

UNITED STATES DEPARTMENT OF ENERGY
OAK RIDGE OPERATIONS
PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT
PUBLIC SCOPING MEETINGS

DECEMBER 6TH, 1990

Holiday Inn, Clayton Plaza
7730 Bonhomme Avenue
St. Louis, Missouri 63105

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I N D E X T O A G E N D A

MORNING SESSION:

Meeting Convened	Mr. Lawson
Introductions, Purpose of Meeting	Mr. Van Fossen
Agenda of Meeting	Mr. Lawson
Scope of the PEIS	Mr. Baublitz
(Copies of Opening Comments to be attached to Transcript.)	
Testimony.....	The Public

AFTERNOON SESSION:

Testimony.....	The Public
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EVENING SESSION:

(Morning's Introductions and Brief Comments Repeated.)

Testimony.....	The Public
Meeting Adjourned.....	Mr. Lawson

M O R N I N G S E S S I O N

MR. MODERATOR: Our first speaker this morning will be William Vaughan.

WILLIAM VAUGHAN:

My name is William Vaughan. I reside at
Redacted - Privacy Act I. I've been an
Environmental Consultant with a specialty in air quality since
1974. I have two degrees in physics, one degree in
biophysics, my Ph.D. In the early '70's I conducted
post-doctoral research on radiation sensitivity of various
biological tissues, and currently I'm president of my own
environmental consulting firm in the St. Louis area,
Enviromental Solutions, Incorporated.

I'm aware of the programmatic nature of
these hearings that concern more than just the St. Louis area.
Hence, I will address more generic areas of concern based, in
part, on my awareness of conditions that currently exist in
St. Louis.

Probably the most general route of
population exposure to radioactive material and radiation from
all sites that face cleanup will be the atmospheric release of
gases and particles. The air will carry these emissions to
nearby homes and businesses more rapidly than any ground-water
movement or gross dusting of soil. The general risk of
exposure to occupants of property immediately adjacent to a

1 cleanup site will be via the air route.

2 This is currently the major route of
3 population exposure from many sites and urban areas, even
4 those that are not now being actively disturbed. Population
5 exposure comes from the emission of gasses such as radon from
6 the soil surface at these sites, and from wind-blown dust
7 leaving the sites. That being the case for inactive sites,
8 one can expect even more atmospheric releases from disturbed
9 sites as pockets of accumulated gases are exposed, or gusts of
10 wind carry off dust from loads of dirt that are being
11 excavated or transferred.

12 In terms of gas releases, for perspective,
13 about five years ago, I reviewed some of the then-available
14 data regarding the Lambert Airport site and the West Lake
15 landfill site in the St. Louis area. My interest was to
16 consider the general impact of documented releases of radon
17 gas to the St. Louis airshed from those sources. A copy of
18 that review is included at the end of this statement.

19 My general conclusions were that the
20 documented routine emissions of radon gas from the Lambert
21 site are approximately doubling the background radon levels a
22 quarter-of-a-mile west of the facility. It just so happens
23 that a sizable McDonnell-Douglas facility is now located a
24 quarter-mile west of the Lambert site. So there, at this site
25 that is facing cleanup -- and I certainly hope it is not

1 facing growth -- there is routine impact on neighboring
2 property via the air route.

3 In addition, that neighboring property is
4 now further developed and has many more people than it did in
5 the 1950's. How much radon might be released to the St. Louis
6 airshed during a cleanup procedure that did not address
7 containing any atmospheric releases of gases during the
8 cleanup activity? For particulates, I must admit that I was
9 aware, during my review of the gas emissions, of the
10 atmospheric transport of dust from this same site.

11 The Little League baseball fields across
12 the street from the Lambert site have been banned from use for
13 years following the measurement of radioactive dirt on those
14 fields. And for how many years before those radioactive
15 contaminants were found were they increasing the exposure of
16 ballplayers and their families?

17 In addition to the migration of dust across
18 the road from the Lambert site is also the transport of
19 radioactive material in water leaching from the site. These
20 waters are leaching through groundwater into Coldwater Creek.
21 And as the creek flows, they're carried varying distances down
22 the creek. As the creek periodically dries up, these
23 particles are available to become airborne and blown into
24 backyards that border the creek.

25 How much more radioactive dust might be

1 disturbed throughout the community and distributed without
2 adequate consideration of dust suppression and containment
3 during excavation, loading, and hauling activities? How much
4 might this be distributed by the continued leaching from the
5 site into the suburban stream as cleanup is delayed? Hence,
6 no action is not a very viable alternative.

7 Releases from quarries: Some of the sites
8 around the nation that are contaminated as a result of weapons
9 production are quarries where equipment and building debris
10 have been deposited. Near one such quarry in the St. Louis
11 area, there have been measurements made of radon in the
12 ambient air that have exceeded the EPA's lowest action level
13 for remediation, should that level be in your home.

14 Plans now call for pumping down the water,
15 flooding this quarry, and carrying it by tanker truck to a
16 cleanup facility several miles away. There, to be processed
17 and remove the transuranic elements, hopefully with no further
18 atmospheric releases on the way there, since there is a
19 functioning high school on the immediate adjacent property.

20 But what will happen back at the quarry,
21 and other quarries across the nation? The radon gas being
22 slowly released from the surface of the water may well be more
23 rapidly released as the water barrier is removed. The exposed
24 dirt-encrusted machinery and debris will experience further
25 drying in the air. The winds can then carry the gas and

1 particulate contaminants away from the site and into the St.
2 Louis airshed.

3 How much planning and precautions are under
4 way to deal with increased massive radioactive releases and
5 wind-borne contamination from drying quarry sites around the
6 country? Will there be independent monitoring of emissions
7 from such operations so that, quote, "the fox isn't watching
8 the chicken coop"? Will the public have credibility in the
9 professionals carrying out such independent monitoring if
10 those professionals cannot blow the whistle on shoddy
11 operations that threaten the public with increased exposure to
12 airborne contaminants?

13 There's an issue that I would like to
14 finally raise regarding orphan sites. I use this phrase for
15 many sites that are around the country, and certainly some in
16 the St. Louis area, that are not on the official Department of
17 Energy list. For instance, is the West Lake landfill, with
18 its radioactive contamination, going to be considered for
19 cleanup under this PEIS? If such unofficial sites, especially
20 in urban areas, continue to be ignored, will the Department of
21 Energy inform the contaminants that they are not allowed to
22 affect the population?

23 As far as I know -- and the BEIR reports
24 continue to assert -- there is no threshold of exposure to
25 radiation below which no damage occurs. Hence, even

1 unofficial sites are having a real impact on encroaching
2 populations in growing suburbs across the country. How will
3 you address these orphan sites? With regard to no action, I
4 just want to urge you that these examples show that increasing
5 population in urban areas, even if the sites are not
6 increasing their emission rate, is increasing the exposure
7 risk to the population. Hence, I wish you would move ahead
8 with the remediation of these sites.

9 And I thank you for the opportunity to
10 present my views, and urge you to give serious and careful
11 consideration to the technical and human issues that you must
12 face.

13 THE MODERATOR: Thank you, Dr. Vaughan.

14 The next speaker is Dr. Herman Blumenthal.

15 HERMAN BLUMENTHAL:

16 Thank you. I'm not going to deal in
17 details as the previous testimony did. I want to simply deal
18 in the issue of credibility and powerlessness. I hold a Ph.D
19 and M.D., both from Washington University. By profession, I
20 am a pathologist with a research program which focuses on the
21 origin of diseases in old people. I hold appointments as
22 Research Professor of Gerontology in the aging and development
23 programs of Washington U., and as adjunct professor in the
24 Department of Community Medicine, St. Louis University.

25 My interest in the biological effects of

1 radiation dates from the 1950's when I was a member of the St.
2 Louis Committee on Nuclear Information. That's the advantage
3 of being 77 years old. It also has relevance to my research.
4 Since it's documented in the BEIR-3 report on page 157,
5 exposure to radiation cannot only threaten lifespan, but also
6 cause an earlier onset of the same diseases which occur with
7 normal aging. I've contributed a chapter to the biological
8 effects of radioactivity on two editions of a book on
9 environmental health.

10 The problem of what to do with radioactive
11 waste has been a matter of concern for at least three decades.
12 Attached to this testimony, I'm going to submit a sheet which
13 is from a newsletter of the Committee on Nuclear Information
14 dated December, 1959. This newsletter was widely circulated
15 nationally, with copies going to appropriate government
16 agencies. This particular issue features radioactive waste,
17 an unsolved problem. Needless to say, for most of the past
18 three decades, this problem has been ignored.

19 In her book, Multiple Exposures, Catherine
20 Caulfield has written the following, "Mankind's brief
21 experience with ionizing radiation seems almost to have been
22 designed to exacerbate feelings of powerlessness and
23 suspicion. Each new discovery was greeted with wild
24 enthusiasm, which gave way to alarm when unforeseen
25 side-effects appeared. Protective measures were introduced,

1 and sooner or later, they had to be strengthened and
2 strengthened again.

3 "The public has also been made cynical by
4 the fact that for various reasons, varying from ignorance to
5 national security, information about nuclear matters is often
6 entangled in a web of secrecy, misinformation, and lies.
7 Those who study the subject more closely are also surprised by
8 the extent to which radiation protection standards are not
9 based on scientific certainty, but on judgment, hunches, and
10 compromise." That's the end of the quotation from Ms.
11 Caulfield's book.

12 I can appreciate the problem of finding
13 disposal sites for nuclear waste, since given the situation
14 which Ms. Caulfield describes, no one wants the site next
15 door. On the other hand, storing radioactive waste near an
16 airport, streams, and a large city, appears particularly
17 inappropriate. With seepage of radioactivity into
18 groundwater, we can end up with radioactive water in many
19 kitchens and bathrooms. And who can guarantee that an
20 accident at the site will not expose people to radioactivity,
21 as at Hanford in Washington, which was kept secret for many
22 years? Thank you.

23 THE MODERATOR: Thank you, sir. The next
24 speaker will be Ms. Kathy Collins.

25 KATHY COLLINS:

1 My name is Kathy Collins. I'm a worker at
2 Mallincrodt Chemical Company. I'm speaking on behalf of the
3 concerned workers at Mallincrodt.

4 We see a lot of suspicious things at
5 Mallincrodt. A lot of things disappear, we never know where
6 they go. People wearing suits, telling us not to work in our
7 buildings, not to spend too much time in our buildings because
8 the radiation levels are so high. Mallincrodt contends that
9 there is no adverse health effects from the levels that we're
10 receiving. They get that information from the Department of
11 Energy.

12 I think that it would be nice, and I think
13 that the Department of Energy has a responsibility to the
14 workers at Mallincrodt, to assure them that during the cleanup
15 that they're not going to lose their jobs. There's a lot of
16 people concerned about that. They need to be told how the
17 cleanup is going to come about, and what the procedures will
18 be.

19 At Mallincrodt, business is booming.
20 They're building a lot of new buildings, buildings are being
21 torn down, dirt's being removed, a lot of new people are
22 coming in. There's over a thousand people working down there
23 now at the St. Louis plant.

24 Doesn't the Department of Energy have a
25 responsibility to tell the people what is down there?

1 Recently, we had a building, the '50's series, which is
2 actually one of the buildings used in the refining of the
3 uranium. Part of that building is closed down, and the rest
4 of it is still used for production. In the 1977 survey, it
5 indicated that these buildings were un-occupyable, yet we have
6 people work in these buildings every day.

7 Recently, a roof was removed from the '50's
8 series. The shingles were thrown into a dumpster. The people
9 that were removing the roofing got high levels of radiation on
10 their badges and they had to suit up. It had rained that
11 night, and I guess, the radiation leached into the soil. A
12 highlift was brought in and the soil was removed. And the
13 highlift was then covered in plastic and taken out of
14 Mallincrodt.

15 What we would like to know is: Where is
16 this stuff going? Are there records kept? During a lot of
17 the demolition of the old buildings, operators were allowed to
18 come in with their trucks and take bricks home to build
19 fireplaces and flowerbeds. Will these be collected back up
20 during the cleanup?

21 This is in an open dump. People are
22 working in this area every day. And I think Mallincrodt
23 should be priority one to be cleaned up. Thank you.

24 THE MODERATOR: Thank you, Ms. Collins.

25 The next speaker is Wayne Kristof.

1 WAYNE KRISTOF:

2 What I have to say is rather generic in
3 comparison to the folks that spoke before me. I've been going
4 to meetings down at City Hall in reference to the subject
5 being spoken of here this morning for over a year. And we've
6 had people from DOE speak, but they seem to always speak from
7 a personal viewpoint. I'm here as a concerned citizen,
8 representing myself and those who can't be here.

9 It's amazing to me that when politicians
10 want to be heard -- they should be more accessible than the
11 most expensive hotel available. This creates a negative
12 demeanor for DOE. I would think that Harry Truman, a great,
13 no-nonsense president of this great state of Missouri, would
14 turn over in his grave if he knew that the creation of the
15 A-bomb, and the use of it, would lead to what we have today.

16 But in his demeanor, I'm sure he would have
17 exhausted all the many possible ways of disposing, and
18 containment of, and the peaceful use of this waste, not to be
19 used under the bureaucratic nonsense that is going on today.
20 I thank you for letting me speak.

21 THE MODERATOR: Thank you, Mr. Kristof.

22 The next speaker is State Representative Neil Molloy.

23 NEIL MOLLOY:

24 For the record, I'm State Representative
25 Neil Molloy, Redacted - Privacy Act I

1 represent the area immediately south and southeast of the
2 proposed bunker site at Lambert. I just want to go on record
3 for myself and for my constituents, and for the many people
4 that live around the airport site, that we are opposed to an
5 urban storage site for radioactive materials, for many of the
6 reasons that were specified by previous witnesses.

7 We don't think it makes a lot of sense to
8 put, and keep, this material in an active flood plain in the
9 midst of a highly-dense, urban population, and underneath the
10 flight path of one of the busiest airports in St. Louis. I
11 would urge the Department to look to moving this material to a
12 non-urban location. And I think that's within the scoping of
13 this hearing, that you should take a systematic look at that.

14 Also, I think, in the St. Louis area, since
15 we were one of the first sites that were adversely impacted by
16 the Manhattan Project, that we be moved up on the priority
17 list for federal funding in cleaning this property up. We
18 have had this material in our midst for over 40-some-odd
19 years, and it's about time we did something. I know it's a
20 very difficult problem, and nobody wants this material in
21 their backyard. I think the Department and the national
22 government have an obligation to find a preferable location.

23 That's all I have to say. Thank you.

24 MR. MODERATOR: Thank you. The next
25 speaker is Marys Carlin.

1 MARYS CARLIN:

2 My name is Marys Carlin. I'm a
3 professional musician, teacher at Washington University. I've
4 always been concerned with the effects of radioactivity on the
5 environment and human health. But recently my concern has
6 been rekindled, by the despair my two children feel when they
7 mention this issue -- them, and their friends. I cannot lie
8 to them. And I am frightened by the legacy we leave them and
9 their descendents.

10 When we reach the year 1992, the United
11 States will have manufactured nuclear weapons for 50 years.
12 For 50 years, nuclear wastes have accumulated in sites all
13 over our country. And yet there is no serious plan for
14 disposing permanently of this highly-dangerous material. This
15 problem is frightening to anyone, young or old, who thinks
16 about the future of our country's environment, the health of
17 the people, and the legacy to the generations to come. This
18 waste is accumulating and contaminating air, soil, and water.

19 No nation in the world has found a proper
20 solution to the problem of radioactive waste, be it low-level
21 or high-level. I was born and raised in a country which is
22 now dependent on nuclear power for 70 to 75 percent of its
23 electricity -- France. For an area the size of Texas, France
24 has 45 nuclear power plants, each of them producing some 30
25 tons of spent fuel per year.

1 The reason I mention France is that it has
2 been cited by advocates of nuclear power as a model of
3 citizens compliance, advanced technology, and exemplary
4 government responsibility in disposing of wastes. Actually,
5 the real picture is different. As far as citizens compliance
6 is concerned, France has very effective ways to manipulate
7 public opinion. Television and radio stations are
8 government-owned and are closely monitored. French people are
9 presented with an idyllic picture of nuclear power -- cheap,
10 efficient, and above all, clean.

11 Nevertheless, many people are worried, and
12 have been from the start of the nuclear program. But
13 organized protests have been repressed with a specialized
14 police force -- the same the government used to repress the
15 students' uprising in 1968.

16 The nuclear plants themselves have been
17 plagued by many faults, including a few near-misses. One of
18 them, a spent-fuel reprocessing plant of La Hague, could have,
19 had an explosion occurred, showered the entire city of London
20 and surroundings with a cloud of radioactivity. France's
21 super breeder reactor near the city of Beon had to be closed
22 shortly after its opening because of an underground leak.

23 None of these facts have been much
24 discussed in the daily news in France. And what is more, the
25 government withholds, as a matter of policy, the results of

1 tests done in soil, water, air, fish, milk, done in the
2 vicinity of the plants, or in the waters after atmospheric
3 bomb tests in the Pacific islands of Polynesia.

4 France should actually be cited as an
5 example not to follow. It has sacrificed a small peninsula on
6 its northern coast facing the English Channel where it built
7 the reprocessing plant of Lahaug, which treats thousands of
8 tons of highly radioactive wastes from many countries in
9 Europe and Japan each year, reprocesses them and stores them
10 temporarily on the site.

11 But drums have leaked and will leak again.
12 Glass and cyronic products of the enrichification process are
13 not guaranteed to last the necessary two hundred thousand
14 years or longer. Electricity essential to keep liquid wastes
15 from boiling over and exploding can fail, and has already done
16 so.

17 No suitable permanent place has been found
18 to store this material. And what place on earth is suitable
19 for such deadly substances? In the vicinity of Lahaug, the
20 cancer mortality varies from 155 to 200 per 1,000. Fish
21 caught, and other marine life, are now inedible, cows produce
22 radioactive milk. And the dump on Lahaug is already reaching
23 saturation. That is, it's almost filled up.

24 Our problem here in the United States is
25 not different from France's. I would like to urge the DOE to

1 investigate fully the effects of short-term dumping of the
2 wastes on the environment, such as the contamination of soil,
3 underground water, vegetation, human health. And that you
4 choose sites that are as little threatening as possible to
5 these elements.

6 And above all, as I believe there is no
7 really safe way to dispose of radioactive material, please
8 stop testing and producing nuclear weapons.

9 THE MODERATOR: Thank you. The next
10 speaker this morning is Mary Wright.

11 MARY WRIGHT:

12 I'm Mary Wright, with the Campaign for
13 Human Development, at 462 North Taylor, St. Louis, 63108.

14 I think the biggest issue before us today
15 is the will of the people sitting at this table, the will of
16 the Department of Energy, and the will of the United States
17 Government, to do something on behalf of all the people in
18 this country who don't have the power for themselves.

19 And I want to make this just really brief,
20 so I'll read a very brief statement that I've prepared. And
21 that is that I'm urging you, as representatives of the United
22 States Government, to see that immediate action is taken to
23 remove all the radioactive wastes that are scattered
24 throughout north St. Louis City and County.

25 We cannot continue ignoring the health and

1 safety concerns posed by these wastes sitting in the middle of
2 a major metropolitan area. We cannot continue to be such poor
3 stewards of the land. We are a country that can do what it
4 has the will to do. The time is long overdue to say to the
5 people of St. Louis that the United States Government has the
6 will to find a solution to removing this hazardous waste.

7 It is time to act. It is time to stop
8 talking at us, meeting with us. It is time to do. I want to
9 thank you for coming to St. Louis. Thank you for listening to
10 the concerns of the residents of the St. Louis metropolitan
11 area. And I hope I will be able to thank you in the next few
12 months for starting the process of cleaning up the land on
13 which we live. Thank you.

14 MR. MODERATOR: Thank you. Margaret

15 Hermes is our next speaker.

16 MARGARET HERMES:

17 My name is Margaret Hermes. I'm a writer,
18 and I'm a member of the Coalition for the Environment.

19 Since becoming actively interested in the
20 disposition at the St. Louis area's nuclear action nine years
21 ago, I've discovered that what determines how a situation is
22 handled is not simply at all how the situation is viewed. In
23 the case of radioactive waste, the shifting viewpoint is
24 reflected in different assessments of how hazardous the
25 materials are, and what threat they pose to the people in the

1 environment.

2 The Department of Energy wants citizens to
3 trust its assessment of the hazard involving the cleanup of
4 these wastes. But there are good reasons for us to reject the
5 DOE viewpoint. First of all, there's a history of deceit and
6 mismanagement by the DOE in operating its nuclear weapons
7 plants. The new leadership appears to be earnestly trying to
8 rectify that sorry tradition.

9 Second, there was a resistance on the part
10 of the Department of Energy to heed either the warnings or the
11 data put out by local environmentalists. Warnings and data
12 that have proven far more accurate than the DOE's public
13 position over the years. Warnings like the contaminants of
14 Coldwater Creek, and about spreading contamination by further
15 test drilling, and like the data on the volume of waste at the
16 airport site. Third, the federal agency's definitions of what
17 constitutes hazard are both arbitrary and subject to change.

18 Fourth, and last, the Department of Energy,
19 as well as the Nuclear Regulatory Commission, and the
20 Congress, is prepared to tolerate certain risks to achieve
21 certain goals. In this instance, risks to the health and
22 genetic makeup of the workers employed in the nuclear weapons
23 industry, and risks to the health and genetic makeup of the
24 people who are exposed to the radioactive wastes that the
25 nuclear weapons-industry produces.

1 There are two phrases used to describe the
2 situation; as low as reasonably achievable, and acceptable
3 levels of risks. People who are at risk are never accurately
4 informed of the risks, or polled to determine whether the
5 level is reasonable or acceptable to them.

6 On November 5th, we received a copy of the
7 latest DOE radiological survey of the downtown Mallinicrodt
8 Chemical Works site, with a staggering revelation that there
9 were 288,000 cubic yards of just soil alone that are
10 contaminated above the federally-permissible guidelines. The
11 soil alone. The three-volume report does not include the
12 interior and exterior surfaces of at least 16 buildings found
13 to be contaminated in the earlier 1977 survey. Walls are
14 contaminated, floors are contaminated, roofs are contaminated,
15 paved roadways are contaminated, places in which some
16 Mallinicrodt employees presently work are contaminated above
17 federal guidelines.

18 These places will require an enormously
19 expensive cleanup, involving dismantling and digging. Yet the
20 presense of workers is still permitted. And according to the
21 text in the three-volume report, the health of Mallinicrodt
22 employees is not jeopardized. I don't believe it. And I
23 doubt that the workers would believe it either, if they were
24 given the opportunity to study the data.

25 One of the higher soil readings of

1 thorium-230 was taken at the surface near Building 82 and the
2 B parking lot. The thorium-230 measured 98,000 picocuries per
3 gram of soil. In nature, thorium-230 measures .2 picocuries
4 per gram. In the earlier survey released in 1977, which did
5 include structures, thorium-230 measured 56,000 picocuries per
6 gram in a drain in Building 700.

7 The DOE does not dispute the need for
8 cleanup. Its own standards sets 5 picocuries per gram as the
9 permissible level of contamination for thorium-230 at the soil
10 surface. But even with these shockingly-elevated readings,
11 the Department of Energy disputes that there is any danger to
12 workers. It is now widely recognized that any exposure to
13 radiation, including the amount one receives in nature,
14 increases an individual's chance of getting cancer, or being
15 damaged genetically.

16 These workers face dramatically increased
17 exposure, but their level of risk is acceptable to the
18 Department of Energy, and to the industry that employs them.
19 An industry that did not warn its employees, over a period of
20 eleven years, of the dangers of hauling nuclear bomb waste,
21 here in St. Louis, in open trucks. It is the same Department
22 of Energy that finds the level of risk in locating nuclear
23 bomb waste at the airport site acceptable.

24 Many of us do not accept that assessment.
25 We're not willing to risk our air quality, or our

1 drinking-water supply, or our groundwater system. We will not
2 accept an urban radioactive waste dump situated partially in a
3 flood plain, and entirely in an earthquake zone.

4 We would like the Department of Energy,
5 under the leadership of Admiral Walker, to alter its
6 viewpoint, and regard the individuals affected by the agency's
7 decisions, not as statistics, not as insignificant expendable
8 percentages of the genetic pool, but as we regard ourselves --
9 as people at risk. Thank you for the opportunity to speak.

10 THE MODERATOR: Thank you very much.

11 Marilyn Lanson.

12 MARILYN LANSON:

13 My name is Marilyn Lanson, and I'm just a
14 concerned citizen, also a member of the Coalition for the
15 Environment.

16 I'm cautiously encouraged by reading the
17 Department of Energy's Environmental Restoration and Waste
18 Management second five-year plan, 1992 to 1996. But having
19 participated in several meetings with the Department of Energy
20 concerning the Weldon Spring quarry and pit water, my fears
21 have in no way been allayed.

22 As there is no benign radiation -- and as
23 over the years the experts have consistently revised downward
24 their recommendation of what is a permissible level of
25 radiation exposure, as knowledge of the degree of hazard has

1 increased -- we must, as your plan says on page 11, "do what
2 is smart." The bulk waste at the bottom of the Weldon Spring
3 quarry contains not only radioactive wastes, as uranium and
4 radium, hazardous wastes such as manganese and arsenic, but
5 also explosive wastes such as DNT and TNT.

6 The contaminated quarry water is clearly
7 heading towards the St. Charles County drinking-water
8 wellfields. Immediate treatment of that water, and removal of
9 the solid wastes, is not only smart, but it is essential.
10 Apparently, no laboratory experiments using actual samples of
11 Weldon Spring quarry water have been done to see if, and to
12 what extent, the proposed methods of treating this water will
13 be effective.

14 It seems reasonable to suggest that samples
15 of the quarry water be taken before designing and building the
16 proposed treatment plant. It would seem prudent to try out
17 the proposed technologies with this specific water in a pilot
18 plant. The water must be cleaned as soon as possible to abate
19 the near-term threat. If one wants to be smart, one would
20 then store the water in lined pits until more reliable and
21 sophisticated monitoring equipment is available to ensure no
22 danger to consumption by living things. And until new
23 technologies are developed to better decontaminate.

24 We are considering here an enormous
25 quantity of water, an estimated 3 million gallons of quarry

1 water and an estimated additional 57 million gallons located
2 in 26 acres of pits. There is no question that it looks
3 easier to resolve this problem by diluting the water by
4 dumping it after proposed treatment into the Missouri River.
5 But to treat such contaminated water and then proceed to dump
6 it, partially cleaned, into the river 10 to 12 miles upstream
7 of the St. Louis drinking-water intakes would not only be not
8 smart, it would be irresponsible.

9 Once you put radioactively contaminated
10 drinking water into our river system you can never retrieve
11 it. As water affects every living thing, dumping it into the
12 river would cause the bio-concentration of toxicants and
13 living things in contact with our water.

14 I hope that when you prepare the
15 Environmental Impact Statement on wastes, and manage the waste
16 nationwide, created by the production of nuclear weapons, that
17 you will explore every means to prevent contamination of the
18 waterways of our nation. Does it not seem prudent to cease
19 all nuclear production until such time as we discover how to
20 safely and effectively deal with the radioactive waste? Thank
21 you.

22 THE MODERATOR: Thank you. Rosemary

23 Davison.

24 ROSEMARY DAVISON:

25 I am Rosemary Davison, chairperson for the

1 Commission on Human Rights, of the archdiocese in St. Louis,
2 at 462 North Taylor, St. Louis, 63108. And a resident of the
3 City of Florissant. My home is just a few blocks from
4 Coldwater Creek which carries the contamination of the airport
5 radioactive dump, and a short distance from the Latty Avenue
6 tract.

7 The Commission on Human Rights has long
8 been concerned over the affects of radioactive waste resulting
9 from the production of nuclear weapons. In 1984 the Missouri
10 Catholic bishops expressed their concern in "Strangers and
11 Guests for a Community in the Heartland." The title came from
12 Leviticus when God said, "Land must not be sold in perpetuity,
13 for the land belongs to me. And to me, you are only strangers
14 and guests."

15 In their statement, the bishops charged our
16 government with the responsibility of promoting a healthy and
17 safe environment for all. And specifically, to regulate the
18 generation, storage, and disposal of hazardous waste, so as to
19 protect our natural resources and the health and safety of the
20 general public. As of today, that responsibility has not been
21 met.

22 While demanding the cleanup of hazardous
23 waste sites in the metropolitan area, the Commission also
24 urges that all testing of nuclear weapons cease, and that
25 negotiations be undertaken with all governments to halt

1 production of nuclear weapons and to reduce existing
2 stockpiles.

3 When Pope John Paul II visited the mid-west
4 in 1979, he reminded us that we have been entrusted with some
5 of the earth's best land. "With fresh water and unpolluted
6 land all around you, you are stewards of some of the most
7 important resources God has given to the world. Conserve the
8 land well so that your children's children, and generations
9 after them, will inherit and even richer land than was
10 entrusted to you."

11 Since 1946 we have been contaminating our
12 resources. How long must we live with this threat to our
13 water, our air, our land, our lives? Thank you.

14 MR. MODERATOR: Thank you, ma'am. I would
15 like to now call Elsa Mutrux.

16 ELSA MUTRUX:

17 My address is Redacted - Privacy Act
18 Elsa Mutrux, M-U-T-R-U-X.

19 You may not know that Lambert International
20 Airport -- Lambert Forever, some call it -- is not your
21 ordinary, everyday airport. Rather, it is one of the smallest
22 in the country, and you may recall, landing at Lambert is
23 something like coming down in an elevator. It's built in a
24 hole. I asked a lift-off pilot a few years ago, as we arrived
25 from Frankfurt, his opinion of Lambert. "It's a joke. A very

1 bad joke," he said.

2 Takeoffs and landings demand the highest
3 skills. No abortions are possible. The size is 2,500 acres
4 -- where 12,000 acres is recommended for an airport, 18,000
5 optimum, like Kansas City, Kennedy, Atlanta, Dallas.
6 Currently, important groups are urging several billions to be
7 spent to enlarge Lambert to 3,000 acres, another 500 acres.
8 Big deal. It's still an accident waiting to happen.

9 My concern is this: A few hundred barrels
10 of radioactive waste in a corner of an 18,000 acre airport is
11 not much of a target, but the same barrels in a 2,500 acre
12 airport presents a target, and risk of expediential order in
13 case of a crash. And crashes are happening increasingly. I
14 think it's irresponsible to permit this target to remain in
15 such sensitive surroundings. Thank you.

16 MR. MODERATOR: Thank you. Mr. Leon
17 Deraps.

18 LEON DERAPS:

19 My name is Leon Deraps. I live at Redacted - Private
20 I'm here today as a concerned
21 citizen.

22 I understand the Department of Energy
23 hearing today is part of an 18-month study with 23 hearings to
24 follow at nationwide nuclear sites. I also understand the
25 purpose of the hearings is to learn of the concerns of the

1 residents, and what they think should be done about the
2 situation.

3 We are told cleanup funding is very limited
4 and we must try to impress you to put St. Louis near the top
5 of your cleanup list. From the mid '40's until recently, the
6 Atomic Energy Commission and the Department of Energy has kept
7 all our records secret for reasons of national security. You
8 are the experts with all the facts, and you are asking us what
9 should be done with the mess that you have made.

10 While people, near Hanford and other sites,
11 continue to develop radiation-related illnesses, and die from
12 them, you are conducting dog-and-pony shows around the
13 country. We cannot parade scores of dying residents before
14 you and prove that your radiation did it, but Hanford and
15 others can and will. Some reports, like the 40,000 pages from
16 early Hanford, are being released. I hope this is the first
17 of many, and that Secretary Watkins will act from a moral
18 persuasion, rather than being unable to continue denying the
19 actions of the Department.

20 Past transgressions of the Department
21 continue to surface, most dealing with intentional releases.
22 After ten years pending in a Las Vegas court, Federal Judge
23 Roger Foley stripped the government of its immunity from
24 lawsuits, and ordered a hearing on behalf of 220 former
25 test-site workers. Judge Foley said, "The government felt it

1 had the right to sacrifice its citizens at the nuclear altar."
2 Sadly, only 18 still survive.

3 Scientists say that one-millionth of a gram
4 of plutonium is capable of initiating cancer if it lodges in
5 tissue. Two major fires occurred at Rocky Flats. In 1957, 92
6 pounds of plutonium was consumed in a 12-hour fire. The ADC
7 estimated less than an ounce of plutonium was released into
8 the atmosphere. Another five-and-a-half hour fire in 1969
9 burned up at least 2,200 pounds of plutonium worth
10 \$22 million. The ADC reported that less than one-half ounce
11 of plutonium was released into the atmosphere. Does this
12 sound plausible?

13 In April of this year, 62 pounds of
14 plutonium was found in Rocky Flats' ventilating ducts. An
15 outside investigator said it was evident the plutonium had
16 escaped into the ducts, because for years, as filters became
17 clogged and automatically closed down operations, workers had
18 been punching holes in them so the air, though contaminated,
19 could pass through. Meanwhile, the facility was being held up
20 as a model of efficiency, and the managers receiving bonuses
21 from the government for their fine work.

22 It is clear, the victims of the cold war
23 were the hundreds of thousands of nuclear workers and nearby
24 residents, and the reparations paid at Las Vegas and Fernald
25 are but the tip of the iceberg. This is not the time for

1 study. This is a time for cleanup action, and now. Thank
2 you.

3 THE MODERATOR: Thank you, Mr. Deraps. The
4 next speaker would be Dr. Robert Morgan.

5 ROBERT P. MORGAN:

6 My name is Robert P. Morgan. I'm a
7 professor of Technology and Human Affairs in the school of
8 Engineering and Applied Science at Washington University in
9 St. Louis. From September 1st, 1989 through July 31st, 1990,
10 I was on detail at the Congressional Office of Technology
11 Assessment, the OTA, in Washington, D.C., working on an
12 assessment of prospects for Environmental Restoration and
13 Safe-Waste Management at the DOE nuclear weapons complex. The
14 remarks I make here today are my own and do not necessarily
15 reflect the views of the OTA or Washington University.

16 First, let me say how important it is that
17 these PEIS meetings be held. They represent an important
18 opportunity for citizens to make their views known. Let me
19 also add that I learned about these hearings through the
20 efforts of citizens groups. I say nothing about them, or
21 received nothing about them, from the Department of Energy.

22 As I understand it, the purpose of this
23 hearing is to obtain views on the scope or coverage of the
24 PEIS. Although there may be some danger in ranging too
25 widely, I believe it important that the DOE think broadly

1 about ER and WM, and not feel constrained to justify current
2 approachs such as those spelled out in the five-year plan. In
3 other words, the environmental impact of a broad range of
4 alternative plans should be considered.

5 The reasons for doing so include the
6 following: First, questions and concerns have arisen about
7 storage, treatment, and disposal, of several categories of
8 wastes -- low-level, mixed, transuranic, high-level. Second,
9 progress toward repository disposal of transuranic and
10 high-level waste continues to be slow and uncertain. And I
11 might add parenthetically, I just read the Intent Notice
12 yesterday, and this idea of not considering WIPP and the
13 high-level repository, I just wonder if that makes sense,
14 given the sort of broad scope of the PEIS.

15 Third, a cleanup of waste sites is a slow
16 difficult process with much attention still focused on the
17 early characterization stage. It is also uncertain because of
18 the lack of cleanup standards. Fourth, technologies for
19 treating contaminated sites are generally perceived to be
20 costly and inadequate. New improved technologies are needed,
21 but the process for developing them and getting them
22 operational in a timely and effective manner is far from being
23 in place.

24 Fifth, perhaps most important, there is
25 little public understanding of why Environmental Restoration

1 and Waste Management practices, particular practices, were
2 chosen. In part, because of inadequate public participation
3 when decisions were made. Without public support, it is
4 likely that what is done now may have to be re-done in the
5 future.

6 So, let me move ahead and first, outline
7 some dimensions that should be considered in scoping the PEIS.
8 And then, suggest some mechanism for correcting deficiencies
9 in the PEIS process, as I perceive it.

10 Waste Management: First, amounts and types
11 of waste, along with estimates of upper and lower bounds of
12 the amounts, should be concisely summarized. Along the
13 elements that need to be explicitly considered are scenarios
14 that are based on several different assumed weapons-material
15 production levels for generating future waste, as well as the
16 future role, where applicable, of a vigorous
17 waste-minimization program.

18 Second, flows of waste within and among
19 complex sites, as well as between sites and surroundings,
20 should be carefully delineated. Third, alternative means of
21 treating, storing, and of disposing of waste, should be laid
22 out for each waste category and each alternative waste
23 management step. The environmental impact, including
24 uncertainty and error bounds should be estimated. The best
25 available information should be used to estimate both

1 immediate as well as long-term health effects. These effects
2 should be estimated as a function of environmental and
3 occupational health standards now in place, as well as several
4 other values of the standards as they might evolve in the
5 future.

6 Fourth, the time dimension needs to be
7 considered as well. For example, high-level and transuranic
8 waste storage at the DOE complex sites is likely to be needed
9 for a considerably longer period of time than was originally
10 envisioned. Storage allows some radio-nuclei to decay, but
11 current storage conditions may not be adequate and may
12 deteriorate with time. Plus, the PEIS must consider the
13 consequences of alternative actions at particular points in
14 time.

15 Concerning this above item, particular
16 attention must be paid to identify unsafe, or potentially
17 unsafe, waste storage practices that could constitute health
18 threats, and doing something about these practices in a timely
19 fashion. Sixth, supporting the above effort is the need for
20 an adequate ongoing R & D program, as well as technical and
21 regulatory oversight that has the perspective of the weapons
22 complex as a whole.

23 With regard to environmental restoration,
24 from the perspective of the entire complex, an effort should
25 be made to estimate the environmental impact -- that is, the

1 health effects -- at various points in time, if the DOE
2 Environmental Restoration Program continues on its current
3 track. Alternatives to consider include methods for speeding
4 up health-effects characterization of contaminated sites using
5 health-professional, expert judgments and associated enhanced
6 interim mediation.

7 Second, single-shell, high-level waste
8 tanks at Hanford present a particularly difficult waste
9 management problem. Methods should be developed for assessing
10 the impacts and alternative treatment strategies, both in
11 treatment as well as exhumation. Third, environmental impacts
12 should be estimated, assuming that currently-available
13 technologies are utilized in the cleanup. In addition, some
14 realistic assumptions might be made about utilizing new
15 technologies that might be more effective than current ones.

16 Some over-arching needs: In order for the
17 PEIS process to be credible, several approaches should be
18 built in. First, the evaluation of the impacts of various
19 alternatives must be more open to outside participation and
20 scrutiny. There's too much tendency for DOE to present
21 results of its own deliberations as a fait-accomplis. Key
22 members of the public and their technical representatives must
23 be involved in the process as full participants.

24 Furthermore, to the extent possible,
25 without jeopardizing national security, information relevant

1 to EI and WM activities should be made more readily available
2 through revised orders that facilitate easier access than
3 through the classifications. Second, more DOE resources must
4 be devoted to the kind of integrated synthesis that is needed
5 for the PEIS than is now the case. I suspect that there is
6 too much tendency to rely on putting the pieces of the puzzle
7 together at the end rather than trying to visualize the system
8 as a whole.

9 Finally, there is need for more
10 health-professional input to the PEIS process in order to
11 focus more heavily on the health impacts of alternative
12 courses of action. The professional manpower mix needed to
13 perform a PEIS may be very different from that readily
14 available to DOE, given the traditional emphasis on production
15 as opposed to environmental impacts.

16 Thank you for giving me the opportunity to
17 make my views known.

18 THE MODERATOR: Thank you, Doctor.

19 EMILY ULLMAN:

20 My name is Emily Ullman. I was born and
21 raised in St. Louis and have lived here all my life. My
22 address is number Redacted - Privacy Act I am a
23 mother of four and a grandmother of one. He and his parents
24 also live in St. Louis. I believe that because my roots are
25 here I can speak about the past, and as a grandmother, express

1 my worry about the future.

2 Forty-four years ago, there were relatively
3 few St. Louis leaders who were predicting that there would be
4 the kind of expansion, both industrial and residentially, that
5 has occurred since World War II. Lambert Field, as it was
6 known then, was far away, just a dinky little airport. Most
7 citizens probably thought that it would always be in an
8 isolated area, and therefore, storage of radioactive materials
9 would not be an environmental hazard.

10 There were no environmental watchdogs, no
11 environmental groups whose voices were heard back then. I
12 really think that ignorance of the dangers rather than malice
13 of forethought was the basis for the decision to use the
14 airport area for storage. In addition, if there were those
15 who knew about the dangers, they probably felt that somebody
16 would come along with an easy and inexpensive way of solving
17 the problem.

18 So here we are, forty-five years later,
19 with no solution. However, we have become a lot more
20 informed. More and more information has been gathered
21 alerting us to the increased dangers of radiation. And
22 equally important, the increased amount of the stuff that is
23 present right here in St. Louis. We need a solution to the
24 problem which is not based on politics, but will be the safest
25 in the long-term.

1 I hope that when you prepare the
2 Environmental Impact Statement on the cleanup of our nation's
3 sites contaminated with nuclear-weapons waste, you will choose
4 cleanup criteria which will be safer, not only for this
5 generation, but for future generations as well. Thank you for
6 giving me the opportunity to speak.

7 THE MODERATOR: Thank you. The next
8 speaker this morning is the Reverend Ben Martin.

9 REVEREND BEN MARTIN:

10 My name is Ben Martin. I am the Associate
11 Executive for the Presbytery of Giddings-Lovejoy, a
12 Presbyterian Church, USA, here in St. Louis and the
13 surrounding territory.

14 Our denomination recently passed, in June,
15 a statement based on the title, "While the Earth Remains,"
16 which expresses, I think, our concern of how we, as stewards
17 of God's creation, are managing our responsibilities in
18 keeping and caring for the earth. We feel that we have a
19 responsibility, not only to the total community of life within
20 the world, but also to our Maker.

21 The policy, which some 40 years ago created
22 a waste-storage site at Lambert Field, probably was justified
23 by three factors at that time: One, a sense of urgency to
24 complete the task of building the bomb in order to win the
25 war. Secondly, convenience. Lambert was probably the closest

1 site available where you didn't have to deal with private
2 owners and wage that war. Thirdly, it was aided and abetted
3 by our ignorance of the kind of materials that we were really
4 dealing with, and what they would do to us and to future
5 generations.

6 I would urge you to consider that, if we
7 confirm that decision made a long time ago -- what I feel is
8 now an indefensible decision -- that we will add our knowing
9 and informed consent, and makes us willing and intentional
10 participants in an unjustifiable decision of locating
11 nuclear-waste materials in the midst of a human community.

12 One other concern that I would address
13 today is to continue to locate either on a permanent -- and
14 when you speak of "permanent," there's a certain amount of
15 arrogance when we describe any site as being a permanent
16 location. When you think of our nation as being here a little
17 over two hundred years, our sense of timespan is limited to
18 that. But we're talking about impact on generation after
19 generation after generation. But to locate these materials at
20 Lambert places them in a continuing policy of putting such
21 waste materials primarily in poor and racial-ethnic-majority
22 communities. This has been a recognized pattern of such
23 distribution across our nation. And I would ask you to
24 consider that that has an adverse effect on healing and
25 wholeness.

1 My plea is that you would give careful
2 consideration to our responsibilities, as creatures of God, to
3 keep, care for, and redeem the creation. We urge you to
4 recognize it is irrational and immoral to place such waste
5 materials in the midst of a living human community. There is
6 no good place to put it, but there must be sites less harmful
7 than what is proposed -- and what has been a reality -- in our
8 community. Thank you.

9 THE MODERATOR: Thank you, Reverend. State
10 Representative Bob Quinn is our next speaker.

11 ROBERT QUINN:

12 I am State Representative Robert Quinn, the
13 elected State Representative for the 80th District of Missouri
14 House of Representatives. My constituents work and live in
15 the area around the Lambert-St. Louis International Airport.
16 This issue is, of course, of great concern to them and to
17 myself.

18 Having been an elected official for many
19 years, I've sat on your side of the table many times through
20 lengthy public hearings, as you are doing here and around the
21 country. I admire you for taking on that task. It's an
22 important part of our democracy to allow the citizens to come
23 and say their piece to their government. It, after all,
24 belongs to them.

25 The development of the atomic bomb

1 obviously had a national purpose and a national benefit.
2 After all, we did win the war -- although it's hard sometimes
3 looking at today's headlines to remember that it was us and
4 not the Japanese who won. But we did. And the development of
5 the bomb played a big role in that victory, especially in
6 saving the many -- maybe as many as a million -- American
7 lives, at the end of the war.

8 But the sharing of the burden of the
9 outfall from the production of the bomb has not been national
10 in scope. My constituents, I think, have done more than their
11 fair share of sharing in the burden of development of the
12 bomb. We have lived with hundreds of thousands of cubic yards
13 of radioactive waste in our backyards for almost 50 years.
14 And having done that part, we now think maybe somebody else
15 can take their turn and have it sit in their backyard for 50
16 years.

17 I doubt that if you gentlemen recommend
18 this waste be re-located to one of the nation's ten busiest
19 airports as a logical storage site that that would be taken
20 very seriously, except that, if you leave it where it is, that
21 is, in fact, what is being done. St. Louis International is
22 one of the five or six busiest airports in the country. And
23 it probably doesn't make much sense to leave the waste there,
24 or to leave it in the middle of a metropolitan area that has
25 two-and-a-half million people living in it.

1 I'm going to differ with some speakers you
2 may have already heard, or will hear later, who recommend that
3 it be moved to Callaway County in the middle of Missouri,
4 since Union Electric has a nuclear power, electric-generating
5 plant there, on the theory that they already have radioactive
6 waste. Fulton, where that plant is located, is only twenty
7 miles from our State Capitol in Callaway County, and is not by
8 any means an unpopulated area. And of course, in separate
9 planning, there are plans to move the spent-fuel rods from
10 that site to a permanent location.

11 I would suggest that there are places in
12 this country that literally are unpopulated, and it would make
13 as much sense to move the fuel rods there -- which is the plan
14 -- which makes sense. Likewise, to move this low-level
15 radioactive waste to the same, or similar, sites.

16 Again, the development of the bomb had
17 national benefits, and I'm suggesting that the nation as a
18 whole share in the burden and the damaging aspects of the
19 development of that bomb, and not leave that burden to
20 continue to be in north St. Louis County where it has been for
21 the last fifty years. Thank you.

22 THE MODERATOR: Thank you, sir. Louise
23 Green, please.

24 LOUISE GREEN:

25 I am Louise Green. I live Redacted - Privacy Act

1 Redacted - Privacy Act

2 I'd like to draw your attention to a report
3 by physicist/physician John Goffman which was published in
4 October of this year. The 480-page report entitled
5 "Radiation-Induced Cancer From Low-Dose Exposure, An
6 Independent Analysis" was published by a San Francisco
7 citizens organization, the Committee for Nuclear
8 Responsibility. John Goffman has a medical degree and a
9 Doctorate in nuclear physical chemistry, and has been studying
10 the effects of radiation for thirty years.

11 While working on the Manhattan Project he
12 discovered a way to produce plutonium and helped discover
13 several radioactive isotopes of uranium. He was Associate
14 Director of the Lawrence Livermore National Laboratory during
15 the 1960's and founding Director of its biomedical research
16 division. His latest report is based on the study of a
17 research published in mainstream scientific journals, and is
18 clearly an exhaustive study of the victims of Hiroshima and
19 Nagasaki.

20 Among his conclusions are: One, there's no
21 such thing as a safe dose of radiation. Even the lowest doses
22 increase the rate of cancer. Two, exposure to low-level
23 radiation over a long period is as dangerous as the same
24 exposure received all at once. For example, one rem per year
25 for ten years would have the same effect as ten rems in one

1 year. Three, low-level radiation is one of the most important
2 carcinogens to which large numbers of people are exposed.

3 Goffman contends that the new July 3 NRC
4 ruling that classified vast amounts of low-level radioactive
5 wastes as below regulatory concern would have disastrous
6 consequences. Over time, it could mean cancer inflicted on a
7 100 million or more humans. Of course, there are those who
8 dispute Goffman's conclusions and deny the danger of low-level
9 radiation.

10 But the track record shows that while
11 Goffman's earlier conclusions on radiation were often greeted
12 with skepticism, over time his views have come to be accepted.
13 The official recommended exposure to radiation has been going
14 steadily down. The people in this area believe it is better
15 to err on the side of being safe when dealing with low-level
16 radioactive waste.

17 Certainly, the DOE should not take chances,
18 hoping that Goffman may be wrong, in a densely-populated urban
19 area. All radioactive waste should be removed as quickly as
20 possible from the St. Louis metropolitan area. Thank you.

21 THE MODERATOR: Thank you, ma'am. Roberta
22 Gutwein.

23 ROBERTA GUTWEIN:

24 I am Roberta Gutwein. I live at Redacted - Privacy Act

25 I am here today because I'm a

1 mother with young children and I'm very concerned about the
2 environment. My husband, a physician, receives numerous
3 medical journals that I often look at. Because we do have
4 three children, I am especially interested in articles
5 concerning the health of children.

6 A few years ago, we received a copy of the
7 Missouri Epidemiologist, with a front-page article entitled
8 "DOH confirms leukemia cluster in St. Charles County. No link
9 found between cluster and Weldon Spring site." The article
10 discussed the concern expressed by several area educators and
11 physicians of what they thought to be an excess of leukemia in
12 children in the St. Charles County. This group was concerned
13 that the radioactive waste left from the uranium-processing
14 plant was the cause for the cluster of leukemia. The Missouri
15 Division of Health concluded that radiation from the Weldon
16 Spring radioactive waste site were not high enough to cause
17 the leukemia cases reported there.

18 I was not convinced, knowing that the
19 dangers of low-level radiation are often underestimated. The
20 St. Charles study came to mind last winter when I read an
21 article in the Journal of Science on the report about the
22 findings from the National Academy of Sciences on the
23 biological effects of ionizing radiation. The report
24 concluded that the risks from low-level radiation have been
25 underestimated until now.

1 The findings wrote that the likelihood of
2 getting cancer after being exposed to a low dose of radiation
3 is three to four times higher than than given in the earlier
4 Academy report, which itself was denounced by some old hands
5 at the time as alarmists. Thus, evolving scientific
6 understanding of the health effects has made the alarmists'
7 views of the 1970's appear moderate today.

8 If the Missouri Division of Health were to
9 go back and study the childhood leukemia cluster in St.
10 Charles County with the scientific information about low-level
11 radiation available today, their report might draw far
12 different conclusions than it did 40 years ago. It has always
13 been an uphill battle to prove the link between exposure to
14 radiation and cancer.

15 However, recently, a former professor of
16 epidemiology from Brown University took on this challenge. An
17 article from the Boston Globe on October 11, 1990 states,
18 "Sidney Cupp worked and re-worked statistics, was accused of
19 lying, and challenged by the nuclear power industry, and
20 finally concluded that an unusually high incidence of leukemia
21 could be traced to radiation from the Pilgrim Nuclear Power
22 Plant." Finally, The Department of Public Health agreed that
23 the cases of adult leukemia were four times more prevalent in
24 people who lived within a ten-mile radius of the plant.

25 I hope, and I ask, that when the Department

1 of Energy does its Programmatic Environmental Impact Statement
2 you'll recognize the fact that the current knowledge does not
3 always accurately predict what is going to happen to people
4 after exposure to radiation. As our epidemiological and
5 scientific understanding of the effects of lower-level
6 radiation has evolved, lower and lower doses of radiation have
7 been found to be harmful.

8 Thank you. I would like to submit this.

9 THE MODERATOR: Thank you. I'll take that.

10 The next speaker would be Adrienne Kessler.

11 ADRIENNE KESSLER:

12 I just came in, and I've been sitting here
13 and I hadn't planned to talk. But twenty years ago, I lived
14 and worked in Washington. I worked for a think tank, and I
15 worked as a consultant for different departments. And I took
16 a very faceless, national approach to the issues at hand, and
17 presented the documents some months later.

18 Twenty years later, I find myself in the
19 mid-west. I'm a mother. I'm raising two children and I have
20 a husband. And all of a sudden, I think of what -- I remember
21 an interview of a photographer from Life magazine. They kept
22 asking, What do you think is the success of Life magazine?
23 And the photographer said that they were able to reduce a
24 mass, a picture, and reduce it to one person. If you saw a
25 picture of war, well, that you could handle. But if you see

1 one soldier dying, all of a sudden you could feel the impact.

2 And now, I stand before you as one voice,
3 and I have to talk out today because I have to take care of a
4 family, just like you do. And even though you live in
5 Washington, we here live in a community with millions of
6 people. And we have contaminated waste leaching into our
7 water system.

8 I want my children to grow up healthy. I
9 will tell them tonight that I did speak out. I spoke for
10 them, and I spoke for myself. And I do hope that you take
11 this to heart. People do live here in St. Louis. I'm from
12 the east coast. I didn't know that there were people living
13 west of the Mississippi. But they do. And I live here. So,
14 I agree with the other speakers, we need to find a place where
15 there are not millions of people -- young people, middle-aged
16 people, and older people. Thank you.

17 THE MODERATOR: Thank you. Dr. Michael
18 Garvey.

19 DR. MICHAEL GARVEY:

20 I am Dr. Michael Garvey. I live at Redacted - P
21 I'm a past
22 president and member of the St. Charles Countians Against
23 Hazardous Waste and affiliate board member of the Coalition
24 for the Environment. I appreciate the opportunity to speak at
25 this scoping meeting. I think it's admirable that the

1 Department of Energy is interested in getting citizens'
2 responses.

3 I believe the federal government has to
4 strongly financially commit to source reduction and
5 restoration of major environmental errors of past nuclear
6 production, and learn from their mistakes. Cleanup, I feel,
7 should equally balance and intergrate any plans for new
8 production, as they should go hand in hand. Politics should
9 be second to the location of a truly permanent, geological
10 storage site for both high- and low-level waste.

11 I would like to ask a question of the
12 Department of Energy and the federal government: If, in fact,
13 they are sincere in their desire to restore the Weldon Spring
14 sites, then why do they not stick to the approved budget of
15 \$400 million? Each fiscal year, requests for funding have
16 been severely cut. How can the job be completed properly and
17 timely with these restraints? Where are the priorities?

18 I believe, once water treatment is started
19 at both sites, continued delays can only increase the total
20 costs, and accelerate migration off-site of contamination in
21 both air, surface, and groundwater transport. Contaminant
22 plumes are known to be migrating toward the cone of depression
23 from various wellfields in St. Charles. And St. Charles
24 County is consistently the fastest growing county in the
25 state, and very high in the nation as well. This can only

1 increase the wellfield demands. And as the demands increase,
2 the cone of depression will increase, thereby transporting the
3 groundwater.

4 As the name Weldon Spring implies, the
5 geology is far from ideal for permanent storage. I think
6 it's important to mention that the Department of Energy
7 originally intended Weldon Spring to be the recipient site for
8 wastes from various states. I believe, if not for the high
9 population density, geologic unsuitability, and space
10 constraints, in addition to nearby wildlife areas, the people
11 of St. Charles County may well have agreed to that plan.

12 We all agree that storage has to be in
13 someone's backyard, and costs have to be controlled, but I
14 personally only wish that our government and the Department of
15 Energy would listen to our geologists and make decisions of
16 storage sites based solely upon geologic suitability,
17 population density, and climate. Thank you.

18 THE MODERATOR: Thank you. I'd just like
19 to take a second out here to commend all of you for
20 wonderful presentations. They're very professionally
21 delivered. I know I appreciate it, I'm sure the
22 Department of Energy does as well.

23 Our next speaker is Mary Dreyer.

24 MARY DREYER:

25 I am Mary Dreyer, housewife, and I

1 represent my home. I wish you hadn't said that about
2 professional presentations because I'm up here as an ignorant
3 citizen who just reads the newspapers and knows that we're
4 dealing with something that is very, very dangerous to us
5 human beings and all living things in the earth.

6 I feel that, while I went to Jack Beakner's
7 symposium that pushed nuclear energy, and the continuing use
8 of it, and expansion of it, and while I know that we're in a
9 bind with regard to energy, it just seems to me that for us to
10 plow on with continuing to contaminant our world when we don't
11 know a thing about what to do with the residue, is terrible.
12 And that in the St. Louis area, all of the sites that we have,
13 including the routes that were hauled back and forth, should
14 be cleaned up.

15 And no more use of nuclear energy until we
16 know what to do with the waste. That's where we should
17 concentrate our efforts, in neutralizing the wastes, working
18 on fusion, instead of this hit-and-miss, dangerous road on
19 which we have embarked.

20 THE MODERATOR: Thank you. Jean Ponti.

21 JEAN PONTI:

22 My name is Jean Ponti. I live at Redacted - Private
23 Redacted - Privacy Act. I also host and produce, as
24 a volunteer, an environmental talk show on radio station WKHX
25 in St. Louis. All of the 100 to 130 programers on that

1 station are volunteers like myself.

2 I notice, by your timeline in the lobby,
3 that 1993 seems to be the deadline for your decision, with
4 several citizen-review opportunities throughout that timeline.
5 1993 is three years from now. And I became aware of this
6 issue approximately one year ago at this very time, when the
7 City of St. Louis was trying to very quickly sell the land at
8 the airport to the Department of Energy, and indemnify itself
9 of the cost of cleanup. So that makes four years in my
10 learning, plus the forty-five years, or however many it has
11 been, since waste from the atomic bomb was produced.

12 I urge the Department of Energy to take
13 prompt and responsible action, with as much opportunity for
14 impartial expert and citizen review of those actions as
15 possible. I understand that the use of nuclear energy, and
16 especially the manufacture of weapons waste, has been very
17 secretive up until now because of national security. However,
18 I think that we have entered a new era of security and
19 cooperation in the world, and our old enemies are not our
20 enemies anymore. Therefore, I think it's very important that
21 that cloak of secrecy be removed.

22 I would like to be able to feel that I
23 could trust the Department of Energy to be responsible for the
24 kinds of energy that you control, that you regulate, or that
25 you regulate the cleanup of. And at this point in time, I do

1 not feel that I can trust the Department of Energy one iota.
2 I urge us as citizens of the United States, and the government
3 of the United States, to stop using nuclear energy, because we
4 do not know how to clean up what we have.

5 And your statement earlier, Mr. Baublitz,
6 that we will have less waste generated in the future than we
7 have in the past is small comfort to me, since we still don't
8 know how to clean up what we have generated. And probably
9 will not be able to clean up and dispose of safely what we are
10 generating now.

11 I urge the Department of Energy to allocate
12 money, allocate intelligence, allocate resources, to the
13 research and development of sustainable energy sources.
14 Solar, wind, and water power are energy sources that I think
15 we have investigated to a very minimal degree in this country.

16 And at this point in time when our supply
17 of oil is threatened, and we're on the brink of war once again
18 -- which I think is unconscionable -- we need to seriously
19 consider sustainable energy sources and not continue to rely
20 on fossil fuels and on nuclear energy, the consequences of
21 which are dire, and little-known to many people, but terribly
22 frightening to the people who do know about them.

23 I hope to feel more of a degree of trust in
24 the Department of Energy in the future. Thank you for your
25 attention. And work hard on our behalf.

1 THE MODERATOR: Thank you. Speaking next
2 will be Eldora Spiegelberg.

3 ELDORA SPIEGELBERG:

4 My name is Eldora Spiegelberg. I'm
5 president of the St. Louis branch of the Women's International
6 League for Peace and Freedom. Thank you for this opportunity
7 to speak. My organization has not dealt particularly with
8 nuclear waste, but with disarmament for 75 years.

9 My topic's title is taken from a special
10 report printed in the St. Louis Post-Dispatch in February,
11 1989. It is called "The Legacy of the Bomb, St. Louis Nuclear
12 Waste." I want to submit this series of six articles as an
13 excellent piece of research by three reporters over a period
14 of three years. And by the way, many of the facts in here are
15 taken from the Department of Energy, as you probably know.

16 Obviously, in the five minutes allotted to
17 me, I cannot summarize these findings, which show that the
18 world's oldest nuclear waste, originating 48 years ago when
19 the Mallinicrodt Company of St. Louis agreed to purify uranium
20 and tonnage quantities needed for the first experimental
21 nuclear chain reaction at the University of Chicago, and for
22 the atom bombs dropped on Hiroshima and Nagasaki, eventually
23 contaminated more than 2.3 million cubic yards of soil in St.
24 Louis and Jefferson counties, probably endangering the health
25 of their residents, and certainly the health of the workers

1 involved in processing the uranium.

2 I shall limit my remarks, therefore, just
3 to the health hazards which the DOE must contend with in
4 deciding on the most efficient way in which to dispose of our
5 local nuclear waste. It is the low-level radiation emitted by
6 the contaminated soil which St. Louisians insist endangers our
7 health. But since 80 percent of all radiation research done
8 in this country is financed by the Department of Energy, we
9 naturally feel rather mistrustful of its findings to date that
10 radiation levels are too low to be harmful in most of the
11 sites to be cleaned up.

12 Scientists now believe that exposure to any
13 level of radiation poses a risk of cancer and genetic effect.
14 Most scientists, even those not associated with the DOE, say
15 that the threat to a person's health from sites in the St.
16 Louis area are statistically small, but that we are exposed to
17 radiation from the sun, rocks, x-rays, fallout from nuclear
18 weapons, et cetera. And that the cumulative effects, together
19 with other factors such as age, sex, and physical condition,
20 may, indeed, threaten our health.

21 Thus, we contend that our area, because it
22 has suffered from owning the oldest nuclear waste in the
23 world, is entitled to the earliest clean up. We also contend
24 that under no condition should the disposal site be anywhere
25 near populated areas. We want all the nuclear waste to be

1 moved to a rural area. And I would say, preferably to
2 Callaway County near the plant site. We understand the
3 enormous cost and effort that this project will entail, but
4 the longer it is put off, the more difficult and expensive it
5 will become.

6 Many of us in this hearing audience
7 participated in a similar hearing about the cleanup of the
8 Weldon Spring nuclear dumping site in St. Charles. We
9 understand that this is well under way, but the cleanup of the
10 old uranium processing plant and quarry, which was originally
11 expected to be completed by the year 2010, may take double the
12 time and the \$400 million cost.

13 The parents and students at Francis Howell
14 High School, a half-mile downwind from the old plant's 68
15 buildings which are being demolished, are apparently quite
16 worried about health hazards. We St. Louisians want to be
17 assured that the cleanup of the downtown Mallinckrodt Chemical
18 Company buildings, and of the original airport site known as
19 Lambert Field, of the Latty Avenue, of the Coldwater Creek,
20 and Berkeley playing field sites in north St. Louis, will be
21 accomplished as safely as possible, both during the process of
22 digging up and burying the waste and in the choice of method
23 of containing it for thousands of years.

24 The DOE must clean up its mess, and stop
25 making more waste. It's time to stop threatening human health

1 and the environment in the name of national security. Thank
2 you.

3 THE MODERATOR: Thank you. Gavin Perry.

4 GAVIN PERRY:

5 My name is Gavin Perry. I work at
6 Washington University Medical School, St. Louis Missouri.

7 I'm going to explain why low-level
8 radiation is much more hazardous than previously believed.
9 Dr. Goffman's background and work were previously covered by
10 Louise Green.

11 A recently-published study in May, 1990 by
12 John Goffman, M.D., Ph.D., entitled "Radiation-Induced Cancer
13 from Low-Dose Exposure, An Independent Analysis" quite clearly
14 refutes the claim that very low doses of ionizing radiation
15 can be safe. If you get nothing else from this hearing, I
16 hope you will at least be moved to read this book upon which
17 much of my testimony is based.

18 To increase the probability that you or
19 your colleagues will read this study, I'm submitting a copy
20 for your use now, Exhibit One. The back cover contains an
21 executive summary for those that don't have time to read a
22 300-plus-page report. I would like to illuminate some of the
23 key points in the study at this time. For you doubters, you
24 can read the study wherein Dr. Goffman shows exactly how he
25 arrives at his conclusions.

1 / First, some background. Ionizing
2 radiation causes cancer by damaging the DNA of a person's
3 cells. The DNA is the genetic code which determines who you
4 are. It's the molecule that contains the genes which
5 determine the color of your eyes and hair, as well as exactly
6 how each cell in the body is supposed to function.

7 When the DNA is struck by a ray or particle
8 of radiation, it breaks. Depending on the position of the
9 break, and how the cell repairs the break, damage is done.
10 Often, whole pieces of DNA are knocked right off the
11 chromosome. If there's enough damage, the cell can die or
12 otherwise become inactive. Smaller amounts of damage can
13 modify how a gene functions without killing the cell. That's
14 what's shown in the picture here.

15 Damage to the part of the DNA that
16 regulates the rate of reproduction of the cell can lead to
17 cancer, where a cell continues to reproduce itself without
18 controls. Although the probability is fortunately small that
19 radiation will hit a spot of DNA that will cause cancer, it
20 only takes a single tract of radiation to lead to cancer. I'm
21 submitting this chart schematically showing the damage to DNA
22 from radiation as Exhibit Two.

23 Now, some key points from Dr. Goffman's
24 book, "Cancers are caused by the lowest conceivable doses and
25 dose rates. This refutes previously-held claims that there

1 can be very low doses or rates of exposure that may be safe,
2 the so-called threshold theory. The no-safe-dose assertion
3 has proven beyond any reasonable doubt by a combination of
4 human epidemiological data and radio-biological studies of the
5 effects of ionizing radiation on living tissue.

6 "The atom bomb survivors study, victims of
7 the U.S. bombing of Hiroshima and Nagasaki, includes people
8 who were exposed to low levels of radiation, such as those who
9 were farther removed from the center, up to six miles away.
10 After more than 40 years of study, the low-dose cancer yields
11 can be determined by several different methods. There's
12 plenty of evidence that very low doses of radiation can and do
13 cause cancer.

14 The Chernobyl accident is providing another
15 opportunity to study the effects of low doses of radiation in
16 huge numbers of people. Both Dr. Goffman and the Radiation
17 Effects Research Foundation, RERF, analysts estimate that from
18 140,000 to 475,000 fatal cancers -- excluding leukemias, for
19 these are long-term, solid tumors -- will occur from the very
20 low per-capita doses received by hundreds of millions of
21 people after the Chernobyl accident.

22 If risk evaluations were to exclude all
23 low-dose exposures, as has been suggested in diminimus
24 proposals based on some non-existent threshold effect, these
25 deaths would not even be included in the risk-benefit

1 analyses. Those proposals to exclude slow, low-population
2 exposures from risk-benefit analyses, and thus exclude a large
3 share of radioactive waste from any regulation at all, are
4 based on two mistakes: A) The erroneous idea that there may
5 be some safe dose or dose-rate. And B) Large underestimates
6 of the magnitude of the risk from low, slow doses.

7 A large amount of so-called low-level
8 wastes in the environment, such as we have here in St. Louis,
9 in fact, produces more health effects per unit dose than the
10 occupational exposures of high-level radiation of a small
11 group of radiation workers. The fact that no one can prove
12 that a particular cancer was caused by a particular exposure
13 should not let the government off the hook for having created
14 this mess in the first place.

15 The hazard per-dose unit is considered
16 higher -- considerably higher -- than the 1988 and 1990
17 estimates by the quasi-official radiation committees, even
18 though these committees have recently raised some of their
19 estimates by three to ten times. It is proven in this study
20 that it is impossible for low, total doses of ionizing
21 radiation from environmental sources to be less carcinogenic
22 than the same total dose received acutely, which is all at
23 once.

24 If fact, there's very strong support in the
25 direct human evidence for recognizing the cancer risk is

1 probably more severe per-dose unit at low doses than at
2 moderate or high doses. The nature of the mistake is that the
3 dose -- is, and always has been, concaved downward, and not
4 concaved upward, or even a straight line. The radiation
5 industry has been ignoring the evidence and hoping for a
6 concave upcurve for over 50 years.

7 There's now enough evidence from direct
8 human observations that low doses -- there's no reason to use
9 high-dose data to estimate low-dose risk. The data staring us
10 irrefutably in the face shows the risk factors actually must
11 be provided, if they're used, must provide for a risk increase
12 at low doses, not a decrease.

13 This chart, submitted as Exhibit Three,
14 figure 14 of Goffman's study, shows graphically what this
15 means. The radiation dose in rems is plotted along the bottom
16 axis. For each dose, he's plotted the number of cancer deaths
17 found per 10 thousand people up the side. The black squares
18 are actual data from the Avon study. The green curve is the
19 hope for linear quadratics they've been pushing, which shows
20 very little increase in the risk at low doses. It also
21 doesn't fit the data very well.

22 The straight line, blue curve, is the
23 linear dose response fed, which is what a lot of people say
24 the straight line fits better than a threshold curve, which
25 would indicate that as we decrease the dose, there would be

1 proportionately fewer cancers. The best fit to the actual
2 data points comes from a circular, linear curve which is
3 concave down. This curve indicates that smaller amounts of
4 radiation are actually more effective in producing cancers
5 than higher doses. Thus, exposing large numbers of people to
6 what were once considered insignificant doses of low-level
7 radiation will actually cause more cancer deaths than was
8 previously predicted.

9 Ionizing radiation may turn out to be the
10 most important single carcinogenic for which huge numbers of
11 humans are actually exposed, causing about one-fourth of all
12 cancer deaths. Near-perfect containment of radioactive
13 inventory from a reactor at 99.9 percent is still not enough.
14 Consider a hundred large nuclear power plants operating in the
15 USA for 25 years each. At 99.9 percent containment through
16 the entire life cycle of each plant -- that's including
17 mining, running the plant, and disposal afterwards -- would
18 result in contamination of the environment of cesium-137
19 equivalent to, in curies, to four Chernobyl accidents. That's
20 just normal operations with no accidents.

21 I don't have any figures of contamination
22 from the military's weapons-production program because they've
23 been hiding behind national security. But we have no reason
24 to believe the weapons program has been any more careful with
25 their waste than the commercial reactor program.

1 Here in St. Louis we still have material
2 from the creation of the first atomic bomb and 15 years of
3 production thereafter flowing in our creeks and rivers. It's
4 absolutely critical to remove all radioactive waste from the
5 St. Louis area, and eliminate this continuing risk of
6 exposure. Even at low-levels of exposure, this material
7 causes significant health risks.

8 I urge you to consider this new analysis of
9 the effects of very low doses of radiation as you prepare for
10 the Programmatic Environmental Impact Statement for
11 nuclear-weapons waste cleanup. Thank you.

12 THE MODERATOR: Thank you. Next speaker is

13 David Bohm.

14 DAVID BOHM:

15 Good morning. I am David Bohm, Assistant
16 St. Louis City Counsellor, City Hall, St. Louis, Missouri,
17 63103.

18 I've been asked to speak to you today on
19 behalf of Mayor Vincent Schoemehl, Mayor of the City of St.
20 Louis. The City's interest in the PEIS process is primarily
21 because the City is the owner of the property which is known
22 as the St. Louis Airport site, or SLAPS. This is a FUSRAP
23 site, Formerly Utilized Site Remedial Action Program site,
24 which is now listed on the national priorities list.

25 The City, however, is not responsible for

1 the waste on that site. The waste on that site resulted from
2 early Manhattan bomb production at Mallinicrodt. The waste was
3 then transferred to this SLAPS site during the period from
4 1946 into the 1950's. Most of the remarks I'm going to
5 address to you today concern development portions of the PEIS
6 which are going to address remediation at FUSRAP sites in
7 general, and at the SLAPS site in particular.

8 However, before addressing these concerns,
9 I'm going to address the City's concerns that it may become a
10 trans-shipment point for radioactive waste if the PEIS
11 recommends a central, or regional, storage proposal. Before
12 DOE selects such a remedy, the City urges that DOE carefully
13 evaluate all health and environmental effects of
14 transportation of radioactive waste, the potential for, and
15 likely effects of, transportation-related accidents, as well
16 as studying alternative transportation means and routes.
17 Hopefully with the result that any trans-shipment would avoid
18 shipping radioactive waste through urban areas, and
19 particularly through the city of St. Louis.

20 We believe that a properly-conducted study
21 will conclude that the shipment of radioactive waste through
22 urban areas, with the potential for contamination of a large
23 population in the event of an accident, is inappropriate.
24 Based on the City's experience with the shipment of Three Mile
25 Island waste through the city, we have some particular

1 concerns. We believe that DOE must study the potential for,
2 and the results of, an accident which might involve both
3 radioactive and hazardous waste, either because of mixed
4 trains or accidents in railyards.

5 I'm now going to direct my comments in the
6 City's regards to the PEIS scoping of FUSRAP sites. First,
7 the City is not sure that it is appropriate to include FUSRAP
8 sites in a PEIS with sites which are involved in ongoing
9 weapons production. We're not convinced that the necessary
10 remedial actions at these two types of sites are logically
11 interrelated. Specifically, we're concerned the FUSRAP sites,
12 some of the oldest radioactive-contaminated sites in the
13 nation, will not get appropriate attention in a PEIS which
14 also includes weapons-production facilities.

15 As the five-year plan notes, all FUSRAP
16 sites are in urban areas. If the contamination is not
17 controlled, the public could be exposed to radiation by direct
18 exposure, inhalation of suspended radio-nuclei, inhalation of
19 radon isotopes, or ingestion of radio-nuclei.

20 The SLAPS site is located directly adjacent
21 to Lambert-St. Louis International Airport. At the present
22 time, it must be considered an uncontrolled site. There has
23 been leaching of radioactive material into Coldwater Creek,
24 there has been blowing of radioactive material onto adjacent
25 properties. The Berkeley ballfields are contaminated and

1 unusable. The area's largest employer is immediately adjacent
2 to this area. Coldwater Creek runs through the dump site,
3 runs next to the Latty Avenue site, and runs through
4 heavily-populated areas. Coldwater Creek dumps into the
5 Missouri River above the drinking-water intakes of both the
6 city and county.

7 Because of the spread of contamination at
8 the SLAPS site, the City is in agreement with the bias for
9 action which the DOE has stated in its five-year plan. We are
10 concerned, however, that the development of the PEIS conflicts
11 with this bias for action, and may delay cleanup of the SLAPS
12 site and the other sites in the St. Louis area, including the
13 downtown Mallinicrodt site.

14 However, the City is also concerned that
15 any remediation program adequately protect the public from
16 future contamination. Because of evolving knowledge as to the
17 dangers of exposure to radiation, cleanup of contamination at
18 and around FUSRAP sites should be to the lowest, achievable
19 levels. We're also concerned that any cleanup activities not
20 expose the population to further contamination.

21 One issue which must be addressed by DOE in
22 its PEIS, and particularly with regard to FUSRAP sites, is the
23 issue of urban versus remote storage. DOE has proposed
24 building a permanent storage bunker at the SLAPS site. The
25 City is aware that this is an option that will be studied by

1 DOE. Again, we believe that it's important that the DOE study
2 all potential health, safety, and environmental impacts of
3 such bunkers in urban areas.

4 With regard to such studies of issues, the
5 City is particularly concerned that the DOE study the
6 potential impact of natural and man-made disasters on storage
7 bunkers such as that proposed for the SLAPS site. In
8 particular, with regard to the bunker proposed for the SLAPS
9 site, DOE should study potential impacts of airplane crashes,
10 earthquakes, tornadoes, and flood. In fact, the whole issue
11 of building storage facilities in flood plains should be
12 studied. Another concern is the possible leaching of
13 radioactive materials from any storage bunker into Coldwater
14 Creek.

15 Finally, the City believes the DOE must
16 take into account the psychological impact of locating a
17 storage bunker in an urban area, particularly at the SLAPS
18 site. It is the City's position that if all these issues are
19 carefully studied, a preference for non-urban storage will
20 become evident. In any event, it is the City's position that
21 action cannot be deferred at the St. Louis area FUSRAP sites,
22 because of the current threat to public health and safety from
23 these uncontrolled sites. Which, of course, has been
24 recognized by the DOE in its five-year plan.

25 We believe the DOE must, in developing

1 cleanup priorities, focus more heavily on public health and
2 safety concerns than on maintaining weapons-production
3 capability. Finally, the City is most concerned the DOE
4 commit to taking full responsibility for costs of cleanup at
5 all FUSRAP sites, and particularly the SLAPS sites.

6 DOE's predecessor agency, the Atomic Energy
7 Commission, was responsible for the placement of radioactive
8 waste at the SLAPS site. As stated in the five-year plan, the
9 DOE's environmental problems originated from activities dating
10 as far back as the Manhattan Project of 1942 through 1945.
11 Over the intervening years, practices that were considered
12 safe and prudent have proven to be neither. Practices that
13 have since been determined to cause environmental problems
14 have been carried out for decades. The result has been the
15 creation of large sites requiring remediation.

16 That's what the SLAPS site is, a large site
17 created by DOE because of practices which we now know are not
18 safe. And it was the Atomic Energy's practices and not those
19 of the City that led to the contamination. In fact, the City
20 of St. Louis had been assured by the Atomic Energy Commission
21 that the SLAPS site was safe at the time that that site was
22 donated to the City.

23 Further, it's the City of St. Louis'
24 position that the Department of Energy actually still owns the
25 waste at the SLAPS site. The basis for this belief is the

1 City does not have the necessary license required under the
2 Atomic Energy Act to possess radioactive waste. Therefore,
3 the City respectfully requests that in developing the PEIS,
4 the DOE carefully study the issues of cost. We know the costs
5 of the remediation program are going to be tremendous, but we
6 ask the DOE accept the responsibility for those costs, as the
7 need for cleanup is the result of its predecessor agency's
8 actions -- and its actions.

9 In conclusion, it's the City's position
10 that the DOE must focus on contamination of radioactive
11 contamination of FUSRAP sites. It's not an issue which can be
12 deferred. Thank you.

13 THE MODERATOR: Thank you, sir. John
14 Gestrich.

15 JOHN GESTRICH:

16 My name is John Gestrich. I live in St.
17 Louis County. I'm here in regards to the radioactive waste in
18 the St. Louis area.

19 As you already know, we in St. Louis have
20 our share of radioactive waste in the most heavily-populated
21 area of the state. Preventive measurements have been, and are
22 being taken, to slow or stop its migration into waters and
23 rivers that thousands of people must drink from every day.
24 The gases given off by the decaying material at the Latty
25 Avenue site have caused leukemia in people living near the

1 site.

2 The people working near the Latty Avenue
3 site are at greater risk of developing cancer than people
4 working anywhere else in the county. Therefore, I must insist
5 that all waste material be removed and permanently stored at
6 federally-approved, above-ground storage sites as far away
7 from cities and wildlife as possible.

8 Should the people of the United States
9 Department of Energy arrive at a decision that is anything
10 less than removal from urban areas, then I must ask that you
11 do nothing. Just leave it where it is until we have a DOE
12 that will handle and dispose of this waste for the last time.
13 This time, in a safer place, out of flood plains, away from
14 the Mississippi River, away from people.

15 I know of no one that ever said making
16 these super bombs would be cheap. And we are still paying for
17 them in more ways than money. These bomb by-products must be
18 contained for all time, and at the very best and safest way we
19 can possibly engineer. Anything less would be shortchanging
20 our children's children's children.

21 I'd like to thank the Department of Energy
22 for holding this hearing today, and I remain respectfully
23 yours.

24 THE MODERATOR: Thank you. Ms. Clemens.

25 BEATRICE BUDER CLEMENS:

1 Good morning. My name is Beatrice Buder
2 Clemens. My address is Redacted - Privacy Act
3 here in St. Louis, Missouri. Thank you for your patient
4 attention, and for finally committing the Department of Energy
5 to being accessible to the public by holding these nationwide
6 hearings. We in St. Louis have been waiting a long time.

7 Last Sunday marked the 48th anniversary of
8 the birth of the atomic age, with the very first
9 self-sustaining nuclear chain reaction. And where was the
10 uranium for that experiment processed? I'm sure you know now.
11 It was here in St. Louis. And where are those wastes today?
12 Mostly still here, or moved to New York, Ohio, and Colorado.
13 They're never gone. The St. Louis area is the unwilling host
14 to the oldest nuclear waste anywhere in the world.

15 For 25 years after that first reaction, the
16 United States Government continued to process atom bombs at
17 the two Mallinicrodt sites, and later at Weldon Spring, across
18 the river from here. Has our government cleaned up after
19 itself? No. Will you after today's meeting? I can only hope
20 so. But I still worry. I know there are at least 3,600 sites
21 in our country contaminated with radioactive waste. I know
22 this meeting here today is only one of 23 being held
23 nationwide. Other cities have factories that the U.S.
24 Government hopes to re-open. Unfortunately, we do not. Does
25 this mean we will be overlooked when the cleanup dollars are

1 assigned? Do you consider us less significant?

2 My mother is here with me this morning and
3 she's holding my son, Nicholas, who will be two next April. I
4 want him to know when he's older that our meeting here today
5 started the ball rolling for removing dangerous radioactive
6 waste from this major metropolitan area that we've chosen to
7 make our home. I want to tell him that as our country stood
8 on the brink of war, our government finally started to
9 allocate the funds necessary to find a way to clean up the
10 radioactive waste from a war his grandfather fought in
11 half-a century ago.

12 Why hasn't that happened yet? I ask of
13 you, the representatives of my elected government, quit
14 pretending that you know what to do with radioactive wastes.
15 I feel that all these meetings, these pretty charts,
16 simplistic and deceptive publications, are whitewash and
17 nothing more. It is polluting every state of our beautiful
18 nation.

19 Tell me that until scientists discover a
20 way to isolate radioactive waste from humans, from animals,
21 from the water, and the plants, earth, and sky, that the
22 United States Government will spend no more money for creating
23 nuclear weapons, nuclear power, and the waste they produce.

24 In learning to care for my son Nicholas,
25 I've become quite indebted to the writings of Dr. Benjamin

1 Spock. I'm sure you know of him, a most famous and
2 highly-respected physician. He wrote the introduction to a
3 book by Harvey Wasserman and Norman Solomon called "Killing
4 Our Own." It is subtitled, "The Disaster of America's
5 Experience with Atomic Radiation." I am donating this book to
6 you as part of my testimony.

7 I quote from Dr. Spock's introduction, "I
8 earnestly believe that as soon as there is definite suspicion
9 from harm as malignant as radiation, it is time to make every
10 effort to eliminate it. I feel particularly strongly about
11 radiation, because children are much more vulnerable than
12 adults. Not only in regards to the likelihood of developing
13 leukemia and cancer, but also of being born with physical or
14 mental defects. And once the mutations have been produced in
15 genes, they will be passed down forever."

16 I'm still quoting Dr. Spock, "What right do
17 we have to threaten, with deformity or death, those who are
18 too young to protest or those still unborn? What right do we
19 as adult citizens have to allow our government to take this
20 power for evil into its hands?" End of quote.

21 It's time to clean up the mess and stop
22 making more. It is time to stop threatening human health and
23 the environment in the name of national security. And
24 speaking for those of us living in St. Louis, we were the
25 first to be contaminated by waste from the atomic age. We

1 don't want to be the last to be cleaned up. Thank you.

2 THE MODERATOR: Thank you. Ms. Koenig.

3 DEBBY KOENIG:

4 My name is Debby Koenig, and I'm on the
5 Board of Directors for the CARE organization, Citizens Against
6 a Radioactive Environment. I come to you not as a scientist,
7 or with an eloquent speech such as those I've heard today. I
8 don't have a lot of facts, I don't have a lot of numbers, I
9 don't have a lot of organizations with a lot of initials in
10 front of them. I just come to you as a citizen of Northe
11 County.

12 We have chosen to live in Northe County
13 because I like the Northe County. I feel it's a very real hip
14 place to live, the people are very caring, and I feel that it
15 is time that Northe County got a fair shake. I don't think
16 that it's a safe place to store the nuclear energy.

17 The New Madrid faultline which has received
18 so much publicity in the last few days -- we did make it past
19 Tuesday, so I guess we're safe for a day or so -- is certainly
20 enough of a warning or a threat to us to discourage, I think,
21 the DOE from storing nuclear waste there. The last time we
22 had an earthquake like this predicting, the entire Mississippi
23 River reversed. This is stored right by the creek that runs
24 into the water system that feeds into the city. I don't feel
25 that's practical at all to store nuclear waste, low-level or

1 not, in our area.

2 It's also within walking distance of too
3 many thousands of people, where they live and work, to be
4 stored safely. If we do have an earthquake like they're
5 predicting -- which I feel we will someday -- we'll have
6 enough to worry about, barring all of the water that we rely
7 on to be absorbing all this nuclear waste.

8 A lot has been said about it being
9 low-level radioactivity. Well, our city would not be
10 mentioned in this if it was extremely low and very, very safe.
11 I don't buy that. I just feel the health risks are too great
12 to myself, my children, and to our neighbors, all of St. Louis
13 and St. Charles, to be stored in this area, which I feel is
14 totally out of the question to be an environmentally safe
15 place to be stored. Thank you.

16 THE MODERATOR: Thank you. At this point,
17 being 12:00, we will take a break until 12:25.

18 (Whereupon, a brief recess was had.)

19 THE MODERATOR: I would like now to
20 re-convene on the Programmatic PEIS. In the few
21 minutes that remain before lunch recess, I would like
22 to call Terri Williams.

23 TERRI WILLIAMS:

24 Thank you very much. I am Terri, T-E-R-R-I
25 Williams, and I live at Redacted - Privacy Act i.

1 Zip code is 63119.

2 Fifteen years before I was born, and almost
3 half-a-century before my two small daughters were born, Henry
4 Smith wrote his book, "Atomic Energy for Military Purposes."
5 Published in 1946, it is the official report of the
6 development of the atom bomb under the auspices of the U.S.
7 Government. The Manhattan Project and the resulting nuclear
8 age not only destroyed hundreds of thousands of Japanese
9 lives, but has devastated thousands of American lives also,
10 whether it was strontium-90 in our baby teeth, the slow
11 painful deaths of the atomic veterans, the jelly-fish babies
12 of the South Pacific, or the cancer cases of today's
13 downwinders.

14 The legacy of fear and destruction of the
15 bomb has benefitted a tiny number financially in the short
16 run, but has left a very frightening, long-term effect all
17 over this planet. Right here in St. Louis, the effects have
18 been directly felt; the workers' illnesses who drove the
19 trucks with the hot dirt to and from the burial sites, the
20 mysterious cancer cases in Hazelwood and St. Charles, the
21 Mallinicrodt buildings, and surrounding areas being very
22 contaminated. And who really knows what problems our
23 children, and their children, will have inherited 2,400 years
24 from now?

25 One of the most appalling aspects of this

1 legacy has been the willful deceit of the U.S. Government and
2 its agencies regarding full disclosure to the public of the
3 health and environmental dangers. As early as September of
4 1946, the St. Louis Post-Dispatch reported that a total of
5 1.74 acre tract of land north of the Lambert-St. Louis
6 Municipal Airport has been used secretly for several months
7 for storage of certain residue materials from the refining of
8 uranium ores at the Manhattan District atomic plant at the
9 Mallinckrodt Chemical Works.

10 Company officials and security officers
11 refused, for security reasons, to disclose the exact nature of
12 the stored materials, but declared they are not radioactive,
13 and not dangerous. The material, they asserted, is the type
14 of refuse that any ordinary commercial firm of this type would
15 store there.

16 However, Henry Smith's book details the
17 fact that the government knew of the dangers from the
18 beginning. I quote, "It has been known for a long time that
19 radioactive materials are dangerous. They give off very
20 penetrating radiation gamma rays which are much like x-rays in
21 their physiological effects. They also give off beta and
22 alpha rays, which though less penetrating, can still be
23 dangerous."

24 And, "The major objective of the health
25 groups was, in a sense, a negative one, to ensure that no one

1 concerned suffered serious injury from the peculiar hazards of
2 the enterprise. Medical case histories of persons suffering
3 serious injury or death resulting from radiation were
4 emphatically not wanted."

5 And last, "Of all material, uranium is not
6 dangerously radioactive. The desired product, plutonium, does
7 not give off penetrating radiation, but the combination of its
8 alpha-ray activity and chemical properties makes it one of the
9 most dangerous substances known, if it once gets into the
10 body.

11 "However, the really troublesome materials
12 are the fission products, i.e. the major fragments into which
13 uranium is split by fission. Fission products are very
14 radioactive and include some thirty elements. These are
15 released in considerable quantity, slow to dissolve, and must
16 be disposed of with special care. It must be established that
17 the mixing of the radioactive gas with the atmosphere will not
18 endanger the surrounding territory. Most of the other fission
19 products can be retained in solution, but must eventually be
20 disposed of."

21 Of course, possible pollution of the
22 adjacent river must be considered. As it is common knowledge
23 today, there are many, many cases of disease and death
24 directly attributed to the various nuclear aspects of nuclear
25 production, from the operation of the defense power plants,

1 e.g. Hanford, Savannah River, Fernald, and the commercial
2 Three Mile Island, et cetera, to the so-called safe disposal
3 of the various waste.

4 Drastic problems call for drastic measures.
5 And it is heartening to note that the current U.S. Secretary
6 of Energy, retired Admiral James Watkins, is calling for
7 openness and honesty in dealing with the mess we've gotten
8 into. In a DOE notice dated February 5th, 1990, he states,
9 "If the Department is to err in its judgment to the extent of
10 the national Environmental Policy Act, review required of new
11 projects, it should err on the side of full disclosure and
12 complete assessment of environmental impact."

13 We, as citizens of St. Louis, can tell you
14 that the environmental impact on our city has been a harsh
15 one. It's our duty to inform you of our concerns, and to tell
16 you to clean it up and move it out. It is your duty to do so.
17 Thank you very much.

18 THE MODERATOR: Thank you. Dr. Bernard

19 Randolph.

20 BERNARD RANDOLPH:

21 My name is Bernard Randolph. I'm a
22 physician. And I'm representing, this afternoon, the St.
23 Louis Council on Environmental Health and Safety. I
24 appreciate the opportunity to make a brief statement.

25 The St. Louis Council on Environmental

1 Health and Safety is a community organization concerned with
2 environmental issues. In addition to attempting to inform
3 ourselves on these issues, over the past 15 years we have
4 periodically sponsored educational programs in area schools,
5 colleges, and other public facilities. Among the topics we
6 have dealt with is nuclear power and the scientific and
7 technical problems related to its application.

8 The management of radioactive waste is such
9 a problem. In 1979, in a report to the President by the
10 Interagency Review Group on nuclear waste, it was observed
11 that radioactive wastes have one thing in common; as long as
12 they remain radioactive, they will be potentially hazardous,
13 and may lead to a variety of diseases, including cancer, and
14 may be mutagenic, transmitting biological change to the
15 future.

16 The Commission saw then its mission as
17 making recommendations to isolate this waste from the
18 biosphere, to protect the public's health and safety.
19 Paramount in these deliberations were concerns with unstable
20 geologic strata, the migration of radio-nuclei into surface
21 and groundwaters, and the consideration for human populations
22 in the regions of repositories.

23 As technology struggles with the problem of
24 containing nuclear waste, the scientific community's ongoing
25 studies, represented, as an example, in the annual report on

1 Biological Effects of Ionizing Radiation, reflect the attempt
2 to more accurately define degrees of biological change
3 resulting from given exposures. There is, however, a common
4 consensus that the damage occurs. There is disagreement over
5 the interpretation and the application of the data.

6 Our organization is not in favor of a
7 permanent radioactive-waste repository at the Lambert Airport
8 site because of the proximity of the surface waters, the large
9 population, and the possibility that coming generations may
10 experience an increase in leukemia, cancer, and genetic
11 abnormalities, because of the radioactive contamination of our
12 water and water supplies.

13 It is our fervent hope that this site, and
14 other contaminated areas, will be cleaned up as expeditiously
15 as possible in the interest of public health and safety.
16 Thank you.

17 THE MODERATOR: Thank you, Doctor. The
18 final speaker at this morning's session will be
19 Deborah Hamilton from the City of Berkeley.

20 DEBORAH HAMILTON:

21 I'm Deborah Hamilton, Assistant City
22 Manager for the City of Berkeley, 6140 North Hanley Road. I'm
23 here today as a representative of the City of Berkeley and as
24 a resident of North County. As an employee, I work
25 approximately two miles from the SLAPS site. As a resident of

1 Northe County, I live approximately one mile from the
2 Hazelwood site.

3 The effort to convince the Department of
4 Energy to remove all radioactive waste from St. Louis has been
5 long and arduous. We've tried to elicit the support of our
6 elected officials, we've held town meetings and even larger
7 public rallies. Despite all of our biggest and best efforts,
8 we've been unable to convince the Department of Energy to look
9 for alternate sites outside the St. Louis metropolitan area.

10 The Department of Energy would have us
11 believe that containing waste on-site is in the best interest
12 of all concerned. Those of us who have to live and work near
13 these sites do not agree. We see no benefit to having all of
14 the waste consolidated into one location in the most
15 densely-populated area of the county. Especially when the
16 consolidation of this offers no assurances that the health and
17 safety of those who live and work in Northe County will not
18 continue to be jeopardized.

19 The recent earthquake scare has again
20 reminded us that even sturdy structures are vulnerable to the
21 mighty forces of nature. Since we live in an area which will
22 likely be affected by an earthquake, we have no reassurances
23 that the bunker would be able to withstand the forces of such
24 a quake.

25 We're also concerned that the construction

1 and relocation of wastes into the bunker might result in
2 further contamination of the area. Additionally, we don't
3 know if the currently-proposed site would accommodate all of
4 the waste at the SLAPS site and the Hazelwood site. We feel
5 that it would not be prudent to build such a structure which
6 might be less than adequate at the onset.

7 In a recent election, 85 percent of city
8 and county voters voiced their opposition to the permanent
9 storage of radioactive waste in St. Louis County. Although
10 this was a non-binding referendum, we believe the people of
11 St. Louis City and County have spoken loudly and clearly. We
12 are asking the Department of Energy to actively look for more
13 suitable sites outside the St. Louis area. We hope the
14 Department of Energy is listening.

15 THE MODERATOR: Thank you very much. At
16 this point we will take a recess for lunch. The
17 group will re-convene at 2 p.m. for more comments.
18 That afternoon session will run to 5:00.

19 I would remind you also that there is an
20 evening session with a repetition of opening remarks
21 beginning at 6:00, with comments being received from
22 6:30 to 9:30 this evening. This session is now
23 recessed until 2:00.

24 A F T E R N O O N S E S S I O N

25 THE MODERATOR: Our meeting is now

1 re-convened. Our first speaker this afternoon is Tom
2 Lange.

3 THOMAS LANGE:

4 Good afternoon. My name is Thomas Lange,
5 representing the Department of Natural Resources in Missouri,
6 Jefferson City.

7 I'm pleased to represent the Department of
8 Natural Resources at this scoping meeting on the Department of
9 Energy's national Environmental Restoration and Waste
10 Management Program. Missouri is very pleased to see the
11 federal government make this significant commitment. It's
12 very appropriate that you are holding this hearing in St.
13 Louis, the location of early processing of uranium for the
14 U.S. nuclear weapons program.

15 Unfortunately, much of the waste from 25
16 years of uranium processing in St. Louis still remains within
17 a few miles of where we are meeting today. In 1942, the
18 federal government contracted with the Mallinicrodt Chemical
19 Works to process uranium ores in order to build the first
20 atomic bombs. This processing continued for 15 years at the
21 Mallinicrodt plant near downtown St. Louis.

22 Beginning in 1946, the processing waste
23 from this plant was stored at a site at the St. Louis Airport.
24 In the 1960's, part of this waste was conveyed to the Cotter
25 Corporation for reprocessing at the uranium-processing plant

1 in Colorado. Before transportation to Colorado, the waste was
2 hauled to a site on Latty Avenue in Hazelwood for storage and
3 drying. In 1973, the Cotter Corporation, at the time the
4 ADC-licensed owner of the waste, transported 8,700 tons of
5 radioactive waste and contaminated material to the West Lake
6 landfill in Bridgeton, where it remains today.

7 Also in 1973, the title to the property at
8 the St. Louis Airport transferred to the City of St. Louis.
9 Today, the City of St. Louis continues to own this
10 contaminated property at the airport. Currently, DOE
11 estimates that there are 288,000 cubic yards of waste and
12 contaminated material at the Mallinicrodt plant downtown,
13 250,000 cubic yards at the St. Louis Airport site, 211,000
14 cubic yards in Hazelwood at the site on Latty Avenue. And
15 there are 194,000 cubic yards estimated to be on 70 properties
16 adjacent to the roads in the area near the airport and the
17 site of Latty Avenue.

18 This total of over 900,000 cubic yards of
19 waste and other contaminated material all originated at the
20 Mallinicrodt plant while producing uranium for the nuclear
21 weapons program. The volume of waste at West Lake is unknown,
22 but there could be 100,000 cubic yards or more of waste and
23 contaminated material which are mixing with other landfill
24 material.

25 The U.S. Department of Energy, the

1 predecessor agency to the ADC, has agreed to clean up these
2 sites with the exception of the West Lake landfill site. In
3 1957, the ADC built a new plant at Weldon Spring in St.
4 Charles County on the site of an old army TNT plant. This new
5 ADC plant, which produced uranium metal, was operated under a
6 contract with the Mallinckrodt Chemical Works.

7 The ADC also acquired an old quarry from
8 the Army about 4 miles south of the production area which had
9 been used for the disposal of both TNT-production and
10 uranium-processing waste. The uranium plant operated from
11 1957 until 1966. In 1986, the DOE and the U.S. EPA agreed
12 that the DOE would clean up the Weldon Spring site. In 1987,
13 the EPA placed the quarry on the national priorities list, and
14 added the chemical plant and the raffinate pits to the n.p.l.
15 in 1989.

16 DOE's characterization of the Weldon Spring
17 site -- that is, the investigation and assessment of the scope
18 of the problem -- is now essentially complete. The estimated
19 total volume of waste and contaminated soil and demolition
20 material is approximately 800,000 cubic yards. The estimated
21 cost of the cleanup is \$650 million.

22 Missouri's legacy from this work is the
23 waste and residue from that processing at the raffinate pits,
24 quarry, and chemical plant, all located at Weldon Spring, at
25 the Mallinckrodt plant in downtown St. Louis, at the St. Louis

1 Airport, at the 70 public and private properties between the
2 airport site and the Latty Avenue site, and at the West Lake
3 landfill site. Approximately 2 million cubic yards of waste
4 located at all these sites in the St. Louis area still await
5 decisions on their disposition. All of this waste and
6 contaminated materials was originally produced during the
7 processing of uranium for use in nuclear weapons under
8 contract with the federal government.

9 The U.S. Department of Energy has now taken
10 responsibility for the cleanup of all this waste except for
11 the West Lake landfill material. The West Lake landfill site
12 should be added to DOE's national Environmental Restoration
13 Program. DOE doesn't own the contaminated property located at
14 the St. Louis Airport, but this site is included in its plan
15 for remediation. DOE should stop avoiding the responsibility
16 for making sure that remediation incurs at the West Lake
17 landfill site.

18 The state is also extremely concerned about
19 the 70 properties, both public and private, which were
20 contaminated by waste during the hauling process from the
21 airport to the site on Latty Avenue. All of these properties
22 must be addressed by the DOE, and it is the State of
23 Missouri's position that it is the DOE's responsibility to
24 ensure that none of these sites are further disturbed which
25 could lead to even greater contamination of these haul-road

1 properties.

2 It is important that the DOE involve the
3 State, and the public, in the ongoing deliberations of these
4 more than 100 sites nationwide. Many of today's problems were
5 the result of the decisions made secretly by the federal
6 government in the past. In the past two years, DOE has
7 communicated well with the public of St. Charles County
8 regarding the Weldon Spring site. But DOE has not
9 communicated well with the public of St. Louis and St. Louis
10 County. The result has been a great deal of confusion about
11 the status of the sites in St. Louis City and County, and
12 about DOE's intention.

13 Only an open process and an informed public
14 can lead to a successful conclusion. In St. Louis, the DOE
15 office in Hazelwood should be augmented to provide an
16 easily-accessible contact point for the public with DOE
17 officials. DOE officials should be located in St. Louis to
18 facilitate response to the public's concerns.

19 Another issue of concern to Missourians is
20 that there is no clear cleanup standards for these types of
21 sites. The DOE and the U.S. EPA should accelerate the process
22 of promulgating clear and consistent standards and regulations
23 to guide these cleanups. Missouri believes that the project
24 should be cleaned up to meet a maximum dose of 25 millirems
25 per year for any member of the general public, rather than 100

1 millirems per year as proposed by DOE.

2 In addition to this standard, the cleanup
3 levels should be as low as reasonably capable. In recent
4 years, the DOE has made some excellent first steps towards
5 reversing the near 50 years of careless handling of these
6 wastes in Missouri. We encourage you to take full and open
7 responsibility for the cleanup of all the waste from the many
8 years of uranium processing in the St. Louis region.

9 Thank you for the opportunity to make these
10 comments.

11 THE MODERATOR: Thank you, sir. Next
12 speaker, Gretchen Felix.

13 GRETCHEN FELIX:

14 My name is Gretchen Felix. I live at Redacted - P
15 Redacted - Privacy Act.

16 Others are here to speak primarily on a
17 local issue, the proposed airport radioactive waste dump. I
18 would like to speak about a site which is at the heart of the
19 problem of the nuclear weapons waste, the Nevada test site. I
20 have looked at parts of your Environmental Restoration and
21 Waste Management five-year plan describing the projected
22 cleanup at the Nevada test site, which has been used for at
23 least 700 nuclear tests, and where some 777 individual sites
24 await cleanup.

25 In the words of the report, and I quote,

1 "Each test produces a large amount of radioactivity," unquote.
2 I would like to add that approximately 20 percent of the tests
3 release this radioactivity into the atmosphere. Again,
4 quoting the report, "The primary pathways for the migration of
5 contamination at the Nevada test site are through the
6 disturbance of contaminated soils and the flow of contaminated
7 groundwater. No off-site risks to the public health or the
8 environment are believed to be present." End of quote.

9 Yet, a number of studies have shown a
10 significant occurrence of excess cancers in the downwind
11 population. I would like to know if the pathways of the
12 groundwaters at the Nevada test site have been completely, and
13 competently charted? Where does the groundwater go?
14 Secondly, just what contaminants are in the groundwater? And
15 thirdly, how much tritium, for example, has been released into
16 the ground? I ask this because tritium, as a radioactive
17 isotope of hydrogen, causes the water to become radioactive
18 and cannot be filtered out.

19 On page 111, the report states that, quote,
20 "The cleanup of large surface areas, 3,000 acres, contaminated
21 with low-level radioactivity requires that new technology be
22 developed. Another area of concern is the constraints on a
23 characterization of the subsurface conditions resulting from
24 each underground test. There are no established protocols for
25 determining the data required, or the techniques necessary to

1 safely acquire this data. Special provisions may be necessary
2 to characterize these areas to ensure that the Environmental
3 Restoration Program that is implemented resolves, rather than
4 results in, releases to the environment."

5 If I understand this correctly, it means
6 that you have no idea how to go about cleaning up those 700
7 test sites without making it worse. On page 328, I found
8 these statements, and I quote, "The total volume of material
9 released, and waste generated, have not been determined." And
10 the other quote, "The health risk associated with known
11 surface and subsurface contamination at the Nevada test site
12 have not be quantified," end of quote.

13 Since the report estimates a total cost of
14 approximately \$400 million -- it seems like a low figure.
15 Maybe I didn't read your figures correctly -- approximately
16 \$400 million to clean up the Nevada site alone, it seems to me
17 that in view of the uncertainties as to what is there to clean
18 up, and how to clean it up, and the uncertainty of risks to
19 the work force doing the job, that the DOE, and the
20 administration, should make its number one priority the
21 stopping of all nuclear weapons testing now.

22 Do we want to go on paying the costs in
23 dollars and health risks for testing and cleanup, and testing
24 and cleanup, indefinitely? We can stop now, or at least next
25 month. The 118-nation signatories to the partial test ban

1 treaty of 1963, which drove testing underground, will meet in
2 New York at the United Nations January 7th through the 18th to
3 consider a comprehensive test-ban amendment to that treaty.
4 If our administration can be persuaded to not veto the
5 amendment, which it has consistently threatened to do, we can
6 stop all nuclear weapons testing everywhere for all time.
7 Thank you.

8 THE MODERATOR: Thank you. The next
9 speaker will be John Bell.

10 JOHN O. BELL:

11 My name is John O. Bell. My address is
12 Redacted - Privacy Act . I'm an environmental
13 designer, and I have a Master's degree in landscape
14 architecture landscape from the University of Pennsylvania.
15 And I am professionally and personally committed to the notion
16 that the landscape is a living system, subject to thoughtful
17 change. And that I represent those people present and absent
18 who respond to our state motto, "Let the welfare of the people
19 be the supreme law."

20 That's a very telling remark, because I
21 think that it just indicates how easily one can craft words.
22 And the burden in giving life and physical actions to those
23 kind of mottos is something that we have to assume the
24 responsibility for. I think when Cicero wrote that remark,
25 Let the welfare of the people be the supreme law, he clearly

1 was talking about social law. And he was not acknowledging
2 what is the burden that we must speak to, and that is natural
3 law.

4 Whatever decisions are made for the
5 management of the nuclear waste that we have to clean up, we
6 have to be very clear about our public health and public
7 welfare is linked to fertile, uncontaminated soil, pure
8 balanced water, and unobstructed clean air. I don't say that
9 without the fact that I have worked in the Adirondacks on an
10 acid rain study, and I also have been involved in a landscape
11 management plan for times ^hspeech.

12 I think what I find so disconcerting is
13 that we haven't really broadened the issue to the extent that
14 we're atill playing a very sophisticated shell game. And it's
15 almost as if -- we can all conjure up visions of what Russian
16 Roulette is. Well, I would suggest to you that much of what
17 we're dealing with here could be best described as American
18 Roulette. And I think a venue, whether it be the Department
19 of Energy or someone else, the venue has to be created so that
20 public discussion is encouraged.

21 And identifying the ban side -- why are we
22 generating this kind of waste? What are the trade-offs? What
23 are the needs that have to be met in implementing economic and
24 resource substitution? Through this whole discussion this
25 morning, there's been a number of points that have never been

1 really addressed that's an integral part of this culture. And
2 that is dollars, dollars, dollars. And that our national
3 policy for so long has really been predicated on fears instead
4 of confidence. Public institutions and corporate institutions
5 have been really resistant to change. And they haven't been
6 nearly as candid as they should be in informing the consuming
7 public of what these trade-offs are.

8 And I applaud this opportunity that you've
9 given me and others to come forward and express themselves. I
10 would only want to share with you the reasons why I came
11 forward. I really believe in us as a species. I'd like to
12 thank you on the terms of speaking on behalf of this species.
13 And that I'm very quick to recognize that we are just an
14 experiment. We're an evolutionary experiment. And whatever
15 should come to pass from these public meetings will either
16 represent a positive step forward, or a false step backwards.

17 And also, I'm not quick to forget an
18 experience that I had on July 4th, 1987 when I was in
19 Philadelphia. And that was the celebration -- the 200th
20 celebration -- for the U.S. Constitution. It was a really
21 touching experience. And yet, I had to ask myself, Where are
22 we as a culture? And I've very quick to recognize that the
23 United States is not immune to any of the forces of other
24 cultures that have come to pass; introduction, growth,
25 maturity, and decline. And I think, when you set aside all

1 the sophisticated models, and all the numbers, and all the
2 descriptions, I would want you to ask yourselves: Have you
3 solved the problem of what is, in fact, a mature culture? And
4 have we re-invented this culture so that we can sustain
5 ourselves, or are we, in fact, a culture that's in decline?

6 Thank you very much.

7 THE MODERATOR: Thank you, sir. Lew Moye.

8 LEW MOYE, JR.:

9 Good afternoon. My name is Lew Moye. I
10 live Redacted - Privacy Act not very far from the
11 Mallincrodt site. I am a member of the United Auto Worker's
12 Union, and I'm also President of the St. Louis Chapter of the
13 Coalition of Black Trade Unionists. I'm here representing the
14 St. Louis Chapter of the Coalition of the Black Trade
15 Unionists.

16 I also have many friends who also are
17 fellow auto workers who work at the Mallincrodt site. The
18 workers there also are represented by the United Auto Workers'
19 Union. There are many major problems that are confronting our
20 nation. Specifically, our economy. The huge deficit requires
21 us to sell off our banks, factories, forests, our bridges and
22 roads need massive repairs, our youth are under-educated,
23 teachers are underpaid. Race and sex job-discrimination is on
24 the increase. Our citizens cannot afford health care. Our
25 industrial equipment is outmoded. Plants are being closed and

1 moved to low-wage countries for higher profits. Homelessness
2 and unemployment are rampant.

3 And yet the Bush administration and
4 Congress continues to appropriate astronomical sums to
5 produce, test, and stockpile nuclear weapons that we do not
6 need, cannot afford, and we must never use. More nuclear
7 weapons mean more nuclear waste. Waste which endangers the
8 health of our citizens by contaminating our soil, our water
9 supply, and polluting the air.

10 We must stop creating more nuclear weapons.
11 We must declare a moritorium, not just a phase-out of weapon
12 reduction, until we figure out how to clean up and pay for the
13 nuclear bomb messes we have already spread throughout our
14 nation for the past half-century. Radioactive waste sites in
15 the St. Louis area have been ignored far too long. The
16 federal government has appropriated monies to clean up the
17 Weldon Spring site.

18 I must note, those sites at Latty Avenue,
19 the airport and vicinity, Mallincrodt, located near
20 pre-dominantly African-American communities and schools, have
21 not received the same appropriation, or the same attention,
22 for cleanup. In my opinion, nuclear waste from the
23 above-mentioned sites should be removed, transferred, and
24 stored, further away from heavily-populated areas. This waste
25 should be stored in a location that is less-threatening to

1 human health.

2 I have reviewed a 1988 report that
3 estimates the costs of cleaning up these above-mentioned sites
4 to be \$280 million. What is not reported is the unknown cost
5 in human health. The National Environmental Policy Act
6 requires the Department of Energy to explore alternatives to
7 its proposed Environmental Restoration and Waste Management
8 Program.

9 I believe one of the most important
10 alternatives you should examine in your Environmental Impact
11 Statement is the following: How can we most quickly redirect
12 nuclear-weapons production's work force to stop creating more
13 nuclear weapons, and to start restoring our nation's
14 environmental and physical health?

15 Thank you for allowing me to make this
16 statement on behalf of the Coalition of Black Trade Unionists.
17 I would like to thank you for conducting this hearing in the
18 St. Louis area. Thank you.

19 THE MODERATOR: Thank you, Mr. Moye. Our
20 next speaker will be Lieutenant Governor Mel
21 Carnahan.

22 MEL CARNAHAN:

23 Thank you, and welcome to Missouri. I know
24 you're not Missourians -- I can tell. We're pleased that
25 you're holding these hearings and giving us, as citizens, an

1 opportunity to speak out on this very serious problem.

2 For more than 50 years, this nation has
3 invested millions of dollars and many natural resources in
4 keeping totalitarianism at bay. However, one of the costs in
5 developing our nuclear arsenal has been to jeopardize the
6 health of our citizens and workers. That effort is now seeing
7 worldwide results. For the past 18 months, we've witnessed an
8 explosion of liberty and democracy throughout world, in some
9 unlikely places as Berlin, Prague, Peking, Bucharest, and
10 Moscow. Those totalitarian governments have been either
11 shaken or overthrown, and without the direct use of the deadly
12 nuclear weapons in the possession of the super powers.

13 The attention of the nation must now focus
14 on addressing the problems left by the cold war, including the
15 development and production of nuclear weapons and by-products
16 of the arms race. The citizens of the St. Louis and St. Louis
17 County have shown clearly that they don't want these nuclear
18 waste by-products in this heavily-populated area. They
19 overwhelmingly said no to bunkers and waste sites in the
20 November 6th election. More than 80 percent said they did not
21 want these storage sites here permanently.

22 No other metropolitan area in the nation
23 has to contend with the radioactive waste problem that's as
24 potentially threatening as the one facing St. Louis. I'm told
25 that 2.5 million cubic yards of radioactive wastes are stored

1 by the United States Department of Energy in the St. Louis
2 area. This is unacceptable in an area with such high
3 population density.

4 The nuclear weapons waste threat is not
5 limited to eastern Missouri. The Kansas City area is dealing
6 with waste from current nuclear-weapons production at the
7 Allied Signal facility. Missouri, therefore, is in the unique
8 situation of having the nation's oldest nuclear
9 armament-production site where uranium processing began, and a
10 facility that currently produces nuclear weapons and their
11 deadly by-products.

12 At the time of the initial nuclear
13 production, little was known about the possible harm to the
14 environment and humans during an extended period of exposure.
15 However, these issues have taken on a heightened sense of
16 urgency as the risks have become better understood. For
17 instance, a little over a year ago, recreational areas at the
18 airport had to be shut down due to the realization of these
19 risks. For years, that area was used as a softball diamond,
20 and only by accident was the radioactive contamination of this
21 ground brought to light. The bureaucratic oversights
22 contributed to the danger of these contaminated sites being
23 lost, and then being re-discovered.

24 The time is long overdue for the federal
25 government to clean up the atomic waste sites in the St. Louis

1 area, and develop and designate a site for the Missouri waste.
2 Citizens of Missouri have risked their health long enough.
3 With the end of the cold war, our citizens and their health
4 should be a top priority, especially in this area where first
5 atomic-weapons production was carried out. These sites demand
6 attention immediately.

7 The federal government is the entity that
8 created this potentially-deadly situation, and it must come
9 forward with a solution to protect our citizens and our
10 health, while containing these wastes for the tens of
11 thousands of years it will take until they will no longer be
12 deemed hazardous.

13 As Lieutenant Governor of Missouri, I'm
14 calling on the federal government to do two things: One, to
15 set a viable timetable to clean up these sites, and designate
16 a consolidated storage area for the hazardous nuclear
17 materials and their by-products. The second thing I would
18 call the government to do is to expedite the cleanup and the
19 consolidation of these nuclear wastes.

20 St. Louis City and the communities of
21 Berkeley and Bridgeton in St. Louis County, Weldon Spring in
22 St. Charles County, and Hematite in Jefferson County, have
23 provided a vital link in the chain of production of the
24 atomic-weapons industry. The federal government must now live
25 up to a commitment to its citizens to not only win the cold

1 war, but to clean up the atomic-waste sites that made victory
2 possible. This nuclear waste cleanup cannot be permitted to
3 be a casualty of the already-spent peace dividend.

4 The citizens of Missouri in these
5 respective communities are working together in speaking with
6 one voice and demonstrating their refusal to bear this burden
7 alone. They're taking a cue from the people and the citizens
8 of eastern Europe: They're taking a role in determining their
9 own destiny.

10 Without the willingness and dedication of
11 Missouri scientists, and workers who refined the first uranium
12 for the chain reaction under Stagg Field in Chicago, the
13 history of the modern world might be very different. Missouri
14 responded to the needs of the federal government and made a
15 crucial contribution to the survival of democracy. Now we ask
16 you, representing the federal government, to place the health
17 of our citizens in the same high priority. I believe it's
18 unacceptable to continue to jeopardize the health of
19 Missourians, and make us the lasting victims of the cold war.
20 Thank you very much.

21 THE MODERATOR: Thank you. Anna Grace.

22 ANNA GRACE:

23 This is a little scary. I am Anna Grace.
24 I live at Redacted - Privacy Act

25 I feel real strongly just on an emotional

1 level, that things have been hidden from us for many, many
2 years. Many people in this community don't know that there's
3 radioactive waste in downtown St. Louis. And thorium is one
4 of many products of that, of the breakdown of uranium. With a
5 half-life of 14 billion years, or something, it's just
6 indescribable to know that there's this waste here.

7 My mother took us, for years, to Weldon
8 Spring to play in the creeks, to watch birds, and pick
9 blackberries. I think of myself as being a healthy person,
10 but I wonder now, wandering around in those creeks, and eating
11 all those blackberries, and looking for birds, if my health is
12 strong.

13 I feel equally angry and upset that we keep
14 looking at this as an option for power, for weapons, when we
15 know the damages that can happen to people. It's equally
16 upsetting to me to think about taking this waste and burying
17 it, even around Callaway. My son and I son went to see
18 Callaway, and it's an incredibly beautiful piece of land in
19 Missouri.

20 What are we doing here? When are we going
21 to wake up? What do we really need here? Is it money that
22 makes us look for these things to use? I really feel real,
23 real strongly that we ought to look at solar, we ought to look
24 at wind power, water, we ought to look at other alternatives
25 than these things that are going to be toxic for years, and

1 years, and years, and years -- past generations when we can
2 even think about. That's all I have to say. Thank you.

3 THE MODERATOR: Thank you. State

4 Representative Jim Murphy.

5 JIM MURPHY:

6 Thank you for giving me the opportunity to
7 speak to you today. I am taking the place of my seatmate in
8 the Missouri House, Representative David Hale, whose district
9 includes Latty Avenue.

10 He and I share a deep burden: He has the
11 nuclear bunker, I have Times Beach. And I say both my
12 shoulders are heavily weighted. In fact, I just came from a
13 meeting on Times Beach. But I come to you today not as an
14 expert in nuclear matters, I don't have that perspective. I
15 happen to be a philosophy major and a businessman. And I come
16 to you, from the aspect of government, as a business. The
17 government truly is a business, and the actions that we take
18 as representatives, or you take, as part of the executive
19 branch, have a deep impact on the quality of life.

20 And we learn that, in government, we must
21 have money. Money is the fuel by which we give people the
22 benefits of the United States. And anything that we do that
23 hurts or hinders the flow of money into a given geographic
24 area, be it a county, a city, or a state, hurts the people.
25 Therefore, most of the decisions we have to make are based

1 upon two factors: One is, what we will do should be done in
2 an area that has the lowest population density. And two, that
3 whatever we do should have a minimum effect on the economy of
4 the state.

5 I don't know whether any of you are from
6 Missouri, but Missouri is an unusual state. It's not an
7 homogeneous state. I would say that it's a state that started
8 out with 60,000 people and 5 million failures came in, and we
9 developed a very interesting state. We are a conglomerate of
10 people from Europe, South America, et cetera, and we live our
11 own onclave here.

12 The metropolitan area is a highly-ethnic
13 area, hard-working area. It represents nine-tenths of one
14 percent of the geography. But out of that nine-tenths of one
15 percent, 630 square miles out of 70,000 comes 40 cents out of
16 every dollar that goes to our state capitol. So, if you were
17 to take St. Louis and St. Louis County out of the state of
18 Missouri, you would have a bankrupt state. In fact, over half
19 of our counties -- there are 114 of them -- are bankrupt.
20 So anything that is done in this area that affects the money
21 flow affects the entire state.

22 The average density in the state of
23 Missouri is 70 people per square mile. In the City of St.
24 Louis, it's 6,500. In St. Louis County, it's 2,000. But yet,
25 we have counties in the state -- they all average about 600

1 square miles -- that have less than 4 people per square mile.
2 Half of our counties have less than 70 people per square mile.
3 So anything that would hurt the majority, or hurt the cash
4 flow of this state, has to be considered in the light of where
5 it will affect the least, and not effect our money flow.

6 So we would ask you, on that basis -- the
7 economic basis, the quality-of-life basis, that we in St.
8 Louis have to produce the money to keep the state going --
9 that you consider another site for this nuclear waste. This
10 is not simply saying somebody -- NIMBY, this is not a NIMBY
11 situation -- anybody can accuse us of that. But I can tell
12 you that we in St. Louis are paying for the schooling of
13 children throughout the state. We are paying for 40 percent
14 of all the gasoline in sheriff's cars around the state, we are
15 paying for the health of prisoners around the state. And
16 anything that is done negatively in the St. Louis area hurts
17 the entire state of Missouri. And that is 70,000 square
18 miles.

19 So, you're dealing with a dynamic part of
20 the state, a very sensitive part of this state. And it's a
21 problem I wish you would keep in mind. Whatever you do here
22 affects not the people on Latty Avenue, or that area, it
23 affects 5 million people in the state of Missouri. Because if
24 anything happened to your income, and 40 percent was zipped
25 out, or reduced, some part of your family would be affected.

1 I hope you will keep those matters in
2 consideration, add that to the list of the environmental and
3 chemical explanations -- which I will not try to give -- but
4 to give it to you from a practical point of view, that we have
5 to dig up dollars to provide services. We will go back in
6 January where we have one item that's at the top of the menu
7 -- a \$100 million-dollar shortfall in Medicaid.

8 Now, to the degree of which we will have
9 people or businesses leave us because of Latty Avenue, or
10 Times Beach, or anyplace like that, to that degree, we'll have
11 less money to service these people. And I can tell you, as a
12 businessman, as a president of the National Trade Association
13 in my younger years, businessmen take this into consideration.

14 For instance, I offer you a home adjacent
15 to Three Mile Island. Would you take it? Or if I said you
16 could have a rambling bungalow on Love Canal Avenue, would you
17 take it? You wouldn't. You'd leave it. That's the problem
18 we face here. But if we took those incidents and we moved
19 them to an area of the least population density, the least
20 affect on the economy of the state, I think we'd be doing the
21 best we could. I would ask that you factor that into your
22 consideration. And I thank you for your time.

23 THE MODERATOR: Thank you, sir. Mr. Robert

24 Skrainka.

25 ROBERT SKRAINKA:

1 I appreciate this opportunity to make some
2 comments to the Department of Energy officials who are present
3 here, and to the interested citizens who are also in
4 attendance today. My name is Robert Skrainka. I reside at
5 Redacted - Privacy Act !.

6 My great-grandfather founded, in 1850, one
7 of the oldest construction companies in Missouri, which was in
8 business until 1980. We specialized in pavements and surface
9 constructions, including retaining walls. We also used
10 something called impervious membranes to keep water out of
11 surface constructions and for tensile strength.

12 I would like to address the problems of
13 siting a radioactive waste dump in the heavily-populated St.
14 Louis area -- in particular, in the area near the
15 Lindbergh-St. Louis International Airport. I would also like
16 to address the question of probable dump-leaching into
17 groundwater and into Coldwater Creek, which flows across north
18 St. Louis County. In 1985, a gavion wall was constructed at
19 the airport site along Coldwater Creek to retard erosion. But
20 contaminated water and sediment continued to enter the creek.

21 I'm not an engineer, or an expert, but our
22 company has had a number of years of field experience. While
23 various methods may contain waste and water in the near-term,
24 chiefly, only reinforced concrete, or condensed quarry stone,
25 are effective in containing large quantities of waste and

1 water in the long-term. In other words, the life of a
2 proposed nuclear-waste dump. In the spring of 1987, the
3 Department of Energy estimated that the total volume of waste
4 would range up to 674,000 cubic yards. And I believe a larger
5 number was cited by our Lieutenant Governor. And the ultimate
6 volume may prove to be even larger, requiring a much larger
7 area than the existing landfill sites.

8 If the entire bottom is concreted and the
9 concrete sides are sufficiently high to allow for heavy rains
10 and floods, the cost would seem to be prohibitive. High
11 side-retaining walls are necessary also, because the existing
12 and proposed sites are partly within the flood plain of
13 Coldwater Creek. Existing and proposed dump sites should also
14 be studied to determine the likelihood of shifting and
15 settling, hence, cracking and leaking, due to geology,
16 topography, and hydrology.

17 Also, according to Memphis State
18 University, the probability of a major Richter scale 6.3
19 earthquake in the New Madrid fault is 90 percent within 50
20 years, and 50 percent within 15 years. The effect upon the
21 structural integrity of any dump construction has yet to be
22 determined. Finally, one would have to raise serious
23 questions in regard to siting a large nuclear waste dump near
24 a heavily-populated area where people live, work, and play,
25 and from which drinking water may be drawn.

1 In conclusion, landfill dumps are not safe
2 sites for retention of hazardous waste. Well over half of the
3 landfills in the United States, including those newly
4 constructed, leak or leach hazardous waste into the
5 environment. The greatest threat to the security of the
6 United States is not the Persian Gulf. The greatest threat to
7 U.S. health and safety is in the waste dumps that leak and
8 leach hazardous radioactive materials which threaten the
9 safe-water sources of United States citizens.

10 In concluding, I would like to pass on two
11 separate paragraphs from the text "Hazardous Waste in America"
12 by Daniel Epstein, M.D., Brown, and Carl Pope. I quote here
13 from page 339. "The role of secure landfills should be
14 restricted to fixed metals and non-reusable wastes which can
15 undergo complete or near-total degradation under the
16 conditions of burial within a maximum timeframe of one or two
17 decades, during which the site and adjacent surface and
18 groundwaters must be rigorously monitored." Close quote.

19 Clearly, this reference role of a secure
20 landfill cannot apply to radioactive materials whose half-life
21 extends far beyond two decades. Further quotation from
22 "Hazardous Waste in America" appears on page 365, under the
23 caption "How to Deal with Toxic Waste in the Future." And I
24 don't have a secret formula here for you, gentlemen, I'm
25 sorry. There is a wide range of available technology options,

1 some still at the prototype stage for dealing with the
2 disposal of hazardous wastes in the future.

3 But options based on such technological
4 fixes are at best makeshift as they fail to confront the
5 problem. Given the limitations of knowledge, the runaway
6 nature of chemical technology and the, quote, "unforgiving,"
7 close quote, nature of hazard substances capable of inflicting
8 great damage in even trace levels many years after they are
9 originally manufactured and disposed of, only one strategy can
10 ensure the long-range protection of man and the environment
11 from hazardous waste. And that is not to generate them, a
12 goal that can only be achieved by eliminating or reducing the
13 production and use of those hazardous substances that generate
14 toxic waste.

15 Thank you very much for your time and your
16 attention. I appreciate it.

17 THE MODERATOR: Thank you, Mr. Skrainka.

18 The next speaker will be Joy Guze.

19 JOY GUZE:

20 My name is Joy Guze. I'm a retired
21 schoolteacher, a grandmother, and a concerned citizen. I live
22 at Redacted - Privacy Act 1.

23 I think you of the Department of Energy
24 face a terrible problem: How to dispose of nuclear waste.
25 You have dreadful decisions to make which surely trouble your

1 consciences, when you feel that you have to decide these
2 things that will affect not just our generations, but future
3 generations. The people of the St. Louis area have had too
4 much exposure to abnormal radiation, not just because of the
5 processing of uranium for the production of nuclear weapons in
6 the '40's, '50's, and '60's, but because atomic testing in
7 Nevada dropped heavy strontium-90 to our fields in the '50's,
8 and thus to the milk our children drank.

9 And that is why, in St. Louis, we founded
10 the Nuclear Information Committee. I don't even know if you
11 remember the Nuclear Information Committee, but it had a
12 profound affect on our thinking, I think, as we got scientists
13 giving us information, not just in St. Louis, but across the
14 country. And that was why the baby-tooth survey was born here
15 in St. Louis.

16 We are an active and a visual citizenry,
17 and we want you to know we have had enough of nuclear
18 contamination. I have a map here. It's your own Department
19 of Energy map. It shows areas and depths of radioactive
20 contamination in the airport and Hazelwood area. You can see
21 the green part is the contamination that is at a depth of 4
22 feet. But the yellow goes deeper, to 8 feet, and the pink
23 part, primarily there at the airport, but in some other
24 locations, even along roads, goes down to 18 feet, and
25 actually sometimes more.

1 Now, right along the route of this, right
2 along here and all the way along, adjacent to all this area,
3 runs Coldwater Creek, picking up and carrying some of this
4 radioactivity to our communities and to our drinking-water
5 supplies. In addition, this map shows how the radioactive
6 debris was scattered from trucks along roads and rail routes
7 as they carried the radioactive debris from the old
8 Mallinicrodt plant in town out to these new sites in the '40's.
9 Actually, I think even later, in the '60's and into the '70's.
10 This was careless of our people's health, and may have been in
11 part because of ignorance of how serious this may be, in those
12 days.

13 And now we're afraid that the Department of
14 Energy may again be taking chances with our health. I'm
15 afraid you will decide to build a bunker at the airport to
16 hold this debris. We have no confidence that today there is
17 enough knowledge to know how to secure such a bunker. So, we
18 want that dirty material taken away from our community. We
19 want you to find a less-populated and safer place to put it.

20 Now, as I said, you have a dreadful
21 problem, because nationally, there seems to be no place at
22 all, or no way, to store nuclear waste for thousands of years.
23 And I would like you to know that our hope is that you'll face
24 the fact that this just is not possible. There's no known
25 place, there's no method secure enough. We want you to help

1 the American people decide that this is so, to understand that
2 this is so, and decide that producing such waste is wrong.

3 And that instead, we must urgently seek
4 other sources of energy. We hope you will recommend that our
5 country invest in that kind of development. And we think that
6 such courageous and farsighted leadership on your part will
7 make future generations celebrate you, and we in St. Louis
8 bless you. Thank you.

9 THE MODERATOR: Thank you. Michael Burke.

10 MICHAEL BURKE:

11 My name is Mike Burke. I live at Redacted - Privacy
12 Redacted - Privacy Act / about two blocks away
13 from Coldwater Creek.

14 I understand that the purpose here is to
15 get a national perspective on the issue, not just St. Louis,
16 so I'll try not to talk too much about just our situation,
17 except as it applies to the thousands of similar situations
18 around the country. And I don't feel it's my job to make
19 recommendations to the Department of Energy. DOE employees
20 should be aware of their charge, and they should know how to
21 carry it out, and they should do so.

22 But I'd like to tell you what's going on
23 here in St. Louis, and I think you will find it's typical of
24 what's happening all around the country. A couple of years
25 ago I got so angry about having a radioactive creek that I

1 started to work with a citizens group, the Missouri Coalition
2 for the Environment. And I started knocking on doors, a
3 hundred doors a night. I talked to about 50,000 people. And
4 I'm not the only one. Last night we had ten people on the
5 street.

6 And I tell them about a little boy who
7 lives a couple of blocks from the dump on Latty Avenue. He's
8 6 years old and he has leukemia. And I tell them that this
9 little boy is dying a long, slow, lingering, painful death
10 because the Department of Energy doesn't give a damn about
11 their health and safety, or their children's health and
12 safety. The thing is, most of the people I talk to really do
13 care about this little 6-year-old boy.

14 And a funny thing has started to happen:
15 We're starting to elect people who care about the little boy
16 -- councilmen in Florissant, our county executive, our
17 lieutenant governor here, state representatives, senators and
18 members of Congress. And we're voting out the ones that don't
19 care about this little boy, the ones who shrug their shoulders
20 and say you can't prove that the nuclear material on Latty
21 Avenue gave this boy leukemia. And I suggest that this is
22 happening, or it's about to happen, all over the country,
23 wherever you have these sites.

24 Very soon, the Department of Energy is
25 going to have to take responsibility for its actions, and for

1 its inaction. So, in formulating your plans, it would behoove
2 you to think of the future, because the future is not going to
3 be like the past. Thank you.

4 THE MODERATOR: Thank you, Mr. Burke. Our
5 next speaker is Louise Bullock.

6 LOUISE BULLOCK:

7 Good afternoon. My name is Louise
8 Kasseling Bullock, Redacted - Privacy Act 3

9
10 I'm speaking today on behalf of the
11 Interfaith Committee on Latin America. More importantly,
12 however, I come to you as a citizen, believing that, as a
13 consequence of my freedom of speech, I have a responsibility
14 to speak out on critical issues which affect all of our lives.

15 I believe that the cleanup of
16 radioactive-substance waste is one such critical issue. Why?
17 Let me quote former president of Physicians for Social
18 Responsibility, Dr. Helen Cauldicutt, and I quote, "We live on
19 a planet that is terminally ill." Terminally ill, Dr.
20 Cauldicutt says. Yes, we are quickly destroying our
21 environment due to vast number of pollutants, toxins, and due
22 to the vast number of pollutants, toxins, and waste, which
23 over the years we have permitted to accumulate in our soil,
24 bodies of water, and atmosphere.

25 Up until recently, we have acted, perhaps

1 unwittingly and out of ignorance, of the severity of
2 environmental issues. But research and education have made us
3 more aware of the issues and of the impact that our decisions
4 and lifestyles have on the future. This new level of
5 awareness means our future actions now take on a moral
6 dimension, and I pray will motivate us to act. Scientists are
7 warning us that unless we are prepared to act immediately and
8 decisively, we will kill our planet's ability to sustain life
9 as we know it. Life, our first unalienable right by our own
10 Declaration.

11 So, I express myself today, not only to
12 exercise my responsibility as a citizen, but also to assert my
13 right-to-life as a citizen of the world. Our Declaration of
14 Independence continues by stating, "That to secure these
15 rights, governments are instituted." Therefore, the
16 Department of Energy, as part of that government, is granted
17 the authority to secure our right-to-life. I ask you to use
18 your authority by locating a non-urban site where all of the
19 St. Louis waste can be consolidated.

20 I also ask you to act out of the sense of
21 responsibility. The cost of cleanup as a result of weapons
22 production by the federal government needs to be seen as part
23 of the cost of creating the weapons in the first place. The
24 monetary cost of cleanup, as with everything else in terms of
25 inflation, will increase the longer it is delayed. With our

1 tax dollars already being stretched to the limit, in a
2 multitude of directions, it would appear that the sooner the
3 cleanup can begin, the more advantageous it would be from a
4 financial standpoint.

5 The environmental necessity is equally as
6 urgent. Radioactive dust and radon gas will be released from
7 the St. Louis waste for literally billions of years. It must
8 be consolidated and relocated to a non-urban site. Lastly, I
9 urge you to act out of the sense of leadership. Peoples
10 worldwide look to the United States for an example of how to
11 act in many areas of life. We need to model positive,
12 responsible behavior, and be held accountable for our actions.
13 If we create a problem, we must be honest enough to admit it,
14 and do all in our power to solve it, or rectify the condition
15 as well as possible.

16 In summary then, I come to you proud to be
17 able to take responsibility by speaking out and asserting my
18 rights as a citizen and as a member of the Interfaith
19 Committee on Latin America. I ask you, likewise, to take
20 responsibility. Speak out and assert your rights as members
21 of the United States Department of Energy. I would like to
22 close with a short quote from poet Christopher Pride. I
23 address his words not only to this committee, but to myself
24 and to all those who have the ability to play a part in the
25 nuclear weapons waste cleanup effort.

1 And I quote, "Thank God our time is now,
2 when wrong comes up to face us everywhere, never to leave us
3 until we take the longest stride of soul man ever took. But
4 will you wait for pity's sake?" Thank you very much.

5 THE MODERATOR: Thank you, ma'am.

6 Marguerite Blanke.

7 MARGUERITE BLANKE:

8 My name is Marguerite Blanke. It's Redacted
9

10 The answer to this problem is to stop
11 making nuclear weapons. But meanwhile, I don't want a nuclear
12 weapons 88-acre site seeping into my water. Coldwater Creek
13 runs nearby, and the water from this creek goes into our water
14 supply in St. Louis. I hope the Department of Energy will
15 help us with this problem. Thank you.

16 THE MODERATOR: Thank you. Trudy Faust

17 Potthoff.

18 TRUDY FAUST POTTHOFF:

19 I am Trudy Faust Potthoff. Redacted - Privacy Act
20

21 I was one of the founders of the Nuclear
22 Information Committee back in the late '50's, early '60's.
23 Our main concern then was that we didn't know what the
24 cumulative effect of a tiny bit of nuclear waste on the human
25 body would be. And we still don't know, because we haven't

1 had the lifetime of people. We hear things, we have ideas,
2 and we feel concern that perhaps the nuclear waste is causing
3 this or that. But until we know for certain that it's safe to
4 have nuclear waste buried near heavily-populated areas, I ask
5 you, the Department of Energy, to remove it.

6 We need more time. There's a great deal of
7 evidence that the leaching of nuclear waste into our water
8 supply is causing serious health problems. We were concerned
9 in the '50's, very concerned, about nuclear waste, because it
10 was new. We didn't know, and we still don't know, really.

11 So, would you please remove this waste
12 matter from the heavily-populated areas of our cities? Thank
13 you. Thank you for listening.

14 THE MODERATOR: Thank you. Yvonne Logan.

15 YVONNE LOGAN:

16 I am Yvonne Logan, Redacted - Privacy Act .
17 I'm glad to follow our last speaker because my experience goes
18 back to the same time.

19 The Committee for Nuclear Information
20 started the baby-tooth survey, which was a National Institute
21 of Health study of baby teeth in St. Louis in the middle '60's
22 and late '50's. And I was in charge of collecting those baby
23 teeth and getting them to the Washington University Dental
24 School so they could be studied for the amount of strontium-90
25 in the teeth. Very little was found, but we were still very

1 worried about the effects on our children's health, because we
2 knew that a very little could cause leukemia in our children
3 in 15 or 20 years.

4 Now, we're worrying about, I think, much
5 more nuclear pollution. We're worrying again about our water.
6 And at that time, we thought that the greatest danger to us
7 was to pregnant and nursing mothers. Again, that will be true
8 if this material gets into our water. It will be our mothers
9 who will suffer. And in turn, this material multiplies as
10 it's passed on to their children.

11 I've been very concerned for many years
12 about nuclear weapons production. I think we should take
13 advantage of the shutdowns that are now currently taking place
14 at Rocky Flats, Hanford, and Savannah River. Rocky Flats, as
15 you know, has been shut down because 62 pounds of plutonium
16 dust has been found in the ducts. We wonder how much has gone
17 out to the heavily-populated nearby area of Denver. This is a
18 terrible situation, and you have hidden it for 50 years of
19 nuclear weapons production.

20 Also, we are just finding that the tanks
21 that store chemical and radioactive waste at Hanford could
22 explode with catastrophic consequences. We are finding the
23 scientists who say that intentional releases of radioactivity
24 at Hanford have led to higher rates of illness and cancer.
25 Again, in situations where we actually have the facts. And

1 their nine reactors, of course you know, were shut down. At
2 Savannah River all five reactors have been found to be ailing,
3 and they've been shut since 1988.

4 I plead with you not to activate the
5 reactors again, but to close those facilities permanently
6 until we know what to do with the waste we already have. We
7 could redirect the forms of resources used for producing
8 weapons to clean up the mess that's been left behind so far.

9 I'm very concerned about the nuclear
10 regulatory decision to deregulate 30 percent of all the
11 nuclear industry's radioactive waste. It's been labeled BRC,
12 below regulatory concern. I think there's no such thing.
13 It's being treated as simple garbage now. And it is sure,
14 some of it, to cause cancer.

15 I think the DOE owes it to us to restore
16 confidence in their actions, now that we're in on some of your
17 terrible secrets. We don't need any more weapons. Next week
18 we will be signing -- just a few small things that were taken
19 care of, in the paper this morning -- a treaty to cut 30
20 percent of our weapons in Europe. This is what our nuclear
21 weapons are all about. Can't we use that plutonium when we
22 destroy these weapons? If we do need more, put that plutonium
23 in some other weapon. We don't need to produce more. The
24 protection of our health should be your top priority, not the
25 production of weapons.

1 I was shocked to know that 50 percent of
2 the DOE budget is spent producing nuclear weapons. Why don't
3 you work on new sources of energy, something that would help
4 us all? Thank you very much.

5 THE MODERATOR: Thank you, ma'am. Sandy

6 Dow.

7 SANDRA DOW:

8 Hello. Sandra Dow, Redacted - Privacy Act }.
9 I attend the Academy of Mathematics and Science. I would like
10 to thank you, first of all, for having this hearing today. I
11 think the subject is of great magnitude and warrants our
12 attention.

13 We have a problem. There's approximately
14 943,000 cubic yards of radioactive waste spread throughout the
15 St. Louis area. DOE has confirmed that the levels of
16 contamination exceed federal guidelines. The proposed 82-acre
17 site has several severe drawbacks: It's located in a
18 densely-populated area of north St. Louis County, and next to
19 McDonnell-Douglas, Missouri's largest employer. It's located
20 along Coldwater Creek which flows through Northe County and
21 into the Missouri River above the drinking-water intakes for
22 the city of St. Louis.

23 Aren't two of the basic guidelines
24 uniformly recognized for choosing a disposal site for having
25 this waste to keep it away from people and to keep it away

1 from water? Not to mention that the problem is magnified by
2 the extensive commercial development in this area. We're
3 exposing thousands of people daily to the risks of radon, risk
4 of exposure to contaminated drinking water.

5 An overwhelming amount of scientific
6 evidence has proven that radiation, which is cumulative, is
7 detrimental to human health. There is no safe amount of
8 radiation. It is both carcinogenic and mutanogenic. We can
9 always leave it where is is and let the next generation deal
10 with it. I'm only 16 years old. I am the next generation.

11 And I've been thinking about alternatives.
12 Callaway County contains over 99 percent of the radioactive
13 wastes in our state. Why not consolidate? There's available
14 land. Union Electric bought 7,230 acres, only 700 acres of
15 which they're using for the plant and sludge lagoons. That
16 leaves 6,230 acres of vacant land which the conservation
17 department manages as a reformed wildlife area for hunting and
18 fishing.

19 The Callaway nuclear plant and surrounding
20 environment is already contaminanted, and no existing
21 technology can dismantle the 475-ton reactor containment
22 vessel which will remain radioactive for hundreds of thousands
23 of years. There's no place to send the plant's high-level
24 waste. Mr. Cleary, a representative of Union Electric, has
25 repeatedly mentioned that power plant does not have any

1 permanent on-site storage for its own waste. Yet they store
2 radiation contained in used fuel rods that have been produced
3 since the first refueling.

4 There is existing precedents for the
5 federally-funded removal of uranium mill tailings to a
6 less-populated site; 2.5 million cubic yards removed 80 miles
7 away from Salt Lake City. There are also precedents for
8 moving wastes to an area of lesser size than Calhoun; 940,000
9 cubic yards from six miles in Lakeview, Oregon.

10 We've heard it before, no one wants
11 radioactive wastes in their backyard. But how can we continue
12 making more waste when we haven't even figured out what to do
13 with the very first? Thank you.

14 THE MODERATOR: Thank you. Our next
15 speaker will be Daniel Bender.

16 DANIEL BENDER:

17 Hello. My name is Daniel Bender. I'm one
18 of the co-presidents of SMART, Students Making A Real
19 Tomorrow, an ecological society based in University City High
20 School, where I'm currently a senior. I live at Redacted - Privacy Act,
21 Redacted - Privacy Act ..

22 Let me take you back to 1942 when the
23 Mallinckrodt Chemical Company was asked to purify uranium for
24 the Manhattan Project. Within months, the uranium they
25 purified was used in fission experiments at the University of

1 Chicago. The uranium was purified in downtown St. Louis,
2 unknown to the workers at the Mallinicrodt Company and
3 residents in the area.

4 St. Louis is the oldest city in the United
5 States to be the victim of national security secrecy. It is
6 not the only one. 103 major sites spanning the country are
7 contaminated with similar wastes as the result of testing and
8 purification essential for the making of nuclear bombs. St.
9 Louis, however, is burdened with four such sites.

10 In 1946, the United States Army condemned a
11 22-acre tract of land near the airport for the storage of the
12 wastes, which were trucked in in open trucks to the site.
13 Once there, the wastes were left in the open in the middle of
14 the Coldwater Creek flood plain. This creek empties into the
15 Missouri, and eventually into the Mississippi River directly
16 above the St. Louis water-treatment plant.

17 For 11 to 12 years, residents of not only
18 north St. Louis County, but also all of the St. Louis
19 metropolitan area, were unnecessarily exposed to radiation,
20 and they never had the chance to protest. In the interest of
21 national security, all this information was concealed. The
22 wastes were moved to Latty Avenue in 1966, where they were to
23 be dried and prepared for shipment to Colorado. In 1973, some
24 of the waste was trucked to the West Lake landfill in the
25 Missouri River flood plain, posing obvious dangers to St.

1 Louis and its inhabitants. Even the roads connecting each
2 site are contaminated, as are several buildings still in use
3 in downtown St. Louis.

4 If we are looking for victims of the cold
5 war atomic age, we need not look any farther than our own
6 neighborhood. Our futures were put in jeopardy because of a
7 distant threat which never materialized. This threat seemed
8 more important than the lives of the citizens of the St. Louis
9 metropolitan area. Was it truly in the interest of national
10 security to conceal the obvious and real dangers from our
11 citizens?

12 Yet the government says, "Come forward and
13 trust us." They say that the mistakes of the past
14 half-century can be corrected. The 1 million cubic yards of
15 radioactive mistakes will be contained. Nevertheless, how
16 clean is clean? Is "clean" the site at Latty Avenue? Is
17 "clean" the open site at the Coldwater Creek flood plain?

18 It is time for the Department of Energy and
19 the government to end the secrecy. The mistakes made in St.
20 Louis, and the nation as a whole, must come out into the open.
21 No possible threat to national security can ever be more
22 important than the tangible threats to the health of our
23 citizens. It is time the government cleaned up their act here
24 in St. Louis. It is time for the United States to move their
25 radioactivity from our citizens. Merely condemning another 60

1 acres of land will not solve the problem.

2 We cannot endanger the lives of our
3 citizens any more. We must seek the safest solution to the
4 mistakes that is not cloaked in secrecy. The waste plaguing
5 St. Louis was the first waste produced in the nuclear age.
6 Let us become a first once again. This time in seeking a
7 public, honest attempt at a cleanup.

8 Thank you. I would like to submit this.

9 THE MODERATOR: Yes, thank you. Blake
10 Vaughn.

11 BLAKE VAUGHN:

12 Good afternoon. My name is Blake Vaughn.
13 I am a senior at the University City High School, and the
14 second of two co-presidents of SMART, Students Making A Real
15 Tomorrow, an environmental group at UC High School.

16 There are 1 million cubic yards of
17 radioactive waste in the St. Louis metropolitan area. This
18 waste contains particles that have been proven by thousands of
19 scientists to be carcinogenic. The presence of hazardous
20 waste was concealed by the government, risking the lives of
21 workers in purification plants and citizens, because of,
22 quote, "national security." What did they fear? Maybe they
23 feared that if the people of St. Louis found out about the
24 hazards of the waste that they would have to do something
25 about it. Well, we know the truth now. It is time to do

1 something.

2 Some people are uninformed about the way
3 radioactive material causes damage in the human body. It is
4 really quite simple: As some substances begin to break down,
5 like uranium, they release radioactive particles. The most
6 hazardous of these is the alpha particle. Alpha particles are
7 very large and energetic compared to other radioactive
8 particles, and thousands of times heavier than an electron.

9 Substances that release alpha particles can
10 be either ingested or inhaled by humans. When the substance
11 is inside the body it is able to do a lot of damage because of
12 its high LET, which stands for linear energy transfer level.
13 A high LET means the particle is able to release all of its
14 energy upon contact in a very short distance, injuring a cell
15 quickly. An alpha particle hitting a cell can do damage
16 equivalent to a train hitting a human body.

17 Four things can happen when an alpha
18 particle passes through the body: The particle can pass
19 through without causing any damage, a cell can be killed or
20 made incapable of replication, a piece of DNA could be injured
21 to the point that it is unable to be repaired. Or, a cell
22 could become mutated to the point that it becomes malignant.
23 The result of the final possibility is cancer. And everyone
24 knows that cancer can kill.

25 Do not be misguided by the possibility that

1 small quantities of radioactive wastes are less of a hazard.
2 There is no evidence suggesting that a certain minute dosage
3 of radioactivity poses a threat of zero. Examples of the
4 negative effects of radioactivity have been recorded in
5 Hiroshima since 1945. New studies are showing that people
6 exposed to, and affected by, radiation in Japan were actually
7 exposed to lower levels than what scientists thought, implying
8 that there are no safe levels.

9 If alpha particles had to affect the body
10 by penetrating the skin, then we would have little to worry
11 about. Alpha particles release their energy so fast that they
12 cannot even break through paper. Unfortunately, when a person
13 ingests or inhales a radioactive substance, the radiation is
14 exposed to totally unprotected portions of the body. Bone
15 marrow, where blood cells are produced, can be easily affected
16 because of their constant rate of reproduction. Sperm and ova
17 cells are vulnerable in the testes and ovaries.

18 As the radioactive substances travel
19 through the digestive system, it has the opportunity to
20 inflict serious damage upon the cells in the intestines. The
21 intestines sheds its lining once every two or three days.
22 This constant replication of cells makes it most susceptible
23 to the effects of radiation. Basal cells are constantly
24 reproducing to produce new skin cells, and are also easily
25 injured by radiation. The results of mutated cells in the

1 liver can be fatty liver, liver cirrhosis, or hepatitis.

2 What we are faced with now is the question
3 of what to do with a half-century's mistakes. We've been sold
4 out by the government. We have discovered that the government
5 felt that it was more important to risk the lives of the
6 citizens of St. Louis than to risk national security. It is
7 time to accept their mistake as past, and work for the future.
8 A future where my children's children will be able to live a
9 life unthreatened by contaminants of a dark past.

10 We need to stop further testing of nuclear
11 weapons energy until a responsible method for the disposal of
12 its deadly by-products is developed. I am young, and I have
13 already grown tired of the excuses made by a self-satisfying
14 past, and to try and justify supposed errors of judgment.

15 The site at Lambert Airport cannot be the
16 place to simply bury the past. Time and time again it has
17 been proven that promises of keeping a waste site clean have
18 not been upheld. Some these deadly chemicals have a half-life
19 of billions of years. That means that they break down very
20 slowly. I do not want high concentrations of these chemicals
21 to be left for any unfortunate group in the future to uncover.

22 Let us work together now, to rid ourselves
23 of the problem of hazardous waste. We have been postponing
24 the problem for too long. It is time to get something
25 accomplished. Thank you.

1 THE MODERATOR: Thank you very much. Mr.
2 Byron Clemens.

3 MR. CLEMENS: What I have submitted are
4 parts of the documentation I have here, but in lieu
5 of time, I hope it gets submitted into the record.

6 THE MODERATOR: It certainly will be.

7 BYRON CLEMENS:

8 My name is Byron Clemens. I live at Redacted - Privacy
9 . My zip code is Redacted - Privacy Act I
10 want to thank you for holding these hearings. I think it's
11 important that the DOE reaches out to the public, and I do
12 appreciate that.

13 I've been requesting a removal of the waste
14 from all six radioactive waste sites in the St. Louis area
15 since 1979 when a police officer friend of mine asked me to
16 comment on a bizarre proposal to put a police driver-training
17 school on top of the site at the airport. I didn't think that
18 was a very smart idea, and helped to try and stop that.

19 I also took it upon myself to post warning
20 signs around the Latty Avenue site before the federal
21 government fenced and posted the area. Leaving a pile of mill
22 tailings unfenced near a residential area was not very smart.
23 I also suggested, along with many others, that the Berkeley
24 Little League ballfield should not be next to a radioactive
25 waste site. This, again, was not a very smart idea.

1 My major concern here today is groundwater.
2 And according to a DOE report/S0078P, which you're all
3 familiar with -- it's being handed out outside -- one specific
4 area the document cites is its "What Is Not Smart" section.
5 "Is groundwater well-drilling and other characterization
6 efforts, without a clear rationale for the number and location
7 of samples, necessary and sufficient for cleanup to start?
8 The current emphasis on installing groundwater
9 characterization wells may actually provide potential new
10 pathways for contaminants to migrate through the very
11 groundwater the Department seeks to protect."

12 I think the airport's a good example of
13 that. A November article in science entitled "Inefficient
14 Remediation of Groundwater Pollution" finds that the principal
15 threat to human health from old waste dumps arises from
16 ingesting drinking water. Not suprisingly, according to the
17 article, leaching enters aqua first. A ten-year study finds
18 that massive removal of contaminants still doesn't bring
19 concentrations down to target levels.

20 The study also says that contaminants at
21 any particular site may be found in different concentrations
22 throughout a subsurface region. The contaminants are absorbed
23 in varying degrees. Some move almost as fast as groundwater,
24 others don't travel as fast, some are almost immobile. It is
25 not possible to predict movement or changes that may occur,

1 especially over the course of thousands of years.

2 A July, 1979 Oak Ridge assessment of the
3 airport site called "Environmental Airport Storage Site of the
4 Atomic Energy Commission" prepared by Weston, details in
5 various impact the site has had on groundwater. Page 3.9 of
6 the report states, "The average daily groundwater discharged
7 into Coldwater Creek from the site is 450 gallons per day.
8 Runoff leaves the site by evaporation, seepage into the
9 groundwater system, and through overland drainage to Coldwater
10 Creek. Coldwater Creek empties into the Missouri, and then to
11 the Mississippi, only three miles upstream from the Chain of
12 Rocks drinking-water intake."

13 The same document cites significant
14 off-site migration. U-238 was found in all but one well
15 drilled, in levels as high as 1,200 picocuries per liter.
16 That's 120,000 times background. At the time of the report,
17 with more than 30 wellholes already drilled, then a program
18 and plan for well installation was designed. Sort of putting
19 the cart before the horse. The occurrence of radioactivity in
20 public water supplies in the United States and health physics
21 states the natural background uranium concentration in
22 picocuries per liter for groundwater in Missouri is .01.

23 In DOE/OR 20722-262, the St. Louis Airport
24 Site Environmental Report for calendar year of 1989, we find
25 readings as high as 6,161 picocuries per liter of uranium at

1 Well B, and figures of 5,281 at Well 11-9, and 2,302 at Well A
2 -- 616,000 times higher than background.

3 And Bechtel Radiological Characterization
4 Report for FUSRAP properties in the St. Louis, Missouri area,
5 DOE/OR 2722-203, in volume 3, table 7-4, we find readings as
6 high as 15,000 picocuries per gram of thorium-230 in soil at
7 ditches outside the site. And a level of 5,100 picocuries per
8 gram in soil at Coldwater Creek. According to DOE, a value of
9 approximately 2 picocuries per gram would be background. The
10 airport values are, therefore, 7,500 times background
11 radiation. This is after these areas were cleaned up.

12 To scoop up this contaminated soil once
13 more, put it back in the site, and watch it migrate again, is
14 not smart. And it should be put in that same category, "What
15 is Not Smart." The history of poor management regarding all
16 six sites in St. Louis indicate that we have seen enough.
17 Move it away from here. Get it away from our groundwater, and
18 out of a populated area. Anything else would be
19 irresponsible. Thank you.

20 THE MODERATOR: Thank you, sir. Paul
21 Kranzberg.

22 PAUL KRANZBERG:

23 My name is Paul Kranzberg. I live at Redacted - Privacy
24 Redacted - Privacy Act. I want to add my thanks to the
25 others for scheduling one of your meetings here in St. Louis.

1 I was born here more than 90 years ago. I
2 have lived here all my life. I've worked here all my life.
3 My wife was born in St. Louis in 1905, and she has lived here
4 all of her life. All of our children and grandchildren were
5 born here.

6 We think it's high time that whatever it
7 takes, and at whatever cost, the dangerous radioactive waste
8 in the city of St. Louis and St. Louis County should be
9 cleaned up.

10 THE MODERATOR: Thank you, sir, very much.

11 Mr. Richard Foor.

12 RICHARD FOOR:

13 How do you do, gentleman. My name is
14 Richard Foor. I live at Redacted - Privacy Act
15 Redacted - Privacy Act. I just came here to be an observer today, but after
16 hearing all these other speakers talk about what a terrible
17 thing uranium was, I just figured I should get up and say my
18 little speech.

19 I worked in the uranium business for 20
20 years, and I've been subject to all this low-level radiation.
21 And I'm surprised that I can even stand up, that I'm still
22 alive after all I've listened to from these talks. But I'm 80
23 years old, I don't take any medicine, and I feel great. I'm
24 still doing a lot of things.

25 So, let me say to these people here with

1 all these horror stories: You can take a million tons, or 10
2 million tons of this stuff -- name the biggest number you can
3 think of -- but unless you eat it, unless you breathe it,
4 you'll be able to survive, as I have. And I feel great.

5 I have a lot of confidence that the people
6 in science that know what they're doing will find a solution
7 to this. And just like -- well, for example, our nuclear
8 energy has just almost fallen on its face. I mean, there have
9 been no new plants even designed in the last few years. But
10 in other countries, in France and other countries, they found
11 out how to get along with this, and the whole thing resolved
12 out on politics. It isn't that we don't have the science to
13 do it, the politics won't permit it.

14 Now, one thing that I dislike -- and I'm
15 not saying what should be done with this material around here,
16 because like I say, I'll leave it up to the scientists to some
17 clear-thinking scientists to decide, and then do it -- there's
18 too many of these things that resolve down to being a
19 political whipping ploy. It may mean votes for politicians
20 because they're against it. Thank you.

21 THE MODERATOR: Thank you, sir. Phyllis
22 Young.

23 PHYLLIS YOUNG:

24 My name is Phyllis Young. And
25 unfortunately, following the other man, I'm a politician for

1 the City of St. Louis. My address is Room 230, City Hall,
2 1200 Market Street.

3 I suppose I'm speaking on behalf of some of
4 my constituents who have worked at Mallinckrodt and died a
5 horrible death last year with cancer, after, I think, being
6 involved in materials that we're storing, the waste, at the
7 airport site. I have been opposed to the site being utilized
8 for further storage from day one, prior to my political
9 experience and political career. I will be opposed to it after
10 my political career ends -- which could be any day.

11 But I think that this is an environmental
12 problem that we will live with until the scientists -- that
13 this man has hope and faith in -- finds a solution. And I
14 think that that problem is only going to become more and more
15 prevalent as more and more of these sites are uncovered -- not
16 only nuclear sites, but others -- and we try to deal with the
17 waste that's been left in these populated areas.

18 I would urge you to consider moving this.
19 Because, as other speakers have indicated to you, the
20 groundwater contamination is a real problem. And I don't
21 think that we know the extent of the contamination, the
22 dangers that the groundwater has for those of us who are
23 drinking from the systems. And I urge you to reconsider, or
24 consider, at least moving it.

25 From my experience, and the history that

1 you have here in St. Louis, in this particular area, you've
2 told us when we bought the site from you, or exchanged it,
3 that it would be safe if we'd put a little bit of dirt over
4 the top of it. Well, that wasn't safe, and that was proved
5 soon after. So you came back a few years later and you dug
6 around it, and you put gavions around it to contain it. That
7 hasn't worked either.

8 So now you're telling us to continue to
9 have faith in you, that you will solve this problem. Well,
10 unlike the other gentleman, I don't think we have a lot of
11 time to deal with this. Perhaps though, it will be eternity.
12 And I would prefer that you move it elsewhere so that it
13 wasn't in a populated area and wouldn't have an effect on mass
14 numbers of people. Thank you.

15 THE MODERATOR: Thank you. Susan Jordan.

16 SUSAN JORDAN:

17 I am Sister Susan Jordan. I'm a school
18 Sister of Notre Dame, and I'm a coordinator of the local
19 corporate-responsibility coalition called the Midwest
20 Coalition for Responsible Investment. I live at Redacted - Privacy Act;
21 and I am a life-long resident of
22 St. Louis.

23 I believe there is great need to clean up
24 the 45-year accumulation of nuclear waste in our area. I
25 believe it need be moved as quickly as possible. I believe

1 the waste that is stored in the St. Louis area significantly
2 affects the quality of our urban, human environment. No
3 metropolitan area should be storing radioactive waste. I
4 believe that the sites at Mallincrodt, the airport, Latty
5 Avenue, et cetera, are detrimental and able to cause genetic
6 and other health hazards. The waste should be moved from our
7 metropolitan area.

8 I would like to talk a little bit about
9 permissible standards and radiation risks. Research continues
10 to show that radiation risks have been underestimated in the
11 past. Re-evaluation of the risks of health effects
12 experienced by the survivors of the 1945 Hiroshima and
13 Nagasaki atomic bombings brought the U.S. Scientific Committee
14 on the Effects of Atomic Radiation to conclude in 1988 that
15 the risk from radiation exposure is three times what it was
16 believed to be in 1977. This is from a December, '88 report
17 of the U.N. General Assembly.

18 The International Committee for
19 Radiological Protection, the radiological standard-setting
20 body whose recommendations are followed by virtually every
21 government in the world, is in the process of revising
22 downward its allowable limits for radiation exposure. Perhaps
23 the most important is that recent scientific studies supports
24 the statement that there is no safe level of exposure.

25 The National Academy of Science's fifth

1 report on the biological effects of ionizing radiation issued
2 in December, 1989, also called the BEIR-5, affirmed the fact
3 that a threshold level below which radiation exposure is safe
4 has not been found. The study is an update of the risk
5 estimates issued by the same group in 1980. That group, the
6 National Research Council, is the research arm of the National
7 Academy of Sciences, a federally-charted but independent
8 organization that studies technical issues for our government.

9 Risk estimates are used to set standards
10 for so-called allowable radiation exposure around the world.
11 For workers in nuclear and related industries, as well as the
12 amount to which the public may be exposed. The estimates of
13 the cancer effects of radiation in this report are
14 three-and-a-half to five times higher than those in the last
15 report from the same group.

16 Still talking about these standards, we
17 believe that internationally-accepted government limits may
18 mean different things to a lay person than they do to a
19 scientist or an engineer. In an excellent book by Catherine
20 Caulfield entitled "Multiple Exposures, Chronicles of the
21 Radiation Age," I believe the following more-accurate
22 statement is suggested. Quote, "Due to technical and
23 financial restrictions, we have not actually measured
24 radiation levels in the area, but our computer programs
25 indicate that radiation levels will be within the

1 international safety limits." End of quote.

2 I would also like to talk about declaring
3 radioactive waste below regulatory concern. It seems that the
4 only solution that the NRC has finally come up with is to
5 re-define the waste. Considering a new category of wastes,
6 what I just said, below regulatory concern. This change would
7 permit as much as 40 percent of low-level radioactive waste
8 generated in the U.S. to be disposed of as ordinary trash, or
9 be recycled in consumer products.

10 The NRC is saying it would not, however, be
11 allowed to be made into toys. They say this would save money.
12 I ask: Would it really? What real savings would there be in
13 spreading radioactive waste into unknown and unmonitored
14 locations such as nearby landfills, and even into homes? How
15 can the materials, now known to be so hazardous that they must
16 be isolated from the environment for thousands of years, be
17 made safe by a decree, by changing the definition to "below
18 regulatory concern"?

19 And my last comment is simply that the
20 technology that gave us this waste is another example of the
21 technology begun and used before thought was given as to how
22 to dispose of this waste. Once more I would ask: Please
23 remove this waste from our metropolitan area. Thank you.

24 THE MODERATOR: Thank you. Ralph Wafer.

25 RALPH WAFER:

1 My name is Ralph Edwin Wafer. Good
2 afternoon, gentlemen. I am a practicing architect in St.
3 Louis, licensed to practice in the state of Missouri, and have
4 operated my own firm for nine years. I also serve on the
5 Board of Director of the St. Louis Chapter of the Coalition
6 for the Environment.

7 I appreciate the opportunity to speak to
8 you today on the subject of cleanup, storage, and management
9 of the radioactive wastes generated in 50 years of
10 nuclear-weapons development. That's a subject in which many
11 of us in St. Louis have a keen interest, as you no doubt have
12 learned in previous testimony. I hope I do not go over
13 previously-plowed ground. If I do, please forgive me.

14 The design professions in this country --
15 and I'm speaking of architectural and engineering designs
16 disciplines -- pride themselves on being able to design
17 solutions for every imaginable need. Collectively, these
18 professions constantly promote the notion that no problem is
19 so difficult that some creative thought and intense design
20 effort by properly-gifted members of our professions cannot
21 solve it.

22 Engineers and architects have a tremendous
23 amount of self-interest to protect, hence, the promotions of
24 our disciplines with the we-can-solve-your-problem approach.
25 I don't need to tell you that engineers and architects

1 sincerely believe in themselves and their ability. One has to
2 in these professions. I fiercely believe in my own. But I
3 have a tremendous respect for my own limitations. Many of my
4 colleagues do not recognize they too have limitations.

5 There is some basis for this view, that our
6 design ability is invincible, that we can continually push the
7 horizons further and further. There are examples all around
8 us that represent high, technical art, in buildings, building
9 systems, bridges, tunnels, vehicles, schools, and anything
10 else we design and build. If we do not experiment and
11 innovate, we do not achieve progress. That's an accepted
12 dictum.

13 There's always a cost to such innovation.
14 In my own profession, it's usually a leak. But in others, the
15 costs can be far greater -- human lives, for example. I have
16 read some of the technical literature regarding how to best
17 store and manage radioactive waste. And I am of the opinion
18 it is one of the most challenging problems facing us as a
19 nation.

20 How can the design disciplines help solve
21 it? The technical challenges are incredible. This is no work
22 for the faint-of-heart. The spoken and unspoken way to
23 discovering the solution is, quote, "Bring on our best and
24 brightest engineering talent, and put them to the test."

25 The design solution for storing waste at

1 the airport site at St. Louis, they've called for an earthen
2 bunker. The fact that the site is adjacent to a creek, in a
3 flood plain, in seismic zone two and pretty close to seismic
4 zone three, and is in the midst of a large metropolitan area
5 calls this solution into severe question.

6 Responsible engineering, such a solution
7 absolutely is not. Administratively expedient, it is. Is the
8 deficiency of this solution the fault of the engineer?
9 Perhaps not. I defy anyone to design an acceptable storage
10 solution at the St. Louis Airport site. A May, 1975 report
11 prepared for the Oak Ridge National Laboratory evaluated
12 techniques for storing uranium mill tailings. The report
13 stated that the conventional 6-inch earth covering used to
14 cover such tailings did nothing to diffuse emanation of
15 radon-222 gas.

16 To reduce emanation by a factor of 100
17 would require a 20-foot earth cover for a New Mexico site, and
18 a 10-foot cover for a Wyoming site. The higher moisture
19 content in Wyoming contributes to the need for less cover.
20 The addition of a layer of asphalt would reduce the amount of
21 earth cover necessary.

22 In 1979, four years later, an engineering
23 study for the airport site in St. Louis called for a
24 significant re-grading of the contaminated soil, coverage of
25 the contaminated soil by several feet of clean earth cover,

1 and finally, construction of a police driver-training center
2 above it all. Who signed his name to such a proposal?
3 Whoever it was must not have read the literature very
4 carefully. Or if he did, he must have thought that
5 high-moisture Missouri soil and an asphalt cover would be just
6 the ticket for trapping radon-222 gas.

7 But to use the site for high-speed driver
8 training? In Missouri, even the best asphalt paving
9 deteriorates. The authors of the 1975 report at least called
10 for the asphalt below the earth cover, where, though it might
11 be protected from external weather forces, it would be hidden
12 from view, so that monitoring would be difficult at best.
13 Fortunately, the 1979 proposal was quickly condemned by
14 interested citizens who had read the literature and recognized
15 bad engineering when they saw it.

16 The upshot of my statement, gentlemen, is
17 that just as war is too important to be left to generals --
18 and parenthetically, I would add certain commanders-in-chief
19 -- suitable storage solutions for radioactive waste are too
20 important to be left to engineers and architects. This is not
21 a subject properly left in the hands of persons whose
22 self-confidence too often exceeds their competence.

23 Few, if any, structures designed and built
24 by man have withstood the centuries intact. Stone Henge and
25 the Indian mounds of Ohio come to mind as exceptions. The

1 Great Wall of China is still there, but an army of people are
2 gainfully employed maintaining it. The great Pyramids still
3 exist, but like the Great Wall, are only as strong as the sum
4 of their many parts, some of which are badly deteriorated.

5 What the examples I've cited tell me is
6 that natural materials in large quantities with a minimum of
7 change wrought by humankind are our best bet to last the
8 future millennia, which will be needed to house our waste.
9 Unlike human beings -- that we have enough trouble housing
10 adequately for their short term on earth -- we're challenged
11 to house radioactive elements with active lives that number in
12 the millions of years.

13 Asphalt covers, or synthetic fabric liners,
14 simply are not up to the job. We should look for those sites
15 that meet the following criteria: One, away from population
16 centers. Two, geologically stable. And three, not near water
17 sources. Once such a site is determined, the engineering of
18 the site is not as daunting as it is for unsuitable sites like
19 the one at the St. Louis Airport. Instead of asking designers
20 to achieve the impossible, we present them with the task that
21 at least has a chance of succeeding.

22 Such a site marked on all maps also has the
23 best chance of being known as a site dangerous to life in the
24 succeeding centuries, when we're not here to remember where
25 materials were buried, and constantly learning new locations

1 to where it has migrated.

2 I appreciate this opportunity to speak to
3 you this afternoon. Thank you.

4 THE MODERATOR: Thank you. Given that I do
5 not have anybody else on my list who is here
6 currently, I suggest we take a brief recess and
7 re-convene at 4:10.

8 (Whereupon, a brief recess was had.)

9 THE MODERATOR: I would like to re-convene
10 this afternoon's session. Our next speaker is Wendy
11 Katz.

12 WENDY KATZ:

13 My name is Wendy Katz. I live at Redacted - Privacy Act
14 Redacted - Privacy Act

15 As an artist working in new technology and
16 scientific research, I am extremely curious regarding the
17 situation we have before us in this room today. You see, most
18 of my life has been lived in St. Louis. I was born here in
19 1950, almost a decade after the material we are discussing
20 HERE today was manufactured HERE, hauled around through the
21 city and the county HERE, and dumped HERE. Yes, and a few
22 years later, this community, and particularly children, who
23 are exposed to fallout from underground testing HERE in St.
24 Louis.

25 So, HERE is my beginning, my home, my

1 community. HERE is also a beginning -- a home for radioactive
2 waste that was not part of a community. Private enterprise
3 and government made HERE a place, and still is unprotected
4 from all the unknowns regarding nuclear waste and low-level
5 radiation. We are being asked to consider -- and very
6 possibly told -- to accept a long-term storage facility HERE,
7 simply because we already have a contaminated site HERE.

8 I believe the time has come to change what
9 has become the status quo of radioactive waste handling HERE.
10 I believe it is necessary to challenge the airport site in St.
11 Louis as the bunker site for this proposed cleanup. It is
12 time for a site that is non-urban and not near water, to be
13 proposed, investigated, and developed. It is time for St.
14 Louis, for HERE, to be cleaned up of its radon and radioactive
15 dust.

16 We are entering into our sixth decade of
17 co-existing with unwanted cubic yards of throrium-230 and
18 titanium-227. And why should we be asked to add more
19 decadence to this co-existence? Let us look at a few reasons
20 for asking such a question. In the summer of 1989, the
21 National Academy of Scientists in its BEIR-5 report explains
22 that low levels of radiation may be more dangerous than
23 previously acknowledged. Quote, "Young people, especially
24 those under 25, are at the greatest risk of getting cancer
25 from low-level radiation exposure. And fetuses exposed to low

1 levels of radiation are at higher risk of mental retardation
2 than was previously recognized."

3 Quote, "Recent evaluation of Hiroshima and
4 Nagasaki bomb survivors lead the BEIR-5 committee to conclude
5 that the cancer risk-benefit is strictly a model in which
6 risks at low dosage are proportionately just as great as risks
7 at high doses." And therefore, change had occurred in the
8 thinking of the National Academy of Sciences and scientists in
9 understanding and developing the proportionate analysis.

10 From a DOE report of 1988-89, I quote, "The
11 U.S. has not previously targeted advanced waste technology as
12 a high priority. The nation does not know all it needs to
13 know about the best methods for treating and disposing the
14 radioactive and hazardous waste it generates."

15 On November 9th, 1989 the Secretary issued
16 a five-year plan, and the new office of Environmental
17 Restoration and Waste Management was made. And I quote from
18 his report, "The five-year plan was developed from data and
19 information submitted from each DOE facility to confine and
20 correct immediate problems that posed the greatest threat to
21 public health and safety. To ensure that long-range cleanup
22 plans are based on credible science and technology, and to
23 ensure that the DOE will comply with all environmental
24 requirements."

25 And it went on to say, "This is a new

1 culture based on openness and responsiveness." And it went on
2 further to say, "Under new leadership, additional emphasis has
3 been place to protect the public and the environment." I
4 would say that the Statements on Intent sound very
5 pro-environment, but the questions remain: How is this to be
6 accomplished? What controls and guidelines are used to
7 correct immediate problems? What are the specifics to let us
8 know what is a credible scientific and technological source?
9 Who comprises the new leadership?

10 Going on. So what can happen when one is
11 exposed repeatedly to low-level radiation? Low-level ionizing
12 radiation is dangerous to humans because of damage to genetic
13 material or DNA. Dr. Rotier of the Washington University
14 School of Medicine discusses the repair capability of DNA. He
15 says that, yes, repair can take place from damage inflicted by
16 low-level radiation.

17 But repair is a two-edged sword. What can
18 happen? The more fractured the DNA becomes, the harder it
19 becomes for cells to put it back together again without making
20 a mistake. I guess you could say this is a sort of a Humpty
21 Dumpty syndrome. Pieces get misplaced or are put in
22 incorrectly to other parts. So normal cells can become a
23 cancer cell. Quote, "Just because a cell repairs itself
24 doesn't mean that it hasn't changed somehow. A dead cell
25 won't give you cancer, but a loosely-repaired cell might."

1 End of quote.

2 There are several cases of communities who
3 have faced problems of protection both public and private
4 around the country, but particularly here in the mid-west. In
5 west Chicago with Kerr-McGee in relation to the chemical
6 dumping, it is still to be determined if Kerr-McGee will be
7 given a license to permanently dispose of waste that's been in
8 this area since the 1930's.

9 In St. Louis, I'm sure you've heard already
10 testimony about cancer clusters in the area wedged between
11 Interstate 270 and 170. We have storage problems all around,
12 in Kansas, in Missouri, and so forth. The Three Mile Island
13 study by the National Audubon Society also indicates that very
14 low levels of radiation have increased the possibilities of
15 children having cancer by two-to-one, from areas that were in
16 those zones. There are also studies in Massachusetts near the
17 Pilgrim reactor. They feel that background radiation can
18 increase cancer possibilities by four times.

19 So, may I end with: We are being asked to
20 engage in a trust, a very tender trust. Fanaticism on both
21 sides of the issue does not help us to uncover the truth.
22 However, it is important for the government, such as the DOE,
23 to represent the people, and to remember that we live in a
24 democracy. And that communities in America have a right to
25 domestic tranquility, including protection from known and

1 unknown effects from storage of low-level radiation generated
2 by government projects years ago, as a project that was in the
3 national interest, done as it should be now.

4 We have seen from other communities, as
5 well as our own, there's a reason to be skeptical of decisions
6 that ignore a community's concerns and documentation of health
7 hazards and disease. So, yes, we must protect this tender
8 trust, and make HERE a much safer HERE than it has been for
9 almost half-a-century. Thank you.

10 THE MODERATOR: Thank you. Karen Safe.

11 KAREN SAFE:

12 My name is Karen Safe. I live at Redacted - Privacy Act
13 Redacted - Privacy Act Zip code is Redacted - Privacy Act).

14 I don't have prepared remarks. I didn't
15 plan on speaking, but I just wanted to express to you my
16 concern about the storage facility proposal here in this
17 populated area. I agree with the previous speaker's final
18 comments about this trust that you have, and that the
19 government has, and you all represent. I hope you will hold
20 that trust in your hands and look at all of the possibilities,
21 and keep in mind that these are people, these are children,
22 and this is a large populated area.

23 I just wanted to express my concerns about
24 that. Thank you.

25 THE MODERATOR: Thank you. At this point,

1 we will have a short recess, to re-convene at 4:50.

2 (Whereupon, a brief recess was had.)

3 THE MODERATOR: Our next speaker is Tim

4 Dunn.

5 TIM DUNN:

6 My name is Tim Dunn. I live at 2 ^{Redacted - P 7}

7 Redacted - Privacy Act

8 I want to start by reading a small brief
9 from Post-Dispatch November 29th. It's not about radioactive
10 material, but it is about Lambert. "The Missouri Air National
11 Guard officials in St. Louis are studying three cases of
12 apparent contamination from underground fuel tanks at Air
13 Guard facilities, two at Lambert Field, one at Jefferson
14 barracks.

15 "Although contamination appears to be
16 limited to soil in the immediate area of the two tanks, an
17 unknown level of groundwater contamination exists near a
18 fuel-storage area at Lambert Field. Guard officials are
19 asking residents that use well water in this area to call the
20 base Civil Engineers office to determine whether testing is
21 needed. A cleanup plan will be developed."

22 I've come here today to voice my strong
23 option to the plan for using Lambert Field as a deposit site
24 for 1 million cubic yards of contaminated dirt containing
25 radioactive waste from the first nuclear weapons program. I

1 make my living as a general contractor. For ten years I've
2 been digging and building, tearing old buildings apart, and
3 tearing parts of homes down in order to remodel and rebuild.

4 My understanding is that an earth-encased
5 bunker is planned at the airport to store the dirt in. As a
6 builder, I have grave concerns about the presence of a vast
7 amount of radon gas in this area. St. Louis' underground soil
8 composition and the large concentration of population in this
9 area indicate to me that building a storage site here is an
10 idea which is questionable at best, and may be thoroughly
11 irresponsible.

12 Radon, a daughter-product of thorium, is
13 known in this area to actually leach through basement walls.
14 Homes in this area are tested for radon because of its deadly
15 effects. Now, the earth around this area moves. You can look
16 at my house and my neighbor's houses and see cracks in the
17 concrete front porches caused by earth shifts. No earthen
18 bunker will hold gases in this area. The earth will crack
19 leaving gas pathways to groundwater and open air. And then
20 there are the pathways caused by moles, insects, et cetera,
21 digging underground. We cannot put Keep Out signs underground
22 to keep their normal activities away.

23 To dump radioactive waste at Lambert Field
24 will some day demand that we fly to the airport to catch a
25 plane because no one will be able to live close enough to

1 drive. But unfortunately, the way we will realize we need to
2 move is that our children will begin to get sick and die,
3 because children are always the most vulnerable in our
4 population.

5 By now, as citizens, we have learned that
6 it is standard operating procedure for every level of
7 government to offer automatic reassurances to the general
8 population. Even before the assessment of a critical
9 situation is completed, we hear from local authorities that
10 there is no need for concern, and no need to worry. We have
11 come to distrust this reassurance, and see it for what it is
12 -- a meaningless public-relations statement.

13 Let us not kid ourselves. In every
14 situation of this kind there are risks, and those in power
15 must decide whether the risks are acceptable to accomplish the
16 task. But the question I have for you is this: If the risks
17 are acceptable, to whom are they acceptable? I have two
18 beautiful granddaughters, one here, and I'm here to tell you
19 that the risks are not acceptable. Not to me, not to them,
20 and not to the citizens of this area. Thank you.

21 THE MODERATOR: Thank you, Mr. Dunn.

22 Reverend Deborah Fortel.

23 DEBORAH FORTEL:

24 I am Reverend Deborah Fortel. I live at

25 Redacted - Privacy Act . I am here as

1 a concerned citizen, and I was also on the petition committee
2 seeking to repeal the decision to have nuclear waste stored at
3 the airport.

4 I'm concerned for a number of reasons about
5 this decision. I am aware that we have the oldest nuclear
6 waste in the world, here in St. Louis. It was first produced
7 on December 2nd, 1942 at Mallinicrodt, and it's still here
8 causing us problems.

9 We don't know what to do with nuclear
10 waste, where to put it, how to management it. Either
11 low-level or high-level waste is a problem. I'm aware that
12 there is a ruling against discussing the disposal of
13 high-level waste. However, I would like to enter into the
14 record an article concerning the high-level waste at Yucca
15 Mountain, which was the cover article in the New York Times
16 magazine on November 18th of this year.

17 I have concerns that there is a continuing
18 lack of absolute candor with the public on part of the
19 Department of Energy and those responsible for dealing with
20 the disposal of nuclear waste. The fact remains that it is
21 still a problem to us internationally. We don't know how to
22 deal with it safely.

23 As a minister and a director of a social
24 service agency which serves the needs of the poor, my concern
25 is for human beings to be developed as fully as possible in

1 order to live in accordance with God's hope and will for
2 humanity. When we spend our energies, and our money, and our
3 best minds, finding ways to create new weapons, we are
4 creating more problems for ourselves. And we are funneling
5 our energies away from the direction that they should be
6 spent.

7 We continue to produce this nuclear waste,
8 both in weapons and in nuclear power plants, at a terrible
9 cost. It's dangerous work, the by-products are dangerous to
10 the health of those who near their storage sites, and they are
11 a problem for us here in St. Louis, as you well know.

12 I urge you to find other sites less
13 populated and less dangerous for the storage of this nuclear
14 waste. And long-term, I urge this nation to spend its
15 energies in better directions. Thank you.

16 THE MODERATOR: Thank you, Reverend. Our
17 next speaker will be Mal Donahue.

18 MAL DONAHUE:

19 Hi. My name is Mal Donahue. I live at

20 Redacted - Privacy Act

21 I don't have a prepared statement, but I
22 did want to come up and say that I came over here today on my
23 lunch hour and I came back tonight. I didn't get to hear
24 everybody today, but most of the people that I heard, they
25 were pretty afraid, almost to the point of, I guess,

1 exasperated with some of the things that are going on as far
2 as nuclear waste is concerned.

3 I guess the reason I came up to say
4 something was because I just don't like this
5 not-in-my-backyard syndrome all the time. I think this
6 nuclear waste is something we have to deal with. It's our
7 problem, not only the Department of Energy's problem, but
8 everybody's problem in this country. I can't see us trying to
9 pass our problems along. I do understand everybody's concern.

10 It bothers me when I look at this map out
11 here and see the areas of nuclear contamination, surface and
12 subsurface, all the way down to 18 feet where it was recorded.
13 I live very close to the airport, and that's something that
14 concerns me. I'm a dumpster hygienist and we've had calls to
15 go out to Coldwater Creek for jet-fuel contamination in the
16 creek. I've gone throughout the country to different sites
17 and seen that there's nothing new about St. Louis, as there is
18 about other places across the country.

19 What concerns me is the fact that we're
20 outpacing our technological development with our resources.
21 And I think our human resources are probably our greatest
22 resource in this county. It doesn't surprise me to see
23 everybody here today, because it concerns me -- I know it
24 concerns everybody else here -- the fact that people are
25 brought into contact with hazardous materials. However, I

1 believe that hazardous materials are something that we have to
2 deal with. We can't just keep passing it on to our next
3 generation.

4 I listened to David Brower and he said that
5 our environment isn't something that we inherit from our
6 parents. It's something that we borrow from our children.
7 And I see that this contaminated site at Lambert has to be
8 cleaned up. It has to be cleaned up in north St. Louis.
9 There's a lot of contamination at Weldon Spring. It has to be
10 cleaned up. And I think it's something that we have to deal
11 with. And I think the more we try to pass it on, the more
12 landfills we try and site -- that are technologically sound
13 that we vote against because it's too close to us, or too
14 close to somebody we know -- the further and further away we
15 keep putting these problems, the greater they're going to be.

16 And I really would like to see us address
17 these problems. I would like to see that we make a real
18 concern and a real effort to mollify people -- maybe not to
19 mollify, bad choice of words -- but to educate our people and
20 let them know that there is a safe means to deal with these
21 types of contaminated wastes. And that people could be living
22 in close proximity to these wastes and still feel safe and
23 secure about what's going on. Because the more we pass the
24 buck, the less that's ever going to get accomplished. Thank
25 you.

1 THE MODERATOR: Thank you. Our last
2 speaker for this afternoon will be Ms. Sandra Lowes.

3 SAUNDRA LOWES:

4 Good evening. I'm Sandra Lowes,
5 L-O-W-E-S, Redacted - Privacy Act I'm a
6 full-time homemaker, a mother of three small children,
7 part-time English instructor at a local college.

8 First, I want to say unequivocally that I
9 do not want radioactive waste stored in the city in which my
10 family lives. Its presence here now disturbs me deeply. The
11 possibility of its storage here in the future frightens me.
12 And the continuing production of it for an indefinite time
13 period shocks me.

14 Why are we doing this to ourselves, I ask.
15 What magic do we think will make all this radioactive waste
16 null and void some day? Second, I want to bring up a dirty
17 word, "containment integrity." In other words, what package
18 can we fill with radioactive waste and expect it to last
19 millions of years? Uranium-238, a predominant substance in
20 our waste here, has a half-life of 14.5 billion years.
21 Thorium-232, also here, has a half-life of 14.1 billion years.

22 In a report on geo-chemical behavior of
23 long-lived radioactive waste, document number ORNL-4481,
24 prepared in 1975 by the Oak Ridge National Laboratory for one
25 of the DOE's predecessors, Energy Research and Development

1 Administration, scientists attempted to calculate the hazard
2 potential of such waste, up to, I quote, "10 million years
3 after generations." On page 3 of that report, this conclusion
4 was drawn: "The most likely mechanism leading to transfer of
5 activity to the biosphere is failure of isolation from
6 groundwater."

7 Sirs, I urge you to spare our city 10
8 million years of exposure to radioactive materials. In this
9 geologic area, no container will possess that illusive
10 integrity. Please, take this health hazard away from us. You
11 have the power, and I hope the honor, to do so. Thank you.

12 THE MODERATOR: Thank you. With that, that
13 concludes this afternoon's session of this scoping
14 meeting for the PEIS. We will re-convene at 6
15 o'clock, one short hour from now. At which time
16 there will be a repeat of the opening remarks made
17 this morning. Beginning at 6:30 and running until
18 9:30, we will once again receive comments.

19 To close, I would just like to thank all of
20 you for not only taking the time to come and speak
21 before the group today, but also for the time and
22 effort that you have put into preparing your
23 comments. They're very appreciated. Your oral and
24 written comments will be given equal treatment in
25 consideration by the Department as it prepares its

1 PEIS. Thank you.

2 (Whereupon, a dinner break was had.)

3 E V E N I N G S E S S I O N

4 THE MODERATOR: It looks to me to have a
5 full evening. As announced before, I will introduce
6 the speaker, and then name the person who is on deck.
7 The first speaker this evening is Lewis Green.

8 LEWIS GREEN:

9 My name is Lewis Green. I am a lawyer here
10 in St. Louis. My office is at 314 North Broadway, Suite 1830,
11 downtown St. Louis, 63102.

12 I'm a lawyer who has represented the
13 Missouri Coalition for the Environment for a number of years.
14 I have litigated a number of cases, and I have a considerable
15 interest in this process of a Programmatic EIS. My principal
16 concern is that we'll keep the eye on the ball here, and we
17 don't wrap up every location in the same systematic approach.

18 A Programmatic EIS is a good thing to do
19 and I'm glad you're doing it, as long as we don't lose sight
20 of what is very important here. There are some major national
21 concerns which can be properly addressed in a Programmatic
22 EIS, as Mr. Baublitz just pointed out a number of them. It
23 certainly would be appropriate, for example, to consider the
24 impacts associated with the possibility of finding one, or
25 perhaps two or three, more or less centrally-located

1 repositories to which to transport all of the wastes of these
2 various sites.

3 That's something that can really only be
4 addressed on a Programmatic basis, not on an individual
5 site-specific basis. That's the kind of thing that makes it
6 desirable that you proceed with the Programmatic EIS. There
7 are other factors that could well be considered in a
8 Programmatic EIS. You could very well deal with the overall
9 national problem, should the government continue to generate
10 more of this waste while we still haven't solved the problem
11 of what to do with the waste we've got now. Or should the
12 government simply call a halt and stop producing anymore until
13 we have found an adequate disposition for these wastes?

14 You could draw other rather general
15 conclusions that would be valuable in dealing with a
16 Programmatic EIS. For example, it seems fairly obvious to me,
17 and should be obvious, I should think, to anybody, that one
18 dominant concern that should run through your consideration of
19 all these sites throughout the nation is that we don't want to
20 keep this waste permanently in a highly-populated urban area.
21 Whatever the risks are from exposure to any of this
22 contamination which may escape -- and while we can argue about
23 what they are, we can't very well argue about the proposition
24 that the risks are increased with the number of people exposed
25 to it.

1 It's essential, and a Programmtic EIS could
2 easily lead to the conclusion, that there's one thing for sure
3 we have to do here, and that's to get this stuff out of these
4 urban areas. At the very least, we have to do that much. My
5 concern, however, is that in a Programmtic EIS, we lose sight
6 of the site-specific problems. After you've dealt with these
7 huge problems, the tremendous problems at many sites
8 nationally, you generate 20, 30, 40, 50 volumes -- more than
9 anybody can read, or that anybody can carry to a meeting --
10 and you still haven't gotten down to the site-specific
11 problem. You figure you've done enough, and you're not going
12 to do that.

13 That is where we lose out locally. And
14 that is the danger with the Programmatic EIS. I heard Mr.
15 Baublitz mention a few minutes ago that the intergrated
16 management program -- I'm not sure exactly how he put it --
17 but that was one of the concerns which may be assumed to be
18 desirable. I'm not sure that is desirable. Maybe it
19 shouldn't be. Different sites have different problems.

20 And I don't know what you mean by a
21 management program, but the important thing is not to lose
22 sight of the local problems when you're dealing with the
23 national problems. Here in St. Louis we will be watching very
24 closely what you do, and we will be respectfully demanding a
25 full analysis, eventually, of the impacts associated with the

1 St. Louis radioactive waste sites.

2 And when you do that, is something DOE
3 decides as part of its hearing process. But that is something
4 that has to be done, unless you decide on a national basis to
5 pick it all up and move it to one or two locations. Even then
6 there will be local problems of how do you pick it up, and
7 what safeguards, and how do you transport it, and where, and
8 so forth.

9 That will, then, serve as a close to my
10 comments. I urge that you keep the local problems in your
11 thinking, and realize that you're going to have to deal with
12 them fully at some point in this process. Thank you.

13 THE MODERATOR: Thank you, sir. The next
14 speaker this evening is Alice Sanvito.

15 ALICE SANVITO:

16 Good evening. My name is Alice Sanvito.
17 My address is Redacted - Privacy Act I'm
18 speaking tonight as a concerned citizen.

19 I'm here tonight to ask the Department of
20 Energy to seriously consider, as an alternative, whether we
21 should halt the mining of uranium altogether, given the fact
22 that we don't yet know how to safely dispose of the wastes
23 that have already been generated. In nature, uranium is
24 predominantly located deep within the earth where it can't do
25 us any harm. Small amounts of it exist in the soil and seep

1 into the water. The small amounts of background radiation
2 contribute to the aging process and can cause cancer.

3 We can't isolate ourselves from the
4 background radiation, but we can avoid adding to it. When we
5 mine uranium, we bring huge amounts of this material from deep
6 within the earth to the surface. These materials would not
7 otherwise be in our biosphere if we didn't bring them up.
8 When we bring them up, we pulverize them into tiny particles
9 that can easily be dispersed into the air, and into the water
10 which we can take into our bodies.

11 Right now in St. Louis, there's an
12 estimated 1 million cubic yards of waste from the Mallinckrodt
13 Chemical Works left over from the first 15 years of the making
14 of the first atomic bomb. A predominant substance of the
15 Mallinckrodt site is uranium-238. I would like to present a
16 chart of the daughter-products of uranium-238, their
17 half-lives, and the principal types of radiation emitted.
18 Uranium-238 breaks down into a number of isotopes before it
19 finally becomes stable and no longer radioactive. Some of
20 these isotopes are rather short-lived and are not of much
21 concern to us.

22 But some of them are long-lived and emit
23 large amounts of radiation and can be very harmful to us. It
24 is conservatively estimated that it takes 10 half-lives for a
25 given amount of a radioactive material to break down into a

1 harmless state. Many of these isotopes emit alpha particles.
2 Now, alpha particles can't penetrate the skin, but they can
3 easily penetrate soft tissues.

4 If materials that emit alpha particles are
5 taken into our bodies, either by swallowing or inhaling, they
6 can do great harm to us by destroying cells, by causing
7 cancer, by causing mutations by damaging our immune system,
8 this making us more susceptible to any disease that we're
9 exposed to.

10 Uranium-238, the predominant substance of
11 the Mallinicrodt sites, has a half-life of 4-and-a-half billion
12 years. That means it will take 45 billion years for the
13 uranium at the Mallinicrodt site, and all the other uranium
14 that we have mined, and continue to mine, to break down to a
15 stable lead. While it's breaking down, it will be emitting
16 alpha particles at the rate of 12,400 particles per second per
17 gram.

18 I don't know if there's anyone who's
19 convinced that we can really isolate this material for 45
20 billion years. Uranium-238 breaks down into other isotopes,
21 and all of them are present at these sites. Uranium-234, for
22 example, on the chart, has a half-life of 247,000 years.
23 Thorium-230 is considered very hazardous, and has a half-life
24 of 80,000 years. Radium-226 is also very hazardous, and has a
25 half-life of 1,602 years.

1 Radon-222 is the same radon gas that
2 collects in our basements and can cause lung cancer. It has a
3 half-life of only 3.8 days, but exposure to it can still cause
4 lung cancer. Lead-210 is also present. We know that lead is
5 hazardous, and radioactive lead is even more so. Lead-210 has
6 a half-life of 20 years and can be a very hazardous element.
7 Polonium-210 only has a half-life of 138 days, but it is a
8 very hazardous element also. It gives off 5,000 more times
9 radioactivity than radium, approximately 185 trillion alpha
10 particles per second per gram. I would like to repeat that
11 figure -- 185 trillion alpha particles per second per gram.

12 Exposure to any of these radioactive
13 isotopes increases the risk of cancer, mutations, and
14 immune-system defects. These wastes will be with us, in
15 essence, forever. We have no idea how we will isolate them
16 for the unbelievable length of time that it will take. And we
17 have no way of testing any methods that we propose, whether
18 they'll be effective for thousands and millions and billions
19 of years.

20 I would like to ask the Department of
21 Energy, in the preparation of your Programmatic Environmental
22 Impact Statement, that you study carefully the alternative of
23 stopping altogether the mining of uranium. I want to thank
24 you for giving me this opportunity to testify here today, and
25 I would like to enclose a copy of the uranium decay chain for

1 the record. Thank you.

2 THE MODERATOR: Thank you. Ms. Mary
3 Halliday.

4 MARY HALLIDAY:

5 My name is Mary Halliday, and my address is

6 Redacted - Privacy Act

7 I live 3-and-a-half miles west of the
8 Weldon Spring site remedial action project in St. Charles
9 County, Missouri. For the past eight years, I have watched
10 this site go from a DOE embarrassment to the cleanup stage
11 which it is in right now. And it allows me to rest much
12 easier.

13 During the past years, while monitoring
14 this site, it became very apparent that in the past 30, 40, 50
15 years, the Department of Energy has generally seen the good
16 earth as a resource to be used, spoiled, and discarded. Those
17 days have ended, hopefully.

18 The preparation of the Programmatic
19 Environmental Impact Statement should take into consideration
20 these facts. The nation's people have absolutely no need for
21 nuclear weapons production, now or in the future. These were
22 a product of mankind's greed. The nation's people and the
23 Department of Energy should have, as their primary goal in the
24 next 50 years, the cleaning up, the restoration, and the
25 protection from the abuse heaped upon the land in the past 50

1 years.

2 The list of contaminated sites in our
3 country is appalling. The secondary goal is to educate the
4 nation, its leaders, and the Department of Energy, on the
5 positive ethics of peace and how it works. There are always
6 plenty of little to medium-sized wars going on daily in every
7 town across the nation. Focus on these, avoid the big wars
8 like the black plague, because the contamination we have been
9 left with today gives us our own inherent black plague.

10 The other two comments that I have were
11 site-specific, and I should not conclude those; right?

12 THE MODERATOR: You can speak as you like
13 for five minutes.

14 Okay. The St. Louis Airport storage site
15 must be considered as Department of Energy misplaced waste.
16 It should be permanently removed from its present location in
17 St. Louis County and stored on a site which is far removed
18 from a million people, and not in St. Charles County.

19 The Weldon Spring remedial action project
20 in St. Charles County must be acknowledged as sitting atop a
21 crust geology formation. Therefore, it is subject to
22 catastrophic collapse. The permanent on-site disposal of the
23 Weldon Spring wastes need to be seen as a pond in a possible
24 catastrophic collapse in this area. No insurance is available
25 to cover the cost of this collapse should it happen a 100

1 years from now. The only thing that would prevent that would
2 be a wise judgment, and a decision next year on the final
3 resting place for these radioactive wastes at Weldon Spring.

4 And my last request is: In your PEIS, may
5 all your site cleanups nationwide be done with the same
6 integrity and fastidious care that have been shown in recent
7 years at the Weldon Spring site. Thank you.

8 THE MODERATOR: Thank you. Our next
9 speaker will be Rachel Locke.

10 RACHEL LOCKE:

11 Hi. My name is Rachel Locke. I live at
12 Redacted - Privacy Act That's in Redacted - Privacy Act. I'm a graduate
13 student in neuro-sciences working on my Ph.D. at Washington
14 University. And I study fish and vegetable physiology.

15 I'm here to talk about bio-cumulation. You
16 may ask, well, why am I talking about bio-cumulation? What is
17 that anyway? That's why I'm talking about it, because I think
18 people don't know what bio-cumulation is. And if we don't
19 know what it is, we can't be informed about it, and we can't
20 hold people -- such as our friends up here, and our
21 legislators -- responsible for it.

22 So, the process of bio-cumulation, I think
23 I've illustrated fairly well with this poster, which I'll
24 share with you guys out there, and then you folks back here.
25 They're first, there's more of them. It's a process by which

1 a small organism at the bottom of the food chain eats or
2 ingests a radioactive particle. Then this smaller organism is
3 eaten by a larger organism, which ingests a couple of these,
4 so now it's got an accumulated amount of these radioactive
5 particles.

6 Then a couple of these little fish are
7 eaten by a larger fish, so now it's got even more. And then a
8 larger fish eats a number of these littler fish, and it's got
9 even more. Now, by the time it gets to this size, when I go
10 out fishing and I catch this fish, they'll let me keep it.
11 So, I catch this fish, I pull it home, and take it and eat it
12 for dinner. And a little while later, BANG!

13 So, you say, well, where is this going on?
14 Is this going on? Yes, it's going on. It's going on as we're
15 talking here this evening. It's going on in at least a couple
16 of the lakes in the Busch Wildlife Preserve. We know that
17 they're contaminated with radioactive waste. And it's also
18 going on in the Osage Sluice. We know that there's a
19 hydraulic connection between the sluice and the quarry at
20 Weldon Spring.

21 So, what I'd like to know -- which you'll
22 have to answer for us at some point -- is why people there
23 aren't being either prohibited from fishing in those areas, or
24 at least being informed that there could be, or that there is,
25 contaminated fish -- or are, plural -- in those areas. And

1 I'd like to know if you would make a recommendation at least
2 that some signs be posted there so people can at least fish
3 based on an informed judgment?

4 THE MODERATOR: This is not a question and
5 answer session, so we will take that as a rhetorical
6 question which will be addressed.

7 MS. LOCKE: Thank you.

8 THE MODERATOR: Thank you very much. The
9 next speaker will be Buzz Westfall.

10 BUZZ WESTFALL:

11 I'm here, really, to address the same
12 issue, and you're going to hear a lot of repetition tonight,
13 as I'm sure the DOE does across the nation. Even though
14 you're used to that, it's important. Because the same people
15 feel the same way, repetition is almost inevitable.

16 I'm Buzz Westfall, the current prosecuting
17 attorney. I've been elected three times in this county,
18 county-wide, so I've served twelve years as a prosecutor. I
19 was just recently elected as the county executive, so on
20 January 1st, I'll be sworn in in a new capacity. So, I'm
21 really speaking here not only as a citizen, but bringing the
22 impact, hopefully, of the office.

23 I won by a considerable margin, 55 percent,
24 in November, three weeks ago. And this was one of the major
25 issues of my campaign, quite frankly. My opponent, the

1 incumbent, really did not address the issue at all. If he
2 did, it wasn't very forcefully. I addressed it very
3 forcefully, that I would try to do whatever I could as county
4 executive, to see to it that this site was moved from the St.
5 Louis area, in general. Not just St. Louis County, but St.
6 Louis City and the surrounding areas, Franklin, St. Charles,
7 and Jefferson County. Because they're all part of one big
8 neighborhood, and it's about a two-and-a-half million-person
9 population area.

10 But even by a bigger margin than I was
11 elected -- by a far bigger margin -- the people spoke out on
12 the issue, the non-binding referendum. It was about 85
13 percent county-wide, perhaps 90 percent in some of the areas
14 of the county. I think it was over 80 percent in the city.
15 So, the people have spoken out very emphatically that they
16 don't want this in the St. Louis area, they don't want it in
17 the metropolitan area.

18 And it's for obvious reasons. They
19 consider it dangerous, I consider it dangerous. And I think
20 most studies would say that it's dangerous. It depends on the
21 level that people would agree on, but no one would agree that
22 it is not potentially harmful, or we wouldn't be having these
23 hearings, and we wouldn't be talking about spending the money
24 we are to clean it up at all. It just makes no sense to me.
25 It seems insane to have to put it in an area like this.

1 And when the people have spoken out so
2 clearly and emphatically, I would hope that the federal
3 government would take it into account and give it due
4 consideration. And in fact, I would hope that it would be
5 persuaded. It's here as a result of the federal effort.
6 There are several other sites in the country for the same
7 reason -- the national effort. St. Louis cooperated in the
8 national effort. It's been here for a long time, but we're
9 finally addressing, I think in somewhat of a media fashion,
10 the opportunity to move it.

11 And it ought to be moved. We're on a fault
12 in this area. We didn't have an earthquake this week, thank
13 God, although some people thought we might. But most experts
14 agree that some time in the not-too-distant-future, Missouri
15 could very well be subject to an earthquake, a natural
16 disaster that could cause real chaos, especially if there were
17 a radioactive waste bunker. In addition, Coldwater Creek is
18 right near that site that feeds one of our major rivers.

19 It just makes no sense. I know the numbers
20 are huge, and the effort is huge, but obviously this is the
21 purpose of this fact-finding mission, to look at other sites
22 and determine whether or not it should be moved from where it
23 presently is.

24 So, speaking on behalf of the county,
25 specifically, and the entire region -- I know Mary Ross is

1 here and will address it from the City's point of view -- it
2 shouldn't be here. It's dangerous to our citizens. No one
3 wants it anywhere, but certainly it ought to be at least in a
4 sparsely-populated area of the country as opposed to a
5 densely-populated area.

6 Whether that's going to be in Missouri --
7 and there are some sites here in Missouri that I think would
8 be far more appropriate than here in St. Louis. I've spoken
9 out publicly about those sites, we don't need to do it tonight
10 -- but we already have an area in Callaway County that has
11 about 95 percent of the radioactive waste. Whether they would
12 be satisfied to have it or not one doesn't know because it
13 hasn't been pursued.

14 But wherever it goes, it should not be in a
15 population center area. That's where it is now, and I would
16 hope that you would remove it. Thank you very much.

17 THE MODERATOR: Thank you, sir. Ms. Peggy
18 Meyer is our next speaker this evening.

19 PEGGY MEYER:

20 My name is Peggy Meyer. I live at Redacted - Privacy Act
21 I'm here in the
22 capacity as a councilwoman for the City of Bridgeton. I might
23 also add that I'm an earth-science teacher for the Francis
24 Hale school district which is where Weldon Spring is located.
25 So, this whole thing is very near and dear to me, in a manner

1 of speaking.

2 As a matter of public record, I would like
3 to present you with seven resolutions that the City of
4 Bridgeton has passed in the last 11 years. They all deal with
5 the radioactive waste issue. This has been something that
6 we've been concerned about for a long, long time. We're
7 pleased to get a chance to bend some ears on this. So, may I
8 please give this to you?

9 THE MODERATOR: Sure.

10 MS. MEYERS: It deals not only with the
11 airport site and the rest of the Manhattan Project waste
12 sites, but it also deals with West Lake. When I looked at
13 some of the criteria that I received, I saw that West Lake was
14 suspiciously absent. This is actually a landfill area that has
15 the same origin of radioactive waste as the rest of the sites
16 that you are addressing. It sits on one of the major flood
17 plains in the state of Missouri. It's less than
18 one-and-a-half miles away from the Missouri river.

19 We know for a fact, just like all the other
20 sites, that this material is migrating. Each time that we
21 look at a study, there's more material to be cleaned up. This
22 concerns me very much. The longer we wait for this, the more
23 expensive it's going to be. Not only in money, but also
24 possibly in lives. U-238 has a half-life of 4.5 billion
25 years. We're talking about the time, possibly, the sun will

1 be out and we will cease to exist as a human race on this
2 earth.

3 We need to consolidate this somewhere so it
4 will have a minimal impact on everyone concerned. We've got
5 to think about the future in this particular thing. As far as
6 the airport site, I can't imagine landing planes next to
7 containment cells 40 feet tall that have taken 10 years or so
8 to move the dirt around. I find that just -- totally
9 unacceptable.

10 I know you've heard all these things all
11 day long, but we're very serious about this. This is just not
12 an acceptable place to store radioactive waste at all -- now,
13 or in the future. Thank you.

14 THE MODERATOR: Thank you. Next speaker is
15 John Shear.

16 JOHN SHEAR:

17 Good evening. My name is John Shear. I
18 live at Redacted - Privacy Act This evening
19 I'm here representing the St. Louis County Council. I am the
20 councilman from the first district, and I have the distinction
21 of having all three of the radioactive sites in St. Louis
22 County in my district -- the St. Louis Airport site, the
23 Berkeley ballfield, and the Latty Avenue site.

24 I've been involved in this issue for about
25 three years, and there have certainly been people in the St.

1 Louis area who have been involved in this issue for a lot
2 longer than I have. But several months ago, I authored a
3 piece of legislation calling for a non-binding referendum to
4 be voted on November 6th of this year by the residents of St.
5 Louis County.

6 Alderman Mary Ross from the City of St.
7 Louis also sponsored legislation in the city. I'm sure she'll
8 address that issue when she speaks. One month ago today that
9 issue was on the ballot, and the issue came out overwhelmingly
10 -- the people of St. Louis County came out overwhelmingly --
11 against a permanent storage bunker being built at the airport
12 site.

13 So that you can become a little bit
14 familiar with St. Louis County -- I don't think you're from
15 the area -- that's a map showing St. Louis County. This is
16 St. Louis County surrounding the City of St. Louis. The map
17 is broken down into townships. This is where the site is
18 located, the three airport sites. The bars on here
19 demonstrate the percentage of voter turnout by township. In
20 the areas where there are black lines right next to the site,
21 overwhelmingly the voters came out in 85 percent and higher,
22 some in 90 percent, and voted against this referendum which
23 called for the permanent building bunker. They were saying no
24 in overwhelming numbers.

25 And then, as you get into these areas, the

1 people came out and also said no, not in quite as high
2 numbers, between 80 and 85 percent. Out of the entire St.
3 Louis County area, there was only one township where there
4 wasn't at least an 80 percent no-vote on this issue, and that
5 was the Clayton township. And the Clayton township number was
6 79.8 percent, so it was pretty close to 80 percent. In the
7 City of St. Louis, as you heard earlier, it was an 80 percent
8 no-vote on that.

9 Sometimes politicians take a position, or a
10 stand on an issue, and sometimes you wonder if it's just you
11 feeling this way, or believing this way, and you wonder if
12 whether or not you have public support. Well, let me tell you
13 something: After November the 6th, I was asked by the press
14 and many other people what I thought a good no-vote would be.
15 I said I would be pleased with a two-thirds, a 66-percent
16 no-vote.

17 But to have 250,000 people, a
18 quarter-of-a-million people in St. Louis County, come out and
19 tell its elected officials, and hopefully tell the federal
20 government, that they do not want a permanent bunker storing
21 radioactive waste built in the St. Louis area, I think that's
22 a message which tells all of us that what we've been saying
23 for many, many years is the direction the people want us to
24 take.

25 I've used an illustration, and I'll use it

1 in closing. We have been dealing with this issue for a long
2 time. Several people have been involved in it for many, many
3 years at all levels. I compare it to an automobile that's run
4 out of gas. You can get 20 people to surround that
5 automobile, and everybody could push in different directions.
6 We know that that automobile will never be moved from where it
7 is.

8 And I think that's what's happened over the
9 years in St. Louis and St. Louis County. A lot of
10 well-meaning people have been wanting to do something about
11 this problem, but they've all been pushing in different
12 directions. What happens when you get everybody at the same
13 part of the car pushing in the same direction? You will get
14 that car moved from where it is to where you want it to go.

15 That is now what is happening in the St.
16 Louis area. People are beginning to unify, to come together
17 in the same direction, to deal with this problem.
18 Overwhelmingly, the voters in St. Louis County told us that
19 they want this stuff out of the area. Overwhelmingly, in the
20 City of St. Louis the voters told us that. We are now going
21 to continue to unify our efforts, and we bring all of this
22 information to you this evening as you consider this site
23 along with all the many thousands across the country.

24 Know that the people in St. Louis City and
25 County have spoken overwhelmingly. I have a breakdown by

1 townships of the percentages, and I'll give you a copy for the
2 record. Thank you very much.

3 THE MODERATOR: Thank you. The next
4 speaker this evening is Dan Romano.

5 DANIEL ROMANO:

6 My name is Daniel Romano, Redacted - Privacy Act

7
8 I want to speak about a policy that was
9 adopted this year by the Nuclear Regulatory Commission called
10 "below regulatory concern." You're all familiar with this,
11 I'm sure. I'm not exactly sure what level of radiation was
12 adopted as the diminutive exposure level. Do any of you know?

13 THE MODERATOR: I'm sorry, sir. This is
14 not a question and answer period. If you'd like to
15 raise that issue, you may. And perhaps at a break,
16 someone with that information could provide it to
17 you.

18 MR. ROMANO: To the best of my information,
19 10 millirems a year is what was proposed as the diminutive
20 exposure level. That's 10 millirems per person per year.
21 By the NRC's own figures, .1 millirems per person per year
22 equals one cancer death, or birth defect, per million persons.
23 And it looks like they've adopted 10 millirems per year. This
24 means that approximately 30 percent or more of radioactive
25 materials from nuclear power plants, weapons-making

1 facilities, will be just released into various -- into
2 consumer products, into landfills.

3 I just really feel that this policy -- I'm
4 really concerned about it. First of all, the BRC, below
5 regulatory concern level, is based on background radiation
6 levels. And because of the releases from nuclear
7 weapons-making facilities, nuclear power plants, mining,
8 nuclear-weapons testing, and waste storage, the background
9 radiation level has been rising -- a lot.

10 I'm really concerned that the amount of
11 cancers caused from the BRC policy will be increasing,
12 especially among the most vulnerable. That's children and
13 fetuses. There was a study done in England in 1986 by Dr.
14 Alice Stewart involving 15 million children. And she found
15 that a large percentage of childhood cancers and birth defects
16 were caused by exposure to radiation. And now, with this BRC
17 policy, we're talking about releasing even more radiation into
18 the environment.

19 There's absolutely no accountability for
20 what happens to these materials once they're released. The
21 industries that released them, or the weapons-making
22 facilities, there's no way of keeping track of them at all.
23 This also -- BRC only talks about deaths caused by cancer from
24 this material released and birth defects through two
25 generations.

1 However, there are a lot more health
2 problems, including birth defects, obviously, that go beyond
3 two generations -- cancers that don't cause death, reduced
4 immunity to disease, and earlier onset of diseases, low birth
5 weight of babies. These are all things that can be directly
6 traced to exposure to radiation. As I mentioned, Dr.
7 Stewart's study is one of many studies that indicate that a
8 lot of this is caused by exposure to radiation.

9 I guess the thing that really concerns me
10 most -- or one of the things that concerns me most -- is that,
11 in making this policy, the NRC, no environmental impact
12 statement was made at all, or prepared. So, I guess what I'm
13 saying is that no one knows exactly what the impact of
14 releasing all this waste, this so-called low-level nuclear
15 waste, into the environment will be. And I'm concerned that
16 the DOE wants to take the so-called low-level wastes that fall
17 under the BRC and dump it into the public, and expose the
18 public to it.

19 I think it's really irresponsible, and I
20 feel people have a right to choose not to be exposed to this
21 kind of material. I hope that the DOE will choose not to
22 release any of the materials that fall under the BRC policy.
23 That's all.

24 THE MODERATOR: Thank you, Mr. Romano. The
25 next speaker is Maria Massey.

1 MARIA MASSEY:

2 My name is Maria Massey. I live at Redacted - Private

3
4 The airport and Latty Avenue sites are
5 located, in part, in the flood plain of Coldwater Creek, which
6 flows into the Missouri River, upstream from where St. Louis
7 City gets its drinking water. Man depends on water. Please
8 think about water in making your decision.

9 We have a finite amount of water to drink.
10 Please don't think that by treating it and dumping it into our
11 water sources, that the radioactive contamination will be
12 magically diluted. In reality, there's on earth a very small,
13 finite, precious, and vulnerable water reserve.

14 Jacques Cousteau described our water
15 sources this way: If the earth were reduced to the size of
16 one egg, all the water there is would be reduced to the size
17 of a droplet. The volume of all the water on the planet,
18 including the ocean, is only one in 780 parts, compared with
19 the volume of the earth. Now, in this total water system,
20 salt water represents 97.4 percent and fresh water only 2.6
21 percent. Out of this 2.6 percent, the immense majority is in
22 the polar icecaps, icebergs, glaciers, and the underground
23 water table.

24 The soil moisture, the lakes, the rivers,
25 the plants, the animals, and humans, and the atmosphere,

1 represent only .6 percent, which is only .016 percent. That's
2 all there is for lakes, rivers, plants, animals, et cetera.
3 That's all there is. Thank you.

4 THE MODERATOR: Thank you. Ms. Joan
5 Wilder.

6 JOAN WILDER:

7 I am Joan Wilder, Redacted - Privacy Act

8
9 I come to you tonight as a concerned
10 citizen with plans to live in this area for the rest of my
11 life. I'm specifically concerned about the proposed treatment
12 and release of water from the Weldon Spring quarry and the
13 four pits in the Weldon Spring Area, into the Missouri River.

14 From the experiences of Hanford Engineer
15 Works in the state of Washington, scientists learned that the
16 fish tissue contains a much higher concentration of
17 radioactive materials than the river itself, indicating that
18 living organisms concentrate those materials. And studies
19 show that younger fish, because of their higher metabolic
20 rates, accumulated even more radioactivity than adult fish
21 did.

22 I find the parallel to the human population
23 especially frightening for the children of our world. We also
24 learned from Hanford about problems created when radioactive
25 material settled on land, and when chemicals and such were

1 carried into the atmosphere and settled on the grass, which
2 the cows ate, and produced milk, and then we drank their milk.
3 The concentration of iodine in the body causes damage to the
4 thyroid. And it can also cause -- other chemicals can cause
5 damage to other organs in our body, as well. I have attached
6 an article for the record regarding this, from the Natural
7 History magazine.

8 I fear, that by dumping the waste from the
9 Weldon Spring area into the Missouri river, which is the main
10 source for drinking water for the St. Louis area -- I wouldn't
11 think the city, but this also applies to the county and areas
12 of St. Charles County -- we are dangerously increasing our
13 exposure to radioactive chemicals which we cannot dilute in
14 our bodies. Rather, those radio-nuclei accumulate in our body
15 tissue. And I'm convinced that we've had enough exposure to
16 these chemicals, through seepage into the groundwater, and
17 through what is transmitted into the air and falls onto the
18 crops that we then eat.

19 I would advocate, then, that the Department
20 of Energy clean up the Weldon Spring area to the best of its
21 ability. Specifically, the quarry and the pits where waste
22 from Mallinckrodt Chemical Company and Ordinance Works were
23 dumped. Then I would like to see -- I would hope that they
24 would store the waste in some type of sealed facility until --
25 and hopefully there will be -- a time when we can deal with

1 the waste and not have it exposed to our air and water.

2 I appreciate your time. Thank you.

3 THE MODERATOR: Thank you. We appreciate
4 yours. The next speaker is Arlene Sandler.

5 ARLENE SANDLER:

6 My name is Arlene Sandler. I live at Redacted - Private

7 I'm a member of
8 Coalition for the Environment, but I'm speaking as a concerned
9 citizen tonight.

10 There's a new popular book out entitled
11 "If You Haven't Got The Time To Do It Right, When Will You
12 Find The Time To Do It Over?" Add the word "money" and this
13 title reflects my feelings about the DOE's forthcoming
14 remediation plan for some 3,600 nuclear-weapons-production
15 sites around the country.

16 In the almost 50 years that the St. Louis
17 metropolitan area has been burdened with nuclear-weapons
18 waste, bandaidd approaches to cleanup have made a complex
19 problem even more complex. Because of the need to extract
20 valuable recoverable ores, or equipment to increase production
21 of processed uranium, or to decontaminate buildings and land,
22 the St. Louis area wastes were moved at various times to or
23 from locations in the City of St. Louis, north St. Louis
24 County, St. Charles County, Fernald, Ohio, Canyon City,
25 Colorado, Knoxville, Tennessee, and Niagara Falls, New York.

1 Each trip exposed workers and the general
2 public to the dangers of radioactivity. Transport routes and
3 transport vehicles became contaminated from contact with
4 radioactive materials, creating even more waste problems.
5 Sometimes waste was simply buried on-site. In 1973, for
6 example, 233,000 pounds of ore containing 4,814 pounds of
7 thorium were buried under Building 101 at the Mallinicrodt
8 plant in downtown St. Louis.

9 Today there are nuclear-weapons waste at
10 the St. Louis Airport and adjacent properties, at Latty
11 Avenue, Hazelwood and nearby transport routes, at West Lake
12 landfill in Bridgeton, at the Mallinicrodt plant at Broadway
13 and Destrehan in the City of St. Louis, and at Weldon Spring
14 in St. Charles County. Migrating contamination has been
15 detected in the sediment of Coldwater Creek, in the wellfields
16 that supply thousands of St. Charles area residents' drinking
17 water, and in several lakes in the Busch Wildlife area. In
18 1988, the ballfields were closed to the public because of this
19 contamination.

20 It's obvious we're faced with serious
21 problems that need quick solutions. The area's remediation
22 projects have been proposed but unfortunately have not been
23 acted upon. Years ago, there was a tentative plan to truck
24 contaminated material from Latty Avenue in Hazelwood to the
25 St. Louis Airport site, pave the mound over with asphalt and

1 turn it into a driver-training course for local police
2 departments.

3 In 1980, the DOE wanted to release what was
4 then believed to be 20 million gallons of untreated
5 radioactive water from the raffinate pits at Weldon Spring
6 into the Missouri River -- untreated. We now know there are
7 over 50 million gallons in the pits. The project was canceled
8 because of pressure from the governor and congressmen. Also
9 during the '80's, there was a proposal to consolidate
10 radioactive waste from five states and store it at Weldon
11 Spring. But public opposition prevented this from happening.

12 A recent proposal for cleaning up
13 contaminated water in the raffinate pits at Weldon Spring
14 ought to be prevented. Treated water would be released into
15 the southwest drainage creek before being deposited into the
16 Missouri River. This southeast drainage creeek is known to be
17 very contaminated. It carried waters from chemical processes
18 during weapons production. So-called clean water passing
19 through the southeast drainage would obviously become
20 re-contaminated.

21 Since final remediation is many years away,
22 maintenance at nuclear-weapons-waste sites may be necessary at
23 times, and would certainly be expensive. In 1985, severe
24 erosion was discovered in Coldwater Creek at the western end
25 of the Lambert Field storage site. To prevent the spread of

1 radioactivity during the spring rains, a plan that cost
2 \$385,000 was devised to stabilize the erosion. Workers with
3 boots and gloves only, as protection, installed gavions --
4 wire enclosures with bundles of rocks -- along the creek bank.
5 Over time, the gavions themselves will become contaminated and
6 will become part of the waste-disposal problem.

7 I'm making a plea to the Department of
8 Energy for an end to interim solutions. I'd like to see a
9 firm commitment to the speedy effort to develop a
10 comprehensive, sensible, and adequately-funded plan that will
11 move the wastes only once, and that will use proven
12 technology, and that will locate the wastes away from water
13 and large population centers.

14 Each time radioactive waste is disturbed,
15 contamination spreads through the air and water, or by
16 contact. Each time radioactive waste is transported, the
17 risks of spills and transportation accidents increases. Each
18 time there is processing, the water and chemicals and
19 equipment used become part of the waste stream, adding to the
20 volume and the cost of cleanup.

21 If you don't find the time and the money to
22 do it right, it may be too late to do it over. Thank you.

23 THE MODERATOR: Thank you. David
24 Maconochie.

25 DAVID MACONOCHIE:

1 Good evening. I'm David Maconochie, from

2 Redacted - Privacy Act

3 I'd like to address two principal points;
4 levels of radioactive contamination of the Mallinicrodt
5 Chemical Works, and the internal consistency -- or otherwise,
6 the radiological chemical and hydrological characterization
7 report for the St. Louis downtown site in St. Louis, Missouri.
8 This was a survey which reviewed the current levels of
9 radioactive contamination at the Chemical Works. In addition,
10 I'd like to comment on the medical causes for concern, limited
11 to the effects of uranium and radium. And finally, make some
12 recommendations.

13 From a cursory glance through the tables of
14 the report, I picked out three measurements of radioactive
15 contamination. These are some of the highest measurements,
16 but by no means atypical for this site. For example, a bore
17 hole outside Building 20 yielded the following level of radium
18 contamination. This is in table 6.4. It was 5,400 picocuries
19 per gram. This measurement was taken from a sample at a depth
20 of naught to naught point 5 feet. That's in the table. That
21 is to say, it was on the surface.

22 Now, guidelines of surface contamination
23 state they should be no more than 5 picocuries per gram in the
24 first 15 centimeters of the soil. Furthermore, I quote from
25 the report, "Every reasonable effort should be made to remove

1 any source of radium nuclei that exceed 30 times the
2 appropriate soil limit, regardless of the average
3 concentration of the soil."

4 In many cases, comparable levels of radium
5 were found in levels up to 12 feet deep. In another example,
6 Building 82 is described as having contaminated surface
7 deposits. That is to say, dust, grime, and flaking paint, on
8 walls, ceilings, and floors, with -- and again I quote,
9 "Residual materials with radium nuclei concentrations well in
10 excess of DOE guidelines."

11 The actual measurements of uranium-238 and
12 radium-226 are given in table 6.10. For uranium, they range
13 from 24 to 160 picocuries per gram, and for radium, they range
14 from 3.5 to 5 picocuries per gram. Also in table 6.10,
15 measurements of considerable contamination of uranium and
16 radium were taken from Building 116. Uranium here was much
17 higher, in the range of 8.9 to 13,000 picocuries per gram, and
18 radium in the range of 1.6 to 560 picocuries per gram.

19 In addition, measurements of ionizing
20 radiation levels for various surfaces in this room are given
21 as an average of 19,000, with a maximum of 929,000
22 disintegrations per 100 centimeters square. The maximum
23 allowable level is 300.

24 To indicate just how far these measurements
25 exceed safe levels, I quote from the Washington University

1 Medical Center's guidelines for uses of radio-isotopes, "If
2 there is a room of more than 100 picocuries of radium, a sign
3 must be displayed saying "Caution, Radiation Area." This
4 indicates that radiation can occur at a level of 5 millirems
5 per hour or more. That measure is approximately equivalent to
6 2,000 microrads per hour.

7 But the report gives no authoritative
8 indication of the magnitude of the radio-nuclei contamination,
9 merely pointing that several alpha gamma measurements in these
10 buildings -- that's Building 119 -- exceed the DOE guidelines.
11 This is in contrast to the statement regarding Building 82 as
12 having residual materials well in excess of DOE guidelines.

13 A more serious inconsistency is in the
14 average level of radiation which is quoted for Building 116 as
15 being 7 microrads per hour. Note that this represents a
16 natural background. That's the level you'd have in this room,
17 for example. And it's inconceivable, when you consider each
18 gram of dirt in the building contains between 1.6 and 560
19 picocuries of radium, and each 100 picocuries of radium can
20 give a dose of around 2,250 microrads per hour.

21 It's quite difficult to estimate exactly
22 what sort of level of ionizing radiation to expect. But some
23 estimates are being made in the U.S. geological survey,
24 circular 814, which estimates the radiation level measurable
25 at the surface of an exposed tailings pile containing 560 --

1 coincidentally -- picocuries per gram of radium-226. And it
2 gives the figure of 1,340 microrads per hour.

3 These two estimates of radiation doses from
4 radium sources and the survey's own measurement of surface
5 radiation levels are greatly at odds with the description in
6 the text of an average radiation exposure of 7 microrads per
7 hour.

8 So, from just these few measurements, it is
9 obvious that the impression given in the summary of the report
10 is entirely misleading. I quote, "Although a few limited
11 areas of radioactivity in soil were found to be several times
12 the applicable DOE guidelines, there appeared to be no
13 immediate health risk to workers at the facility."

14 Right now I come to medical consequences,
15 "The health risks from uranium-238 and radium-226, as
16 described in the National Research Council document --" that's
17 otherwise known as BEIR-4, "-- both radium and uranium are
18 toxic if taken internally either by ingestion or breathing.
19 Radium-226 is deposited preferentially in bone, and is
20 responsible for the bone sarcomas seen in watch-dial painters.

21 "The exact dose at which the risk of cancer
22 becomes significant is a little difficult to define, but the
23 indications are that the ingestion of 500 picocuries of radium
24 per day will approximately double the risk of contracting a
25 bone sarcoma. But all the models depicting the available data

1 show an expedient dose dependence." That is, the risk goes
2 up much more quickly with increase in dose. "Uranium is also
3 nephra-toxic. It poisons the kidneys. A fatal dose from this
4 mode is around 50 to 100 milligrams. Bone sarcomas are also
5 associated with the ingestion of radium. And the dose
6 required is similar to the uranium dose, mainly 500 picocuries
7 per day."

8 In addition, I would like to say that the
9 true risk of disease from radioactive contamination isn't
10 shown by these models entirely, but contamination isn't just
11 one type. It's many types, and you have to add up all those
12 risks. And I'd like to recommend that precautions should be
13 taken by workers in a number of the buildings where the
14 contamination is high. I believe that, at the moment,
15 precautions are not being taken, and that the level of
16 contamination and the degree to which the contamination should
17 be removed should be assessed by an independent body.

18 And lastly, I'd like to recommend, in the
19 processing of hazardous materials, whether or not they're
20 radioactive, should be transferred away from the
21 densely-populated areas. Thank you.

22 THE MODERATOR: Thank you. Our next
23 speaker this evening is Tammy Shea.

24 TAMMY SHEA:

25 My name is Tammy Shea. I live at Redacted - Privacy Act,

1 Redacted - Privacy Act

2 . I'm about one mile
3 away from Coldwater Creek and I do drink my water from a well.

4 I'd like to bring to this discussion the
5 following issues; the risks of exposure, specific guidelines
6 for what is considered clean, the, quote, "normal background"
7 radiation for the St. Louis area, and what occurs naturally.

8 To start, the area of Hazelwood interim
9 storage sites, the transportation routes used to get to these
10 areas, and the vicinity of these, have all been tested and
11 show high levels of contamination of uranium-238, radium-226,
12 and thorium-230. The transportation routes include Hazelwood
13 Boulevard, McDonnell Boulevard, Pershall Road, and Latty
14 Avenue, with properties in the vicinity of Latty Avenue, and
15 portions of Coldwater Creek and its vicinity properties.

16 Soil samples taken along the roadways of
17 Hazelwood, Latty, and Pershall, indicate concentrations of
18 contaminants above the stated guidelines of 5 picocuries per
19 gram of soil for surface soil, and not more than 15 picocuries
20 per gram below surface levels, which is 6 inches. These areas
21 also indicate higher-than-normal gamma radiation levels with
22 normal background levels occurring at 8 microrads per hour.
23 Some levels have been indicated at 20 to 92 microrads per
24 hour. And these are along the roadways of heavily-traveled
25 roads.

Concentrations of thorium-230 at levels of

1 5,700 picocuries per gram were found in the Latty site number
2 two, with uranium-238 levels as high as 100 picocuries, both
3 taken at surface-soil levels. Along the railroad at the Latty
4 site, high levels of uranium were found at 309 picocuries,
5 radium at 1,100, and thorium at 26,000 picocuries per gram of
6 soil, all at surface-soil levels.

7 On the Hazelwood Avenue, extremely
8 contaminated soil samples show thorium at 4,800 picocuries.
9 And on the west side of Hazelwood, across from a
10 perishable-food-storage warehouse, samples show a level of
11 3,500 picocuries per gram of soil of thorium, a level that is
12 17,500 times above that which occurs in nature, and 700 times
13 that which the DOE guidelines state is safe.

14 These elements of contamination have the
15 potential of a long existence, the half-lives of these
16 elements being in the thousands of years, conservatively.
17 During the disintegration stages, the emission of radioactive
18 particles pose a significant risk of exposure to individuals
19 that may come in contact with the soil. And there's a
20 definite risk of exposure if one were to inhale or ingest
21 radioactive particles through dust circulation or ingestion of
22 contaminated water.

23 I would like to interject here, too, that
24 my husband works at a company that is located on Pershall, and
25 for years has been complaining of the dust out there, which

1 doesn't make either of us sleep very well at night.

2 In a report by the Oak Ridge Laboratories,
3 conducted for the Department of Energy, it is stated there is,
4 quote, "No radiological hazard for external exposure, given
5 the current use of the properties." I would assume that this
6 statement refers to the fact that the properties in question
7 are largely industrial and/or commercial uses, rather than
8 neighborhoods or schools.

9 The report goes on to state that the
10 guidelines were derived to, quote, "protect members of the
11 general public, even if an individual built a house over the
12 contamination, lived there for 50 years, grew all his own
13 food, ate the meat from cows grazing in the area, drank milk
14 from the cows, drank water from the contaminated area.
15 Because none of these pathways of exposure applies to these
16 properties, the contamination poses virtually no risk."

17 While it is true that the pathways of
18 exposure may be limited for external exposure to an
19 individual, the indirect exposure and long-term small doses do
20 pose a significant hazard to those that work in the area or
21 live nearby. The Hazelwood storage sites are located on what
22 is called the Florissant Basin, which erodes easily, and has a
23 poor load-bearing capacity. Coldwater Creek is the main
24 receiving body for site runoff, and portions of the site lie
25 in a 100-year flood plain. Our residential area is just east

1 of the sites in Hazelwood, less than one-half mile away.

2 Now, given these facts, and the existence
3 of extremely high levels of radioactive contamination, a few
4 questions come to mind: One, what are the true risks of
5 exposure to the population? When considering the further
6 contamination of groundwater, the run-off that finds its way
7 to Coldwater Creek, and the contaminants, are they really
8 confined to the storage sites? Two, if the DOE guidelines are
9 applied to these sites, then the Hazelwood storage sites are
10 far from being clean.

11 Are the locations of the sites compatible
12 with the heavily-traveled roadways in the nearby residential
13 areas, and the major commercial facility that handles food
14 storage, as well as large manufacturing companies that employ
15 thousands of people that must travel and work in these
16 contaminated areas on a daily basis? It is known that the
17 prolonged exposure of low-dose radiation can do more damage to
18 some membranes than short flashes of intense doses.

19 Finally, I would like to state the
20 objectives of this discussion: Number one, to see the areas
21 of extreme radioactive contamination cleaned up, and these
22 areas not be considered for additional waste storage. Number
23 two, the cleanup should at least meet DOE guidelines, or meet
24 levels of that which occur in nature. Three, in the best
25 interest of the environment and the people who depend on it,

1 agreements should be reached to end the production of
2 radioactive materials for nuclear weapons.

3 The problem of waste has not been dealt
4 with in a responsible and effective manner. And until it is,
5 I support the end of nuclear testing, an end to testing
6 nuclear weapons at sea, and to cease funding for any
7 weapons-production facility. And I'd also like to add, if we
8 had this opportunity to discuss these issues 50 years ago, we
9 might not be here today. Thank you.

10 THE MODERATOR: Thank you. The next
11 speaker is Kathy Lewis.

12 KATHY LEWIS:

13 My name is Kathy Lewis. My address is Redacted - P
14 My primary concern is with the airborne radioactive
15 particulate material.

16 One of my concerns of the radioactive waste
17 in the St. Louis community is the airborne dust of radioactive
18 particles which may be released in the process of relocating
19 the waste. It seems inevitable that each time radioactive
20 waste is moved, contamination occurs through the suspension of
21 surface dust by air currents. Both when radioactive dust
22 particles are airborne as well as when they settle, they
23 create pathways to the public and become a threat to the
24 health of people, other animals, and the plant life of a
25 community.

1 The airborne dust particles present a
2 health hazard when they are inhaled. The risk of respiratory
3 problems, cancer, birth defects, and immune-system disorders
4 are increased. When the airborne dust eventually settles, it
5 poses further health risks as it settles on the soil in the
6 surface water or sediment of creeks such as Coldwater Creek,
7 or our homes and offices, which is through the circulation of
8 air which is pulled from outside.

9 When radioactive dust particles settle on
10 the soil, they can be drawn up by edible plants, by dwelling
11 in aquatic species such as fish, and children as well as
12 adults as they work, garden, and play outdoors. After playing
13 outside, children may eat food with soiled hands, and in other
14 ways ingest and inhale significant amounts of radioactive dust
15 particles. In gardening, when the earth is dug up and turned
16 over, re-suspension of radioactive dust particles may occur.

17 Contaminated dust can also be ingested when
18 office workers, students, teachers, and anyone for that
19 matter, does something as simple as licking a pen after the
20 dust has settled on it. And coffee cups -- there just seems
21 to be so many different ways we can ingest the waste from the
22 settling process.

23 In considering airborne radioactive dust
24 particles, I feel that it is imperative that the air be
25 monitored during the removal, transport, and relocation of the

1 radioactive waste so that the extent of exposure through
2 inhalation can be estimated. I question the methods of
3 transport of radioactive waste from one site to another, and
4 would like to know the Department of Energy's proposed method
5 of transport.

6 I would suggest that since the plan seems
7 to be to consolidate the multiple sites of low-level
8 radioactive waste in the St. Louis community to one large
9 site, that that site be changed from the airport site to the
10 Callaway nuclear plant where we have already created what will
11 eventually become a nuclear wasteland. And create a monument
12 that will be a reminder to present and future generations of
13 the threat and longevity of nuclear waste. Thank you.

14 THE MODERATOR: Thank you very much. Mary

15 Ross.

16 MARY ROSS:

17 Good evening, and thank you, the Department
18 of Energy for finally coming to St. Louis. We appreciate your
19 presence. I am Mary Ross, whom you've heard mentioned earlier
20 today.

21 We, the City of St. Louis, had a vote on
22 August 6th, with 81 percent of the people in the City of St.
23 Louis who went to the polls requested the Department of Energy
24 clean up all sites concerned. It has been earlier mentioned
25 that the Mallinicrodt site has been estimated that there are 17

1 contaminated buildings there. People continue to work in
2 some. However, some areas have been roped off.

3 The decision to produce nuclear-weapons
4 waste is exclusively the federal government. The
5 responsibility to clean up waste from that production is also
6 federal. The responsibility to see that a safe solution is
7 chosen rests with all of us. The federal government brought
8 uranium and thorium into the city of St. Louis to be processed
9 for nuclear weapons purposes, from 1942 to 1957.

10 We believe that the federal government is
11 the only party responsible for legal and moral -- digging up
12 and removing this waste. It is also the only party
13 responsible financially, and technically capable of doing so
14 in a safe and expeditious manner. It was the federal
15 government, the war department, that took over the 21-acre
16 airport site in 1946 through condemnation proceedings for the
17 storage of residue materials.

18 It was the federal government that directed
19 the Mallinicrodt Chemical Works, as its contractor, to store
20 the materials there. The site was initially under the
21 jurisdiction of the Army Manhattan's engineer district. And
22 then, its successor agency, the United States Atomic Energy
23 Commission.

24 Throughout the remainder of the dumping
25 program process, which continued through 1957 and until 1973,

1 where the City of St. Louis assumed ownership of the land,
2 even after the City took title to the land, however, the AEC
3 maintained control of the earth more than 12 inches below the
4 surface. That is, below the clean fill dirt the City had
5 added.

6 According to a provision of the articles
7 and deed, paragraph 7, subparagraph P, "In the years of the
8 nation's nuclear weapons program, as the federal government
9 terminated its contracts, the contractor sites were to be
10 decontaminated according to Health Department regulations.
11 However, it was found later that no cleanup had been done. As
12 a matter of fact, the contamination had spread."

13 As a result, the Department of Energy came
14 to us in 1987 requesting 21.7 acres to build a radioactive
15 bunker out of whatever kind of material -- which we were never
16 told -- that would contain radioactive material for 4.5
17 billion years. We were unable to grant you that wish, simply
18 because we knew, at the time, that you had not cleaned up --
19 looked at all of the sites.

20 At the time, the Board of Aldermen passed a
21 resolution requesting the DOE to do another study. I was the
22 sponsor of that resolution. The Department of Energy
23 subsequently went away, and came back 14 months later and
24 declared that they needed 60 more acres. Subsequent to that,
25 we had adopted a committee report, of which I'd like to leave

1 a copy with you. And I'm sure you have about 50 of them.

2 We subsequently introduced a resolution
3 asking for the Department of Energy to please clean up all of
4 the waste sites -- the Mallinicrodt site in particular, which
5 is right downtown St. Louis, the SLAPS site, the Weldon Spring
6 site, the Hazelwood site, to no avail. We literally then went
7 to the Board of Aldermen and asked the Board to adopt this
8 report. They adopted it in 1988, July.

9 In February of 1989, the Board of Aldermen
10 passed legislature granting 82 acres to the DOE to build a
11 radioactive bunker. We subsequently went to the petition
12 route. We circulated petitions to overrule that ordinance,
13 and subsequently had to go to court because it had an
14 emergency clause attached. Again, I was a sponsor of the
15 legislation to get it on the ballot.

16 The ballot strongly spoke that the City of
17 St. Louis, as well as the county, wanted the Department of
18 Energy to encourage the federal government, through its powers
19 -- and you are a powerful organization, or sometimes you're
20 called a bureaucracy -- to encourage our congressmen and state
21 senators, and United States congressmen, to remove. Not only
22 remove the toxic hazardous waste, but appropriate the
23 necessary funds.

24 Enclosed in this document is a letter that
25 the Department of Energy specifically stated that, "If we

1 cannot dispose of the waste in a manner satisfactory to the
2 City of St. Louis, we will return to the Missouri
3 congressional delegation." At the time we negotiated with the
4 Department of Energy in City Hall, my first question was: You
5 cannot build the bunker considering all the waste that you
6 have in the City of St. Louis, and the county, on a 21.7
7 acres. When did you intend to return to the Missouri
8 congressional delegation?

9 I was told at the time, you do not intend
10 to do so. That is an unfortunate decision made by the
11 Department of Energy, considering the life and health and
12 safety of the people that we should be concerned with at this
13 time.

14 May I just say this to you in leaving:
15 Your consideration in helping us, the citizens of St. Louis,
16 and the people in the St. Louis County, helping us find a way
17 by which to get all radioactive material moved out of urban
18 areas into a non-urban area -- similar to what you did in Salt
19 Lake City. It is my understanding that with all parties
20 concerned, you removed, from Salt Lake City, 80 miles away,
21 radioactive materials similar to the one that we have here.
22 And you did it at no cost.

23 The City of St. Louis passed the
24 legislature simply because they thought they were going to be
25 responsible for the cleanup. I would say to you today, we are

1 not responsible for building bombs, nor can we be responsible
2 for cleaning up the waste thereafter.

3 Your consideration in this matter, should
4 you move towards our Missouri congressional delegation, will
5 be greatly appreciated and graciously accepted. Thank you.

6 THE MODERATOR: Thank you. Our next
7 speaker will be Anna Ginsberg.

8 ANNA GINSBERG:

9 My name is Anna Ginsberg. I live at J ^{Redacted - P}
10 ^{Redacted - Privacy Act} which is unfortunately not represented by Alderman
11 Mary Ross.

12 I want to start out by asking the
13 Department of Energy to get rid of your brochure and display
14 that contains the radiation quiz. I know this request was
15 made of you at the hearing in South Carolina. I think it's
16 designed to minimize the problem, and to give us a false sense
17 of security.

18 Having said that, I want to move on to some
19 fundamentals. I'd like to request that the Department of
20 Energy stop making nuclear weapons. We have 12,000 nuclear
21 weapons aimed at the Soviet Union. This is the country that
22 Dick Gephardt told us we should be giving aid to in
23 yesterday's Post-Dispatch.

24 The polls show that at least 70 percent of
25 the American people support bilateral nuclear disarmament as

1 long as it happens by both the U.S. and the U.S.S.R. The
2 Soviets are ready to stop nuclear testing, they're ready to
3 stop making nuclear weapons materials. It's time that we
4 followed suit.

5 I know that the focus of this hearing is
6 the environmental issues. I'd like to address those for a
7 minute. It's my understanding that we don't know how to clean
8 up the radioactive waste that we have made. The wastes in St.
9 Louis are the oldest wastes in the country, and they're still
10 here. The best that we can do is to move them to a place
11 where hopefully they won't get out into the environment, and
12 where there are as few people as possible to impact it.

13 And it's not just St. Louis. It's Rocky
14 Flats, it's Fernald, it's Savannah River, it's Hanford, all of
15 which have been closed down because of the environmental
16 contamination. The bottom line for me is that it's
17 unacceptable for us to be creating national sacrifice zones to
18 build weapons that we don't need.

19 So I'm asking you again, the Department of
20 Energy, to stop making nuclear weapons. And please include,
21 in the environmental statement -- please address this issue in
22 the Environmental Impact Statement. Thank you.

23 THE MODERATOR: Thank you. Next is Bill

24 Ramsey.

25 BILL RAMSEY:

1 My name is Bill Ramsey, and I'm the program
2 facilitator for the American Friends' Service Committee here
3 in St. Louis. The American Friends' Service Committee is a
4 Quaker organization which has initiated citizen-action
5 projects to research and challenge the detrimental effects of
6 nuclear-weapons production.

7 As a pacifist organization, the AFSC has
8 always opposed the production, stockpiling, and use of,
9 nuclear weapons. However, beginning in 1975, with a project
10 out of our Denver office to research the community impact of
11 the Rocky Flats nuclear facility, we began to understand that
12 nuclear weapons were not only a potential threat to all human
13 life, but that the routine testing and production of nuclear
14 weapons, in fact, harmed life daily, and still harms life
15 daily.

16 From 1978 to 1980, I worked out of our
17 office in the southeast region on research and citizens-action
18 projects related to the Oak Ridge facility, the Y-12 facility
19 in Tennessee, the Savannah River plant in South Carolina, and
20 the Penellis plant in Florida. In 1978, we initiated a
21 nuclear-cargo-transportation project out of our offices in the
22 southeast.

23 In brief, I can say that in each of these
24 plants, we discovered evidence of, and community concern over,
25 the safety of workers in the plant, the environmental impact

1 of the plants, the health effects of the plants on the
2 residents in the communities, and concern over the dangers
3 posed by the transportation of nuclear materials and wastes
4 between the plants. Citizen groups have continued to work in
5 those communities, and I'm sure that they will be presenting
6 you with the results of their research and their concerns as
7 you hold hearings in their cities.

8 Now I live in St. Louis, which has been a
9 storage site of nuclear-weapons waste for over 40 years. The
10 federal government never consulted the people of St. Louis
11 before storing waste here. Perhaps if citizens of St. Louis
12 had been advised that the waste would be stored here, there
13 would have been public discussion and public debate early on
14 in the nuclear-weapons program.

15 Would the people of this city, or this
16 country, have consented to the testing, production, and
17 deployment, of nuclear weapons if we had known in the 1940's
18 what we know now? The workers in the plants, and the
19 residents of those communities were told that the risks were
20 all acceptable. But the risks were accepted for them by the
21 government, a government determined to build nuclear weapons
22 no matter what the costs. And now we're only beginning to
23 understand the consequences of those risks that our government
24 took upon our behalf.

25 The American Friends' Service Committee

1 sees no easy solutions to the cleanup, and to making the
2 communities safe again, those communities that were damaged by
3 the nuclear arms race. However, we believe it is the
4 responsibility of the U.S. government, which has spent
5 hundreds of billions of dollars building thousands of nuclear
6 weapons over the last four decades, to provide the funds
7 necessary to clean up our communities and to store the waste
8 safely.

9 We face difficult questions about what to
10 do with nuclear waste, and how to clean up in the aftermath of
11 the production of thousands of nuclear weapons. But there is
12 one immediate action which we can take to ensure that 40 years
13 from now citizens of this country are not still dealing with
14 these same questions. We should take advantage of the end of
15 the cold war and agree with the Soviets to halt production,
16 deployment, and testing of nuclear weapons. We should take
17 the money saved by this action and use it clean up our
18 communities, to solve the nuclear-waste disposal problem, and
19 meet the long-neglected needs of our community. Thank you.

20 THE MODERATOR: Thank you. Larry Felknor.

21 LARRY FELKNOR:

22 Good evening, and thank you for letting me
23 speak to you this evening.

24 I'm a practicing dentist who works on a
25 daily basis with dental x-rays. We take inordinate

1 precautions to protect ourselves and our patients from
2 radiation damage. I have developed a healthy respect for
3 x-ray radiation, primarily because of those precautions. Now
4 I find myself speaking at a hearing in order to respectfully
5 request that the precautions I take for granted in my dental
6 office be granted to my fellow citizens who live and work here
7 in St. Louis.

8 It just doesn't make any sense to me why
9 any individual or government agency would ever consider
10 locating a radioactive waste bunker in a highly-populated
11 area. If there is anything that reasonable people can agree
12 upon, it is that. We have always known since before Hiroshima
13 that radioactive materials are a health hazard.

14 In my profession, we deal solely with
15 ionizing radiation. This fall, the BEIR Commission, which
16 stands for the Biological Effects of Ionizing Radiation,
17 published a report based on current research. It indicates
18 that we have long overestimated the radioactive damage due to
19 alpha and beta particles, a solid, visible radioactive
20 material, and underestimated the effects of the
21 non-particulate materials such as gamma rays and x-rays. This
22 new information has forced my profession to establish even
23 more stringent standards.

24 So I plea for plain common sense. Ionizing
25 radiation is invisible, insidious, and even more hazardous

1 than we ever suspected. The French -- so I have heard -- put
2 their waste in glass, and then concrete, and then into mines
3 deep into the earth. Let's find some isolated spot far away
4 from St. Louis, and far away from any small, or large, city or
5 town. St. Louis citizens deserve at least that much. Thank
6 you.

7 THE MODERATOR: Thank you, sir. Ms. Kay
8 Drey.

9 KAY DREY:

10 My name is Kay Drey. My address is Redacted - P
11

12 I would like to make a few brief comments
13 before I begin to read my prepared testimony. I have been
14 present throughout the hearing today, and I think the record
15 should be corrected in the following respect: At the recess
16 before the dinner recess, I spoke with the gentleman who
17 testified that he, quote, "worked in uranium for 20 years,"
18 unquote, and that he is 80 years old and suffering no ill
19 health effects.

20 In fact, however, he indicated to me when I
21 asked him, that during his employment as a security official
22 for the United States Atomic Energy Commission, he had worked
23 in an office setting in which he actually had only
24 insignificant exposure to uranium. That is, he did not work
25 in a plant surrounded by uranium dust. Therefore, I do not

1 believe that any conclusion with respect to possible health
2 effects from his employment is warranted.

3 And another comment: To reiterate what
4 Bridgeton Council member Peggy Meyer said earlier this
5 evening, I would like to urge you to add the nuclear-weapons
6 waste at the West Lake landfill in Bridgeton to the waste you
7 are committed to cleaning up. These wastes were also
8 generated at Mallinicrodt Chemical Works downtown, were
9 initially dumped at the airport site, and then illegally
10 dumped at the West Lake landfill.

11 And finally, in these few brief comments, I
12 would also like to request the Department of Energy to
13 evaluate the radioactive waste that has accumulated at the
14 Hematite uranium-fuel-fabrication plant in Jefferson County,
15 about 30 miles south of here. Mallinicrodt built the Hematite
16 plant in 1956, and it has been operating ever since, for 44
17 years. Would you please find out whether or not the fuel that
18 was fabricated in the first 10 years of the plant's operation
19 was used for nuclear-weapons purposes? And if so, would you
20 please add these wastes to those you are mandated to
21 remediate?

22 And now, for my prepared testimony: On
23 December 2nd, 1942, 48 years ago this past Sunday, scientists
24 celebrated the beginning of the atomic age below Stagg Field
25 at the University of Chicago. To quote a plaque that used to

1 be attached to Building 51 downtown at the Mallinicrodt
2 Chemical Works, quote, "In this building was refined all the
3 uranium used in the world's first self-sustaining nuclear
4 reaction." End quote. The building is still there, and in
5 use. The plaque is not.

6 On July 16, 1945, the world's first atomic
7 bomb was exploded in New Mexico, followed three weeks later by
8 the bombs dropped on Hiroshima and Nagasaki. The first
9 submarine powered by a nuclear reactor was launched in 1954.
10 And in 1957, America's first Atoms For Peace began generating
11 electricity for the public at Shippingport, Pennsylvania. And
12 in the meantime, radioactive waste from all of those
13 successful experiments have been stockpiled.

14 The brilliant scientists who carried us
15 into the nuclear age 48 years ago were never asked if they
16 could get us out. Nuclear-weapons- and nuclear-power
17 proponents like to say that radioactive wastes are no problem.
18 The technology exists, they say, to store the wastes safely.
19 It's just a political problem, they say. However, according
20 to the documents and reports I've been studying, I cannot
21 agree. Apparently, a technology has not been found that can
22 keep these wastes away from human beings and other living
23 things for the necessary tens, thousands, even millions of
24 years that they will remain poisonous.

25 And even if the technology were to be

1 found, the political choices are, indeed, all unacceptable.
2 There is no safe technology, there is no safe location. Just
3 as people have rebelled against the construction of new
4 hazardous-waste dumps throughout the United States, and even
5 against sanitary-waste landfills, most people also do not want
6 radioactive wastes near their hometown, their county, or even
7 their state.

8 Landfills have been shown to leak,
9 clay-capped bunkers, and even concrete structures can crack.
10 Transportation accidents occur throughout the nation. And the
11 health risks from exposure to radiation, even to low-levels of
12 radiation, are increasingly undeniable.

13 I have been studying nuclear power and
14 radioactive-waste issues for 16 years as a concerned citizen.
15 The introduction I have just read is almost the same as the
16 introduction I wrote for testimony before a Missouri committee
17 in Jefferson City in October of 1983, 7 years ago. Scientists
18 still do not know how to neutralize radioactive waste.

19 Citizens still do not want it near their
20 homes or on their roads. And yet, our federal government, our
21 Congress, our Nuclear Regulatory Commission, and you, our
22 Department of Energy, continue to allow naturally-radioactive
23 uranium and thorium to be mined up from the depths of the
24 earth, and to be brought into our biosphere. And to continue
25 to allow even more treacherously-dangerous man-made -- I

1 repeat, man-made -- fission and other products to be created
2 at nuclear-bomb factories and at nuclear-power facilities.

3 In fact, our federal government continues
4 to encourage and subsidize the mining and milling of these
5 substances, and to promote the creation of lethal, radioactive
6 isotopes and elements in the name of national security. And I
7 might add, in the name of supposedly cheaper electricity.

8 As my testimony this evening, I had wanted
9 merely to read one of the wonderful stories written by the
10 Dane Hans Christian Anderson, the "Emperor's New Clothes." As
11 you may remember, the Emperor's weavers said that anyone who
12 could not see their magic cloth was either a fool or unfit for
13 his job. To me, the cloth is like the solution to the
14 radioactive waste problem that we've been promised for 48
15 years. I believe the Hans Anderson tale is the anthem of this
16 national series of 23 hearings.

17 It is appropriate that you should be
18 holding one of the first hearings here in St. Louis. At the
19 Mallinckrodt Chemical Works, if scientists had not agreed in
20 April of 1942, to take on the dangerous, difficult challenge
21 of discovering how to purify uranium in tonnage quantities,
22 maybe there never would have been an atom bomb or an atomic
23 age.

24 I believe St. Louis is, indeed, entitled
25 the dubious distinction of harboring the oldest radioactive

1 waste of the atomic age. Your Department of Energy
2 contractors currently estimate that we have at least
3 two-and-a-half million yards of radioactive waste here in
4 metropolitan St. Louis that resulted from the first 25 years
5 of the atomic age. Two-and-a-half-million cubic yards, and no
6 one knows what to do with the first cupful.

7 As any child might comment when a naked
8 Emperor parades by, there is no safe solution to radioactive
9 waste in sight. I urge our Congress and our scientists and
10 our silent physicians to observe the first half-century of the
11 atomic age in 1992 by declaring a moritorium on the creation
12 of more atomic waste until we figure out how, or even if, we
13 can protect our planet from the messes we already have. Good
14 luck.

15 THE MODERATOR: Thank you, Ms. Ross. John
16 Brill.

17 JOHN BRILL:

18 My name is John Brill. I live at Redacted - Private
19 I'm speaking on
20 behalf of the Organization for Black Struggle, which is at
21 P.O. Box 5277, St. Louis, Missouri, 63115. And obviously, as
22 a concerned citizen myself.

23 I see this as a combination of a global and
24 a local issue. We, of course, here, are concerned in St.
25 Louis. I'm also concerned about the issue at the global

1 level. I think the priorities of the PEIS five-year plan
2 should be, first of all, to clean up the waste that is now
3 constantly polluting our environment, with the least amount of
4 harm possible during that cleanup, as soon as possible.
5 Because accidents will happen. And if we leave it sitting
6 around in places such as near the airport, there will be
7 accidents.

8 Second priority, I think, should be to stop
9 production as quickly as possible on nuclear energy and
10 weaponry until some means of either managing radioactive
11 waste, or cleanly producing nuclear power without waste, is
12 found. And thirdly, I think we should seriously research and
13 pursue alternative energy methods, sources such as bio-mass
14 energy, or solar energy, water power, geothermal power, et
15 cetera.

16 One goal of the PEIS five-year plan as
17 proposed is to clean up the environment at DOE sites by the
18 year 2019. That's 29 years from now. It will not take that
19 long to clean it up. It doesn't take 29 years to clean up
20 these sites. I think one of the major points is that it could
21 be quicker than that. That should be as short as possible.

22 Another important goal should be to push
23 much more strongly for public awareness and participation.
24 This is stated as a goal in the PEIS plan presently, but there
25 were no front-page articles in St. Louis newspapers, or any

1 major stories on the TV or radio news, even though this is
2 probably the most important issue of our time.

3 The plan must also emphasize, as I said
4 before, alternatives to nuclear energy, increasing R and D
5 efforts in renewable resources. And must be simplified as
6 much as possible. It should focus on four to six major
7 issues, as opposed to having -- I was looking at the plan last
8 night and in each of the major areas it has about 10 or 12
9 goals. I think it should be simplified if it's going to be a
10 large national plan.

11 I do commend the release of the health
12 records of workers who were, and will be, in close contact
13 with radioactive material. I also commend the change of
14 policy from one of attempted secrecy to one of openness, which
15 is stated that way in the PEIS. This must be upheld though.
16 It's easy to say, but very difficult to do it. I think that
17 what is considered safe nuclear levels should be defined more
18 precisely, more accurately, in terms of how much danger each
19 level can do over various periods of time of exposure.

20 Finally, I would like to conclude by
21 stating again the importance of, first, stopping production of
22 radioactive material altogether. Secondly, the cleanup must
23 begin as soon as can be safely done. Bring waste to
24 centralized locations, in strategic areas of already-high
25 concentrations of radiation, where there are minimum numbers

1 of people nearby.

2 Finally, research and development of
3 alternative energy sources must be stepped up immediately.
4 We're not playing games here. We're determining our own, and
5 our children's, future. I would like to add a note to the
6 people who are writing this PEIS to consider, while preparing
7 the PEIS, what you would want if you lived nearby a
8 radioactive dump.

9 THE MODERATOR: Thank you. Redacted - Privacy Act

10 Redacted - Privacy Act

11 Hi, I'm Redacted - Privacy Act. I live at 8815
12 Nyflot. This is Redacted - Privacy Act.

13 Redacted - Privacy Act Hi.

14 Redacted - Privacy Act He's got to break the ice.

15 Okay. I live on Cancer Alley. I live within a half-block
16 from the Latty plant, the ballfield is probably a block from
17 me, and the airport is right there. So I'm related to all the
18 radiation areas right around me. Within a half-a-block, we
19 have 13 cases of cancer. My son is one, I'm another one, if
20 my father-in-law could be here, he would be here. He passed
21 away in June with two types of cancer. Then I was diagnosed
22 with my cancer.

23 Redacted - Privacy Act has a type of leukemia that has
24 been caused by, as they say, his doctor, radiation. His
25 cancer has been airborne. They also said -- when I was

1 pregnant, I used to walk five miles a night at Hazelwood
2 Avenue, Pershall Road, which is contaminated, which I did not
3 know this. And this, they said that Redacted - Privacy Act being
4 Downs-Syndrome, could have triggered his deformity.

5 Okay. A couple of meetings I went to a
6 while back, there was a question brought to me, and I had it
7 brought to me here when I was walking in the door: Why don't
8 I move? Okay. My answer in reply to them is: When you buy a
9 house, you buy a house. When you go and buy a home, that's
10 your home. Your going to live there for years. You didn't
11 expect to have cancer and all these pesky little things to
12 happen. This is my home.

13 Who would buy my house? Who would give my
14 husband and I, or any of our neighbors -- which I have a
15 neighbor that lives right on Hazelwood Avenue that tried to
16 sell his land. Hazelwood said, No way. Nobody is going to
17 buy nowhere around us. We're known as Cancer Alley. The
18 thing of it is, I would reply to them, Would they buy my
19 house? Would they pay my husband and I what we have put into
20 our house? And grant me that they would live there and see if
21 none of their children, grandchildren, whatever, would come
22 down with cancer.

23 Then, at another meeting, there was a
24 statement made where they felt it was so safe that they would
25 put it in their backyard. My husband has said -- he has a

1 truck, we have a bunch of friends that have trucks -- we would
2 be willing to load all of this soil and take it to anybody's
3 backyard, front yard, wherever. If it's that safe, let them
4 have it, let their children play with it, let them breathe it,
5 let them find out -- (Applause) -- let them find out if their
6 children get cancer.

7 The cancer Redacted - Privacy Act has will come back. He
8 has AML, which is a leukemia of blood and bones, which an
9 adult person cannot handle the chemo. My son was on three
10 years of chemo -- hard chemo. I had to take off work -- which
11 I have a good work that works with me -- two to three times a
12 week. For two-and-a-half to three years I had to do this in
13 order to save my son's life. And I have to pray that it don't
14 come back, which the doctor says the cancer he has will come
15 back. So I have to hope and pray that it's years from now.

16 Okay. One of my things, people say, Why do
17 I have a garden? I have to tell you what: I have the biggest
18 tomatoes, and I don't have to do nothing to my garden.
19 Everybody says, Does it glow? No, it don't glow, but I have
20 nice, juicy, big vegetables, and I do nothing to my garden.
21 Nothing.

22 I planted some mums two weeks ago. One
23 week they turned purple. The next week, this week now,
24 they're brown. So my husband is trying to find out why did
25 they do that -- because these were white mums. What are we

1 breathing? If these mums are turning brown, that's telling us
2 -- what are we breathing? What is this soil?

3 If it is going to be cleaned up, it should
4 be cleaned up where all those poor persons that had to haul
5 that stuff, innocent men that had to load all that
6 contamination stuff -- which, if there was a survey done,
7 probably almost all them drivers are probably not even here,
8 or probably have some kind of cancer, some kind of breathing
9 -- something is probably physically wrong with them today,
10 because of hauling that, knowing that "It's not going to hurt
11 you." "It's not going to hurt you."

12 Every route them trucks took, make sure
13 that that contamination can be sealed. Which, at another
14 meeting, a man come up, he had his facts together, and he said
15 it cannot be sealed. There is no container that can actually
16 seal that. So it's going to seep out.

17 All these people that let their children
18 play in Coldwater Creek, it's contaminated. They let their
19 children play in there. Well, when their children come up
20 with cancer, well, "I didn't know." "I didn't know." Then
21 we're going to worry about it then. That should all be
22 cleaned up.

23 We drink the water. It's scary. It really
24 is scary. I go day-to-day wondering how long am I going to be
25 here? How long are any of us going to be here with that stuff

1 there? It should be sealed and put somewhere where there's no
2 living animals even, because why should even an animal have to
3 suffer? And be sealed good enough, and signs posted. It
4 should be sealed, signs put up, and have it all tested. Have
5 the places where it's moved tested.

6 The people that move it, make sure they've
7 got safe equipment on them. The people that live where all
8 this is being moved should be told when it's going to be
9 moved, and be evacuated until it is moved. This is my
10 feeling. Because, if it gets stirred up, like somebody
11 mentioned, if they stir it up, it's gonna get in the air
12 again.

13 Am I gonna get another type of cancer? Is
14 my son gonna get another type of cancer? Is my other son
15 gonna get cancer? I don't want no more cancer. I'm fed up to
16 here with all the cancer. That's why -- I love my home. I'm
17 fighting for my home. I'm not giving up my home. I want it
18 moved. I thank you.

19 THE MODERATOR: Thank you. Judy Medoff.

20 JUDY MEDOFF:

21 Hi. I'm Judy Medoff. I'm a professor of
22 biology at St. Louis University. However, I'm here as a
23 concerned citizen and a member of the Coalition for the
24 Environment.

25 I feel silly standing up here and saying

1 what I was going to say after that previous testimony. I
2 think it's clear the people of St. Louis are very frightened
3 of all the nuclear waste and hazardous material in our midst.
4 It will have to be removed for us to feel safe, and to feel
5 like we can enjoy our city and the place that we live.

6 Basically, I wanted to discuss the issue of
7 the cleanup at Weldon Spring, the pits, and the plan to dump
8 the material into the Missouri River. I've been involved in
9 that issue for a while, and I went to the site of Weldon
10 Spring and examined the plant life at the effluent site with
11 another colleague of mine. We looked to see whether there was
12 enough material for assaying on a regular basis, once the
13 cleaned-up Weldon Spring material was dumped into the Missouri
14 River.

15 We did find a large amount of plant
16 material that could go assayed routinely at maybe two times a
17 year, which we would like to suggest is done, if you go ahead
18 with the plan to dump the cleaned-up waste into the river,
19 which is the source, of course, of our drinking water. The
20 material that is supposed to be dumped into the river is
21 supposed to be free of any contamination. It's supposed to be
22 clean.

23 However, as a scientist, I would like to
24 say that one of the things that constantly amazes me is how
25 little we know about the interactions between organic

1 compounds and interactions between material that we treat.
2 And we think there will be absolutely no problem once we treat
3 it. There are reports every day of new information that is
4 discovered, things that we thought were perfectly safe which
5 turn out not to be safe.

6 And I would like to suggest that if the
7 water is dumped into the river, that the appropriate effluent
8 be assayed to be sure there is no accumulation -- no
9 bio-accumulation. That issue was discussed by many other
10 people here. However, my proposal is one that I had heard
11 earlier. Someone else suggested this, and I feel most
12 comfortable with this idea. I, of course, think the site has
13 to be cleaned up.

14 However, I would suggest that the water
15 that is cleaned up, and tested as cleaned, be stored rather
16 than dumped into our drinking-water supply. As I said, I
17 really think there are many things that we don't know about
18 nuclear materials, about the other organic, toxic wastes that
19 they're dumping in there. I would feel much safer if that
20 material were stored -- especially the highly-contaminated
21 material that we're going to clean up rather than dumping it
22 into the river.

23 If that's at all possible, if there's any
24 way to contain it, and efforts at being cleaned up, I think
25 that would be the safest thing to do with it, rather than to

1 put it into our water supply, and possibly have some effects
2 that we're simply unaware of at this time. I would like to
3 submit this report.

4 THE MODERATOR: Thank you. Audrae Stevens.

5 AUDRAE STEVENS:

6 My name is Audrae Stevens. I live at Redacted - Privac
I've lived in the St. Louis
8 area all my life, which was before the first A-bomb.

9 My freshman class was the last one to be
10 welcomed to Washington University by the then Chancellor
11 Arthur Compton, Nobel-Prize laureate, physicist who had worked
12 on the Manhattan Project. Dr. and Mrs. Compton's warm
13 reception to in-coming freshman, with a warm handshake, into
14 their home, helped me realize that scientists the world over
15 are flesh-and-blood people just like the rest of us.

16 My main point I suppose is that when people
17 are looking at numbers and setting, quote, "acceptable risk
18 levels," they should also remember that those numbers are
19 individuals with families such as we've seen here this
20 evening. Dr. Compton's influence at Washington University
21 helped stress the need for the utmost caution in any use of
22 radioactive materials. And a very high regard for the
23 potentials they have to damage us, our health, and more
24 importantly, our genetic legacy.

25 Professionally, for two decades I was part

1 of the diagnostic team evaluating thousands of children with
2 hearing, language, and intellectual disabilities. We describe
3 them in numerical terms for threshold-levels that categorize
4 them, but they were not statistics -- not to their families,
5 their teachers, their caretakers, or their community. And in
6 considering cost-analyses, figure the cost for caring for
7 someone who is never going to be able to be a self-sufficient
8 individual. Include that in the cost factors of any cleanups.

9 In most instances, we were unable to
10 determine the cause of the deficiencies in these children.
11 Many we were, especially those that had lead poisoning, and
12 especially now, when you're looking back over it. And the
13 threshold-levels that were safe for children to have blood
14 levels in their system, have now been decided, "Well, somebody
15 made a mistake. That does cause permanent neurological
16 damage."

17 Medicos indices, for 20 years now, has had
18 a subject heading, "Abnormalities, Radiation Induced." I
19 won't go through very many of them, but in February, 1990, a
20 metabolism study determined that prenatal, low-dose gamma
21 radiation during the critical periods of gestation induces
22 malformation of offspring. Early, during the inner-ear
23 development, it causes hearing loss, sensitizes the system,
24 and creates premature aging.

25 And one of the main things we have to

1 determine is how safe is safe? Since Madame Curie's
2 discoveries, what has been considered acceptable threshold
3 safety have constantly been changing, due to illnesses and
4 deaths that were later proved to have been caused by the
5 exposures that were more dangerous than previously believed.

6 In April, 1990, a Swedish study evaluated
7 radiation risks and concluded, quote, "There is no totally
8 harmless level." Since efforts to manage the waste and
9 mitigate impacts will take decades, from one of your quotes,
10 it is paramount that a continuing review of technological
11 advances for monitoring and cleanup abilities, and bio-medical
12 research as to the effects of radiation, be constantly
13 monitored to use in continuing re-assessment as we learn more
14 of the potential impact on health.

15 Professor Ruth Macklin, professor of
16 bio-ethics at Albert Einstein College of Medicine in New York,
17 a medical ethicist in a discussion of fetal ethics concluded,
18 "That we are morally obligated to do everything possible so
19 that the fetus will develop into a normal, healthy child."

20 Thank you. I would like to submit my
21 written letter later, with expanded comments.

22 THE MODERATOR: Sure. Thank you. Mark
23 Stroker.

24 MARK STROKER:

25 Good evening, and thank you for coming to

1 St. Louis. My name is Mark Stroker and I'm here on behalf of
2 Congressman-elect Joan Kelly Horne. Joan can't be here this
3 evening because she's attending a conference at Harvard
4 University for new members of the House.

5 I would like to let you know that the
6 environmental bunker in Hazelwood, north of the airport, is an
7 issue in this campaign, and its removal will be a top priority
8 for Joan, as a member of Congress. She looks forward to
9 working with you. Speaking personally, as a resident of
10 Hazelwood, and as one of those kids that used to play in
11 Coldwater Creek, I can tell you that it certainly should be a
12 priority for the Department of Energy as well.

13 And again, we look forward to working with
14 you, as does Congresswoman Joan Horne. Thank you for your
15 time.

16 THE MODERATOR: Thank you, Mark. William
17 Powers.

18 WILLIAM POWERS:

19 I am William Powers, City Manager of the
20 City of Berkeley. I live at Redacted - Privacy Act .

21 The citizens of Berkeley, Missouri want
22 this material removed. We do not want it encapsulated, and we
23 don't want additional material at this site. This radioactive
24 waste is a product that was generated not by the Berkeley
25 residents, or the St. Louis residents, or any of the people in

1 this immediate area. This material was not generated at this
2 site either. The federal government produced this material,
3 and only the federal government has the resources to remove
4 and relocate this material.

5 It was stated earlier that the City of
6 Berkeley ballfields, this was our major ballfield-recreational
7 area. We had several softball leagues there. These are no
8 longer in existence. The City of Berkeley's land mass is
9 built out. We don't have vast acreages left to develop new
10 ballfields in. We would like to see this area cleaned up and
11 returned back to a recreational facility for the citizens of
12 that area.

13 The latest concern brought to the citizens
14 of the St. Louis area by Dr. Browning's forecast indicate that
15 we are in an earthquake-prone area. We do have several flood
16 plains along there. We have several alluvial plains, and one
17 of the results of an earthquake of any real magnitude can
18 generate what is called liquifaction, where the soil and water
19 mix.

20 If this site were to be retained here, or
21 added to, the potential for the erosion into Coldwater Creek
22 and spreading of the contamination into the major waterways of
23 this state are of concern, and should be considered by the
24 Department of Energy. The citizens have been impacted, not to
25 a degree that some of the residents have in that area, but

1 from the loss of their recreational standpoint, this is an
2 area that I hear continual requests for. When are we going to
3 build new ballfields? We don't have the land area for the new
4 ballfields.

5 Therefore, our only hope for that type of
6 continued recreation in this area would be the relocation by
7 the Department of Energy report recommending that this area be
8 cleaned up and restored back to use for the populace. Thank
9 you.

10 THE MODERATOR: Thank you, sir. Our next
11 speaker is Myra Mullins.

12 MYRA MULLINS:

13 My name is Myra Mullins, and I'm with
14 ACORN, on the Board of Directors. ACORN is the Association of
15 Community Organizations for Reform Now. We are a grassroots,
16 activist organization for low-to-moderate income people.

17 We devised The People's Platform in July,
18 and one of the Platform's planks is on the environment, among
19 many others that we have. It also contains a preamble. If I
20 have time after reading the plank on environment, I'll read
21 that.

22 The effects of irresponsible environment
23 policies are felt most directly by low-and-moderate income
24 people who also live near government and industrial waste
25 sites. These communities suffer high rates of birth defects,

1 cancer, and other diseases. ACORN says stop the poisoning of
2 our neighborhoods, number one, by establishing procedures to
3 ensure that government and industry cleanup of 30,000 existing
4 hazardous waste sites, of which they are responsible, in the
5 United States. And that accident sites are monitored by
6 community-based boards.

7 Require producers of toxic wastes to sign
8 binding agreements with community groups and local governments
9 to reduce or eliminate the toxic wastes they put in our air,
10 water, food, and soil. Hold major shareholders responsible
11 for the actions of polluting corporations. Establish a system
12 of heavy fines for waste-disposal companies that break the
13 law, and bar repeat offenders from doing business. Establish
14 community control over setting safety standards. Permit and
15 approval of emergency evacuation plans.

16 ACORN also feels we should have a reform
17 and expand the right-to-know. Make the right-to-know the
18 legislation that establishes the public's right to be informed
19 about hazard chemicals used and released in local communities
20 more accessible to the public by using community-based
21 organizations as clearing houses.

22 Require that the presence of hazardous
23 waste in a community be announced by periodic flyers. Make
24 public the routes of all hazardous-materials transport.
25 Include the government and the military on their right-to-know

1 restrictions and stipulations, in order to allow the residents
2 of communities near such government and military installations
3 to act on dangers imposed on their health and safety by
4 hazardous waste.

5 I would like to read portions of our
6 preamble so you might understand some of the things we are
7 about. "We stand for a people's platform as old as our
8 country and as young as our dreams. We come before our nation
9 not to petition with head-in-hand, but to rise as one people
10 in the end. We have waited and watched, we have hoped and
11 helped, we have sweated and suffered, we have often believed,
12 we have frequently followed.

13 "But we have nothing to show for the work
14 of our hands, the tasks of our labor. Our patience has been
15 abused, our experiences misused. Our silence has been seen as
16 support, our struggle has been ignored. Enough is enough. We
17 will wait no longer for the crumbs at America's door. We will
18 not be meek, but mighty. We will not starve on past promises,
19 but feast on future dreams.

20 "We are an uncommon common people. We are
21 the majority forged from all minorities. We are the masses of
22 many, not the forces of few. We will continue our fight until
23 the American way is just one way, until we have shared the
24 wealth, until we have won our freedom. This is not a simple
25 vision, but a detailed plan. Our plan is to build an American

1 reality from the American rhetoric, to deliver a piece of the
2 present and a piece of the future to every man, to every
3 woman, to every family.

4 "We demand our birthright, the chance to be
5 rich, the right to be free. Our riches shall be the blooming
6 of our communities, the bounty of assured livelihood, the
7 greeting of homes with families, with sickness driven from the
8 door. The benefit of our taxes, not their burden, and the
9 best of our energies, land, and natural resources for all
10 people. Our freedom shall be based on the authority of the
11 many, not the income of the few.

12 "Our freedom is the force of democracy, not
13 the federal fat of personal profit. And our freedom, only the
14 people shall rule. Corporations shall have their roles
15 producing jobs and providing products and taxes. No more, no
16 less. They shall obey our wishes, respond to our needs, serve
17 our communities. Our country shall be the citizen's wealth,
18 our wealth shall build our country. Government shall have its
19 role, public servants to our good. Fast forward to our sure
20 steps, no more no less.

21 "Our government shall shout with a public
22 voice, and no longer jump to a private whisper. And our
23 government shall be a collective cause. We present a People's
24 Platform, not a politician's promises. We demand the changes
25 outlined in our platform and plan. We will work to win, we

1 will have our birthright. We will live in richness and
2 freedom, we will live in one country as one people. We will
3 dream of more, we will not settle for less."

4 We at ACORN are putting the Department of
5 Energy on notice that they must take this waste and dispose of
6 it properly within one year, within the next year. The people
7 of St. Louis will stand for nothing less. Thank you.

8 THE MODERATOR: This is an appropriate time
9 to let you know where we stand in terms of speakers.
10 I also remind you that the written word is as
11 powerful as the spoken word. And if you have written
12 comments that you would like to submit, they will be
13 given equal consideration. These may be submitted by
14 February 19th. Ms. Braxton.

15 BARBARA BRAXTON:

16 Good evening. I'm Barbara Braxton. And
17 I'm also a member of ACORN. We're located at 1425 Tower
18 Grove, St. Louis, Missouri, 63110.

19 ACORN has 3,500 low-to-moderate income
20 families, making us one of the largest citizen groups in St.
21 Louis. We're also concerned when we believe that a safe and
22 pollutant-free environment is the right of every man, woman,
23 and child. St. Louis is knowing the history of the atomic age
24 and its waste for a long time. The corporate America and the
25 government has acted irresponsibly, as in the act of this

1 waste matter.

2 St. Louis has been victimized by the
3 corporate America and the government's insensitivity to our
4 need of a safe environment for the last twenty years. It
5 appears the government has let the nuclear waste pollute our
6 environment in the most negligent manner possible. Little
7 children have played in the waste as it was being transported
8 to its present site. And I'm talking about at the airport.
9 It is improperly contained there. In addition, it is leaking
10 into our groundwater, polluting land and air.

11 However, the Department of Energy must
12 clean our city. We will not sit by quietly anymore and watch
13 as the various branches of government trample on the rights of
14 people. They have been hesitating, prevaricating, lying, and
15 just plain wasting time. Therefore, it would be much easier
16 if the government would do their job and clean up this waste
17 and stop wasting our tax dollars. We're getting pretty tired
18 of it.

19 It looks as if you're running out of land
20 to bury this waste. Why not put it in Nevada somewhere? In
21 closing, I just want to say the opportunity for me to speak
22 here tonight, that it is time for the Department of Energy to
23 settle down, do its job, and live up to its mission to protect
24 its citizens. Thank you.

25 THE MODERATOR: Thank you. The next

1 speaker will be Vera Falk.

2 VERA FALK, for VIRGINIA HARRIS:

3 I am speaking for Virginia Harris. I live
4 at Redacted - Privacy Act .

5 I would only say that the testimony of the
6 young woman and her son spoke very vividly to why this waste
7 should be moved to a non-urban area. I also understood that
8 there were some conferences with local officials of agencies
9 before this meeting, and I called two of them today. One was
10 the Corps of Engineers. And their main concern -- I don't
11 mean to be speaking for them -- but as I understood, their
12 main concern was the cost factor.

13 I wondered if the health risk, economic
14 cost factor of that had been considered. The other agency --
15 I wonder if any of those people are here tonight to hear some
16 of this testimony. The only thing that either of them said,
17 that they were only taking orders from the Department of
18 Energy, not to disturb the ground in Coldwater Creek below
19 where the waste material is formed.

20 With your permission, I would like to read
21 Virginia Harris' statement. She was not able to stay.

22 "Since the first production of nuclear fuel
23 in St. Louis 48 years ago, a million cubic yards of
24 radioactive waste has accumulated on the St. Louis site at the
25 Missouri River, while an equal amount has accumulated on the

1 St. Charles side of the river. During this entire time,
2 representatives of the United States Government, including the
3 Department of Energy, have tried to downplay the dangers
4 associated with these radioactive materials.

5 "The citizens of this country have had to
6 do their own private research in order to discover the truth
7 about the dangers of radioactive materials. As the citizens
8 slowly discovered the truth, government agencies have had to
9 publicly revise their estimates of disease caused by various
10 levels of radiation. However, these changes in estimates have
11 come very slowly, and it would appear, begrudgingly. Most
12 importantly, these changes have come long after the fact,
13 after a great deal of damage has already been done.

14 "Therefore, I am asking on behalf of
15 myself, my family, my friends, and future generations, that
16 the Department of Energy immediately stop generating nuclear
17 weapons fuel, and immediately reallocate its budget toward the
18 cleanup of the waste that it has already produced, beginning
19 with the oldest wastes which are in the St. Louis area.

20 "I understand that the DOE still does not
21 know exactly where, or how, to dispose of the waste that it
22 has already produced. This is another good reason to
23 immediately stop producing more waste. Additionally, given
24 the number of nuclear weapons that each side in the cold war
25 has stockpiled, there is no reason to produce more. Since

1 these weapons can be tested by testing the triggers, not the
2 fuel, there is no need to produce fuel for replacement
3 weapons. And the nuclear-testing program should, therefore,
4 also be terminated immediately.

5 "Finally, with the ending of the cold war,
6 there is no reason to continue to produce fuel for new, quote,
7 "improved" weapons. If you are in a quandary as to what to do
8 with the St. Louis and St. Charles waste, until you can figure
9 out and implement a longer-term solution, no solution is,
10 quote, "permanent," since human institutions and geologic
11 formations do not outlive radioactive half-lives.

12 "I suggest you store the wastes, as safely
13 as possible, at the Callaway nuclear power plant. This is the
14 nearest atomic power plant. It is located some distance from
15 heavily-populated areas. It contains a large amount of land,
16 and it continues to generate nuclear wastes itself. Until a
17 longer-term solution is ready for implementation, perhaps the
18 same solution can be applied to the nuclear-power-plant waste
19 as to the nuclear-weapons waste.

20 "I appreciate the opportunity to testify at
21 this hearing. Thank you, Virginia Harris." Thank you.

22 THE MODERATOR: Thank you very much. Next
23 speaker is Debra Wilson.

24 DEBRA WILSON:

25 My name is Debra Wilson. I live at Redacted - P)

1 Redacted - Privacy Act

2 Last spring, I worked as a petitioner in
3 St. Louis City collecting signatures against building a
4 radioactive waste bunker near our airport. I worked in both
5 north and south St. Louis, and found that the overwhelming
6 majority of citizens I talked to were against the Department
7 of Energy building this bunker, and eager to sign a petition
8 stating that view.

9 While working on the petition during last
10 spring's election, at a south St. Louis polling place, I had a
11 memorable encounter with one of St. Louis City's aldermen. He
12 was rude and overbearing, both to me and to citizens wanting
13 to sign my petition. His obvious tactic was to use the old
14 clique, "might makes right." Thrusting his finger in my face,
15 he shouted, "I don't want this stuff in my backyard, and you
16 don't want it in yours, and it's got to go someplace."

17 Well, of course, for the most part, the
18 backyards that would be exposed to the radioactive weapons
19 waste stored at this proposed bunker did not belong to the
20 powerful alderman who voted in favor of this bunker, and not
21 to people who have the extensive time, money, and resident
22 lawyers it takes to fight such a proposal. Instead, this
23 dangerous weapons waste will end up in the backyards of
24 hard-working people who are fighting enough battles just
25 trying to see that their families survive from day-to-day.

1 It has been my experience in working with
2 the Department of Energy that their message to the citizens is
3 that power equates with righteousness. And they are powerful.
4 But as usual, the Department of Energy has completely
5 overlooked the rights of the people living near the proposed
6 radioactive weapons-waste-storage site.

7 For those of us who are searching for some
8 hint of justice at this hearing, I would like to tell you that
9 the first name on my petition that day last spring belonged to
10 that alderman's wife. It must be true that there's always
11 cause for hope. Thank you.

12 THE MODERATOR: It's about that time of
13 evening where we need comments like that. Thank you.
14 The next speaker will be Jean Ruggeri.

15 JEAN RUGGERI:

16 My name is Jean Ruggeri. I live at Redacted - P
17 Redacted - Privacy Act I am an
18 organizer of a group called CARE, Citizens Against a
19 Radioactive Environment. Tonight, I come to you as a
20 concerned parent of one child, and a teacher of elementary
21 children.

22 I recently read an article about lead
23 poisoning in St. Louis and how it can cause brain damage. I
24 felt myself getting really angry when I asked myself this
25 question: What in the world do we think this kind of

1 contamination does to the minds of our children? I could give
2 you lots of my suggestions, but I only have five minutes.

3 By the time we prove what it does with a
4 study, there will be irreparable damage. Even one mind is a
5 terrible thing to waste, in my opinion. In fact, I think it
6 is a crime, especially when it could be prevented.

7 I live in Northe County near the Coldwater
8 Creek that flows just a few feet away from the two major piles
9 of toxic waste. I became involved in this issue last year
10 when I read about the St. Louis City Board of Aldermen going
11 to, quote, "Turn over the land to the Department of Energy to
12 build the permanent dump."

13 I came tonight to protest, and to express
14 my disapproval of that plan. And I speak on behalf of
15 thousands of people who, though they're not here tonight,
16 signed petitions, informal petitions, against that plan.
17 These petitions were presented to Congressman Jack Beakner who
18 took them to Washington, to hopefully present, or introduce
19 legislation, against that proposal.

20 I read that tonight's meeting was to focus
21 on the overall policy of the DOE and not the specific area of
22 St. Louis, in what to do about this serious problem of waste.
23 I urge this Department to use all the common sense you have
24 among you to see that a permanent waste dump in the middle of
25 a suburban neighborhood is not the right thing do.

1 You just don't need to waste anymore money,
2 and especially time, trying to decide the feasibility of a
3 dump at the airport. Please redirect your energies to a
4 non-urban site. When I was collecting signatures to fight
5 this plan, the very few people who did disagree with me,
6 referred to the phrase, "not in my backyard." I agree. I
7 don't think it should be in anybody's backyard. Not where
8 people live, work, or where children play.

9 St. Louis, especially Northe County, has
10 already had their turn at hosting this dump for nearly 40
11 years, when it wasn't in a so-called protective bunker. I
12 just don't think we should be stuck with it permanently.
13 Thank you.

14 THE MODERATOR: Thank you, ma'am. Dan
15 Reed.

16 DAN REED:

17 Good evening. My name is Dan Reed. I live
18 at Redacted - Privacy Act

19 I came here originally not to speak but
20 just to listen, but I felt compelled to say something. I am a
21 degree chemist, I've had graduate work in toxicology and
22 hazardous waste management. And for the last 13 years, on a
23 day-to-day basis I've handled radioactive material. I handle
24 medical pharmaceuticals that are used for diagnosing and
25 therapeutic use. Nothing like the bomb-grade uranium that

1 seems to be buried all throughout St. Louis.

2 The reason I came up here was to say that I
3 don't condemn anybody in the past for what they did. They
4 spoke to the best knowledge they had. Unfortunately, the best
5 knowledge we have today may be a travesty 20 years from now.
6 We cannot place large quantities of radioactive material --
7 any type of radioactive material -- in a high-density,
8 populated area.

9 I first became involved with this situation
10 in a sideline. I belong to a group called the Bridgeton Air
11 Defense. We're trying to stop the airport expansion. And of
12 course, when the bunker ended up right near our airport, was
13 cause for us to split off some of our people and our efforts
14 to stop the bunker from being built. I also am a NIMBY, I
15 guess you'd say, "not in my backyard." And I, too, joined
16 some of the people here in the petition drives in the cold
17 spring.

18 When people say "not in my backyard" to me,
19 I say, "Well, if it's not in your backyard, it'll be in your
20 drinking water tomorrow." Nothing is perfect. My course
21 works in hazardous waste management tell me that there's no
22 way to absolutely solve this problem. The best thing you can
23 do is eliminate all the variables. One of the variables that
24 I see is the high density of population where you want the
25 bunker to be built.

1 I don't even want to say that Callaway
2 County is too far away from population areas, to put such a
3 hazardous-waste bunker as we're talking about tonight. The
4 moon would probably be best. But please listen to all of us.
5 I think we're speaking in different voices, but have one
6 common element: We don't want this in the St. Louis area.
7 Most of us don't even want it in Missouri. Most of us don't
8 want it on the earth. Thank you very much.

9 THE MODERATOR: Thank you. The next
10 speaker will be Mr. Ted Hoskins.

11 TED HOSKINS:

12 Good evening. My name is Ted Hoskins. My
13 address is Redacted - Privacy Act I'm here representing the City of
14 Berkeley as a councilman. But before I make my statement, I'd
15 like to say something, because this about my fourth or fifth
16 time coming to a public hearing in reference to the area.

17 The area of Berkeley has the SLAPS site,
18 and also it has the BAC. Adjacent to that is Latty Avenue.
19 What is my major concern, as an elected official, and what has
20 occurred with the DOE, is, no matter what the people say, they
21 have already made up their mind. I don't know if the public
22 hearing tonight is to support where you're going to build the
23 site, or are you gathering information?

24 Taking the people's position, for what was
25 echoed on November 6th of this year, overwhelmingly -- 80-plus

1 percent in the city, and 85-plus percent in the county,
2 indicating that in a populated area such as the metropolitan
3 area of St. Louis -- it is not sound judgment, politically,
4 economically, health-wise, to build this type of bunker in
5 this particular area.

6 I take the position that, if the people
7 speak, that all of the rhetoric and all the processes that you
8 go through, you eliminate. Not one month ago, we were not
9 aware of the position of the residents of this metropolitan
10 area. I've been, as I indicated earlier, to four or five of
11 these public hearings where the DOE took the position that the
12 residents have not spoken. The residents did not come out to
13 the public hearings.

14 Well, November the 6th, the residents spoke
15 very loud and clear. Hopefully, you understood the residents.
16 If we, and I'm talking about the residents, cannot come
17 together with DOE and just come to one solution of the
18 original charge of the DOE, and that original charge was to
19 build this bunker on 21.7 acres, we all come to the agreement
20 that that cannot be done.

21 And I suggest to you tonight, you go back
22 to the Congress and get a different charge, and that charge
23 would be to remove all the radioactive waste in our area to an
24 unpopulated area. Thank you.

25 THE MODERATOR: Thank you, sir. Mollie

1 Rickey.

2 MOLLIE RICKEY:

3 Good evening. I'm sure you're tired. My
4 name is Mollie Rickey, Redacted - Privacy Act
5 I'm a member of the City Council of Hazelwood. In fact, most
6 of the council is still in Houston at the National League of
7 Cities. I just got in this afternoon.

8 I don't have a prepared statement. I
9 represent the City Council with a plea. That plea is to
10 please remove the radioactive waste to a non-urban area. I
11 live two blocks from Redacted - Privacy Act. I know where of
12 she speaks. It's a sad situation on Nyflot, two blocks from
13 where I live. There are some situations in the area that I
14 live.

15 It's hard to believe that we are permitting
16 the amount of radioactive waste to remain on the streets. The
17 truck routes, I think it's termed in your reports. Just a few
18 weeks ago, there was an article in the Post-Dispatch giving
19 the amounts of radioactive wastes at the various locations, at
20 the airport, Latty Avenue, and Mallincrodt.

21 And they added a fourth one. And that
22 fourth were the streets and the roadways where the trucks had
23 gone to bring out the radioactive wastes to the locations in
24 Hazelwood, and the airport. And how it was dropped along the
25 way. It remains there, and that's why there is an urgency to

1 get this moved, and get it moved to a non-urban area.

2 And I am representing the Hazelwood City
3 Council tonight to ask you to try to expedite this, to try to
4 get it moved on an urgent basis, before more tragedies occur.
5 That's our plea, and we hope you can do it. Thank you very
6 much.

7 THE MODERATOR: Thank you. Mira Tanna.

8 MIRA TANNA:

9 My name is Mira Tanna. I live at Redacted - Privacy

10 Redacted - Privacy Act

11 The people who have spoken here tonight
12 have been very informed about the specific disposal sites, and
13 the health risks which this poses to the population due to the
14 contamination of the water supply and as background radiation.
15 I'm also concerned about the possibility of having this waste
16 site in our backyard.

17 But what also concerns me, and concerns me
18 more, is the broader policy which creates this waste. I
19 respect the Department of Energy for consulting concerned
20 citizens when it wants to get rid of its waste, but I am
21 concerned that the citizens aren't consulted when this waste
22 is created. We must remember that nuclear-weapons production
23 creates this waste, and nobody wants this waste in their
24 backyard, not in St. Louis, Missouri, and not anywhere else in
25 the United States.

1 Everyone who has spoken here tonight has
2 shown their opposition to this nuclear-waste site. I think
3 it's important for nuclear waste to be kept away from
4 heavily-populated areas. I also think it's important to keep
5 the waste away from places where people cannot speak out
6 against it, which happens when waste is shipped to third-world
7 countries.

8 If we cannot figure out what to do with the
9 waste we have already generated, how can we justify creating
10 more? How can we justify the fact that some of our brightest
11 scientists are being paid to research new weapons of
12 destruction and not being paid to research new ways to get rid
13 of the nuclear waste they have created?

14 As a student, I feel I have an obligation
15 to speak here tonight. It is my generation which is
16 inheriting the nuclear waste. I feel obligated to try and
17 stop further production of nuclear weapons. Not only because
18 of ethical considerations, but also because of the great
19 environmental and health risks for the people of America.

20 I hope that you will consider the
21 well-being of future generations when you consider how to
22 dispose of nuclear waste. Thank you.

23 THE MODERATOR: Thank you. Ed Mahr, Jr.

24 ED MAHR, JR.:

25 I am Ed Mahr, Jr., Redacted - Privacy Act

1 You gentlemen, of course, are not
2 responsible for all the problems that we've heard hear this
3 evening, and a lot of people have done a very good job
4 explaining what's going on. I agree with just about
5 everything that was said. And we realize it's been going on
6 40 years, and, basically, the money is not available to solve
7 the problems, even if we all wanted to. I mean, we've got
8 politicians to worry about to allocate the money. And that's
9 not your Department, I don't believe.

10 I knew a teacher, an inventor by the name
11 of Buckminster Fuller. He was responsible for the geodesic
12 dome, Epcot Center. His life was one struggle against not
13 having money to do good. He said he figured out it was his
14 job to be ready for when the politicians got the money
15 together for the project. So I'm going to sort of put this to
16 you, that you might consider this approach when you're dealing
17 with this problem. You probably don't have the money now, or
18 not as much as you want, and you're going to have to rely upon
19 other people.

20 But when you do the research, you can save
21 5, 10 years -- literally, 5 to 10 years. That would be worth
22 a lot to the people who are out here suffering, and so forth.
23 Now, the way I see it, this waste can be shot to the moon --
24 which you may like, I don't know -- it can be put on top of
25 the ground where it is, it can be moved somewhere else -- down

1 to Callaway, which I like -- but I also like moving it to an
2 area that is already contaminated, such as the deserts where
3 they test all these bombs, Yucca Flats, Nevada, wherever. It
4 could go to any of these places.

5 I'm sure there's going to be a committee to
6 decide what's going to be done sometime in the future. You're
7 not really at that point where you're ready to move everything
8 within a year, as was stated. You're not ready to do that
9 right away. But if you have some basic research done, and if
10 this is a logical assumption of mine, then I repeat, you can
11 save 5 to 10 years for everybody.

12 And that is, that, to my way of thinking, a
13 large part of the final decision is going to be based upon the
14 movement of the waste. If it's going to stay in one place and
15 be subject to earthquakes, moonquakes, or whatever, there's
16 nothing you can do about that. But the one thing you want to
17 do, as everybody seems to agree, is that we don't want to
18 contaminant the groundwater. Groundwater is more precious
19 when you consider freshwater versus salt water.

20 It seems to be more precious in the ground.
21 We can afford to get rid of some of the ground -- in fact,
22 some of it's already contaminated forever. So we can just
23 write that off. But groundwater is what's important. So, if
24 you've ever seen the SLAPS site, or the Latty Avenue site,
25 they were spare pieces of ground that was there and was

1 available. Nobody else wanted to build on them. Why?

2 Because it was right along beside of this creek.

3 I worked out at McDonnell-Douglas. I have
4 seen this SLAPS site in high water. The entire area under the
5 airport, more or less, is drained by Coldwater Creek. It
6 comes out in great big tubes, so to speak, 30, 40 feet in
7 diameter. And it goes right by the site. And that's the
8 consequence: When it rains, this thing fills up and fills the
9 parking lot of McDonnell-Douglas with water. It may be clean
10 water, but nevertheless, water.

11 It's cut back 30 or 40 feet of the bank,
12 and so they had to put the gavions on, the baskets with rocks.
13 Even that's not acceptable. A little farther way down the
14 creek there's the Latty Avenue site, and that's only one lap
15 away, maybe about 50 feet away, and that also floods.
16 Groundwater is going to be important.

17 So what you do, in my opinion, is get this
18 study underway that maps the topography in Missouri, maps high
19 groundwater in some places, and low groundwater in others,
20 underground rivers in some places, and probably no water in
21 Arizona, or Nevada, or Utah, or places like that. Because,
22 ultimately, whether you put this on top of the ground, or
23 below the ground, move it around, you don't want the water
24 running through it, because that spreads it all around and
25 then we're right back to where we were, spreading it all

1 around again.

2 Whatever you do is not going to be perfect.
3 But the groundwater will be your determining factor, and that
4 you can do ahead of time. Because the politicians, they won't
5 realize that you'll be the ones to have already made that
6 decision. So, what I'm saying, make some charts, grafts,
7 hydrology surveys of areas that you think are a presumably
8 sensible course. You've made your studies about underground
9 storage, salt domes, and oil wells, I hope, and all that --
10 and all these are good. But you can gain 5 or 10 years by
11 doing these water studies. Thank you.

12 THE MODERATOR: Thank you, sir. Ann
13 Wedemeyer.

14 ANN WEDEMEYER:

15 Good evening. My name is Ann Wedemeyer. I
16 am a senior at John Burroughs High School, and president of
17 the Environmental Awareness Committee. We are a group of
18 about 60 people, the majority of us are between the grades of
19 7th through 9th, 12 to 14 years of age. We are working about
20 7 hours a week per person to clean up several environmental
21 issues, one of them being radiation in St. Louis and other
22 parts of the United States.

23 I didn't come here to do a speech, but I
24 felt the need to, once I started thinking about it and
25 realized that it's odd how a 12-year-old seems to have more

1 foresight than a 45-year-old man I know. And I'm not here to
2 shake a finger at the bureaucrats.

3 I'm just here to ask you for your help, not
4 to hand down this problem to us, so we don't have to hand it
5 down to our children. Thank you.

6 THE MODERATOR: Thank you. Our next
7 speaker is Chris Neill.

8 CHRIS NEILL:

9 My name is Chris Neill, Redacted - Privacy Act
10 Redacted - Privacy Act

11 I came here, as well, to listen this
12 evening. I'm not a learned specialist in nuclear physics, or
13 nuclear chemistry, but I'm just a concerned citizen, and I
14 feel that right now, from the news that I've received, and
15 from my own knowledge, that we presently have enough nuclear
16 weapons to blow up the world. And apparently, we have enough
17 nuclear waste to outlast the entire human population.

18 And, if I could, I'd just like to leave you
19 with a famous Indian quote. And that is that we did not
20 inherit this land from our forefathers, but we are borrowing
21 it from our children, and our children's children. Thank you.

22 THE MODERATOR: I believe we have heard
23 from everyone who has signed up and was here to
24 speak. I think I speak for the officials from the
25 Department of Energy that we want to thank you very

1 much for your time in coming here today, and the
2 effort that you have taken to put together your
3 testimony, which I'm sure will be very useful, and we
4 know will be considered by the Department as it puts
5 together its Programmatic Environmental Impact
6 Statement.

7 I personally want to thank all of you,
8 there were nearly 100 of you, 97, who spoke, thank
9 you for following the procedures and time limitations
10 that were in effect.

11 Again, thank you, and perhaps the
12 Department will see you at further public meetings on
13 this issue. Thank you very much, and drive safely.
14

15 (Whereupon, this was the conclusion of
16 the meeting.)
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R E P O R T E R ' S C E R T I F I C A T E

STATE OF TENNESSEE:

COUNTY OF KNOX:

I, BARBARA L. MAPLES, Court Reporter and Notary Public at Large, do hereby certify that I reported in machine shorthand the foregoing proceedings in the above entitled cause, the Department of Energy's Public Scoping Meeting, St. Louis, Missouri, that the foregoing pages, numbered from one to two hundred and sixty-three inclusive, were typed by me and constitute a true record of the foregoing proceedings.

I further certify that I am not an attorney or counsel of any of the parties, nor a relative or employee of any attorney or counsel connected with the action, and not financially interested in the action.

Witness my hand and seal this 15th day of December, 1990.

A handwritten signature in cursive script, reading "Barbara L. Maples", is written over a horizontal line.

BARBARA L. MAPLES, Court Reporter
and Notary Public at Large

My Commission Expires 11-19-91.