6 energy. Now, my goodness are we going to do away with  
7 something that has such great potential. There is no  
8 compromise with the antinuclear people. There is great  
9 lengths, there is a tremendous body and tremendous effort of  
10 concerned people and a part of our government a tremendous  
11 amount of its budget is spent to insure to protect us from  
12 the potential hazards of nuclear. But I have confidence  
13 that that's being done at Hematite and in the industry as a  
14 whole because the industry as a whole has a very good safety  
15 record. If the coalition for the environment is successful  
16 we will be much more dependent on oil and coal and what will  
17 that bring us. I recall in the late '40's and early '50's  
18 going into St. Louis with my father and a dark pale hung  
19 over the city in the winter time and it was because of coal.  
20 Most everything was coal fired. Now I just wonder what  
21 department of the government was or citizens committee that  
22 eliminated that. Well, gee I think it was the market place  
23 because we come up with oil and we come up with natural gas  
24 and we come up with fuel oil and electricity. Where would  
25 the coalition for the environment have us be? Where would

1 they back the clock up to? That's all I would like to know.  
2 I have more hope in mother nature in the future lead by  
3 people who are concerned than I do about the doom sayers and  
4 the chickens littles of the world. Thank you.

5 MR. NORELIUS: Next we have Phillip Crow.

6 MR. <sup>Sqrer</sup>~~Crow~~: My name is Phillip <sup>Sqrer</sup>~~Crow~~. I live in  
7 Hillsboro. I really wanted to come to this hearing tonight,  
8 this meeting tonight. I did not have any prepared  
9 questions. I wanted to come and listen with openness and  
10 were genuine respect for all of the parties that are  
11 involved. And I'm somewhat saddened at the question of the  
12 integrity of one of the bodies that was brought into body by  
13 the last speaker. But what I would like to share with you  
14 is that I'm here for a couple of reasons. One of them is  
15 that at night when I look at the awesome beauty of the stars  
16 and during the daytime and during the daytime when I look at  
17 the beauty of nature I'm still with a sense of wonder and of  
18 an increasing awe for the God that could create this. And  
19 the other reason that I came here tonight was that I have a  
20 real concern about the safety of people who work in the  
21 plant and about the citizens of our community. For a long,  
22 long time now certain kinds of issue have needed to be  
23 discussed. Missouri began to talk about participation in  
24 the low level radioactive nuclear waste. In fact, I was a  
25 member of the board of directors of the coalition of the

1 environment at the time and introduced the motion to have  
2 the coalition oppose Missouri's participation in should  
3 impact the relevance of that. As we were told tonight that  
4 there is the possibility if the Barneswell facility cannot  
5 take the waste then in fact Missouri may in time participate  
6 in the compact and until then the waste will be left on site  
7 and after that it will be part of the compact. The  
8 difficulty that I and others have with the compact was three  
9 fold in its nature. One, the issues related to the safety  
10 of the storage, two, issues related to the safety of  
11 transportation and third, the ethical issue. And very  
12 briefly the ethical issue is I don't think my God allows me  
13 to say if I don't want waste here that I have a right to get  
14 you to take it by taking an economically depressed community  
15 and telling it if it desperately needs jobs it has to  
16 surrender the potential safety of its workers and residents  
17 in order to be able to have increased income. I don't like  
18 that kind of ethical trade off. What happened though is  
19 that we have talked about low level radioactive waste and as  
20 I began to do things like, for example, debate the assistant  
21 director of the Missouri Department of Natural Resources I  
22 have the same kind of ambiguity that I have when we use  
23 words without definition. Like say the reason that I am  
24 bringing that up is when I would ask them would you please  
25 define for me low level waste. Most frequently the response

1 I got was low level waste is that waste which is <sup>lower</sup> ~~higher~~ than  
2 high level waste. Is that the kind of definition that we  
3 want safety based on. Yes, there are technical responses  
4 that can come but I don't like to see the safety of people  
5 in my community nor the safety of people in plants based on  
6 the kind of language that has that ambiguity that can be  
7 used very deliberately but in turn impact upon the health of  
8 people. That's one of the concerns that I had. Was that we  
9 hear some definition of what low level waste means in terms  
10 of this future of facility. Because the amount of it at the  
11 facility on site seems large at least in terms of volume.  
12 I'm not questioning the integrity of any of you. I respect  
13 your integrity and I deeply respect your expertise. I do  
14 have a concern about the Nuclear Regulatory Commission and  
15 its vigilance in protecting us based on its past record.  
16 For example, the studies that told us that the kind of  
17 accident that occurred at the Three Mile Island could not  
18 occur, right. The same experts that the N.R.C. relied on  
19 for that safety figure for that was then hired for a dam and  
20 he gave the same figures for the safety of the dam. The dam  
21 also broke and people died in the flood. My point is simply  
22 that the N.R.C. has not always been our guardian but at  
23 times has been the guardian of the industry. So I think we  
24 have a right to say to the N.R.C. we appreciate your openness  
25 tonight. We respect your integrity and expertise but we

1 know that your track record is that sometimes you have a  
2 little more vigilant defending the industry rather than  
3 defending us. In closing I would like to say that I moved  
4 to this area recently to become a teacher. I'm an  
5 educational therapist. I teach children with behavior  
6 disorders and learning disabilities and what I hope for  
7 those children is that we can one offer them the environment  
8 that's more conducive to their health than growing up in the  
9 county with the twenty-eight highest degree of toxic waste  
10 in America. I think we owe that to them. I think we owe a  
11 more responsible worship to our God for our environment and  
12 what I ask you to do is please, if you could, join with us  
13 in being part of the process in protecting our community to  
14 define more to us with less ambiguity word like low level  
15 waste. Because my friends low level waste can and does kill  
16 people and that's my point is that low level waste has the  
17 capacity to kill human beings and that's why I'm concerned  
18 about it. I'm not saying that the waste there does. I'm  
19 just saying that when we use words as ambiguously as we did  
20 tonight we need to have a little bit greater clarity because  
21 you have some very, very powerful substances that are low  
22 level waste that even N.R.C. says that are dangerous to  
23 health. That's why I came here tonight. I notice some were  
24 in opposition. I think the coalition cares deeply. You may  
25 or may not agree with its position but it's been my



1 experience that the people who give their time to the  
2 coalition aren't there because of personal gain. The names  
3 aren't known in the community and they don't make money  
4 because they participate on the board. It's simply that  
5 they, you and I are concerned about the environment. The  
6 major conflict resolution along time ago so people could  
7 learn how to resolve conflicts in <sup>ways</sup> ~~waste~~ that all parties  
8 won. I don't think anybody wins when we begin to question  
9 the integrity of each other. Thank you.

10 MR. NORELIUS: I think in the interest of  
11 having everybody be able to make a statement we will move  
12 on. We have three other who have signed up. Bill Schifler.

13 ~~SCHIFLER~~ MR. ~~SCHIFLER~~ <sup>Scheifler.</sup>: Yes, sounds like everyone can  
14 hear me. My name is Bill ~~Schifler~~. I live in Hillsboro,  
15 Missouri. I'm speaking only for myself as a private  
16 citizen. And I have three points or questions to make.  
17 This particular piece of property has passed through several  
18 owners and each owner has passed its liability onto I would  
19 suppose the current owner Combustion Engineering. Part of  
20 that liability are the waste pits. Now, I take some issue  
21 with using the federal funding to clean up these waste pits.  
22 This appears to be a liability that Combustion Engineering  
23 has purchased along with the property. And I think it is  
24 morally correct for Combustion Engineering to set a schedule  
25 and set aside escrow money for the cleaning up of these

1 pits. I think we can plainly say that this is nothing more  
2 than a waste dump. And I get the impression it might have  
3 been a high level waste dump to leave these pits in our  
4 water shed to contaminate our deep wells where most of the  
5 private citizens are using deep wells I think is I mean  
6 morally disgraceful. I'm a little disturbed that the  
7 regulatory commission is issuing expansion plans without  
8 having some plans for the removal and cleaning up of these  
9 waste pits. I am also somewhat surprised that the  
10 regulatory commission without hearing is issuing expansion  
11 plans and reissuing their licensing without providing escrow  
12 funds for the emissions and clean up of this plant at the  
13 end of its life cycle. Now these are normal liabilities of  
14 any company that is in this industry. And to ignore these  
15 liabilities is improper and it appears that the regulatory  
16 commission is ignoring them as well as the company. These  
17 waste pits should be removed and taken to a proper site.  
18 Because a mistake was made back in the '50's in burying it  
19 it does not make it correct today. Part of the clean up of  
20 the plant site should be the clean up of the waste pits and  
21 definitely an escrow account should be made for the  
22 emissions and cleaning up of this plant at the end of its  
23 life cycle. Those are two of my points. The third question  
24 I have, we have drugs prevelant in the area. I think it is  
25 a normal question to ask does the plant have a drug policy

1 within its plant? Thank you.

2 MR. ROUSE: I'm going to try the first two  
3 and then I'm going to let Jim talk about the last point,  
4 Mr. Schifler. I have no quarrel at all with your two points  
5 about the burial pits. First of all, the burial pits are  
6 the responsibility of C.E. notwithstanding that C.E. as a  
7 corporate entity was not the one that put that uranium  
8 contaminated material in those pits. They are now the  
9 licensee. They over took the responsibility for that site.  
10 These ~~23,304~~ <sup>10 CFR 20.304 burials,</sup> and I use the term that was <sup>in</sup> the regulation  
11 that permitted <sup>the burials</sup> ~~this~~, is no longer in affect. As you might  
12 have heard it really went out of use for any fuel cycle  
13 facility in about 1970. Nevertheless we have a few of these  
14 around the country and they are a ~~better~~ <sup>concern</sup> to the regulatory  
15 agency. And in very recent testimony <sup>To the</sup> ~~at~~ congress, our new  
16 Chairman, Chairman Carr committed to Congressman <sup>Synar</sup> ~~Zifer~~ of  
17 Oklahoma that before any of the plants were decommissioned  
18 and the license terminated that something would have to be  
19 done with these 20,304 burials. They would have to be  
20 assessed, determined what would be done with them, Whether  
21 there would have to be some restrictions on the land or  
22 whether that waste would have to be removed by the licensee.  
23 Number two, on the decommissioning again you're absolutely  
24 right and as a matter of fact about a year ago the N.R.C.,  
25 maybe a little belatedly, but now has a rule that we will

1 require a decommissioning funding plan from <sup>firms</sup> ~~first~~ like  
2 Combustion Engineering Hematite which will have to estimate  
3 the cost of the <sup>decommissioning</sup> ~~emissions~~ and then provide assurance under  
4 specified mechanisms that that funding will be available at  
5 the time that the plant ceases its life. <sup>It will</sup> ~~And~~ be a few years  
6 before that comes into play, but there is no indication that  
7 C.E. Hematite is going to go out of business, <sup>and</sup> ~~but~~ I assure  
8 you that <sup>the</sup> ~~that~~ rule covers full funding of whatever it takes  
9 to meet the decommission<sup>ing</sup> requirements of the N.R.C. at the  
10 time and then <sup>the plan</sup> ~~it~~ has to be updated about every four or five  
11 years.

12 <sup>SCHEIFLER</sup>  
MR. SCHIFLEY: May I rebuttle there a  
13 moment? Why was this expansion plant approved without some  
14 provisions for those pits to be cleaned up along with the  
15 plant site that's being constructed on? Why wasn't that  
16 held up until committments were made on those pits? We know  
17 there were there. We know they exist. Granted they were  
18 under license in '53 but I can't visualize you issuing  
19 expansion plans and not including total clean up of that  
20 plant site before they were issued.

21 MR. ROUSE: I can't say anything other than  
22 the plant is an active plant. Some of these decisions with  
23 respect to these burial grounds have only been recently  
24 considered. And number two, as long as the licensee is  
25 there and operating <sup>the</sup> ~~these plants, these burial grounds and~~

1 our studies and their studies have <sup>the burial grounds have had,</sup> shown no impact off site.

2 MR. RODE: With respect to drug testing C.E.  
3 Hematite does have a policy of testing new employees for  
4 drugs. We also have a general policy dealing with fitness  
5 for duties. This policy dictates our answers when we detect  
6 that someone at the plant is unfit for work in the plant and  
7 this may not seem that it has any association with drugs but  
8 I assure that it does. It is not possible to unilaterally  
9 implement a drug testing program. This may come to pass in  
10 the future.

11 MR. NORELIUS: Okay. Next we have Pete  
12 Pappin.

13 MR. PAPPIN: My name IS Pete Pappin. I was  
14 called by a member of Senator Nixon's staff to make sure  
15 that I would be here tonight. I responded in the local  
16 paper the Courier Journal that Mr. Surdyke wrote a couple of  
17 weeks ago and I have two things to say. The first one is as  
18 I look around tonight I see some red and white caps that say  
19 quality is our future. They are all brand new. How long  
20 has this been your motto. I would like to read my response  
21 to Mr. Surdyke and it's also a response to Combustion  
22 Engineering. It is ludicrous for Gary Surdyke to compare  
23 the coal industry to uranium processing facilities. That is  
24 like comparing apple to oranges. It seems as though Mr.  
25 Surdyke has little or no regard for the safety of the

1 residents of Jefferson County. Our county has been a  
2 dumping ground for far too long. It's time to slow down and  
3 consider just exactly what needs to be done so that the  
4 Combustion Engineering plant is a safe and welcome neighbor.  
5 Which he tried to slip an expansion of their plant past the  
6 residents of Jefferson County that would double the amount  
7 of processing done at the Hematite location. No  
8 environmental impact study was to be done until Senator  
9 Nixon required one to be completed before further  
10 construction. To my knowledge C.E. has no evacuation plan,  
11 no way to notify the surrounding communities of a nuclear  
12 accident. They don't even have a fence around their  
13 perimeter. They have four unlined waste pits that no one  
14 knows the exact location of. This is not what I call  
15 stringent regulation. I suppose the Exxon Oil spill sounds  
16 okay with Mr. Surdyke. With the oil industry is highly  
17 regulated with friends like Exxon, Dow Chemical and  
18 Combustion Engineering who need enemies. The human race is  
19 rapidly condemning itself through irresponsible polluting of  
20 the land, air and water and this is something no one has  
21 said tonight. Our children, our grand children will inherit  
22 the earth from us. Let's make sure that there is something  
23 worth while to inherit. I'm sure that the polluters of the  
24 world wish that there were more people like Mr. Surdyke and  
25 the people that signed that petition, people who do not care

1 about the environment. People who disregard the warning  
2 signals that our mother earth is sending to the human race.  
3 We won't get many more second chances.

4 MR. NORELIUS: Pam Midget.

5 MS. MIDGETT: My name is Pam Midgett. My  
6 husband, Dennis, works for Combustion Engineering. We also  
7 are residents of Jefferson County. We live in DeSoto. I  
8 speak only as a mother. We have three children and I  
9 wonder, also I wondered when Dennis took this job of parents  
10 does it was an unknown job. Whenever he mentioned  
11 radioactivity I kind of freeked at first. I mean who  
12 wouldn't and whenever I did meet Mr. Rode and I see alot of  
13 the people that work with Dennis we are all real people.  
14 You can walk up and shake our hands. I mean we have  
15 children. We are raising our kids here. We're not running  
16 off hiding. I worry about Dennis when something happens.  
17 The worse thing I are think he did was sprain his back at  
18 work, which they took care of that. They sent him straight  
19 to the doctor. He was paid for it. We have two children  
20 that we're born with disabilities before Dennis even worked  
21 here and, you know, I mean I don't think it's fair that we  
22 could blame Combustion Engineering. I know for a fact that  
23 the guys and the ladies and gentlemen wear patches on their  
24 clothes that monitors radioactivity. I get the letter in  
25 the mail telling me that Dennis is way blow and he is right

1 with it along with everyone else that works there or right  
2 with it. And I understand the community being scared but I  
3 also understand that the guys and the ladies that work with  
4 this stuff would be more contaminated than the rest of us  
5 and I'm not saying that every place is perfect but I do know  
6 what I know is that Combustion Engineering is safe. As safe  
7 as any place like this could be. And I also have a question  
8 for the lady. The plant did not hide its expansion. I mean  
9 anybody that travels that road could see it for over a year  
10 and if they did not expand would this have ever happened and  
11 that's my question?

12 MR. NORELIUS: Okay. That completes the  
13 list of people who asked to make a statement. It's getting  
14 near ten o'clock. Our purpose in coming tonight was to try  
15 to provide information to those of you who have an interest  
16 and from the size of the group that is assembled it's  
17 obvious that many of you do have an interest. I think  
18 that's a healthy sign. I appreciate the sincerity of each  
19 person who made a statement but one thing that strikes one  
20 in listening to it is that there are many people who  
21 sincerely come to this problem from quite different  
22 approaches. And I think what that means is that this like  
23 alot of questions are not easily answered. There are  
24 difficult problems they require judgement and they require  
25 study and they require alot of thought in order to make the



1 proper decisions. We have a responsibility as I said at the  
2 beginning of assuring public health and safety and we take  
3 the input that we receive and try to evaluate that and come  
4 to conclusions with regards to the standards that have been  
5 set. So I do appreciate your participation tonight and your  
6 attendance and again I will just say that I hope it has been  
7 helpful for each of you. Thank you very much.

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