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MR. JOHN P. GNAEDINGER: I went to Cornell

13 and studied structural, and Northwestern for
14 foundation engineering and started my own
15 company in a two-car garage with a dirt floor in
16 1948. So I have been in this business. We
17 started out -- most of the work has been in
18 Chicago. We've done the foundation studies for
19 almost all, probably 98 percent of the
20 foundations on the major buildings in Chicago, a
21 few elsewhere, but in the process, starting in
22 maybe '52, some European developments brought
23 some drilling equipment to the front that could
24 drill these caissons up to 11 feet in diameter
1 with a drill rig, and this background, plus I
2 was also chairman of a committee on design and
3 analysis of nuclear safety related earth
4 structures for ASCE, and vice chairman of a
5 committee on evaluating the radioactive waste in
6 Enewetak. So I spent five days walking around
7 all the waste in Enewetak and our radiation
8 counters didn't show any sign of any radiation
9 whatsoever.

10 DR. LAWSON (Facilitator): Excuse me, could
11 I ask you to just move your microphone up
12 a little bit. That's great. Thank you.

13 MR. GNAEDINGER: So, anyway, my suggestion,
14 basically, is to try to be creative and solve
15 the problem rather than complain about
16 everybody's attitudes, and what we will call

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17 sapiential authority. But, basically, the idea
18 is to, at the nuclear power plant site, at each
19 of the sites, each of the 72 sites or 77 sites,
20 drill a hole into the ground, say, 500 feet deep
21 or two holes at 500 or 1,000 feet, which would
22 give you enough linear distance to store the
23 hundred years' worth of spent rods every 18
24 months.

1 And if you need more, you put in more,
2 but this would be a triple-lined shaft which
3 would be drilled down into rock, obviously, and
4 then the space between the shafts would be
5 insulated with boron frit and monitored, and so
6 the outside shaft would keep the soil out and
7 you'd have a concrete plug at the bottom and
8 then an inner shaft that would be the outside
9 container for space, and then the inside shaft
10 would be for the cells.

11 These would be units like they use
12 already to haul, except it would be right at the
13 nuclear power plant. So you wouldn't have to
14 haul it anywhere. You wouldn't have any risk of
15 hurting anybody by hauling this down the
16 streets. And probably to do this, I have got
17 prices from contractors to do this, the best in
18 the field, and I think it could be done for
19 something of the order of \$10 million for a
20 shaft, and this would be a fraction of the Yucca

21 Mountain costs, and to me, the nuclear power
22 plant sites are already approved as for nuclear
23 power plants.

24 So, what you are doing, you are not
1 increasing the risk to the public, you're
2 actually reducing the risk by having this
3 nuclear material in a capsule where it is
4 contained with solids, in a triple-lined shaft
5 where you would also have monitoring inside and
6 outside the shafts in the ground, and this could
7 be monitored by the -- by the government, and I
8 think the money available is already there from
9 the Yucca Mountain stuff, and then if somebody,
10 for whatever reason, decides later they want to
11 go to Yucca Mountain, then could pull these
12 out. They would be retrievable, each of these
13 units would of be retrievable, and designed to
14 be easily retrievable with a structure on top of
15 it that would have hoists.

16 And then if, for whatever reason, you
17 wanted to take it out and check it, or maybe
18 reprocess the plutonium or whatever the goal is,
19 you could pull it out, and fix it, or replace
20 it, or put it in another one. To me it is a
21 fraction of the cost and there's none of the
22 risk of transportation, and I think the power
23 companies should like it. I should close. I
24 don't want to take too much time.

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1 I think that in my opinion, nuclear

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2 power is the cleanest power we have. We are
3 destroying our environment with coal dust and
4 sulphur and nitrogen and everything else, and it
5 is just absolutely a sick situation, and nuclear
6 power is, by far, the cleanest and ultimately we
7 will run out of fuels, anyway. So, I think we
8 need nuclear power and I think, it would be my
9 opinion, that we should solve the problem by
10 using good ideas, and I think these ideas of
11 mine I am sure could be improved by a lot of
12 people. And I would be happy to talk to
13 anybody.

14 Thank you.