

8174

PUBLIC HEARING ON THE EXPLANATION OF SIGNIFICANT
DIFFERENCES FOR OPERABLE UNIT 5

- - -

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

- - -

Thursday, August 23, 2001

ALACRITY
6531 Silver Skate Drive
Liberty Township, Ohio 45044
(513) 759-0739

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Opening Comments:

Mr. Gary Stegner,
DOE Public Affairs 3

Comments in Formal Comment Period:

Fax of Arjun Makhijani, Dated
22 August 2001 from the
Institute for Energy and
Environmental Research (attached)
Read by Ms. Lisa Crawford 5
Ms. Crawford 12
Ms. Edwina Yocum 14
Mr. Louis Bogar 16

Closing Comments:

Mr. Stegner 20

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(The Public Hearing on the 8174
Explanation of Significant
Differences for Operable Unit
5 was called to order at 7:05 p.m.,
at the Alpha Building, Classroom D,
10967 Hamilton-Cleves Highway,
Harrison, Ohio 45030.)

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(9:10 p.m. after a recess was taken
from the first session of the Public
Hearing.)

MR. STEGNER: Let's go ahead and get
started. Now we have the Formal Public
Comment period.

What we ask you to do is if you do
want to have a comment on the record, use
the microphone, if you don't mind, state
your name clearly for the record, address
if you want.

Again, I want to remind you: You do
not have to make your comments verbally
here tonight. If you can have them to
the DOE, to me, by August 31st -- you can

1 provide them to me this evening if you
2 want them for the record -- however you
3 want to handle that.

4 But right now we have two people who
5 have indicated they do want to speak.
6 First is Werner. Is Werner still here?
7 Okay. And now we have -- Lou?

8 MR. BOGAR: I didn't fill out a
9 sheet.

10 MR. STEGNER: You don't have to.

11 MR. BOGAR: Okay.

12 MR. STEGNER: What I will do is, the
13 people who did, we'll take them first.
14 And then anybody else, we'll allow them
15 to go.

16 Lisa, you've indicated that you
17 wanted to, so you go.

18 MS. CRAWFORD: Well, I actually have
19 one that I'm going to hand to you --

20 MR. STEGNER: That's fine.

21 MS. CRAWFORD: -- That I was asked
22 to read this evening on behalf of this
23 person.

24 MR. STEGNER: Fine.

25 MS. CRAWFORD: And it's a faxed

1 copy, so it's all I have.

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2 MR. STEGNER: All right.

3 MS. CRAWFORD: I don't have a copy
4 machine at work. Sorry. (Reading)

5 "Comments of the Institute for
6 Energy and Environmental Research on
7 the proposed revision of the Fernald
8 Record of Decision regarding the
9 maximal, maximum allowable amount of
10 uranium in water."

11 These comments were submitted by Arjun
12 Makhijani. (Reading)

13 "In a Record of Decision (ROD) for
14 its Fernald, Ohio site, and
15 therefore in its agreement with the
16 community, the DOE (sic) agreed to
17 remediate the groundwater at Fernald
18 to a standard of 20 micrograms per
19 liter. DOE decisions on clean up
20 are being taken on a site by site
21 basis because the DOE derailed the
22 process of setting national clean up
23 standards after having agreed that
24 it would work with the EPA to create
25 such national standards and abide by

1 them in its clean up operations.

2 The DOE claimed that national 8174
3 standards were not needed because
4 the remediation standards were best
5 created on a site by site basis in a
6 manner appropriate for each site.

7 "Having spurned national standards
8 in favor of a site by site approach,
9 the DOE is now attempting to use an
10 EPA national standard to relax local
11 clean up standards. This is
12 objectionable as to process,
13 principle, and substance. The DOE
14 opted for local, site by site
15 standards and it should at least
16 stick by the commitments that it
17 made (sic). If the DOE chooses to
18 use a safe drinking water national
19 standard for uranium at Fernald,
20 then it should, first of all, make
21 an across the board and unequivocal
22 commitment to all safe drinking
23 water standards now and for the
24 infinite (sic) future for all clean
25 up at all DOE sites. Until the DOE

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makes this commitment, its use of
national standards to relax local
commitments will lack integrity and
smack of opportunism. If the DOE
proposes to use the EPA's (sic)
national safe drinking water
standard for uranium for the Fernald
site, the Institute for Energy and
Environmental Research will regard
this a de facto official commitment
to all aspects of the safe drinking
water standard for all remediation
across the nuclear weapons complex.

"At the time of the ROD, there
was no national standard for uranium
in national EPA safe drinking water
regulations. But there were
standards for other radionuclides.
The DOE has not agreed to respect
these safe drinking water standards
as a matter of national principle
(sic). But it is appealing to the
Fernald community to relax the
previously agreed limit for uranium
because of a (sic) new EPA limit of

1 30 micrograms per liter for uranium.⁸
2 This EPA standard is based on the
3 toxicity of uranium as a heavy metal
4 rather than its effect as a
5 radionuclide. It represents a 50
6 percent relaxation of the previously
7 agreed DOE limit of 20 micrograms
8 per liter.
9 "The EPA national standard and
10 hence the proposed DOE relaxation
11 implicitly ignores the radiation
12 doses from the uranium. If we
13 examine the various limits from a
14 radioactivity point of view, we find
15 that EPA uranium limit amounts to 20
16 picocuries per liter for natural
17 uranium, and more in case the
18 uranium is enriched. This is in
19 excess of its standard for
20 transuranic alpha-emitting
21 radionuclides in the Safe Drinking
22 Water rules, which is 15 picocuries
23 per liter. The Fernald ROD limit of
24 20 micrograms per liter corresponds
25 to about 13.4 picocuries per liter.

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The dose to the bone surface from⁹ drinking such water regularly would be about 35 millirem per year. This excludes the radiation dose from eating food grown using this water for irrigation. A fifty percent increase in this dose is completely unwarranted.

"The people who lives near the Fernald plant have been subjected to sufficient risk as a result of historical exposure to radiation. All future exposure to current and future generations in the area should be minimized as a matter of simple justice to the community. In proposing to relax previously agreed rules, the DOE is violating a trust and, in effect, thumbing its nose at the past and present sacrifices of the people of the region.

"The EPA standard of 30 micrograms per liter is a maximum upper limit for water contamination and not some desirable level to be

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achieved. The DOE should be (sic)
bound by (sic) ALARA, by the ALARA
rule that is the radiation
protection rule that requires
exposures to be kept 'as low as
reasonably (sic) achievable.'
Presumably, the DOE settled upon a
limit of 20 micrograms per liter in
its ROD because it was achievable
and reasonable, and, in that sense,
a local ALARA limit. A clean up
maximum limit of 20 micrograms per
liter of uranium would meet the EPA
national standard. There is no
logical reason to relax it except to
save money.

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"The DOE can argue for vast
budgets for a program such as the
National Ignition Facility (over \$15
billion for construction and
operation over its lifetime), so
nuclear weapons physicists can have
interesting work to do in the
post-Cold War era, then surely it
can find the modest additional

1 resources needed to fulfill the
2 commitment on groundwater it has 8174
3 already made to the people living
4 around the Fernald facility. To
5 fail to do so would be to repeat the
6 historical injustices of the Cold
7 War, when the health of communities
8 was put far below nuclear weapons
9 production. Having said mea culpa
10 many times over the last decade
11 about its skewed Cold War
12 priorities, and having promised that
13 health will not fall into second
14 place behind production and design
15 and research, the DOE now seems set
16 to renege on that promise. The
17 proposed relaxation of the
18 groundwater rule at Fernald is one
19 more piece of evidence leading to
20 such a conclusion. The DOE should
21 scrap the proposal to relax the
22 groundwater maximum contaminant
23 limit for uranium to 30 micrograms
24 per liter for Fernald and find the
25 resources to meet its prior

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1 commitments to the community."

2 Those are Mr. Makijani's comments,
3 not mine. I just agreed to bring them
4 and read them this evening and hand a
5 copy for the official record.

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6 My name's Lisa Crawford. I don't
7 even know where to start. I guess
8 my official comments are I'm still
9 nervous and a little worried about
10 changing this.

11 I don't feel like we've had -- I
12 don't feel like we were part of the
13 process in changing the proposed 20 to
14 the official 30. I feel like we were
15 left out of that, and we didn't know it
16 was going on and happening.

17 I'm concerned with the possible
18 adverse health effects. You know, the
19 notes I took say we go from 5 to 7.5.
20 That's classified as a slight risk.

21 That's a 25 percent increase to me,
22 and that's not a slight risk. And if
23 it's your child or my child or my
24 neighbor's child, it's even more of a
25 concern for us.

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You know, somebody earlier talked about two lives. Two lives. That could be my kid or my husband, and it worries me.

As somebody who lived in a house, who drank from a well that had 190 micrograms per liter in it, you know, 20 sounds a heck of a lot better than being at 30.

Now, this is part of the ROD we went through, part of the commitment that was made to this community. And I just don't feel like we've been given enough evidence or data that convinces me we should go from 20 to 30.

Saving money is fine and dandy, but as I said earlier, you know, saving money and saving lives, I would have to choose saving lives. And I would also have to choose that when it's all said and done, I don't want a half-baked cleanup.

Working on this issue for 17 years -- when we're done, we want to say we're done. And we want it to be cleaned up

1 properly, and we want it to be done
2 right so 50 years from now, our kids
3 don't have to turn around and fight the
4 same battles that we fought over the last
5 17 and a half years to get where we think
6 we need it to be.

7 Thank you.

8 MR. STEGNER: Thank you. Has Mr.
9 Heine returned?

10 Okay. If not, we'll take general
11 comments from the public now. Lou, you
12 indicated you wanted to speak and after
13 him, Edwina?

14 MS. YOCUM: Okay.

15 MR. BOGAR: You want to go first?
16 You can.

17 MS. YOCUM: I'll go first if you
18 don't mind. Edwina Yocum. Do you need
19 my address?

20 THE COURT REPORTER: Only if you
21 want to give it, ma'am.

22 MS. YOCUM: No. Again, as in the
23 past, the Fernald residents are faced
24 with a decision of cost versus health.

25 I have a list of health studies

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relating to groundwater and from people drinking from private wells and cisterns.

The information received from the PBC Dose Reconstruction Process, Volume I, Page 6 states: (reading)

"Cumulative uranium concentration to the kidneys possibly could have mild health effects to those living in the two mile area."

The ATSDR Fernald Public Health Assessment 2000 suggests that the residents have an elevated kidney burden of uranium from past exposures, primarily from consumption of contaminated water.

The Fernald Medical Monitoring Programs Cancer Incident Study 1999 conclusions: Urinary systems cancer incidence was greater than expected; kidney, renal, pelvic cancer incidence was greater than expected.

ATSDR's recent study: Prevalence of Adverse Health Outcomes in Residents of the Area Surrounding the Fernald Site. The conclusions of this study? An excess

1 in all kidney diseases, all bladder
2 disease, and, example, like kidney 8174
3 stones. Also excess in chronic
4 nephritis, urethra stricture and
5 hematuria.

6 As a resident of the Fernald area, I
7 have chosen my health and the health of
8 my community over the cost savings.

9 I must live here, and I must feel
10 confident that during remediation, and
11 after the site is closed, that our most
12 precious resource, the aquifer and
13 groundwater, are safe.

14 Cost savings is a process that only
15 shrinks the size of off-site and on-site
16 contamination.

17 It only lessens DOE's, it only
18 lessens DOE's accountability to
19 clean up the Fernald site.

20 Thank you.

21 MR. STEGNER: Thank you. Lou?

22 MR. BOGAR: I'm not going to read
23 all of this. My name is Louis Bogar
24 (spelling) L-O-U-I-S B-O-G-A-R. No Ds,
25 no Ts, anything like that.

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1 I've been a Ross resident for 15
2 years, as some of you know.

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3 Since this isn't a scientific
4 reading, I'm going to state my conclusion
5 first: I strongly support a 30 microgram
6 per liter limit for the aquifer at
7 Fernald for the OU 5.

8 I have reviewed in detail the
9 background documents presented by the US
10 EPA which they, which supports their
11 conclusions in the revised rule making.
12 And there are three points that I'd like
13 to make.

14 On the kidney toxicity, you go
15 through the details of the numbers,
16 there's at least a factor of 100, if not
17 greater, on that number for kidney
18 toxicity.

19 Now, that's not unusual and probably
20 acceptable but know that there is a
21 degree of conservatism, which is quite
22 common for these kinds of numbers.

23 In terms of the radiation effects,
24 i.e. cancer, I'm talking now only about
25 cancer mortality, EPA produces data on

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1 morbidity, also.

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2 Looking at table Roman VII-5 where
3 they list as a function of picocuries per
4 liter the risk for cancer mortality,
5 either on an annual basis or a lifetime
6 basis. Using the lifetime basis numbers,
7 which were quoted tonight in the handout,
8 I conclude that without exceeding the 10
9 to the minus four criteria, the range
10 instead of the minus four, 10 to the
11 minus six, without exceeding the 10 to
12 the minus four criteria in risk, you
13 could easily go to 59 micrograms per
14 liter.

15 EPA in the background document,
16 thirdly, gives the kind of pedestrian
17 discussion of uranium, this equilibrium
18 question. The ratio of U-234 to U-238,
19 and that affects the activity of the
20 uranium isotopes.

21 As a nuclear engineer, any time I
22 see numbers where the U-234 exceeds the
23 U-238 by any amount, that means to me
24 you're talking about enriched uranium.

25 However, when you see that kind of

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1 number, then you get an isotopic analysis
2 and you say, what is the U-235? 8174

3 In the Fernald situation, my
4 experience has been that in the water,
5 the isotopic composition of the uranium
6 is very close to natural uranium, if not
7 slightly depleted.

8 That is, the U-235 and the U-238
9 correspond to what God put into the
10 ground.

11 Now it is known, and has been known
12 for over 40 years in the scientific
13 world, that the ratio of U-234 to U-238
14 can vary widely.

15 That shouldn't affect us at
16 Fernald because the measurements made in
17 water to judge the accuracy of the
18 cleanup of the aquifer is based on mass.

19 The measurement is made using a
20 technique which measures the mass of
21 uranium.

22 So any arguments about this
23 equilibrium should simply go away.

24 I'd like to point out in passing
25 the, since 1989, the State of California

1 has enforced a 35 microgram per liter
2 uranium limit.

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3 That's because they know that the
4 U-234/U-238 ratio is, in fact, 1.75 --
5 not .675 as at Fernald.

6 They've done the right thing. Maybe
7 for the wrong reasons, but at least know
8 that there are other places with 35
9 micrograms per liter have been accepted.

10 The real question is, then, what are
11 the benefits? And I think there are
12 clear benefits that we should all look at
13 real hard and see how much better it
14 would be for the Fernald community to
15 accept a higher uranium number in order
16 to clean up the aquifer faster and
17 cheaper.

18 Thank you.

19 MR. STEGNER: Thank you. Are there
20 any more comments for the record this
21 evening?

22 Again, if you have comments and want
23 to get them on the record, please have
24 them to me or someone at Fernald to be
25 placed in the record by the 31st of

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With that --

MS. DASTILLUNG: To the Post Office
box of the --

MR. STEGNER: Post Box is fine.

MS. DASTILLUNG: Okay.

MR. SCHNEIDER: If they haven't
moved it.

MR. STEGNER: And with that, thank
you all for coming and participating. We
appreciate it. Be careful going home.

(The Public Comment Period concluded
at 9:30 p.m.)

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STATE OF OHIO :
: SS:
COUNTY OF HAMILTON :

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I, Julia C. Sager, the undersigned,
a duly qualified and commissioned Notary Public
within and for the State of Ohio, do hereby
certify that at the time and place stated herein,
I recorded in stenotypy and thereafter transcribed
by computer-aided transcription into typewritten
form under my supervision the within 21
(twenty-one) pages, and that the foregoing is a
true, complete and accurate report of my said
stenotypy notes.

I further certify that I am neither
a relative of, attorney, nor employee for any
party or their counsel and have no interest in the
result of this meeting.

IN WITNESS WHEREOF, I have hereunto
set my hand and official seal of office at Liberty
Township, Ohio, this 4th day of September, 2001.



Commission Expires March 26, 2006