

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23

INDEX TO SPEAKERS

Speaker	Page
Mr. Lowell Campbell	4
Ms. Merry-Libby	9
Mr. Richard Lee	29
Mr. James Lombardi	32
Mr. Lee Simonson	35
Mr. Alvin Ogg	38
Mr. James Rauch	40
Mr. Duke Williams	50
Miss Bonnie Soley	51
Dr. Richard Rooker	52
Dr. Erwin D. Brause	56
Mr. Walter Klabunde	67
Kathy Kadrid	68

Proceedings taken before John Farmikedes, Hearing Officer, at the Lewiston-Porter Senior High School, taken on September 19, 1984.

MR. FARMIKEDES: Good evening, ladies and gentlemen.

It's now seven-thirty. I'd like to call this hearing in session. First let me note, this is a hearing called to provide additional opportunity for public comment on the preparation of environmental impact statement DOE slash EIS 0109D, for the long-term management of the existing radioactive wastes, and which is now residing at the Niagara Falls Storage Site. The notice for this hearing was published in the Federal Register at page three three seven zero six, on August 24, 1984. The Department of Energy, I think, has suggested that for the convenience of those members of the public who have not had the opportunity of looking at the entire draft, that it might be advisable to have an overview presented, and that overview will be presented by Mr. Lowell Campbell and Miss -- Mrs. Pam Merry-Libby. I might also mention that we will receive the public comments following the presentation of Mr. Campbell and Miss Merry-

1 Libby, by Congressman John LaFalce and the other
2 gentlemen who have asked to speak this evening,
3 in the order which they have registered. For
4 those who have not yet registered, we ask that you
5 do so. We will then take those people also in
6 sequence. I'd appreciate very much, in accordance
7 with the rules of the notice, that all the
8 comments be addressed to the chair. We will record
9 the entire proceeding and the record will be
10 made available to everyone at the local libraries
11 as noted in the notice of hearing. If you would
12 like to have a separate copy of your own, I guess
13 you could make arrangements with the court reporter
14 for that. I would also appreciate it very much,
15 in order for the record to flow smoothly, for all
16 of our benefits, if you could kindly address a
17 specific paragraph that you're talking to, so
18 we can follow you more clearly. This is an
19 opportunity for all of us in our collective wisdom
20 to assist in this process, and if we could
21 focus down on what you're saying, and focus down
22 with respect to that part of the Draft Environmental
23 Impact Statement you're referring, you're referring

1 to, why we would appreciate that. I have nothing
2 else to add at this particular point in time.

3 I'd like to turn the comments over to Mr. Campbell,
4 who will proceed and then introduce Mrs. Merry-
5 Libby, and then we will proceed with comments of
6 Mr. Campbell.

7 MR. CAMPBELL: Good evening, ladies and gentlemen.
8 I'd like to give you a brief, if you can hear me,
9 a brief summary of the Niagara Falls Storage
10 Site Draft Environmental Impact Statement. I'd
11 like to cover the purpose, the purpose of the
12 EIS, some background about the project, the
13 Department of Energy's long-range, long-term
14 plans, and very briefly cover the alternatives
15 that were covered in the Draft EIS. The purpose
16 for the NEPA process is to insure environmental
17 factors are included in the Federal Government's
18 decision-making process. The purpose of the
19 Niagara Falls Storage Site EIS, is to evaluate
20 environmental impacts of options for long-term
21 management of Niagara Falls Storage Site waste,
22 and that would provide a basis for judgment
23 concerning environmental advantages and disadvantages

1 of options for the final record of decision. I'd
2 like very briefly to cover the DOE decision-making
3 process. We first determined, the Department of
4 Energy did, that an EIS was needed to -- for this
5 project. We put out a notice of intent. We
6 had scoping meetings in February of 1983. We
7 continued with the scoping process. We've got
8 written comments from officials, letters to
9 officials and written comments from the public.
10 At this stage, we have prepared a Draft Environ-
11 mental Impact Statement that was done in August,
12 and while we're here tonight, we're having a
13 public review and comments. We will have these
14 meetings also in Oak Ridge and in Hanford,
15 Washington. That's at Richland. And finally we
16 will prepare a final EIS, hopefully by the end
17 of this year, which would include comments from
18 the public, and during this forty-five-day review
19 period, we hope that your comments will get to us.
20 We again will have a public review period of about-
21 thirty days. We will get input from other
22 agencies and other inputs. At that time, we feel
23 that we will be in a position to select an alterna-

1 tive. We will have a record of decision, hope-
2 fully early next year. From there, we would proceed
3 to do detailed design and engineering for this
4 selected alternative. I'd like to proceed now
5 and give you just a very small bit of background
6 on the Niagara Falls storage site project. It's
7 approximately a hundred and ninety acre DOE-owned
8 site, that's fenced with limited access. It's
9 part of the former fifteen-hundred acre Manhattan
10 Engineering District site, which was part of the
11 former Lake Ontario Ordinance Works. Back in
12 1984 -- 1984 -- back in 1944, the site was used
13 for storage of residues resulting from the process-
14 ing of pitch plant, and we have made an agreement
15 now and we own all the waste at the Niagara Falls
16 storage site and the residues. Very quickly,
17 the site plan shows the location of the Niagara
18 Falls storage site. It's near the Town of
19 Lewiston off of Pletcher Road. I have a picture
20 that was taken at the end of the last construction
21 season, and it shows the four-eleven building
22 where we will store the residues. We will put
23 the other waste material in this R-ten area. It

1 will bediked and then there will be an interim
2 cap put on this over the top of the residues, and
3 then it'll be diked and that will be what we will
4 call our interim control measures. And this
5 is the place we start with the draft in the final
6 EIS, and that is our beginning point. In other
7 words, we have control of the site, now we're
8 looking at what we will do for the long-term
9 management of the materials. Very quickly, another
10 site plan. We have shown here the extent of the
11 interim cover, and this hopefully will be
12 finished by next year. It shows building four-
13 eleven, where all the residues are stored, and
14 the interim cover will be where all materials
15 will be stored once we're through with the interim
16 clean-up. Thank you. As you can see by looking
17 at the geographics, you can see that we have
18 L-50's/K-65 residues, L-30 and F-32 residues all
19 stored in an interim kept area. This is an
20 R-ten area. I'll repeat, if it's okay. All I
21 really said was, we have the L-50's, the K-65's,
22 the L-30's and F-32 residues all being moved into
23 the R-ten area, and the majority of them will

1 be stored in building four-eleven. Just to
2 summarize what the Department of Energy's long-
3 term plans are, we do plan to complete the
4 Environmental Impact Statement; we do plan a
5 record of decision early next year; we do plan
6 to prepare a detailed design engineering and then
7 accomplish the remedial action for the selected
8 alternatives. Finally, the long-term waste
9 management alternatives, I'd like to at least
10 list them. They are listed in the Draft EIS.
11 There is essentially four. The first one is a
12 no action alternative. After we have done our
13 interim clean-up and have control of the site,
14 we simply take no action and leave the site as
15 it is after the interim clean-up. The second
16 alternative would simply be to upgrade the
17 containment for long-term management of the waste
18 and residues at the Niagara Falls Storage Site.
19 The third alternative would be to transmit the
20 wastes and the residues to either Richland,
21 Washington, or to Oak Ridge, Tennessee. And
22 then we had a fourth alternative that was identified
23 during the scoping, was simply to move the residues

1 to Richland or to Oak Ridge, Tennessee, and store
2 the remaining waste at the Niagara Falls storage
3 site, or dispose of the remaining wastes in the
4 ocean. This concludes my brief summary, and now
5 I'll ask Pam Merry-Libby if she will give you a
6 summary of the analyses listed in the DEIS.

7 MS. MERRY-LIBBY: Hi. I am the project leader at
8 Argonne National Laboratory, and we were hired
9 by the Department of Energy as a consultant to
10 provide the technical analyses on the Environmental
11 Impact Statement. I'm waiting for my slides here.
12 Maybe we could have those lights turned off until
13 the end of my little talk so you can see the
14 slides. There are extra copies at the back of the
15 room for those of you who have not received
16 it, and if you want to get on the mailing list
17 to receive copies of the final statement, if you're
18 on the mailing list already and have a draft,
19 you're automatically on the list for the final,
20 but if you want to get on the list and you're
21 not already on it, go to the back of the room
22 and there is a form you can fill out so that the
23 Department of Energy has your name and address and

1 you can get copies of the notices and of the
2 final environmental statement. Next slide. A
3 quick review of, what are the radioactive materials
4 that are at the site? There is the residues.
5 These account for a very small percentage of the
6 volume, only six percent, but they account for
7 ninety-nine percent of the radioactivity. Then
8 we have the very different type of material that's
9 what we call the wastes. These are primarily
10 the contaminated soils that have been scraped
11 up from the ground around the site from nearby
12 properties, from the ditch that runs out of the
13 site. These are very slightly contaminated
14 materials, but they account for most of the
15 volume of the wastes that are at the site. Next
16 slide. In order to decide what the scope of this
17 EIS should be, the Department of Energy had a
18 scoping process and there was both public and
19 technical input into this scoping process to
20 decide, what were the key alternatives that we
21 should analyze, what are the main issues that
22 we should analyze, and trying to narrow and focus
23 our analysis and the discussion into the statement

1 on those issues that were final and key in making
2 a decision in what to do for the long-term
3 management of these materials. By the way, at the
4 back of the room there are some handouts of what
5 I have on these slides, so if I go too fast, you
6 can have those to look at later. There is a
7 summary right at the beginning that's a few pages.
8 You can get a quick idea of what we looked at
9 and what the results were. Then there is chapter
10 two. This is the key, the heart of the environ-
11 mental statement. This is the piece of information
12 that focuses for the DOE decision-maker, what
13 are the key impacts we identified in our analysis.
14 This is like a thirty-page summary, and we'll
15 try to keep the technical details to a minimum
16 in this section. Then the rest of the environmental
17 statement is basically the details about the
18 effect of the environment at all these sites. We
19 looked at, at the ocean and the details of all
20 our analyses, the radiological impact, ecological
21 impacts, and so on, and then there is several
22 appendices which give even more detail on some
23 of the subjects. A quick review of the alternatives,

1 the key ones as far as people that are in the
2 Niagara Falls area might be concerned about.
3 Number one, no action. The site stays as it is
4 as of the end of these interim actions. Number
5 two where different modifications are made, and
6 then four-A and four-C, where the wastes would
7 remain at Niagara Falls, a very slightly
8 contaminated waste, but the residues would be
9 removed from the site to another site. This is
10 a quick diagram of what that interim cap that
11 Mr. Campbell referred to would look like. Basically
12 it's a layer of clay over the wastes with some
13 soil and grass to stabilize the area, and you'll
14 note that residues would be in those concrete
15 building foundations down at the bottom of the
16 whole pile. The second group of alternatives,
17 if you look straight down the left-hand side,
18 basically that involves constructing a better
19 cap, and there is a variant of that, and that
20 is, residues would be removed, pressed to remove
21 potentially valuable constituent metals and things
22 and they would be in a solidified form very much
23 like a slab or slag, and they would be put back

1 into the containment area but in this modified
2 form, and then the, what we call the long-term
3 cap would be placed on top. This next slide
4 shows a picture of a conceptual design of what
5 that improved containment would look like.
6 Basically, there is more clay and there is also
7 a layer of what's called riprap. That's essentially
8 a layer of rocks and gravel to provide protection.
9 Next slide. This third group of alternatives is
10 removing everything from the Niagara Falls storage
11 site. The residues would have to be packaged,
12 and they also, some of them have to be shielded.
13 They're radioactive and you have to protect
14 both the workers and the people who would be
15 transporting these residues. The wastes, however,
16 could be shipped in bulk like in big dump trucks.
17 They're not even considered radioactive for
18 transportation purposes. Next slide. One
19 alternative site to take these materials to is
20 the DOE's Hanford site out near Richland, Washing-
21 ton. It's a very large reservation out in southern
22 Washington, and there is an area out there that
23 the DOE presently uses to dispose of these kind of

1 radioactive wastes, and essentially they would
2 extend that burial area to include an area for
3 the Niagara Falls wastes and residues. There is
4 a little star on the left-hand side of the site
5 there. The method of burial out there would be
6 in trenches. This is basically the method they
7 currently use. However, there would be this
8 addition of this riprap layer as a protective
9 layer, same as the long-term solution for the
10 Niagara Falls site. The other alternative is to
11 take it down to Oak Ridge, Tennessee, another
12 DOE site, and the site that was used that could
13 potentially be used to bury these wastes down
14 there is what we call the Pine Ridge Knolls site.
15 This is a site that's been very well characterized,
16 because at one time it had been considered for
17 another nuclear project. Method of burial
18 down there would be very similar to that at the
19 Niagara Falls site, essentially a large mound
20 with the wastes and residues at the bottom and
21 covered with a cap that's very similar to that
22 which would be at the Niagara Falls site, with a
23 layer of clay and a layer of riprap. Now the

1 fourth alternative, which was added as a result
2 of the scoping process, particularly when we
3 started to focus in on the fact that the residues
4 and the wastes are very distinctly different kinds
5 of materials from a radioactive point of view.
6 If you look straight down the center, all the
7 residues would be removed under any of these
8 A, B, C or D alternatives. Under the A and C,
9 the wastes would remain at Niagara Falls, a large
10 volume of wastes. Primarily the wastes would,
11 for instance, take sixteen thousand truck trips,
12 whereas the residues is only like sixteen hundred
13 truck trips. So, clearly, you don't have to
14 transport nearly as much material if the wastes
15 stay up at the Niagara Falls site. The other
16 alternative was to take this large volume of
17 waste down to a harbor in the New York/New Jersey
18 area and transport them out to an ocean disposal
19 site. This site is presently used for disposal
20 of industrial wastes. It's off the coast of
21 New Jersey, and the method of disposal would be,
22 you take it out in a barge, and essentially you
23 open up the bottom of the barge and disperse the

1 wastes in the ocean. This just shows that we
2 looked at two extreme scenarios. What if the
3 wastes all get dispersed in the water and
4 what happens if they all fall down to the bottom.
5 Of course, we also had to look at transportation
6 routes to get these materials out to the sites.
7 We looked at preferred routes, basically preferred
8 routes. We looked in detail at truck transport
9 in an appendix I'll get to later. We also looked
10 at train transport. This just shows the truck
11 routes. Basically you'd have to use interstate
12 highways, and a preferred route is that route
13 which has the least population along the whole
14 route. Next slide. Now when we had to do the
15 analysis of the impacts, we had to consider the
16 fact that the radioactive hazard will last a very,
17 very long time, thousands of years. So the next
18 slide, we split our analysis into three separate
19 time frames, because what might look like an
20 alternative that had an environmental impact,
21 more environmental impacts than another in the
22 short-term, in other words, digging it up and
23 moving it, might flipflop somewhat different

1 if you looked at potential impacts in the long-
2 term, like thousands of years. So we looked at
3 what we called an action period that involves
4 getting stuff dug up and moving it and reburying
5 it somewhere else or disposing of it in the ocean.
6 Then there is what's called the maintenance
7 and monitoring period. Now the Environmental
8 Protection Agency has put out some regulations.
9 The Environmental Protection Agency has put out
10 some regulations for management of uranium mill
11 tailings, which are very similar to the Niagara
12 Falls waste and residues because they're contaminated
13 with the same kind of radionuclides, and they
14 decided that for purposes of control, you should
15 try to control for at least two hundred years,
16 and to the extent reasonably achievable, for
17 at least a thousand years. So we split our
18 analysis up into two hundred years. We assumed
19 that someone would be there and control that site,
20 but then what if someone doesn't? So then we
21 looked at two cases, what we call partial loss
22 of controls, like you don't keep repairing that
23 cap, but you still own the site and keep people

1 from building their house on it, and then we
2 looked at what we call loss of all controls, and
3 that is, that leads to an analysis of, for instance,
4 what if there is an intruder who comes and drinks
5 the water and builds their house there someday?
6 Now these, some of these slides will probably
7 be hard to see. I've underlined the numbers that
8 pertain to impacts associated with the alternatives
9 where things would stay here at Niagara Falls.
10 The nonradiological health impact, we have looked
11 at two cases. One is transportation. Now this
12 of course would be both people who had to, the
13 workers who transported the wastes, as well as
14 members of the public, and basically this is very
15 much a function of the number of miles, the total
16 number of miles you have to travel times the
17 number of trips. And clearly if you have to take
18 all the wastes and residues out to say Hanford,
19 which is the farthest away, you can wind up perhaps
20 killing four people and injuring sixty-six.
21 Now occupational impacts, they're a function of the
22 kinds of jobs that people do, and there are some
23 very good statistics on this, you know, different

1 occupations have different accident rates and
2 injury rates. And there again, if you have any
3 of those alternatives where you have to remove
4 everything from the site, there is a greater chance
5 of worker injury and death, although there is not
6 as much chance of death as there is on the
7 transportation part. The radiological analyses,
8 which take up about a hundred -- about fifty pages
9 of our analysis, we had to consider the various
10 pathways that you could expose people to radio-
11 activity. We had to look at where you could
12 release, where people could be exposed, the kinds
13 of doses they would get, and then we had to
14 translate that into terms of potential health
15 effects. Of course we want to look at the
16 general public, individuals who could be very
17 nearby and have higher doses, as well as the
18 general population, workers who have to be
19 in contact with the radioactive materials. Of
20 course we had to look at the impacts at all sites.
21 So for instance, the alternative to take every-
22 thing to Hanford, we'd have to look at the impacts
23 at Niagara Falls along the transportation route,

1 and at Hanford, and of course at the three
2 different time periods that we looked at. Now,
3 for the action period, that's that ten years of
4 just getting it dug up and moving it and reburying
5 it, none of these impacts are very large. Those
6 that involve movement of the residues, because
7 that's ninety-nine percent of the radioactivity,
8 that involves the highest potential impact to the
9 general public and also to workers. We also had
10 to look at this long-term view, what if you
11 start to lose controls and, for instance, you
12 have a -- some erosion of that cap material.
13 How long would it take to erode it? Now a key
14 factor in determining this is, what's the land
15 used for? If you have agriculture and you're
16 plowing the soil, for instance, you have higher
17 erosion rates than if you went to the natural
18 forest and you're not disturbing that soil all
19 the time, and here this is great variation.
20 At the Niagara Falls site, that interim cap
21 could last anywhere from six hundred fifty years
22 to over a million years, depending on what you use
23 the land for. So if you could just simply control

1 land use for long periods of time, you wouldn't
2 have the erosion problem. The long-term cap
3 would last longer, primarily 'cause you have
4 more of it, and we estimated that if you had
5 agriculture, it could last thirteen hundred years
6 and it could also last as long as over two million
7 years. One of the ways that radioactivity can
8 get from these materials to people, in fact one
9 of the prime ways once you've got it stored, is
10 from a gas from the decay of the radium that's
11 in these materials. This gas can diffuse out and
12 be transported in the air the people breathe.
13 This gas, or it quickly decays to some solid
14 daughter products, which are like little fine
15 particles. So therefore, you want to look at
16 these caps and look at how much gas would come
17 out and get to people And here we looked at,
18 we had the year two hundred and one. There is
19 essentially very, very little getting out. And
20 you'll notice that between two-A and two-B, I
21 think the key finding here was that if you modify
22 the form, you really don't gain much, because
23 those wastes, those residues would be buried so

1 deeply at the bottom of that pile that the gas
2 from the residues essentially never reaches the
3 top of the containing area. It decays to those
4 solid daughter products before it ever gets out
5 the top. If you go out to a drier climate out
6 in Hanford, you have more gas released, because
7 wet materials with water in it tend to inhibit
8 the diffusion of this gas more than dry materials.
9 We also looked at health impacts. We took a
10 spot in time, take the year one thousand, and
11 here again, this is number of cases per million
12 persons per year, and assumes this worst
13 case land use like agriculture at the Niagara
14 Falls site. And here again, you have a very, very
15 small number of potential cases of cancer per
16 million persons, and this is, you know, much,
17 much lower than the number of cases you would
18 expect, simply because of the natural radio-
19 activity that's already in the soil in this area.
20 One of the key concerns, of course, is ground
21 water, can these materials be leached out of this
22 containment area into ground water? Now at the
23 Niagara Falls site, we did not find any way

1 to have a significant impact to the general
2 population. However, we did consider, what if
3 you lose control and somebody drills a well on
4 that site? And in fact, we looked at a very
5 conservative case of, what if someone drills a
6 well into a sand lens that's right next to the
7 containment area, that essentially ground water
8 on the average over the year right at zero depth,
9 and that you have a very erosive use of that
10 cap, and that's, that's, that's because that cap,
11 if you don't have water in, you don't have water
12 out, and that's one of the reasons the clay would
13 be there, for instance, to inhibit the infiltration
14 of water into that cap. But of course if you
15 erode that away, then you're not -- you can get
16 more water in, and therefore more water out.
17 So we looked at this worst case, if the cap
18 does erode. Now, in this theoretical well at the
19 site, you could have concentrations of, in this
20 case, radium 226 that are above what is considered
21 safe for drinking, and this led to one of our
22 conclusions in the report, which is that you're
23 clearly going to have to control and make sure

1 that people don't drill wells on that site.
2 Next site -- next slide. This is just a quick
3 summary of other impacts we considered. For
4 instance, what if a person in what we called
5 a resident intruder, a person built a house on
6 these wastes and drank water from a well. This
7 was -- the impact was clearly controlled by the
8 presence of residues. Wherever the residues are,
9 it will not be safe for people to build houses
10 or drink water there. We looked at what we called
11 site integrity, flooding, severe erosion and drought,
12 seismic activity. And under ecology, for instance,
13 one of the key things we looked at was the long-
14 term effects of plant roots coming, going down
15 into these materials, animals burrowing in and
16 effecting a degrading of the containment system.
17 I have chemical there. That's the metals and
18 things that are in those residues. Those could
19 also be leached into ground water. We looked
20 at marine impacts, the effects of dispersion
21 or deposition in the marine environment, the
22 impact on marine life and also the radiation if a
23 fish resided in that area. By the way, this

1 area that we looked at is not used for fishing.
2 There is very few fish there, but we looked at,
3 what if a fish is there and resided there long
4 enough to pick up some of this radioactivity in
5 its body, and then it came back to an area where
6 people caught it and ate it, and basically we
7 found that it would be a very, very small increment
8 above the amount of the same kind of radioactivity
9 that's already in the fish's body, because there
10 is quite a lot already in the ocean. We looked
11 at socioeconomic impacts, land use, property values,
12 traffic congestion, road deterioration. This was
13 a key problem potentially down at the Oak Ridge
14 site where they'd have to haul in a lot of
15 material. There is not that many roads, and I
16 think we had something like a truck every minute
17 for two years. And then what we called
18 institutional issues, for instance, the problems
19 of the ocean disposal regulations, which are --
20 it's not clear right now whether or not this
21 could even be allowed or if the regulations will
22 be amended to allow this kind of disposal. We
23 also looked at these, we looked at these same

1 alternatives, but then we said, well what if
2 we varied them a little bit? For instance,
3 there is different ways of getting those materials,
4 the residues out and into packages and transporting
5 them. And so we looked at different ways of
6 doing it, and the pros and cons of the different
7 ways. These are in the appendicies. Residues
8 form. There is different kinds of form you can
9 put in. We used a slab, but there is other things
10 that you could do, for instance, matrix isolation,
11 which is essentially like mixing with asphalt or
12 cement. We looked at various containment
13 operations, modifications to those basic designs.
14 We analyzed, for instance, what if you added,
15 if you buried it deeper or if you added more
16 layers to the cap, things like that. And then
17 we looked at what we called optional design
18 concepts where you take care of it in a very
19 different way. Transportation I mentioned. Before
20 we looked at train options. A key thing here is
21 how many times you have to transfer and handle
22 the wastes, 'cause every time you transfer, you
23 expose workers, you have potential releases to the

1 environment. And of course we looked at various
2 routes, both various truck routes and various
3 train routes. In summary, we compared all those
4 major alternatives based on a very detailed
5 analysis, and we also looked at some options
6 to those alternatives. The impacts were both
7 radiological and nonradiological. We looked at
8 all three time periods, and whenever possible,
9 we tried to identify what we called the mitigating
10 measure, that is, some additional measure that
11 could be taken so that those impacts could be
12 reduced. All this information led us to the
13 DOE decision-maker, who used this information
14 along with some engineering and cost information
15 and policy matters and how much money Congress
16 is going to spend, for instance, and makes a
17 decision as to what alternative will be implemented.
18 Now, the DOE, nobody mentioned it before, so the
19 comment period on this draft statement ends
20 October 9th, and so they requested that you
21 either orally or if you want to write in, by the
22 way, there is also a form in the back, if you
23 just want to write down a written comment, you

1 can write it on that form in the back. They
2 would like to have those comments by October 9th
3 so that statement can be finalized and this record
4 of decision can be reached early in 1985. And
5 also I mentioned before, if you want to get your
6 name on the mailing list, give your address at
7 the back. Thank you.

8 MR. FARMIKEDES: All that's gone on before is by
9 way of introduction and background for you. We
10 are very much concerned now to receive your
11 comments, your input, your criticisms, whatever
12 it is that you think will add to the considerations
13 before the decision-maker, whoever it is that'll
14 make the final decision. It's terribly important
15 that you speak up and voice your concerns, your
16 comments, and put them into the record and allow
17 those comments, those criticisms, those, hope-
18 fully those, those suggestions that will help
19 in resolving this matter. What we'll do is to
20 call on Congressman John LaFalce first and have
21 him come forward, please, and speak either at
22 that microphone on my right or the microphone
23 to the left, and present his views, his comments.

1 Mr. Congressman?

2 MR. LEE: My name is Richard Lee. I'm
3 Congressman John LaFalce's district representative,
4 and the congressman is in Washington and unable
5 to be here personally. The following are the
6 congressman's comments on the Draft Environmental
7 Impact Statement. In 1978, the Niagara Falls
8 storage site became a matter of major concern to
9 the residents of this area and myself. I have
10 repeatedly sought the decontamination and
11 decommissioning of the site. This is to say that
12 all radioactive materials would be removed and
13 the site made safe for use by the public. During
14 the ensuing years, considerable effort and
15 significant sums have been expended on surveys,
16 design work and containment of the residues and
17 wastes. In conjunction with this work, studies
18 have been conducted and options formulated for
19 the long-term management of the site. The
20 alternatives range from no action to complete
21 removal of the waste and residues. While virtually
22 all area residents, including myself, would
23 prefer complete removal, upon reviewing these

1 alternatives in collaboration with my oversight
2 committee, it appears that alternative four-C
3 would accomplish ninety-nine percent of our
4 original goal at a cost significantly smaller
5 than the cost of the total removal of all wastes
6 and all residues. However, there are certain
7 aspects of alternative four-C that must be
8 addressed. Consideration must be given to
9 modification of the alternative for it to be
10 considered as a reasonable substitute for the
11 preferred complete removal of all wastes and
12 residues. I concur with the statement on
13 page four eighty-eight of the DEIS, which says that
14 the probability of maintaining active land use
15 controls may prove to be more difficult at the
16 Niagara site than at Oak Ridge or Hanford. This
17 leads to my concern that the R-ten residues will
18 not be properly stored for the long term. As
19 you know, these residues have been included
20 in the wastes that would remain on this site.
21 The R-ten residues have a much higher concentration
22 of radium and other longer half-life materials
23 than do the wastes. It is my understanding that

1 the R-ten residues as opposed to the soils
2 contaminated by the R-ten residues are located
3 in a strata of a particular area of the R-ten
4 pile. Hence, it's possible that these could be
5 shipped out with other residues. This would
6 result in the remaining materials truly being
7 in the waste category and be compatible with
8 the long-term management in the diked contain-
9 ment area. If however, this is not considered
10 feasible to remove the R-ten residues from the
11 site, then I believe that consideration must
12 be given to a deep burial between geological
13 barriers at the Niagara site. This could be
14 accomplished by digging a deep well within the
15 clay dike area. We must remember that we are
16 looking at a two hundred year containment design
17 and a residue with a radioactive half-life of
18 almost eighty thousand years. We must fully
19 consider taking steps that will protect future
20 generations. Finally, the plans for perpetual
21 maintenance of the disposal sites must be
22 elaborated in much greater detail. The relatively
23 short history of this site already demonstrates

1 that the priorities and the attention of the
2 Atomic Energy Commission and its successors
3 shift over the years and adequate perpetual
4 care of shallow burial mounds on a small isolated
5 site cannot be guaranteed by the existing govern-
6 mental institutions. This further reinforces
7 my concern for consideration of removal or deep
8 burial of the R-ten residues. In summary, while
9 I would prefer complete removal, I also believe
10 that a modified alternative four-C would be
11 an acceptable alternative to meet the long-term
12 needs of our community. This means preferably
13 removal of all the residues, including R-ten,
14 or if that cannot be done, removal of all other
15 residues and deep burial of the R-ten residues.
16 Thank you very much, sir.

17 MR. FARMIKEDES: Thank you, Mr. Lee. The next
18 comment is from Mr. James Lombardi, the Town of
19 Lewiston supervisor. Mr. Lombardi?

20 MR. LOMBARDI: Thank you. My statement is quite
21 short. I will read it and leave it for the
22 record. The Town Board of Lewiston has met many
23 times with DOE on this, and where we still call

1 it the Lake Ontario Ordinance site, you now call
2 - it the Niagara Falls site, but when we refer to
3 it, it's the same location. So you'll understand
4 when I speak of the Lake Ontario Ordinance site,
5 it's the Niagara site now. The Town Board, the
6 Lewiston Town Board at a special meeting held
7 August 27th, 1984, reviewed the various alternatives
8 available to it in handling the radioactive residues
9 stored at the Lake Ontario Ordinance Works, L.O.O.W.,
10 Town of Lewiston. Ideally the Board would prefer
11 alternative three-A, which calls for complete
12 removal of everything from the L.O.O.W. site.
13 However, however, knowing that the cost of this
14 alternative would be prohibitive, we've agreed
15 to support alternative four-C, which will
16 eliminate most of the hazardous material at a
17 relatively low cost, while securing the bulk of
18 the remaining material safely and cost efficiently.
19 It is the choice -- excuse me, in its choice
20 of alternate four-C, the Town has the staunch
21 support of a number of Niagara County agencies,
22 including Niagara County Health Department and
23 the Niagara County Board of Health. We have also

1 been assured of the firm backing of the Niagara
2 - County Legislature, which I think will be speaking
3 a little later. In selecting alternative four-C,
4 the Lewiston Town Board also took into consideration
5 the fact that the resulting possible injury and
6 deaths are estimated as an absolute minimum. The
7 Town of Lewiston has suffered social, socially,
8 economically and healthwise by having dangerous
9 materials stored at the L.O.O.W. site. We want
10 this threat to our citizens removed and would
11 urge that the DOE to act immediately to clear
12 up the life-threatening situation. It's hardly
13 necessary to point out that the decision and action
14 taken now could affect Lewiston citizens for
15 thousands of years hence. Besides assuming --
16 besides asking implementation of alternative four-
17 C, the Town Board would seek assurance from the
18 DOE that no other material would be brought to the
19 L.O.O.W. site at some future date. We would
20 appreciate your assistance in accomplishing these
21 requests in its interests, in the interests of the
22 health, safety and welfare of Town of Lewiston
23 residents. And also in summing up, I appreciate

1 Congressman LaFalce's support of our same
2 position, alternate four-C, and we do have some
3 supporting statements from other agencies support-
4 ing us in this same area, and I would leave these
5 for the record.

6 MR. FARMIKEDES: I'll take it, sir. Thank you,
7 very much. The next person is Mr. Lee Simonson,
8 and then Mr. Alvin C. Ogg. Mr. Simonson?

9 MR. SIMONSON: Good evening. My name is Lee
10 Simonson and I'm the County Legislator for this
11 area. I've also been designated by the Niagara
12 County Legislature to be its spokesman here this
13 evening. The Niagara County Legislature whole-
14 heartedly supports alternative four-C, as described
15 in the Draft Environmental Impact Statement. To
16 very briefly summarize our opinion, alternative
17 four-C offers a reasonable and acceptable solution
18 to the problems we have faced as a community in
19 regard to the radioactive storage site. While
20 four-C does not offer us the ideal situation of
21 having the contaminated materials completely and
22 permanently removed from the site, it does provide
23 for the elimination of the most hazardous wastes

1 at the most reasonable cost to the Federal
2 Government. Realistically, there may be some
3 in the Federal Government that feel that alternative
4 four-C is the most that Lewiston and Niagara County
5 can hope for. However, for the record, we do not
6 view alternative four-C as the most we can hope
7 for. We view it as the least we can expect. Any
8 alternative that provides Niagara County with
9 less is totally unacceptable. Simply, we are
10 not here this evening asking the Federal Govern-
11 ment for the moon, the sun and the stars. We
12 have tried to put ourselves in the shoes of the
13 Federal Government, and we've tried to be realistic
14 in our endorsement of four-C. This community
15 would like to see all of the radioactive materials
16 removed. Possibly there are those in the Federal
17 Government that want all of the radioactive
18 materials to stay. In effect, we see four-C as
19 an acceptable compromise. We've compromised our
20 positions in an effort to expedite the disposition
21 of these hazardous wastes. Frankly, we are not
22 in the mood to drag this issue out. We have no
23 desire to haggle in the courts. We have no

1 interest in mounting a public campaign to put
2 pressure on the Federal Government to accept an
3 alternative that it simply does not want to
4 accept. Rather, the County Legislature would like
5 to see this issue behind all of us, and we believe
6 alternative four-C is the fastest, the safest, the
7 most economical and the best way to do just that.
8 We look upon alternative four-C as something that
9 we can live with and something that the Federal
10 Government can live with. We urge the Federal
11 Government to implement four-C at the earliest
12 possible date and pledge our cooperation. The
13 Niagara County Environmental Management Council,
14 our environmental advisors for the County
15 Legislature, have some additional comments and
16 a more scientific analysis that will be presented
17 here this evening. Meantime, please accept our
18 appreciation for your attention to this matter,
19 and again we look forward to a quick and success-
20 ful completion of the project as described in
21 four-C. Attached to my statement, please find a
22 copy of the resolution passed by the Niagara County
23 Legislature, which is unanimous in its position.

1 Thank you, very much.

2 MR. FARMIKEDES: Thank you, sir. Mr. Alvin Ogg and
3 then Mr. James Rauch. Please correct me if I'm
4 misspelling or mispronouncing it.

5 MR. OGG: Thank you, very much. I have
6 directed my comments to Mr. Campbell inasmuch as
7 I will submit this in written form to Mr. Campbell
8 as requested by the regulations. I appreciate
9 the opportunity to comment on the Draft Environ-
10 mental Impact Statement, long-term management
11 of the existing radioactive wastes and the residues
12 at the Niagara Falls storage site. I was asked
13 by a member of your organization following a
14 meeting in Albany last year if I expected the
15 Department of Energy to create an oasis in the
16 middle of a desert. My concern then and today
17 remains mainly, is this the overall attitude of
18 the Department of Energy? My answer to this
19 question then and would remain the same today,
20 I would expect the Department of Energy to
21 accept the responsibility and accountability,
22 not only for the creation of the desert, but also
23 for the reclamation of the desert. My personal

1 preference regarding the alternatives listed in
2 the Draft Environmental Statement is three-A
3 or B. However, these alternatives, even with
4 allowances in scoping errors, does not appear
5 to be within the realm of reality. Alternative
6 four-C, off-site storage of residues at Oak
7 Ridge slash long-term management of Niagara Falls
8 storage site is, I believe, the correct alterna-
9 tive for our problem. This alternative would
10 begin the consolidations of wastes at a site
11 where Department of Energy staff, facilities,
12 services and controls are available to do whatever
13 Department of Energy elects to modify in technical
14 or operational policies. The State of Tennessee,
15 Rome County in Oak Ridge, which have reaped
16 the employment, tax and service benefits of your
17 Oak Ridge Operation would also share the liabilities
18 created by initial operation. This alternative
19 affords the residents of the Towns of Lewiston and
20 Porter our liberation from the Department of
21 Energy policy, which has prevailed for the
22 majority of these past forty years, quote,
23 out of sight and out of mind, unquote. The valid

1 safety, health and socioeconomic concerns of the
2 citizens brought about by poor communication with
3 the community, the lack of credibility of and
4 autonomous control by the Department of Energy
5 would be reduced. It is my conviction that
6 alternative four-C is the beginning of the desert
7 reclamation. Thank you.

8 MR. FARMIKEDES: Thank you, sir. May I have a
9 copy, Mr. Ogg?

10 MR. OGG: Yes.

11 MR. FARMIKEDES: The next statement, Mr. James
12 Rauch, and following Mr. Duke Williams. Mr.
13 Rauch?

14 MR. RAUCH: My name is James Rauch. I have
15 presented written comments directed to Mr. Campbell
16 as requested. I will read these comments and
17 then I'll make some further comments. I received
18 a copy of the DEIS, in the last several weeks have
19 thoroughly read it and analyzed it, and I find
20 that it is a world filled with fantasy, but I
21 shall direct my remarks, as I have been directed
22 by Mr. Campbell first. Dear Deputy Director
23 Campbell, these comments concern the Niagara Falls

1 storage site and the usefulness of the draft
2 document, DOE/EIS 0109D, in arriving at a
3 scientific and valid resolution of the issues
4 and problems. It would appear that the mere
5 issuance of a DEIS satisfies the requirements
6 of the National Environmental Policy Act for
7 you people at DOE. I don't believe the document
8 fulfills the intent of NEPA, for the specific
9 reasons outlined below. Furthermore, your
10 self-serving dismissal of several important
11 issues in appendix G-3 as being, quote, beyond
12 the scope of this EIS, is not valid. For example,
13 your determination that the politically expedient
14 settlement of the Afrimet leases for eight
15 million dollars is an action having a clearly,
16 quote, clearly insignificant impact on the quality
17 of the human environment, unquote, and requiring
18 no further need but compliance is ridiculous.
19 It should be the subject of a court action by
20 New York State. I have enclosures here along
21 with my letter of comment concerning past
22 correspondence I have had on this matter with
23 officials of the State of New York. I would like

1 those entered into the record, and if I have time,
2 I will read those as well. Another issue improperly
3 ruled out is the impact of past operations at
4 NFSS and Oak Ridge. This issue is intimately
5 related to the public's distrust of the federal
6 officials and lack of public participation in the
7 DOE decision-making process. This also is --
8 issue ten also ruled out. From what we do know
9 of DOE and its predecessors' past actions, they
10 have been characterized by recklessness, both
11 in regard to worker and public protection, as
12 well as environmental protection measures. I
13 refer now to the Assembly of the State of New
14 York, Stanley Fink report detailing past practices
15 involved with Manhattan project operations in
16 this area not limited to Lewiston, but also
17 including Limby. It is quite clear to me that
18 the form of the interim remedial actions will have
19 an effect on the long-term management options,
20 and yet this subject is ignored. For example,
21 as a result of the 1972 remedial actions, it has
22 now been determined to be, quote, not practicable,
23 unquote, to separate the R-ten residues from other

1 wastes in the north diked area. I contend that
2 this action is a deliberate attempt on the part
3 of DOE to downgrade the classification of five
4 point four times ten to the seventh kilograms of
5 residues containing substantial amounts of radium,
6 throrium, and according to my calculations, six
7 hundred and five pounds of U-238, among others,
8 to a classification of, quote, wastes, unquote,
9 thereby enabling, according to DOE guidelines,
10 a more expedient less secured disposal method
11 to be used. Global impact of ocean disposal is
12 another area incorrectly dismissed. Recent
13 findings of plutonium bioaccumulation in fish
14 in the Pacific Ocean off San Francisco are alarm-
15 ing and calls to question the validity of the
16 theoretical machinations used in appendix E. I'm
17 referring here to the plutonium wastes that are
18 dumped off the Pacific, San Francisco, in the
19 Fair Line Islands. The following are specific
20 comments on the deficiencies of the DEIS. Number
21 one, waste characterization and classification.
22 The wastes and residues are inadequately
23 characterized as to their content, quote, no

1 information is available regarding the thorium
2 230 content of the residues, unquote, states
3 page three eleven. Thorium has a half-life of
4 seventy-seven thousand years, and yet there is
5 no description of its quantity or physical
6 properties, such as, water solubility. Page
7 three eleven continues, quote, the residues
8 contain small amounts of other radionuclides
9 resulting from decay of a small amount of U-235,
10 unquote. Just what are these small amounts?
11 Is it one percent of the world's known supply
12 of radium? This is the amount contained in the
13 NFSS wastes, not the residues, just the wastes.
14 This is the amount being considered for ocean
15 disposal. Is this a small amount? This calls to
16 question the whole waste classification system.
17 The law unto itself, the DOE issued Order 5820
18 February 6th, 1984. This order states that the
19 NFSS wastes and residues will be classified as,
20 quote, wastes contaminated with naturally-occurring
21 radionuclides, unquote, and further that these
22 wastes may be disposed of at existing DOE low
23 level waste disposal sites. In addition, quote,

1 DOE field offices are assigned responsibility
2 for developing project specific or site specific
3 management criteria, unquote. This is a capricious
4 attempt by DOE to reclassify uranium and thorium
5 tailings and waste as low level wastes, low level
6 radioactive wastes, hereinafter referred to
7 as LLRW. As defined in NRC10 code federal
8 regulation sixty-one specifically excludes byproduct
9 material, as defined in section eleven-e-two of the
10 Atomic Energy Act, that is uranium or thorium
11 tailings and wastes. That means specifically
12 excludes these wastes from low level category.
13 The New York State LLRW management study, April,
14 1984, states that, quote, uranium mill tailings
15 along with formerly utilized site remedial action
16 program wastes, FUSRAP wastes, are sufficiently
17 different in hazard regulation and volume to be
18 excluded from the focus of this report, unquote.
19 The study further states that, quote, the
20 State Energy Office does not believe the terminology
21 is completely appropriate. Some LLRW can be more
22 radioactive than some high level radioactive
23 waste and can be longer lived. We believe the

1 term, low level radioactive waste is misused in this
2 context and Congress and the NRC should give
3 serious consideration to developing new terminology
4 which more appropriately reflects the hazards
5 involved, unquote. This is page seven, executive
6 summary. I heartily concur with this assessment.
7 Uranium, thorium, transuranics, radium, cesium
8 137, strontium 90, and others, do not belong in
9 a low level waste category in any amount, nor
10 do they belong in a land burial site. Once again,
11 see my letter of 3/25/84. I call upon State
12 officials to intercede in this matter on behalf
13 of the residents of the State of New York.
14 Ground water impacts, page two eleven, states:
15 That modification of the residues, that is,
16 vitrification will not markedly reduce ground
17 water impacts, and yet results reported in
18 C-seven, that's page C-seven, appendix,
19 indicate a one thousand fold increase in radon --
20 a thousand fold decrease in radon release
21 after vitrification. Should one assume a similar
22 decrease in radium leaching following vitrification?
23 Could one not also assume a significant decline

1 in ground water contamination, especially if such
2 masses were stored in engineered modules. The
3 lady here from the Argonne Lab was referring to
4 radon emanations' reductions. My concern
5 here is ground water reduction. That's why I
6 feel vitrification is a necessity. Page two twenty-
7 five states that ground water will be contaminated
8 eventually in all alternatives, but, quote,
9 prediction of how and when this will occur and
10 the resulting environmental impact is beyond
11 current predictive capabilities. I do not --
12 that's unquote. I do not think it's unreasonable
13 with the foregoing in mind to request an alterna-
14 tive to the alternatives presented in the DEIS,
15 which would provide a substantially greater
16 degree of isolation of the residues. I find the
17 description of page four fifteen of allowable
18 radium releases during operations particularly
19 cavalier and repugnant. Dilution and release
20 rates in pico curies per liter are glibly outlined,
21 but no indication of total activity released
22 to surface waters is given. No total volume
23 figures are given. Radiological assessment,

1 number three. Throughout the DEIS, radiological
2 effects attributable to radium and
3 exposure are discussed, but no discussion is
4 given of the public health and environmental
5 effects attributable to the thorium and other
6 radionuclides contents of the wastes and residues,
7 or has DOE determined the effects of say thorium
8 230, half-life seventy-seven thousand years,
9 to be negligible? Vitrification is my final
10 specific. I would -- it would appear in the
11 analysis given on C6 that vitrification employing
12 the electric furnace results in the most uniform
13 stable product at a cost of approximately
14 three point six million kilowatt hours of
15 electricity. This should be the method of choice.
16 In situ process would consume twenty million
17 kilowatt hours with little guarantee of producing
18 a stable product. In conclusion, as a health
19 professional whose sole interest in this matter
20 is the maintenance of public health and
21 prevention of environmental degradation, I make
22 the following recommendations: The residues,
23 including the R-ten pile, should be fused in an

1 electric furnace and stored in engineered
2 storage facilities dedicated to long-term
3 institutional control. The contaminated soils,
4 these are the wastes, should be packaged and
5 stored in a similar facility or at a site such
6 as Hanford in a manner insuring long-term
7 environmental isolation. No further consideration
8 should be given to ocean dumping of the wastes
9 or land burial of the residues.

10 MR. FARMIKEDES: Thank you, Mr. Ogg. Thank you
11 very much.

12 MR. RAUCH: If I might --

13 MR. FARMIKEDES: Do you have anything more that
14 we could simply put into the record if it's al-
15 ready written? It would be much --

16 MR. RAUCH: I think it's important that the
17 public know, you know, some of this stuff, and
18 I would like to read it, if I may.

19 MR. FARMIKEDES: Well, sir, you've gone over your
20 allotment. We'll be pleased to give you more
21 time. We have additional people waiting. If
22 it's already written, why don't you just give
23 it to us and we'll put it into the record for

1 consideration.

2 MR. RAUCH: Very good. Thank you very much.

3 MR. FARMIKEDES: Thank you, sir. Can I have it?

4 Thank you very much. The next comment from

5 Mr. Williams and then Miss Solley. Mr. Duke --

6 MR. WILLIAMS: My name is Duke Williams and I
7 am a resident of the Town of Lewiston. I live
8 less than a mile from this site and public health
9 is my interest. You see, I'm one of eight people
10 left in my division from this waste. I was on
11 two bomb tests, the Manhattan tests, Bikini
12 Crossroads, 1946. There was fifty-four of us.
13 There is eight of us left. And I was still in the
14 Navy twelve years after this test and had never
15 been called for a physical. This is my interest.
16 Approximately ninety percent of us had thyroid
17 problems, hepatitis and a few other things. And
18 today -- my dosage was point o-two rems, and I'm
19 sure it takes more than that to lift your hair.
20 And I don't have much faith in what they tell me
21 and I'm living proof of it too. I have had a
22 complete thyroid operation and a few other things.
23 And in the future I believe that people in this

1 area, because it hasn't been maintained in the
2 past, and I can't help but think that it's not
3 going to be maintained properly in the future,
4 and I would like to see it removed from this area.
5 And it's, it's not possible to get it all, but
6 I do think that some of it should be taken out of
7 here, the most hazardous stuff. That's all I
8 have to say.

9 MR. FARMIKEDES: Thank you, sir. Miss Bonnie
10 Soley and then on to Richard Rooker. Miss Soley?

11 MISS SOLEY: I'm Bonnie Soley.. I'm with the
12 Niagara County Environmental Management Council
13 and my comments are very brief. Although the
14 Niagara County Environmental Management Council
15 fully supports the Town of Lewiston in their
16 selection of alternate four-C, the offsite
17 storage of residues at Oak Ridge with long-term
18 management at the Niagara Falls storage site,
19 there remains the fact that sixteen hundred
20 truckloads of material will have to be transported
21 and stabilized at the Oak Ridge site. We do
22 question why alternate two-B, which proposes
23 extraction of the valuable constituents and

1 vitrification of residues cannot be combined
2 with other alternatives which involve transporting
3 residuals such as three-A, three-B, four-A,
4 four-B, four-C or four-D, thus reducing the
5 amount of material to be transported, transport --
6 excuse me, as well as reducing risks associated
7 with this transportation. Certainly stabilization
8 of wastes as in alternates three-B and four-C
9 and waste reduction as proposed in alternate
10 two-B are the most sound solutions to preserve
11 the environment and the public health, although
12 they may not be the most effective solution
13 initially or most cost effective. Thank you.

14 MR. FARMIKEDES: Thank you. Okay. The next
15 speaker, Mr. -- Dr. Richard Rooker and then
16 Mr. Pillittere.

17 DR. ROOKER: I'm Dr. Rooker and I'm here
18 representing the Niagara County Board of Health.
19 The County Board of Health has been following
20 this and has participated to the degree of
21 attending and sending in a report at the scoping
22 meeting back in February of last year, and also
23 sending a letter to Congressman LaFalce urging

1 him to continue his efforts in this direction.
2 That was several months ago and we appreciate
3 his continuing efforts and his report here tonight.
4 After the EIS came in, we had a discussion on
5 this at our meeting and were quite totally
6 unanimous and felt very strongly. Just a short
7 more or less statement here as to our position.
8 Dear Mr. Campbell, the Niagara County Board of
9 Health has received and discussed at length the
10 Draft Environmental Impact Statement long-term
11 management of the existing radioactive waste
12 and residues, NFSS. Ideally and preferably,
13 alternative three-A, removal of all residues
14 and wastes with long-term management at Hanford,
15 Washington would be carried out. The Board of
16 Health realizing this is simply not economically
17 practical, strongly urges that alternative four-C,
18 offsite storage of residues at Oak Ridge,
19 Tennessee, with long-term management of wastes
20 at Niagara Falls storage site be designated by
21 DOE as the long-term management program for the
22 radioactive residues and wastes at the NFSS.
23 With our recognized vast amounts of industrial

1 waste, the notorious Love Canal and the Lake
2 Ontario Ordinance works, now called Niagara Falls
3 storage site, we in Niagara County have had far
4 more than our share of ecologic and environmental
5 insults. The Board unanimously feels that
6 designation and implementation of alternative
7 four-C is imperative. Respectfully submitted,
8 the Board of Health.

9 MR. FARMIKEDES: Thank you, Dr. Rooker. Thank you.
10 Mr. Pillittere?

11 MR. McQUADE: Hi. I'm David McQuade. I'm
12 representing Assemblyman Pillittere. In its
13 August, 1984, Draft Environmental Impact Statement,
14 the DOE proposed nine alternatives for long-term
15 management of the site. The alternatives ranged
16 from no action to a total removal of radioactive
17 wastes and residues. The Lewiston Town Board
18 and the Niagara County Legislature and the County
19 Department of Health have each recommended that
20 alternative four-C be implemented. I would like
21 to offer my position regarding this choice. On
22 a number of occasions before the United States
23 Department of Energy, the United States EPA,

1 and the New York State Department of Environmental
2 Conservation, I have consistently repeated my
3 support for the total cleanup of the L.O.O.W.
4 site and the complete removal of all the
5 contaminated materials. This position I have
6 based on the proximity of L.O.O.W. to the Lewiston-
7 Porter Central School System, residential areas,
8 four, six and twelve mile creeks, the Niagara
9 River and the Great Lakes water shed. It is
10 clear that this site should have never been
11 chosen for the storage of radioactive materials
12 in the first place. However, realizing that the
13 DOE will pick on cost basis rather than on the
14 most environmentally sound basis, the Lewiston
15 Town Board and the Niagara County Legislature
16 has sought my support for alternative four-C.
17 This alternative would remove ninety-nine percent
18 of the most radioactive residues to Oak Ridge,
19 and hopefully end forty years of Federal Govern-
20 ment neglect. In addition to the above-mentioned
21 reasons, the Federal Government's forty years
22 of mismanagement of this site leaves me little
23 confidence in any proposals put forth by DOE for

1 the management of their facility on a long-term
2 basis. It is obvious by a study of the example
3 of L.O.O.W. that expediency and economy were -
4 always the principal determinants of the federal
5 radioactive waste storage and disposal program.
6 As a result, our environment has continued to
7 suffer. It is my expectation that the DOE will
8 choose from its proposals on a cost effective
9 basis rather than the most environmentally sound
10 basis. In conclusion, I personally continue
11 in my belief that complete removal of all the
12 radioactive wastes and residues is the only
13 desirable, desirable environmentally sound
14 alternative. However, the, the Lewiston Town
15 Board and the Niagara County Legislature have
16 given their support to alternate four-C, and I
17 must acknowledge a local jurisdiction of these
18 municipalities in this matter. Thank you.

19 MR. FARMIKEDES: Thank you, sir. Dr. Erwin D.
20 Brause.

21 DR. BRAUSE: For the record, I'm going to
22 simply note that an attempt was made successfully
23 to shut me off from public contact that I had

1 by virtue of the dating of my letter and request
2 earlier to be in line for third or fourth
3 presentation. However, by dexterous maneuvers
4 typical of the Department of Energy, I was
5 completely cut out, and it wasn't until I checked
6 with a member of your staff that I found I had
7 been excluded from the list. Now, this is
8 really trivial, but I think it simply shows
9 the way in which the DOE operates and will
10 operate here.

11 MR. FARMIKEDES: I'm very sorry, sir. I didn't
12 have your name and I don't know how your name
13 was omitted, but I don't believe it was intentional,
14 but you're free to talk, sir, and give us your
15 comments.

16 DR. BRAUSE: Well this is a public meeting
17 supposedly which the DOE is running to suit
18 itself in its typical fashion, so let me make
19 a few comments without interruption. I want to
20 talk about health effects because this is my-
21 business. I'm a Fellow of the American Statistical
22 Association. I'm a Fellow of the American
23 College of Epidemiology. I've studied the

1 different sites here, because there are plenty
2 of them and they cause a lot of problems, and
3 the Department of Energy's Draft Environmental
4 Impact Statement is what we call in the trade,
5 mickey mouse arithmetic. It is pure and simple
6 fabrication. It is essentially an attempt to
7 put a piece of paper down that will satisfy a
8 legal requirement. It is no attempt whatsoever
9 to estimate the health impact statements --
10 health impacts to the area. For instance, one
11 of the major problems, which isn't a concern to
12 most of you because you're from the local area,
13 is the danger to the Canadian public from this
14 dump site and from the cleanup, which incidentally
15 will be going on simultaneously with another
16 equally dangerous cleanup at Hyde Park. Now,
17 both of these cleanups, incidentally, can
18 interact with each other, because there is such
19 a thing as synergism between radiological and
20 chemical waste, and what is going into the
21 drinking water for a large part of the population
22 of Canada will be subject to this, which is
23 completely ignored, of course, in these

1 calculations. Now, let me just summarize the
2 main point I want to make here. I have reviewed
3 the health effect estimates in the DOE/EIS 1 --
4 0109D,, August, 1984, chemical. The estimates
5 are in error. When these errors are corrected,
6 there are two serious errors. When these two
7 serious errors are corrected, what actually
8 occurs is that there are hundreds, hundreds of,
9 quote, potentially adverse health effects, quote,
10 in most of the operations. In other words,
11 these are not safe operations and the poor
12 politicians who have been maneuvered into accepting
13 something, do not realize that they have, in
14 effect, negotiated the public health. That's
15 what they're negotiating, and I don't believe
16 the public health is negotiable. Now these are
17 very serious dangers to, not only to Lewiston,
18 but as I say, to the major part of the population
19 of Canada. The basic issue here is that this is
20 much too many deaths from cancer and other
21 causes to be acceptable from a public health
22 standpoint. If you take this and put those
23 corrections in, this shows that the cleanup, all

1 cleanup proposals are extremely dangerous. Now,
2 the Department of Energy doesn't recognize this,
3 because in 1955, the official policy was set
4 that low level radiation is harmless and that
5 is still the policy today. And as you know,
6 it is a direct result of the earlier DOE, it was
7 originally AC, decisions on the testing of
8 nuclear weapons, hundreds of atomic veterans
9 and Utah civilians have suffered disabilities or
10 died from this harmless fallout, which DOE has
11 still argued in a court case in Utah recently
12 as harmless and which the judge said that the,
13 that the cases of leukemia were caused by that
14 fallout, and furthermore, that the Federal
15 Government was liable because the federal
16 agencies had lied to the public about the hazards,
17 and they are doing it right now. Today you've
18 just heard it. Now, there is a legal question
19 here and that's the main reason I'm here, 'cause
20 I want to make it a clear point that, that there
21 is no question as to the danger of these
22 operations.

23 MR. FARMIKEDES: Excuse me, sir. What are the two

1 errors that you have found in the Draft Statement?
2 Could you kindly focus on those two errors and
3 articulate them for all of us to know.

4 DR. BRAUSE: I will do that and I will suggest
5 that you stop interrupting me.

6 MR. FARMIKEDES: Let's get off the record.

7 (Discussion off the record.)

8 MR. FARMIKEDES: Let's get back on the record then.

9 DR. BRAUSE: In the Yale Journal of Biology
10 and Medicine, I wrote a paper giving a list of
11 thirty studies of human populations actually
12 exposed to low level radiation where serious
13 health hazard was found, and data, the title
14 of the paper really tells one of major errors.
15 The paper is called, direct estimates of low
16 level radiation risks and lung cancer -- of lung
17 cancer at two NRC compliant nuclear installations.
18 Actually, they are Port Smith Naval Shipyard and
19 Hanford.

20 MR. FARMIKEDES: Now you find that to be an error
21 in this Draft Statement, sir?

22 DR. BRAUSE: Will you listen to me or will you
23 not listen to me?

1 MR. FARMIKEDES: Sir, I've got to understand what
2 you're saying.

3 MR. BRAUSE: All right. The title, I'm reading
4 you the title, which will be self-explanatory.
5 Why are the new risk estimates twenty to two hundred
6 times the old official estimates. Now the old
7 official estimates are what are used in that
8 Draft Environmental Statement, and they're wrong.
9 They're not just a little wrong, they're
10 off by a factor of at least a hundred, maybe two
11 hundred. Now that means that all your calculations
12 are wrong. The second point, the second error
13 involves estimates of exposure. Whenever
14 estimates of exposure are made by official
15 science groups, and for example, Argonne, these
16 are grossly underestimated. For example, when
17 NRC estimated that the exposures from the cleanup
18 at Three-Mile Island, unit two, which I think
19 everybody's heard of, my critique of that EIS
20 noted that the habitual underestimates of exposures
21 by a factor of ten to a thousand, in this
22 instance, since this is already something where
23 we have facts, the original estimate of the lower

1 limit was reached by actual badge dose before
2 they started the cleanup. That's how badly off
3 it is. Hence, NRC was actually forced officially
4 to revise its estimates upward by a factor of
5 about ten in its revised EIS. However, this is
6 still a gross underestimate, and what we have
7 here then, have conservatively as a second error,
8 is that the exposures have to be raised by a
9 factor of about a hundred to be at all realistic.
10 Now the total health effects, as estimated, there-
11 fore have to be corrected by a factor of a hundred
12 for exposure and another factor of a hundred for
13 health risks in round numbers which means they
14 must be corrected by a factor of ten thousand
15 if a realistic assessment of the environmental
16 health effects is desired. Now, this can be
17 done. You can take the DOE estimates of August,
18 1984, correct them in line with normal science
19 instead of official science, and the facts then
20 are, are obtained by simply multiplying the
21 estimates by ten thousand. I chose option three-B,
22 just as an example, where for table four point
23 thirty-one there would be six hundred and sixty,

1 quote, total health effects, quote, to the public,
2 during the maintenance and monitoring period.
3 However, from table four three point three four,
4 there would be an additional fifteen hundred
5 total health effects during the, quote, action
6 period. Then by DOE's own estimates suitably
7 revised, there are two thousand one hundred and
8 sixty total health effects from this option,
9 and since these are very serious health effects
10 such as cancers or genetic defects, this is
11 completely unacceptable from the public health
12 standpoint. So what DOE has tried to do is to
13 force your legislators to take a choice between
14 alternatives which will endanger your health and
15 safety, and I might add, fairly successfully
16 they've done this. Now there are several other
17 major reasons for this underestimation, quite
18 apart from those I have just mentioned, and these
19 include, one, only mutigenic effects causing
20 mortality have been considered. However, normal
21 science has found a wide range of radiation induced
22 morbidity. Taking these other illnesses and
23 disabilities into account might require multiplica-

1 tion by another factor of ten. So we're talking
2 roughly of twenty thousand health effects from
3 this option, which is offered to the public.
4 Now, the second point is that DOE has a long
5 and disgraceful record of mismanagement in these
6 nuclear cleanups, and at the Niagara Falls site,
7 these spills are going to go directly into the
8 drinking water for much of Canada. Now, this
9 means that if DOE miscalculates, as it usually
10 does, there could be a catastrophe, an environ-
11 mental catastrophe, and there is no estimate
12 whatever in this manual of catastrophic effects,
13 only routine effects. The third point is that
14 toxic chemicals from the nearby Hyde Park dump site
15 are currently now, right now leaking into the
16 Niagara Gorge, and these toxics and those of
17 the other leaky Niagara Falls dump sites, are known
18 to be mutigenic. My studies have shown striking
19 synergistic effect when chemical and radiological
20 mutigens are combined, and this synergism has
21 been completely ignored by the DOE in its Environ-
22 mental Impact Statement, and if it continues
23 to be ignored, of course, the people in Canada

1 are going to pay a very heavy price. In sum,
2 the DOE/EIS gives a completely unrealistic
3 assessment of the actual environmental hazards
4 of what is really a very dangerous cleanup
5 operation. And the worst part of the DOE operations
6 is that they don't recognize the actual radiation
7 risks, so they take chances with the lives of
8 the public and with the workers, because they
9 don't think the risks are as serious as they
10 have been shown to be in the actual scientific
11 studies. Now the DOE, therefore, I think, can
12 be said to have made no serious attempt to have
13 made a realistic environmental assessment that
14 would protect the public health and safety, and
15 it obviously intends to ignore these problems,
16 including the one I'm talking about now, just
17 as it has ignored the rulings of Judge Bruce
18 Jenkins in Utah when he said that the fallout
19 had caused the leukemia in the children in Utah,
20 and DOE, of course, appealed. Since in practice
21 there may be no way to appeal a DOE decision
22 in the United States, I think that we really
23 have to face the fact that the only legal recourse

1 may be for Canada to ask for an injunction from
2 an international court. Now it has a right
3 to do this, because there are treaty limitations
4 which prohibit the kind of contamination which
5 is going to be going on in the international
6 waters from these radiological mutagens, so
7 there is a violation of treaties involved, and
8 if the Canadian government showed a little less
9 cowardess, I think it could maybe take this
10 to an international court and demand that there
11 be an international panel of oversight, which is
12 what this study needs. There is no oversight
13 at present from DOE.

14 MR. FARMIKEDES: Thank you, sir. Is there anyone
15 else who -- is there anyone else that would like
16 to speak on the DEIS statement? Sir?

17 WALTER KLABUNDE: I have not prepared a statement.

18 MR. FARMIKEDES: Can you kindly give us your name
19 and address.

20 WALTER KLABUNDE: My name is Walter Klabunde. I
21 [REDACTED] 3 [REDACTED] [REDACTED] [REDACTED]. I would like
22 to add a fifth alternative, fifth category. Be-
23 sides NFSS and the ocean and Hanford and Oak Ridge,

1 I would like to add the test sites in Nevada that
2 were used to -- for atom bomb tests. They had
3 created caves in the ground. Why not dump this
4 material, the residues particularly, into the,
5 into this area which is already badly contaminated
6 and apparently has no other added problems. If
7 we dumped it in there, there would not be this
8 eternal, extraeternal maintenance that we're
9 talking about. That is the category I would like
10 to add. Thank you.

11 MR. FARMIKEDES: Thank you, sir. Thank you.
12 Thank you all very much. Is there another person
13 there? I can't see because of the light. Would
14 you kindly speak up.

15 KATHY KADRID: I don't know a lot about this
16 kind of stuff, but --

17 MR. FARMIKEDES: Could you give us your name and
18 your address.

19 KATHY KADRID: My name is Kathy Kadrid. I
20 understand that, that there is a process possibly
21 being developed by a Canadian firm to treat
22 wastes by electrical methods, which in some way
23 or other changes the molecular structure. I don't

1 have all the facts on it, but I --

2 MR. FARMIKEDES: Well thank you for your suggestion.
3 I think that the staff will, will look into that
4 and determine if it's feasible here. I don't
5 know. I happen to be a lawyer. I do have a
6 science background. I am a chemist. I'm not sure
7 that I'm up to speed on that one. I don't know
8 of it. Is there anything else that someone else
9 would --

10 MR. RAUCH: Do I have time to make a few
11 additional comments?

12 MR. FARMIKEDES: Sir, I think if you will kindly
13 give us your comments and provide them for the
14 record, we will be very pleased to add them to
15 the record. I don't know that it will serve all
16 of us to sit here and wait for them to be read
17 into the record. It's a costly exercise. This
18 thing is costing money. All of us --

19 MR. RAUCH: If I may interrupt you, you
20 people have been working on this DEIS for months.

21 MR. FARMIKEDES: Yes, sir.

22 MR. RAUCH: You mailed this out on
23 August 17th and you expect us to digest this thing

1 and make comments on it in a few short weeks.

2 I am just --

3 MR. FARMIKEDES: Off the record.

4 (Discussion off the record.)

5 MR. FARMIKEDES: Let's go back on the record for
6 five minutes.

7 MR. RAUCH: Some of the things I would like,
8 I added in my, to the record, that most people
9 aren't aware of, the public is generally very
10 misinformed on this issue having just the
11 information that DOE has served fit to provide
12 them. The whole problem here at Lewiston originated
13 with a Congo pitch by north that was brought
14 in by the Belgium company, which contract on them,
15 they owned the oars expired last June. In a
16 DOE made -- in a deal with the Belgium government
17 the Reagan administration made last year, in
18 exchange for positioning cruise missiles in
19 Belgium, nuclear weapons, the DOE decided to
20 let the Belgium company off the hook for these
21 wastes to the tune of eight million dollars.
22 That is all the company will pay to clean this
23 up. Eight million will in no way, shape or fashion

1 cover a secure isolation of these wastes. This
2 letter appeared in the Buffalo News Saturday,
3 August 13th, 1983. This article, Energy
4 Secretary Donald O'Dell said in a letter to
5 congressmen that his department was, quote,
6 urged by the Department of State to compromise
7 for reasons related to the common defense and
8 security of the United States and the government
9 of Belgium. One wire service report --

10 MR. FARMIKEDES: Excuse me. Are you going to
11 read this article?

12 MR. RAUCH: I'm going to just read a paragraph.
13 One wire service report linked the agreement to the
14 desire of the United States to deploy forty-eight
15 cruise missiles in Belgium. The government wants
16 to deploy a total of five hundred and sixty-two
17 cruise missiles in Europe. That's basically what
18 that article says. I wrote a letter to Everybody's
19 Column in the Buffalo News, 8/83, villifying
20 this agreement and requesting that our state
21 officials take whatever action necessary, including
22 Attorney General Abrams, legal action necessary
23 to prevent this DOE Afrimet deal from being

1 consummated. It was consummated and the DOE
2 owns the wastes. That doesn't -- that makes
3 the public, the taxpayers legally liable for
4 them, because DOE took this action. DOE appears
5 to be above any type of public oversight. They
6 continue, as Dr. Brause pointed out, to carry on
7 its operation with very little public information
8 being made about what is being done. They
9 issue orders, orders that are guidelines about
10 how they're going to do it, what activities
11 and exposures that are going to be allowed
12 to the public without any public oversight. They
13 are a law unto themselves.

14 MR. FARMIKEDES: I'll have to correct that, sir.
15 I cannot accept that into the record. There is
16 no doubt that there are several oversight
17 committees in both the House and the Senate
18 that oversee the Department of Energy in great
19 detail. These are your representatives, your
20 senators, your congressmen that oversee the
21 Department of Energy.

22 MR. RAUCH: And they are --

23 MR. FARMIKEDES: I think we've had enough said.

1 The record is closed. Thank you, Mr. Rauch.
2 If there are -- if anyone else would like --
3 let's get back on the record. If there is anyone
4 else that would like to contribute towards any-
5 thing in the Draft Environmental Impact Statement,
6 please do so. We welcome your comments. Helpful
7 comments are always welcome. Constructive
8 comments are welcome. I think that concludes
9 then the hearing. Is there anyone else? I thank
10 you very much for attending this evening and
11 participating on the Draft Environmental Impact
12 Statement. Thank you.

13 (Whereupon, the proceedings
14 concluded.)

15
16
17
18
19
20
21
22
23