

ought to be to just involve handing a check to an older person and say, "Well, ma'am, buy health care until your money runs out. If the cost of your care is greater than your check, well, so be it." I think it is important to have guaranteed, secure, defined benefits. Many Senators have stood for this principle. It is at the heart of my legislation.

Let me also say that I believe that many Senators on the other side of the aisle have been absolutely right in saying that it is time to bring more competition and more choice to the Medicare Program. Many Senators on the other side of the aisle have made the case that competitive models—be it the Federal employee health plan or be it the private sector—ought to be the kind of approach that we look to for 21st century Medicare. I believe they are right. I believe, in addition, that it is now possible to forge a bipartisan coalition on Medicare between the two parties, where those who have advocated for guaranteeing secure, defined benefits can work with those who have called for more competition and more choice and the kinds of changes that have come to the private sector.

What it comes down to, Mr. President, is, will the Senate have the political will to do it? Will the Senate have the vision to see beyond the next electoral ridge? I believe that there is an extraordinary opportunity now to set out a foundation for the next century. We know that in the next century we are going to have to be dealing with the question of whether, hypothetically, Lee Iaccoca ought to be paying more for his Medicare than should a woman who is 75 years old and on a low income who suffers from Alzheimer's. I didn't address it in my legislation, but I happen to think that ought to be done. Senators will have different views on that issue.

Mr. President, I am not convinced that's the issue that has to be tackled right now. The issue that has to be tackled by the Senate right now is to come up with \$100 billion of hard savings to deal with the budget resolution and the short-term financial challenge of Medicare and then to lay the foundation for the next century. The foundation for the next century can build on some very good work being done by Senators of both political parties. I have been meeting with those Senators privately.

I will have more to say during this week, Mr. President, for I intend to go into further detail on my comprehensive Medicare reform legislation every day this week. I will close with one last point. This issue is so important to our country and so important to the Senate that I believe in the next century—2010, 2020, 2030—people are going to ask everyone in public life today: What did you do to try to get Medicare on track?

I believe the legislation I have introduced opens up the opportunity for bipartisan discussions toward Medicare reform. I have had a number of those

already with Chairman DOMENICI, Chairman GRAMM on the other side of the aisle, and have been very gracious in that regard. I have had a chance to talk to the minority leader, Senator DASCHLE, and Senator KENNEDY, who have done so much good work.

Mr. President, I close by saying that my concern is to make sure that the Senate, after years of bitter and acrimonious discussions on Medicare, now tries to approach it in a different way, in a bipartisan way, in a way that will allow us to tap the revolution of private sector health care, in a way that is good for patients, and in a way that is good for seniors and for taxpayers.

Mr. President, I yield the floor.

HONORING THE MAPLES ON THEIR 50TH WEDDING ANNIVERSARY

Mr. ASHCROFT. Mr. President, families are the cornerstone of America. The data are undeniable: Individuals from strong families contribute to the society. In an era when nearly half of all couples married today will see their union dissolve into divorce, I believe it is both instructive and important to honor those who have taken the commitment of till death us do part seriously, demonstrating successfully the timeless principles of love, honor, and fidelity. These characteristics make our country strong.

For these important reasons, I rise today to honor Richard and Beatrice Maple of Sedalia, MO, who on April 19 will celebrate their 50th wedding anniversary. My wife, Janet, and I look forward to the day we can celebrate a similar milestone. The Maples' commitment to the principles and values of their marriage deserves to be saluted and recognized.

CONCLUSION OF MORNING BUSINESS

The PRESIDING OFFICER. Morning business is closed.

NUCLEAR WASTE POLICY ACT AMENDMENTS—MOTION TO PROCEED

The PRESIDING OFFICER. The question is on the motion to proceed.

The Senate resumed consideration of the motion to proceed.

Mr. MURKOWSKI addressed the Chair.

The PRESIDING OFFICER. The Senator from Alaska.

Mr. MURKOWSKI. Mr. President, I ask unanimous consent that the vote on the motion to invoke cloture on Senate bill 104, the Nuclear Waste Act, occur at 5:15 on Tuesday, with the time between 2:15 and 5:15 equally divided between the proponents and opponents.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. MURKOWSKI. Mr. President, I thank the Chair. I wish the occupant of the chair a good afternoon.

The Senate proceeded to consider the motion to proceed.

Mr. MURKOWSKI. Mr. President, I am going to be speaking this afternoon at some length on Senate bill 104. This is a bill that provides a comprehensive plan for the Federal Government to meet its obligations to provide a safe place to store spent nuclear fuel and nuclear waste.

Mr. President, I think it is important to reflect on some of the background associated with nuclear waste and the status of our continued dependence on nuclear energy.

First of all, let me refer to an article by Bertram Wolfe. Mr. Wolfe is a consultant at Monte Sereno, CA, and a former president of the American Nuclear Society. He suggests that by midcentury, the Third World population on this Earth will double from 4 billion to 8 billion people while the population of the industrial world will grow by about 20 percent, to 1.2 billion. He further suggests that unless we expect to see the majority of the world's people living indefinitely in dire poverty, we should be prepared for per capita energy use to rise rapidly with economic progress. Even if the Third World per capita energy use rises to only one-third of the United States level, that increase, in combination with the expected population growth, will result in a threefold increase in world energy use by the year 2050.

He further suggests that if fossil fuels are used to supply these increased energy needs, we can expect serious deterioration of air quality and possibly environmental disaster from global climate change due to the greenhouse effect. In addition, increased demand for fossil fuels, combined with the dwindling supply, undoubtedly will lead to higher prices, slower economic growth, and the likelihood of energy-related global conflicts.

I wonder if anyone in this Chamber would doubt that Kuwait's oil resources were a major factor in the United States willingness to take military action against Iraq. Unfortunately, alternatives to this scenario are few. Perhaps the future world energy use can be stabilized at a level much less than a third of present U.S. per capita use. Of course, that demand could be much higher. Perhaps solar or wind power will become practical on a larger scale. Perhaps fusion, or even cold fusion, will be developed. But as we enter the world's energy needs in the 21st century, we have to focus on one area that currently provides us with nearly 21 percent of our electricity in the United States, and that is nuclear power. Even conventional nuclear powerplants will face fuel supply problems in the next century if their use expands significantly, which is why we ought to consider the use of the advanced liquid metal reactor which can produce more than 100 times as much energy per pound of uranium as conventional reactors.

The United States, as we know, has been a leader in the development of nuclear power technology and in the adoption of stringent safety standards. It is important to note that not a single member of the public has been harmed by the operation of any of the world's nuclear plants that meet U.S. standards. The Chernobyl reactor, which lacked a containment structure, did not meet U.S. standards.

But the future of nuclear energy in the United States is now very much in question. Since 1973, all nuclear energy plant orders have subsequently been canceled. In 1993, U.S. utilities shut down three nuclear energy plants rather than invest in needed repairs. Of the 110 presently operating U.S. nuclear energy plants, 45 will reach the end of their planned 40-year lifetime in the next two decades.

Mr. President, this is the wrong time for the Nation, and for the world, for that matter, to ignore nuclear power. Demand for energy will grow. Our options are limited. Ironically, environmentalists who have opposed nuclear power since the 1970's should have the strongest rationale for promoting nuclear energy. Like all large endeavors, nuclear power has its problems and it has its risks. But the problems of nuclear power do not look so bad when compared with air pollution, global warming, and the supply limitations associated with fossil fuels. Besides, the major drawbacks of nuclear power from cost to waste disposal are due more to institutional impediments than to technological difficulties. Considering the growth in energy demand and the risks associated with other energy sources, the benefit-risk ratio for nuclear power is very attractive.

We recall that peaceful nuclear power development started slowly in the 1950's. But by the mid to late 1960's, commercial nuclear powerplant orders began to take off. And by the 1970's, 30 to 40 nuclear plants were being ordered each year. This outlook resulted from several factors. The first was that electric use was growing at a rate of about 7 percent per year, leading to a need for doubling of electric capacity every 10 years.

Responding to some very negative public reactions to his company and the company's announcement that it would be starting up a new coal-fired plant in 1961, McChesney Martin, chairman of Florida Power and Light, promised never to build another coal plant. Shortly thereafter, Florida Power and Light submitted a plan to build a nuclear station in the mid-1960's.

Mr. President, the Sierra Club became the major supporter of the Diablo Canyon nuclear plant in California. This period of rapid nuclear expansion and environmental support of nuclear power ended in 1973 after the Arab oil embargo and the boycott. As a consequence of that, the rate of growth fell dramatically. As the years went by and the costs of crude oil continued to increase, we found a change in atti-

tude. The surplus of oil distorted the Nation's perspective on energy in general and nuclear energy in particular.

A number of environmental organizations, such as Greenpeace and the Sierra Club, insisted that the Nation should hold out for ideal or risk-free sources, such as energy conservation, solar power, and wind energy. No one suffered from a shortage of electricity as the construction time for nuclear powerplants expanded a full 6 years—to 10 or 15 years, or even longer. These extended construction times have been ascribed to an even more complicated and inefficient regulatory system, and court delays resulting from suits brought by those opposed to nuclear power. In Japan and France, for example, where demand for electric energy continued to grow rapidly, new nuclear energy plants of U.S. design are today still being licensed and built in 4 to 6 years.

First, I personally would question whether Congress would have tolerated the delays if the new electricity were truly needed. One of the results of the delays, however, was that the cost of building a nuclear plant in the United States increased dramatically, making nuclear power uncompetitive and unattractive to many investors. But let's look at the benefits.

Although the rate of growth of electricity use declined after 1973, demand increased, as the economy expanded, to U.S. electric use, increasing 70 percent between 1973 and 1994. Coal generation doubled between 1973 and 1994, and today coal provides over 50 percent of U.S. electricity. The 74 nuclear energy plants that came on line in this period increased the nuclear share of electric generation from 4 percent in 1973 to more than 20 percent today, second only to coal.

The other sources, for the benefit of the Members, are natural gas at 4 percent, hydropower at 9 percent, wood, wind, and solar 3 percent, and oil 3 percent.

The added nuclear capacity allowed for the shutdown of oil-fired plants and permitted the utilities to reduce oil imports by some 100 million barrels per year. The substitution of nuclear or fossil fuel plants has reduced the present CO₂ atmospheric emissions by 140 million metric tons of carbon per year—roughly 10 percent of the total U.S. CO₂ production. Nevertheless, the United States still needs to reduce carbon production by an additional 10 percent to reach its goal of returning to the 1990 production level. In addition, replacement of fossil fuel plants with nuclear power has reduced nitric oxide emissions to the air by over 2 million tons annually, meeting the goal set by the Clean Air Act for the year 2000, and has reduced sulfur dioxide emissions by almost 5 million tons per year, half the goal for the year 2000.

The dilemma that we are in is a real one, because we are not able to store our waste that has accumulated as a consequence of our nuclear power-

plants. As a consequence of that, we have not been able to move from a temporary storage to a safe, permanent storage. We have the temporary storage in the areas, in the pools, next to our reactors. But, as a consequence of that, we seem to face the situation where environmental Neros fiddle while Rome burns. The current generation of U.S. nuclear powerplants has performed remarkably well and an even better generation of new designs is ready. General Electric, in a partnership with Hitachi and Toshiba, has developed the advanced boiling water reactor. Construction of this reactor began in Japan in 1991, and the plant is already operating at full power. The ability to build and begin operation of a new design in less than 5 years is a testament to the quality of the firms that stand behind this.

Experience with the U.S. licensing and court review procedures suggest that today it can take 2 to 4 times as long to construct a nuclear plant in the United States as it does abroad, with the exorbitant cost increases.

Mr. President, this brings me to the point in the debate where I think it is appropriate to reflect on history. I am referring to an article that appeared in *Scientific American* in July 1976.

Mr. President, let me just read an excerpt from that particular article, because I think it reflects on something that has been overlooked. That is the natural element of nuclear fission as we know it today.

Mr. REID. Mr. President, will my friend yield for a unanimous-consent request that will just take a second? I just want to get staff in here, is all.

Mr. MURKOWSKI. Sure.

PRIVILEGE OF THE FLOOR

Mr. REID. Mr. President, I ask unanimous consent that Bob Perret, a professional fellow, be granted the privilege of the floor during the pendency of this bill.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. MURKOWSKI. Mr. President, I think it will be of interest for my colleagues to note that a high level radioactive waste experiment occurred some 1.8 million years ago in west Africa, in what is now the nation of Gabon, at a place called Oklo. The French were prospecting in their former colony for uranium for their developing nuclear program. Some 2 billion years ago, all the uranium on Earth contained some 3 to 4 percent uranium 235, and the rest is the normal level of uranium 238. But, because of natural radiation decay, all U-238 today contains only about 0.7 percent of U-235. U-235 is fissionable, and at about 3 percent enrichment can sustain a chain reaction. That means it can undergo fission. That is just what happened to the uranium in Oklo, approximately 1.8 million years ago. Some water seeped into the vein and began a slow chain reaction which continued for some several hundred thousand years, generating some 10 tons of radioactive waste, including almost a

ton of plutonium. The reactor became dormant and scientists have now measured all the minerals at that site and they have shown that all the plutonium created at the site has decayed and that all the original radiation decay products of fission were recovered, close to the original natural fission reactor. This, altogether, released only a few feet from the surface.

It is interesting to note the plutonium did not migrate away, even though there were no engineered barriers to prevent transport of the waste product. This natural experiment shows that it is difficult, if not impossible, for such waste to enter the biosphere. It clearly demonstrates that geological repositories can successfully isolate radioactive waste from the biosphere. There is nothing unique about the geology of Oklo. That occurred, as I have indicated, some 1.8 million years ago.

As we enter the debate on a comprehensive plan for the Federal Government to meet its obligation to provide a safe place to store spent nuclear waste and nuclear fuel, I think it is important to refer to the historical natural occurrence that took place in Africa some 1.8 million years ago because it represents a phenomenon, if you will, that shows, indeed, a natural experimentation that resulted in no unfavorable outfall associated with the process.

Getting back to where we are today, our Government entered into a contractual commitment to take the waste generated from our nuclear powerplants and provide a safe storage and disposition of that waste. That was some years ago. That contract is now due, for the Government to initiate performance, in 1998. As a consequence of the recognition of the inability of the Government to take that waste, on March 13 my committee on Energy and Natural Resources reported Senate bill S. 104 on a bipartisan vote of 15 to 5.

As you will recall, last year a similar bill passed the Senate by a bipartisan vote of 63 to 37. The bill would provide one safe, central, temporary storage site at the Nevada test site or, if the Nevada test site is found to be inadequate, another chosen by the President. At the same time, S. 104 reaffirms our Nation's commitment to development of a permanent repository for nuclear waste. Why the Nevada site? We have been conducting nuclear detonations related to the weapons testing program in the Nevada desert for some 50 years. One can fairly conclude that the area has radioactivity. The area has been, time and time again, subject to underground explosions of various types. The area is well established with an adequate security capability and an experienced work force.

Furthermore, when we get right down to this issue, we have to come to the conclusion that nobody wants the waste—not one of the 50 States. But clearly the experience in Nevada at the test site suggests that it is the best

site that has been examined so far, and as a consequence we are committed to proceed with the effort to establish a permanent repository there.

What S. 104 further attempts to do is to reaffirm our Nation's commitment to development of a permanent repository for nuclear waste, which is our ongoing objective. Over the past several weeks I have worked with many of my colleagues, notably Senator BINGAMAN from New Mexico, to address concerns that he has with the bill and other concerns. As a result of these discussions, I am prepared to offer an amendment that makes significant changes to S. 104.

Let me comment a little further on this bill, because while this bill was resolved with a tremendous amount of work by the staff, what it really is is an effort to meet our obligation to take our nuclear waste in a timely manner and reduce the associated liability that is going to come from suits brought to the Federal Government for nonperformance of the contract. If someone has a better idea for this bill, or a better proposal to address the problem now, why, this Senator is certainly willing to listen and very likely accommodate it.

But let me explain the amendment. The amendment, first of all, extends the schedule for siting and licensing an interim facility, specifically siting and licensing an interim facility. This means we can start the process that we have had underway for a long, long time. Further, this allows even more time for the progress at Yucca Mountain to be taken into account in siting the interim facility. It would provide that the interim facility will be licensed by existing NRC regulations with no exceptions. It shortens the licensing term of the interim facility to 40 years, so it puts a limit on how long it can be used, and provides that its capacity will only be that needed to fulfill the Government's obligation until a permanent repository is available. And it preempts only State laws that are inconsistent with the provisions of the act. This language is virtually identical to that in the Hazardous Waste Materials Transportation Act.

These changes are significant, but do not harm the ability to reach the ultimate goal. The ultimate goal is safe, central storage; safe, central storage of our Nation's spent nuclear fuels and waste. High level nuclear waste and highly radioactive used nuclear fuel is, today, continuing to pile up. It is piling up in 41 States at some 80 sites, and it is stored in areas that are populated; near neighborhoods, areas where schools are not too far away—you might say in the back yards of people across America. One example that comes to mind is the Palisades plant in Michigan, which is within 100 feet of Lake Michigan. Another is the Haddam Neck plant in Connecticut. My colleague from that State has observed that he can see the plant from his home.

I refer to an editorial from the Hartford Courant that observes, "With the closing of the Connecticut Yankee plant at Haddam Neck, the issue of what to do with the State's high level nuclear waste has moved from the theoretical to the here and now. Experts say that Connecticut Yankee spent fuel could be stored at Haddam Neck for another 30 years, 'another 30 years, Mr. President' if Congress fails to approve a temporary facility. Unfortunately, the hands of the clock cannot be turned back to a time when nuclear waste didn't exist. In terms of its disposal, a remote desert site in Nevada is simply the lesser of two evils."

(Mr. ENZI assumed the chair.)

Mr. MURKOWSKI. Mr. President, the waste was supposed to have been taken by the Federal Government for safe, central storage by, as I said earlier, 1998. Will that happen, Mr. President? The answer is clearly no. No, because we have not addressed the problem; we simply put it off.

Even though this \$12 billion collection from American ratepayers to pay for this storage has gone into the Federal coffers, and even though a Federal court has reaffirmed that the Government has a legal obligation to take the waste by 1998, still, today, there is no plan for action.

By 1998, 23 reactors in 14 States are going to be full. What are we going to do then? Are we going to shift over to some other power? We are going to have to do something.

By the year 2010, 65 reactors in 29 States will be full. What are we going to do then?

The conservative estimate is that 25 percent of our nuclear plants will not be able to build onsite storage and will be forced to shut down. That would mean the loss of over 5 percent of our Nation's electric generating capacity. When is Yucca Mountain going to be ready for a permanent repository? Not until at least the year 2015. What do we do in the meantime? Simply leave it there? Let the litigation mount up for our inability to honor a contractual commitment? How good is a Government contract if the Government can simply ignore it? Therefore, in the mind of this Senator, what this Nation needs and what S. 104 is all about is a temporary solution.

When S. 104 passed the Energy and Natural Resources Committee, it passed with a solid bipartisan vote of 15 to 5. Almost half of the members and all majority members voted in favor of the bill. Americans have waited too long for a solution to this environmental and public safety challenge, and there is absolutely no purpose to be served by waiting any longer.

I am, of course, sensitive to the concerns of my colleagues from Nevada, but this is a legacy of our generation, and we have an obligation to address that legacy. To put it off to somebody else's watch, another Presidential administration, simply puts off a responsibility and an obligation that we have.

We have an obligation to act, and to act in a timely manner, because we are going to be in breach of our contract next year. So there is a critical need to construct a safe, central storage facility to eliminate the growing threat to the environment and to the American people.

As I said earlier, I worked with Members on both sides of the aisle to attempt to solve the problems that they have with this bill. In the markup, we accepted several amendments from the Democratic side, and I am ready to work with other Senators on amendments they may have to improve the bill, because our goal is a responsible one. It is safe, central storage as soon as reasonably possible after 1998. We have offered, time and time again, to work with the new Secretary of Energy, Secretary Pena, and the staff at the Energy Department. During his confirmation, we pressed the White House to ensure that the Secretary has the portfolio to respond to this pressing problem, and they indicated that he did have that portfolio.

Over the recess, the committee staff has worked on a proposed compromise. Senator BINGAMAN's staff has been very constructive in this regard. Much of what Senator BINGAMAN has proposed appears acceptable. However, the bottom line is the need for a predictable path, with certainty, to interim and permanent waste storage. We simply cannot leave trap doors that allow central storage to be delayed for decades.

I want to refer to a chart to identify just what we are talking about relative to spent fuel and radioactive waste that is destined for geologic disposal. This chart on my right shows the United States, and for some reason or another they left Hawaii and Alaska off, but that is not uncommon around here. The brown areas show commercial reactors, and they are primarily in the Midwest—Illinois, Minnesota—and on the eastern seaboard. Those are some 80 sites where we are generating nuclear power at the present time.

One of the things we have to keep in mind is, unless we find a way to take care of this waste—we are still going to have reactors, some of which have already shut down and have spent fuel in onsite storage—we will simply be storing spent fuel in shutdown reactors. Currently, we have, designated by the blue little pyramids, a number of shutdown reactors in Oregon, California, and a few in the Midwest.

The next little block we have are the commercial spent nuclear fuel storage facilities. We have fewer of those. We have a couple of them in the Midwest. We have non-Department of Energy research reactors scattered all throughout the country, in blue. We have naval reactor fuel in Idaho, Washington, New Mexico, Georgia, and we have the Department of Energy spent fuel and high-level radioactive waste. I could go on and on with a description of this chart.

One can quickly recognize that we have nuclear waste all over the coun-

try, and I am sure those in opposition to this bill will suggest that the best thing we can do is simply leave it there. I do not know, Mr. President, if that makes sense to you. It does not to me. Do we want this scattered all over the country when it simply makes sense to put it in one area where we have had testing for some 50 years, where we have an experienced work force, a security capability and the knowledge that we are proceeding with a permanent repository in that area of Yucca Mountain in Nevada?

The fact is, as we proceed with Yucca Mountain in Nevada and the realization that might be completed by the year 2015, or thereabouts, the question is, why not move it, move it now, transport it now to a interim repository adjacent to the permanent site?

Then one might say, "What happens if the permanent site does not become suitable?" Let me tell you a couple things about that permanent site, Mr. President. We have expended some \$6 billion so far. It is estimated to cost some \$30 billion by the time it is completed. So we are well on our way, assuming it is licensable and assuming that it receives the certification necessary.

So you are going to hear the argument, if you move it out there and it is not suitable, then what are you going to do? Then you obviously are going to have to find someplace else to take it, and that is not going to be easy. By the same token, it has to go somewhere. There are 48 States on that map. It has to go somewhere.

We have another chart that I want to bring up which shows what S. 104 is all about. If we look over at the lower left-hand corner, we find that in 1998, if we accept the status quo, we have 81 sites in 40 States. If we look over at the red arrow and find that Yucca Mountain is viable for a permanent repository, then we have achieved our objective, we have one safe, central storage site.

What are we going to do if Yucca Mountain is not viable for a permanent repository? We are going to address our obligation. We are going to take that blue arrow right up to the top, and if Yucca Mountain is not a viable site for a permanent repository, then it requires the President to pick an alternate site. If the President refuses, we are not going to let the President off the hook. The President still has an obligation. If the President does not select an alternate site, the site defaults back to the Nevada test site. If the President picks an alternate site and Congress ratifies the site, then we have one safe, central storage site.

The point of this chart is to show where we are trying to go with this bill, which is to address our responsibility and resolve this situation. This Senator, the chairman of this committee, is not going to accept amendments that penetrate the objective of this legislation, which is to address it and resolve it and do it now. So we have alternatives framed in this debate.

The alternatives are a little more complicated, but we have the status quo, 81 sites in 40 States. That is a given. The red line says Yucca Mountain is viable for a permanent repository. If that is fine, we have one safe, central storage site. If the license application for Yucca Mountain is not filed, then we go back, if you will, and take the blue line—Yucca Mountain is not viable for a permanent repository—the Secretary picks an alternative storage site. If no site is chosen, it goes back to one central storage site.

So what we have attempted to do here is address concerns of Members and still get the job done, because if we do not get the job done, we are going to waste several hours in debate and find ourselves not addressing the obligation we have to take this waste under the contractual commitment that we have.

I am willing to be flexible in the shape of either one of these boxes, but the result must always be the same. We now have an opportunity for bipartisan action, and I think that we must seize that opportunity. I know that my friends from Nevada will object to the bill. They consider it probably a political necessity to oppose it. I can understand that. If it were not for Nevada, I am sure it might be Vermont where they have a lot of marble, or it might be Montana, where they have a lot of rock. The point is it has to go somewhere.

There are going to be allegations that there is some bad science here. There are going to be efforts to try to scare us with references to "mobile Chernobyl." That is an irresponsible statement, Mr. President. Everybody who has looked at Chernobyl knows it was not poor reactor design and human error that resulted in the accident. There was no containment building. The design was flawed, and not to United States or western standards. The technicians bypassed the safety systems, the reactor went critical, and we had a terrible accident.

But to suggest that our bill is mobile Chernobyl is just simply irresponsible. What we are trying to do is accept an obligation, a legacy of our generation, and that is to properly dispose of this waste, and properly disposing of it does not suggest leaving it where it is. Those nuclear reactors and those pools that are being filled now were not designed for extended storage. They are reaching their capacity.

Many in the environmental community see this as an opportunity to shut down a portion of the industry because any additional storage, once the storage is filled, will require additional licensing. Some of that licensing is going to be controlled by States. The States will attempt to block it by using various concerns, little of which have any scientific foundation. But nevertheless, they see this as a way to substantially reduce the contribution of nuclear energy to generate power in this country.

Some will imply if this bill does not pass, nuclear waste will not be transported through this country. Well, let us take a little look at that.

I have another chart here, because if one looks at the record, there have been 2,500 shipments of used fuel across this country in the last 20 years. It is just not history, Mr. President, it is happening today. The Department of Energy is transporting spent fuel from nuclear reactors all over the world into the United States virtually as we speak, by truck, by train, by barge, by boat.

If you do not hear about this from the other side, there is probably a reason. And that reason is because these shipments have been and continue to be completely uneventful. They are shipped in casks that have been designed to address the emergencies forecast. In short, these spent fuel shipments, history shows, are safe. As a consequence, Mr. President, they are not news anymore.

At our hearing in February, all four members of the Nevada delegation acknowledged there was no process and no level of scientific proof that would decrease their opposition. I understand that, Mr. President. I appreciate that. I know where they are coming from. They are coming from the reality that regardless of what State we are talking about, there would be an objection. But we have a responsibility, Mr. President. The objections are based on politics, not science.

One of the Nevada Senators was in favor of sending high-level materials to the Nevada test site as a State legislator. He voted for A.J.R. 15 which was signed by the Nevada Governor in May 1975, which asked, in my opinion, the Federal Government to simply do just that. I think he was right the first time. It is safer, smarter, and cheaper to contain these materials at one location in the remote Nevada desert.

The Nevada test site was used, as stated, for decades to explore testing of nuclear bombs and it helped win the cold war. And now it can help us win the war on radioactive waste disposal.

High-level nuclear waste, as I have stated time and time again, Mr. President, is our legacy, and it is our obligation to dispose of it. It is irresponsible to let this situation continue. It is unsafe to let dangerous radioactive materials pile up. Pile up where, Mr. President? Back in the 80 sites in 41 States. It is unwise to block safe storage in a remote area when the alternative is to simply leave it in the 41 States.

Mr. President, this is a national problem. It requires a national solution. We need to pass Senate bill 104.

I should comment briefly on the administration's attitude toward nuclear waste storage because it has been a rather interesting one. They have been content to simply ignore the problem as though they did not have one, as though there was no obligation to take the waste, and simply disregard the Government's contractual obligations.

The American people, I think, deserve better.

Safe nuclear storage should not be a political issue. It is a scientific and legitimately environmental issue. We need a solution now. And why I do not know, but the administration has again turned a blind eye and a deaf ear.

In addition to threats in the environment and safety, 22 percent of our electric capacity is at risk now by not taking decisive action on what to do with the waste generated by our nuclear powerplants.

Mr. President, starting in January 1998, taxpayers throughout the Nation, whether you use nuclear power or not, are going to be subjected to claims of billions of dollars in liability payments because our Government has not met its obligation to take that waste.

There is a contractual commitment outstanding, Mr. President. The estimate of taxpayers' liability under a recent lawsuit blocked by States are estimated to run as high as \$80 billion. How much is that per family, Mr. President? That is about \$1,300 per family. You may say, what do you mean? Why are we subjected to liability if the Government does not take the waste?

There was a contractual commitment, Mr. President, to take the waste beginning in 1998. The Government is not going to be able to take that waste, so there are going to be claims filed and there is going to be interest accrued. If they have to relocate it or expand facilities, there are additional costs. The last estimate I saw was about \$59.9 billion. The estimate, as I indicated, could run as high as \$80 billion.

The cost of storage of spent nuclear fuel: That is about \$19 to \$20 billion. Return of nuclear waste fees: About \$8.5 billion. Interest on nuclear waste fees: \$15 to \$27 billion. Of course, depending on the interest rate used. Remember the interest rate in December 1980? The prime rate was 20.5 percent. A lot of people have forgotten that, Mr. President. Consequential damages for shutdown of 25 percent of the nuclear plants due to insufficient storage, power replacement costs: Some \$24 billion. I do not know what it is, but it is going to be full employment for all the lawyers certainly.

Inaction is not an option. Inaction is simply irresponsible. That is why we have attempted to craft this legislation to address a reality that we are not going to be able to take the waste in a permanent repository until the year 2015. So this allows a temporary action to move the waste out so it is retrievable for disposition when a permanent repository is constructed.

Mr. President, many of the opponents' claims, I think, have little foundation. If we look back, interim storage at the Nevada test site will not delay construction at Yucca Mountain. The type of construction we anticipate would be a concrete pad with a cask designed to hold the waste until a permanent repository is at hand. There will

be a viability assessment that will occur before the interim site is built. The President will have a choice of interim sites after the viability assessment.

This Nation faces a major decision, Mr. President: Either continue storing high-level radioactive waste materials at these 80 locations in 41 States indefinitely, for the next administration, for the next Congress, or the next Congress, and pay the claims and subject the taxpayers to more litigation, or more safely contain them in one centralized facility.

I am indeed sorry that facility has to be in one State, but it simply has to be. So the option is clear and safer. It is safer and cheaper. And the time for action is now.

Mr. President, I would like to refer to another chart relative to a misnomer that has been brought up time and time again. And it is a legitimate concern but it escapes a reality, and that is the issue of transportation.

There has been 2,500 shipments of used nuclear fuel over the past 20 years. There has been no fatality, no injury, or no recorded environmental damage that has ever occurred because of radioactive cargo. I have a map here behind me that shows the routes for transferring used fuel. And this took place from 1979 to 1995, the routes used for 2,400 shipments.

They cover from Washington down through Oregon, close to California, Montana, Idaho, Salt Lake, Nevada, Arizona, New Mexico, Colorado, Wyoming, North Dakota, Nebraska, Kansas, Oklahoma, Texas, up and down the entire east coast seaboard, Minneapolis, and Milwaukee. I could go on and on but, Mr. President, I am sure that you will agree it is a pretty impressive transportation route. The map shows roads, rail lines.

Some would say that they did not know these shipments took place. Maybe that is why they have become uneventful. There has been an accident with a truck carrying a cask, but the cask that contained the nuclear materials performed as designed. They have not broken open. They were designed for an accident of that nature.

We currently have about 30,000 metric tons of spent fuel in the United States. The French alone have shipped that amount of spent fuel all over Europe, all over the world. The Japanese are moving spent fuel from Japan to France for reprocessing until they build their own reprocessing plant.

This is not history, Mr. President. This is happening today all over our country and all over the world. There seems to be somewhat of a double standard why the Department of Energy claims it cannot possibly fulfill its obligation to the U.S. electric ratepayers and the obligation to take spent nuclear fuel. The Department of Energy is doing exactly that for foreign countries.

Let me show you another map. Here are foreign research reactors throughout the world—Canada, South America, Africa, Europe, Asia, Australia.

They may ask why American taxpayers are paying for the Department of Energy to transport, store nuclear waste from foreign countries while American ratepayers are subjected to a Government that refuses to honor its contractual commitments, refuses to take the waste.

All the countries in color ship fuel to the United States for storage at the Department of Energy facilities. It seems to be a mystery. There are a lot of mysteries around here. If they support taking fuel waste from overseas, then you wonder if the issue of safety is really an issue.

How can it be safe for the Department of Energy to ship spent fuel halfway across the world but not across some of our States? Well, let us take a little closer look because this is going to be the crux of a lot of the arguments. Let us look at what the Department of Energy does to transport nuclear waste across the United States.

This map, Mr. President, shows America's research reactors. They are all over the place—all the red lines. Idaho National Engineering Lab in Idaho; University of Missouri, Missouri; University of Missouri, Columbia; Iowa State University; Purdue University; the University of Michigan; Ohio State University; Massachusetts, MIT; University of Lowell, Maine; Rhode Island Nuclear Science Center; Brookhaven National Labs; University of Virginia; University of Florida; Georgia Institute of Technology; Oak Ridge; Sandia National Laboratory; Los Alamos, and on and on and on, Mr. President. They are scattered all across the country. They move all over the country.

What we have here is a double standard. Why does the Department of Energy pay to transport and store nuclear waste from foreign countries but will not do its duty for U.S. power reactors that have paid for the service? They do it for research reactors. The Department of Energy says they may take foreign fuel to help with nonproliferation. That perhaps is all well and good, but spent nuclear fuel is spent nuclear fuel wherever it is. If transportation storage is safe for some, why should it not be safe for all?

I think this proves my point that I mentioned earlier. The obstacles to moving our Nation's spent nuclear fuel are political; they are not technical. Senate bill 104 provides the authority to coordinate a systematic, safe transportation network that requires the Department of Energy to use NRC-certified transportation containers to transport fuel along special routes. That transportation cannot occur until the Department of Energy has provided specific technical assistance to funding, to States, and to Indian tribes for emergency response planning across the transportation routes. The lan-

guage builds on what is already a set system for spent fuel in the country.

It is further interesting to note with this volume of traffic, some 2,400 shipments, the problem has never been exposure to radiation from spent fuel cargo, even in the fuel accidents between 1971 and 1989. The Department of Transportation tells us that only seven accidents occurred involving trucks carrying nuclear waste. There was no radioactivity released in any of these accidents. Why? Because transportation containers were designed to maintain their integrity. At one time they were designing transportation casks, and the objective was to have it so they would withstand a free fall from 40,000 feet, assuming there was an accident, and they were anticipating moving it by airplane, and the engineers claimed they could do that.

Mr. President, we will have an extended debate on this issue in the coming days. As a manager of the bill, I will be sharing time with my colleagues on various statements, accommodating amendments and pursuing the debate with my colleagues from the other side. I think it is important as we reflect on reality that there is no excuse for continuing to delay this obligation any further.

I have gone over the liability of the taxpayers. I have gone over the transportation that is in existence where we have moved nuclear waste around this country safely. And to suggest that we are somehow going to gain some significant benefit by putting off the decision is not supported by any logic or rationalization that would convince this Senator that there is any other action than moving forward on Senate bill 104, accommodating Members' amendments, with the idea of getting the job done.

Getting the job done now is a responsibility for all of us for the future of nuclear energy in this country and the world. We simply cannot move forward in this regard, we cannot address our concerns over greenhouse gasses, which are increasing, without looking toward relief. Nuclear energy offers us that relief. We have the technology. We are seeing that technology move over to France and Japan. The bottom line is, unless we address the issue of a repository for waste that has been generated by the nuclear powerplants, we simply are going to be unable to meet our responsibility in this body relative to that contractual commitment that we made several years ago. This bill provides a responsible alternative. The time to do it clearly is now.

Mr. President, I ask unanimous consent the Senator from Nebraska [Mr. HAGEL] and the Senator from Michigan [Mr. LEVIN] be added as cosponsors on Senate bill 104, to amend the Nuclear Waste Policy Act of 1982.

The PRESIDING OFFICER. Without objection, it is so ordered.

The Senator from Nevada.

Mr. BRYAN. I thank the Chair.

Let me say as we begin this debate in this Congress, it reminds me that we

are talking about old wine in a new bottle. These arguments have been advanced for decades now, and the prime mover is the nuclear utility industry.

The fatal flaw in S. 104 is that it is unnecessary, unneeded, and bad policy. That is not just the Senator from Nevada making that statement. Let me review for the record some of the statements made by various boards and commissions created by the Congress in terms of their response.

We have the 1989 MRS Commission review. The commission report found no safety advantage to centralizing the storage of spent fuel. In 1996, the Nuclear Waste Technical Review Board analyzed the issue of interim storage and concluded that there is no urgent technical need for centralized storage of commercial spent fuel—no need, no compelling necessity, no safety advantage to be achieved. That was 1996. Now, the Nuclear Waste Technical Review Board underwent a change in the composition of the chairmanship, so in effect there was an opportunity for essentially a new board composed of new members to review whether or not they would agree with the position taken by their predecessors in 1996. In testimony offered on February 5, 1997, by Dr. Jared L. Cohen, the chairman of the Nuclear Waste Technical Review Board, Dr. Cohen simply reaffirmed the position taken by his predecessors, that there is no need, either for technical or safety reasons, to move spent fuel to a centralized storage facility for the next few years. He further maintains that to maintain the credibility of the site collection process, any decision with respect to interim storage should be deferred until a technologically defensible site-suitability determination can be made at Yucca Mountain.

Mr. President, that is what the scientists, the people who the Congress, through a series of legislative enactments, have asked to take a look at that, that is what they say—no need, no safety reasons, no compelling necessity, bad policy. That is what the scientific community says.

I said at the beginning this is old wine in new bottles. Indeed, Mr. President, it is very, very old wine. The driving policy here is not science; it is the nuclear utilities. It is not a new car. If one looks back nearly two decades ago, on July 28, 1980, this issue was before the Congress. This Senator was not a Member of the body at the time, but the CONGRESSIONAL RECORD reflects debate on a proposed away-from-reactor concept, which is akin, if you will, to this interim nuclear waste proposal.

At that time, the distinguished Senator from Louisiana, Mr. Johnston, addressed himself to the issue, referring again to this need to move this nuclear waste away from the reactor sites—the same issue, identical to what is being debated today. This is what the Senator from Louisiana said nearly 17 years ago: "Mr. President, this bill

deals comprehensively with the problem of civilian nuclear waste. It is an urgent problem." Sound familiar? Urgent problem. Urgent problem. "Mr. President, for this Nation, it is urgent, first, because we are running out of reactor space at reactors for the storage of the fuel, and if we do not build what we call away-from-reactor storage and begin that soon, we could begin shutting down civilian nuclear reactors in this country as soon as 1983." That was 14 years ago. Not a single nuclear reactor in America has been closed or been forced to close because of this issue. Some have closed because of overriding safety concerns about their operation and maintenance. That, Mr. President, is a separate issue.

So here again we have the nuclear utility industry sounding the drumbeat, issuing a clarion call, generating hysteria, that indeed there will be brownouts across the country and reactors will have to close unless we pass S. 104, the modern day equivalent to the legislation that was before the Senate of the United States some 17 years ago. The answer today is the same as the answer then. There is no compelling necessity, no need, no rational policy to do so, and no safety issue that makes that a compelling issue.

So we come back to a policy that is driven by the nuclear utilities and their desire, insatiable as it may be, to move the reactor storage from site, somewhere, anywhere, but in this particular piece of legislation to a place at the Nevada Test Site or so-called interim storage.

I want to take just a few minutes, Mr. President, and we will have an opportunity to debate this at some length, as the distinguished chairman indicated, but let me review the bill, because it is flawed not only in its premise; it is flawed in its content. I want to talk first of all about the National Environmental Policy Act. The National Environmental Policy Act was enacted in 1969, enacted by bipartisan actions of this Congress, signed by a Republican President, and it was designed to do many things. But it was designed, first, to have an environmental impact addressed before, not after, the decisions are made.

Now, what this legislation does—and I must give the nuclear utilities credit; their handsomely paid lawyers, legislative advocates, have been skillful, if somewhat deceptive, in terms of what they have crafted here. They say the National Environmental Policy Act, yes, it is applicable. But the Secretary—referring to the Secretary of Energy—shall not prepare an environmental impact statement under this section before conducting the activities that are authorized and commanded by the bill. Yes, the act exists, but you may take no action on it at this earlier phase. And then it goes on to say that the impact statement of the commission, in terms of what it may not address, shall not consider the need for interim storage.

Mr. President, this is the total antithesis of the underlying predicate of an environmental impact statement. In effect, this ties one hand behind the back of those who would conduct such an environmental impact statement and, on the other hand, writes the script as to its conclusion before any study is undertaken.

So the first thing they cannot do—Heaven forbid that they should examine the need for interim storage. They can't do that. No, they can't examine the time of the initial availability. They may not, Heaven forbid, consider any alternatives to the storage of spent nuclear fuel and high-level radioactive waste in an interim storage. Heaven forbid that they would be able to consider any alternatives to the site of the facility, or any alternatives to the design criteria, or the environmental impacts of storage of spent nuclear fuel at a high-level radioactive waste at the interim storage beyond the initial term of the license.

Now, this is very good lawyering, but disastrous public policy, because the initial application calls for a licensure period of 20 years. But when you look at the fine print, that can be extended for another 100 years and can be renewed for 100 years thereafter. So any environmental impact evaluation would be limited to the initial term of the license, 20 years. Why is that particularly significant? Mr. President, what we are dealing with is high-level nuclear waste. It is deadly, not for 20 years, 100 years, or a thousand years, but for more than 10,000 years. The National Academy of Sciences and other distinguished groups that have looked at this have indicated that indeed the impacts must be considered, and they must be considered even beyond the 10,000 years, they argue. This would say limit it to the first period of the initial term of the license, which is 10 years. And, oh, yes, we don't want to have the courts review what may happen. No, that would certainly be contrary to our tradition, our history, our society, and our culture to have any kind of a timely judicial review. This limits judicial review only to the time of licensing. So the impacts, such as they may be, must be considered only at the time that the commission makes a decision on licensing. "No court shall have jurisdiction"—we are talking about Federal court, not a State court. "No court shall have jurisdiction to enjoin the construction or operation of the interim storage facility prior to its final decision on review of the commission's licensing action."

It makes a mockery of the National Environmental Policy Act, an absolute mockery. So indeed, that is the first thing it does that would destroy a carefully framed set of legislative policies enacted by Members of both political parties and a Republican President in 1969.

Now, let me also talk for a moment about a preemption section. This was a subject of considerable debate in the

last session of Congress when this virtually identical bill—now, the chairman made some reference to this fact—and I have not seen the language—that there may be some changes in this section. But because we don't have them, let me indicate that the bill as processed by the committee, in section 501, reads as follows: "If the requirements of any Federal, State, or local law, including a requirement imposed by regulation, or by any other means under such a law, are inconsistent with or duplicative of the requirements of the Atomic Energy Act or of this act"—this specific legislation—"the Secretary shall comply only with the requirements of this act and the Atomic Energy Act."

Mr. President, make no mistake as to what that means. That wipes out virtually every environmental law passed in the last 25 years by this Congress—clean air, safe drinking water—it wipes them all out. That was the posture of the bill when it was presented and acted upon in the last Congress—preemption. That language remains in the committee draft. If there are changes in that, we will comment at a later time.

Let me talk also about the standards. One may agree or disagree that nuclear energy is good or bad national policy. That is something that is reasonable to debate. But I want to speak specifically here to the standards that are referenced in the act. Now, why are the standards—and the distinguished occupant of the chair is very much aware of the fact that our States are Western States with vast expanses of land, but we are as concerned about the health and safety of our citizens as those of our urban brethren who live along the eastern seaboard. So let us talk about what this legislation does with respect to the standards issue.

The first thing that it does is it seeks to impose a limitation on the Environmental Protection Agency. Surely, one would agree that if we are to have a facility to store nuclear waste, we ought to have a safe standard. Can there be any fundamental disagreement with that? Well, the answer might appear to be yes. But, clearly, the legislative wordsmiths who have crafted this piece of legislation, much as they did in the last legislative session, have sought to handcuff and limit the Environmental Protection Agency's ability to establish standards. It is cleverly done. Give a gold star for that. But here is what it says: "Such standards shall be consistent with the overall system performance established by this subsection, unless the Administrator determines by rule that the overall system performance standard would constitute an unreasonable risk to health and safety." Clearly, it shifts the burden of proof. It mandates a legislative standard, greatly diminished, unless the Environmental Protection Agency can prove to the contrary, that it would constitute an unreasonable risk to health and safety.

Now, why would it be unreasonable to say, look, if you are going to establish this unnecessary, costly and, in my judgment, foolhardy venture, at least provide health and safety standards for the people who are going to have to live with that for 10,000 years. It doesn't mean that that is unreasonable. It is not narrow or parochial. One would think that every Member of this institution would feel that way. But not here. Let me just say that that has been debated before in the context of the WIPP facility and with respect to the WIPP facility, the two able Senators from New Mexico took the floor and, at great length, advocated very effectively that the standard for health and safety should be the toughest standard possible. That occurred in debate in this very Chamber in June 1996. The distinguished senior Senator, Mr. DOMENICI, said, "What is most important to us and what is most important to the people of New Mexico is that, as this underground facility * * *"—they were talking about the WIPP facility—"proceeds to the point where it may be opened, that it be subject to the Environmental Protection Agency's most strict requirements with reference to health and safety. As a matter of fact, they must certify it before it can be opened."

I applaud the senior Senator from New Mexico for his concern for his constituents. I agree with him. I hope my colleague from Nevada and I will be provided the same benefit that would be afforded to the New Mexico Senators, as they expressed it. Mr. BINGAMAN expressed himself eloquently to the issue on that same day, the foremost concern that I have. What the junior Senator from New Mexico said is, "Our concern from the beginning is whether or not we are adequately protecting the health and safety of our citizens."

Mr. President, we may not agree on everything in terms of public policy. There is certainly ample room for policy debate on a whole host of issues. I acknowledge that. But believe me, it seems to me that we ought to be able to agree that health and safety is the most important thing that we ought to be about.

I want to return to the subject of additional standards, because what this legislation does is quite manipulative. It limits the ability of those that we have vested with the responsibility of protecting our health and safety, in my view, in a very, very sinister way. First of all, it establishes, by legislative fiat, a 100 millirem standard. We are talking about radioactive emission exposure. I freely acknowledge, Mr. President, that I could not define a millirem with any degree of specificity. But I do know that it is the scientific unit that is accepted as the standard by which emissions are to be measured. I invite the attention of the body to the fact that for safe drinking water, it is a four millirem standard. We have other standards that are set, such as the

WIPP standards, which the distinguished Senators from New Mexico addressed so eloquently last year as they were concerned about the health and safety of New Mexicans, just as Senator REID and I are concerned about the health and safety of Nevadans.

Let me suggest—it's perhaps wildly idealistic—shouldn't we all be concerned about the health and safety of Americans? We are one country, one nation. As I will point out in a minute, this is not just a Nevada issue. This affects tens of millions of people who would be affected by the policy implications of this bill. Let me go on and say that if you are from the Nordic countries, it is 10 millirems. The upper range Yucca Mountain study is 30 millirems. I cite this because it is so blatant. 100 millirems. That is a standard that is fixed not by science—oh, no, the utility lawyers put that one in there for us to contend with.

Now, the National Academy of Sciences is a highly respected body. What they have indicated would be appropriate is a risk-based standard. It seems reasonable to me. I hasten to emphasize, Mr. President, there are no Nevadans that are on the National Academy of Sciences. They were not selected by the Nevada delegation, Nevada's Governor, or the Nevada Legislature. They were created by an act of Congress—the National Academy of Sciences. That is what they have recommended. Who is to be protected? This gets a little technical. Under S. 104, the standard of protection is greatly reduced. It is done in almost an arcane expression, but, in effect, a person whose physiology, age, general health, agricultural practices, eating habits, and social behavior represent the average for persons living in the vicinity of the site—the "vicinity of the site"; we do not know what that means—extremes in social behavior, eating habits, or other relevant practices or characteristics, shall not be considered.

Has the National Academy of Sciences agreed with that standard? They have not. They believe that it ought to be a critical group, a small, relatively homogeneous group whose location and habits are representative of those expected to receive the highest doses. Those expected to receive the highest doses makes sense to me.

One of the other provisions in here is the application. In other words, for what period of time must health and safety be considered? We are talking about an interim facility that could, under the terms of this legislation, last for thousands and thousands and thousands of years. There is a limitation again because the utilities don't want a scientific standard. They want something that they can lobby through the Congress and get what they want.

So this legislation tells us that the commission shall issue the license—referring to the license to operate the interim facility—if it feels or finds reasonable assurance that for the first 1,000 years following the commence-

ment of the repository operations—1,000 years; the recommendation by the National Academy of Sciences is that the repository should be required to meet a standard during a period of greatest risk and that there is no scientific basis for limiting the time period to 10,000 years, or any other value. I hasten to note that they believe that the standard should be considered even beyond the 10,000 years.

There is another provision in here that again is arcane but particularly significant. That is that the commission is mandated to assume no human intrusion—that is to say, in the next 10,000 years—if no human intrusion would be possible. The National Academy of Sciences conclude that there is no scientific basis for assuming there would be no human intrusion.

The performance of the repository . . . should be assessed using the same analytical methods and assumptions, including those by the biosphere, the critical groups used in the assessment of the performance for the undisturbed case.

The National Academy of Sciences also recommends another very important provision. That is, that because these involve important policy issues, opportunities for rulemaking necessitates wide-ranging inputs from all interested parties.

That simply means giving people an opportunity to be heard, to express themselves, to offer their own insights, and to allow those with the technical background to offer the technical analyses. That should be a matter of record before a decision. But not S. 104; these are set by statute with no public comment period allowed.

So, Mr. President, we have something that is fatally flawed because it is not needed. It makes no sense. We have something that currently preempts the environmental laws of this country, emasculates the National Environmental Policy Act of 1969, and establishes standards which are arbitrary and not predicated upon science.

We will hear, as we have heard in previous debates, that this is all about science, to let science prevail. This legislation makes a mockery of the scientific process. It seeks to impose by legislative fiat a policy and a parameter limitation that is inconsistent with science.

So let no one take the floor and argue that this is science that is speaking. This is nuclear utility politics speaking. That is the only thing that is being responded to.

We have all agreed—the White House, the Congress, Democrats and Republicans—that we are going to balance the budget in the next 5 years. I want to specifically reference some of the language as it relates to the funding.

The General Accounting Office has indicated in a report that the current fiscal condition of the nuclear waste fund will experience a shortfall of some \$4 to \$8 billion. That is to say that under its current construction, without the changes that this legislation

makes, there would be a shortfall of \$4 billion to \$8 billion. I think many of my colleagues are aware that the nuclear waste trust fund is funded by a mill tax, a mill tax that is assessed on each kilowatt-hour that is generated. If we are currently underfunded, as the General Accounting Office has indicated, let me show you that the real significance of this legislation from a financial point of view is to shield the nuclear utilities from the liabilities that they agreed to undertake at the time the Nuclear Waste Policy Act was entered into and the agreements were signed and to shift their responsibility in the financial sense to the American taxpayer.

This legislation provides that until the year 2002 the current 1 mill per kilowatt-hour will get capped. That is the maximum that can be collected from the utilities. That is a cap, contrary to the existing law which presents no such cap.

In addition, this legislation provides that from the year 2003 the aggregate amount of fees—I will read the specific language. Although it is written in bill-drafting legalese, I think it will be clear to all. "The aggregate amount of fees collected during each fiscal year, or thereafter, shall be no greater than the annual level of appropriations for expenditures on those activities."

If we put that in the context of what is being spent this year, it would be roughly one-third of the mill, which would be the most that could be assessed.

Why is that significant? That is significant because the last reactor license will expire sometime around the year 2033, and the responsibility for maintaining a repository would go on, in an active sense, for at least, say, roughly another 40 years. So that means that that kind of funded liability will be shifted from the nuclear utilities to the American taxpayer.

I say to my friends—and I was supportive of a constitutional amendment to balance the budget, and I think that makes sense—that I believe one of the great legacies this Congress could leave to the American people is to get our fiscal house in order, to do some responsible things for the budget, and to reach that balanced budget goal by the year 2002. But, Mr. President, there is no way that you can give the utilities a bailout, a subsidy, if you will, a new corporate entitlement, to elevate corporate welfare to a high art form as this piece of legislation does. It caps their liability and says we will take care of the rest contrary to existing law. Existing law does not contemplate that that be true.

Moreover, this legislation, S. 104, contemplates that that would be an interim storage. That would still fund the site characterization and the study activities of the permanent repository. But the estimate for funding interim storage, as this bill constitutes—and that comes from the Congressional Budget Office—in the first 5 years is

\$2.3 billion. If you add that to the cost of what we are currently expending, an amount of about \$380 million a year—that is the total we are spending right now—in the next couple of years you are going to have to have \$1 billion by the fiscal year 1999—that is \$1 billion—to fund the current operation of an interim storage facility and the high-level nuclear waste repository proposed at Yucca Mountain.

It is pretty clear what this is all about. This is an interim storage. This is a thinly disguised attempt to establish a permanent high-level dump without any of the safeguards that are provided in the current legislation form for a permanent repository.

Mr. President, my colleague from Nevada has joined me. If I might inquire of him, I know that he might care to speak extensively on the transportation issue. I am prepared to do so if he cares to address another aspect of that. But I will invite his response.

Mr. REID. I say to my friend from Nevada that I appreciate that. I have a few things to say. But I will not speak at length about the transportation aspect. If my friend would allow me to speak for a few minutes at a time which he feels appropriate.

Mr. BRYAN. I yield to the senior Senator from Nevada.

Mr. REID addressed the Chair.

The PRESIDING OFFICER. The Chair recognizes the senior Senator from Nevada.

Mr. REID. Mr. President, we need to understand what this debate is all about, and that is how powerful the nuclear lobby is. We acknowledge that it is pretty strong. They have gotten more out of a worthless piece of legislation than I could ever imagine. They continually are allowed to bring this up and continually talk about it.

Mr. President, my friend, the junior Senator from Alaska, said that nuclear waste is all over, that we need to put it in one spot. Nuclear waste is all over, and it will stay all over for years to come no matter what happens with this legislation; no matter what happens with the legislation as it relates to the permanent repository, where my friend is absolutely wrong. Nuclear waste is not in some States. Commercial nuclear waste is not in Nevada. We don't manufacture nuclear waste. It is not in the Dakotas. It is not in Montana and a number of other States. So the statement was a little wrong.

Mr. President, this legislation, I repeat, is being driven by the nuclear lobby. As shown in the chart that the junior Senator from Alaska had, there are a number of nuclear generating plants around the country; a little over 100 generating facilities. The average lifespan of those facilities is about 15 years. Some will last 25 years. Some will be out of business in 5 years.

The point is that nuclear waste manufactured by power companies generating electricity is in our lifetime going to be a thing of the past. It is not going to happen in the future. Gener-

ating electricity by nuclear power is no longer going to happen. It has been determined that the environmental concerns are too much and the American public simply won't stand for another nuclear power facility being built in this country at any time.

The powerful nuclear lobby recognizes that they are going to be out of the business of generating electricity by nuclear power. So they want to wash their hands of the mess they have created and shift the responsibility to the Federal Government now. They don't want to wait, as the law now indicates, until someday a permanent repository is constructed. They want to short-circuit the system. They want to change the law, which now says you can't have a permanent repository and a temporary repository in the same State. They want to eliminate that. They want to also do an end run around all environmental law.

Mr. President, my friend, the junior Senator from Alaska, said that they were working on amendments with the junior Senator from New Mexico. Well, I would just alert everyone. Be very careful about the amendments because, as we learned last year, amendments in name are not amendments in fact. The fact is that they cannot make changes in this legislation to any standard that will allow them to go forward with this legislation. They are talking about changes in this legislation by amendments just like they did last year. But when the facts come down, you will find that their amendments mean virtually nothing. You had better read the amendments very carefully.

Mr. President, I think it is important to note that from 1982 to today, the scientific community has been working on methods of transportation, as indicated on the chart that my friend, the Senator from Nevada had, showing the transportation routes around the country—they, the scientists, have been working on a way to transport nuclear waste. They have been working on it, now, for 15-plus years. Interestingly enough, they have not found a way to safely transport nuclear waste. The best they have been able to come up with is something called a dry-cask storage container, which is a canister, and in it would be placed spent fuel assemblies.

What they have come up with to this point is a dry-cask storage container that is safe unless it is immersed in a fire that burns at more than 1,400 degrees. Diesel fuel burns at 1,800 degrees. So these dry-cask storage containers are not safe because, of course, fires that are going to occur on a train or a truck are going to be of diesel fuel. These casks cannot withstand the intense heat of a diesel fire.

Second, the dry-cask storage containers have been made safe only to transport nuclear waste if an accident occurs at less than 30 miles an hour. Trains and trucks in this modern day and age rarely travel less than 30 miles

an hour. So a dry-cask storage container is basically worthless for transporting nuclear waste around this country. Remember, most of the nuclear waste is produced in the eastern and southern parts of the United States. It would have to be hauled, sometimes, more than 3,000 miles to an interim site at the Nevada test site. You cannot carry it safely because the dry-cask storage containment does not allow it; because accidents occur at more than 30 miles an hour and fires occur at more than 1,400 degrees. In effect, that is why a number of entities, including entities in the State of Colorado, have said we want no part of nuclear waste. And that is why the senior Senator from Colorado has spoken out in committee on our behalf, saying interim storage is not important and not necessary at this stage.

Yucca Mountain is being evaluated—it will be determined if that is a site that can safely store nuclear waste for up to 10,000 years—remember, they are digging a hole inside that mountain. The cavern they are digging is more than 25 feet in diameter. It is a huge hole. You can take a train through it easily. But I think it is interesting, and that the taxpayers should know, that hole, piercing that mountain, is costing \$60,000 a foot. The cost now is approaching \$2 billion. What this legislation would do is say we will forget about that, the billions of dollars spent there. We want to short circuit the system, pour a big cement pad out there and dump the waste on top of the ground.

Anyone who thinks that is temporary is temporarily insane. The purpose of that is to store it permanently at the so-called interim site.

My friend, the junior Senator from Alaska said, and I was surprised to hear him say this, it is so absolutely true—he said this legislation is little about science and a lot about politics. I could not say it better myself. I agree with the junior Senator from Alaska. This legislation deals totally with politics, nuclear politics. The powerful nuclear lobby is driving this legislation. They want to wash their hands of this. It appears that we are about to repeat last year's wasteful mistake. They tried all last year to get S. 1936 passed. What was learned at that time was that the President was going to veto that. We had enough votes at that time to sustain the President's veto. We still have the same votes. Everyone knows that. This is a gesture in nuclear politics, to show the nuclear power lobby: "We are doing everything we can to satisfy you. Please, accept our offering, that is the taxpayers' time, energy and money, in this Senate Chamber. Do not be upset with us, utilities. We are doing the best we can, even though we all recognize this legislation is going down to defeat."

Nothing has changed from last year that would make S. 104 any more attractive than S. 1936 was at the conclusion of the 104th Congress. In fact, we

have another year of progress toward understanding the suitability of Yucca Mountain. Hundreds of millions of dollars have been spent in this past year in Nevada, characterizing Yucca Mountain. I have been there within the past 2 months. I took a ride through that huge hole that is being dug. They are trying—in fact, within weeks they should be able to cut through the side of the mountain a tunnel 5 miles long, \$60,000 dollars, and after they do that they will start running shafts, adits and cross-cuts and drifts from that, for purposes of determining the suitability of this site.

We need to find out if Yucca Mountain is suitable. The interim storage would vitiate all the time, energy, effort and money spent on that facility. The President and this administration remain committed to the present law that prohibits siting an interim storage facility at a site undergoing evaluation for permanent disposal of nuclear fuel or other high-level nuclear waste. This commitment is not political posturing, it is good government. And mostly, good science. It is only proper and responsible, given the importance and difficulty of managing the most dangerous substance known to man, plutonium and nuclear waste in general.

As I have indicated, this Nation has already spent billions of dollars—I said \$2 billion, it is approaching \$3 billion—on the Yucca Mountain evaluation. We have dug a very large tunnel through the mountain, as I have indicated. It is huge. It is more than 2 stories high. It is not easy or cheap to do these things, because something like this has never been done before. Yet the proponents of this legislation are saying we want to do it the easy way. We want to do it the cheap way. We want to pour a cement pad out in the middle of the desert and dump this stuff on top of the ground. That's it.

We all know, no matter what verbiage the junior Senator from Alaska uses—"we are going to limit the time to 40 years"—it doesn't matter if you limit the time to 20 years or 80 years, this interim site will be the permanent site. That is why they want to change the law to say you can have a permanent repository and a temporary repository in the same place.

Time is what the proponents of S. 104 would take away from the science. The scientists have said we are doing the best we can to make a scientific determination as to whether geological burial at Yucca Mountain is appropriate. Much of the money necessary to resolve critical uncertainties would be spent unnecessarily on interim storage at Yucca Mountain and the money spent on the permanent repository would be wasted, totally wasted.

We have heard talk here, by everyone, last year and this year, about the Nuclear Waste Technical Review Board. They are a group of scientists chosen because they are scientists, first of all. The chairman of the board

is a dean from Yale University. I do not think we can quibble with his qualifications. But his expertise is only one of the qualifications these scientists have. These are some of the most brilliant scientists in the world, on the Nuclear Waste Technical Review Board.

They have told us a number of things. No. 1, what they told us is "Don't have an interim storage site." They have also said that:

The civilian radioactive waste management program will have to sustain the support of the general public and the scientific and technical community for generations. Such support may be more difficult to maintain if the determination of site suitability, perhaps the most critical step in the entire process of developing a repository, is not viewed as a technically objective evaluation by a very broad segment of the population.

The Nuclear Waste Technical Review Board opposes this S. 104. It is wrong. And for the reason, among others that I have just read, that it is not viewed as technically objective.

The board chairman went on to say, at a hearing on S. 104, Professor Cohen:

Predicting the performance of a repository for thousands of years involves inherently large uncertainties. The Board believes that scientists and regulators can evaluate those uncertainties. Ultimately, however, the public and its representatives must have confidence that technical analyses count; if the analyses are viewed as facades serving only to justify foregone conclusions, public confidence cannot be achieved.

A premature decision to store spent nuclear fuel near the Yucca Mountain site could contribute to the perception that the suitability of the site for development as a repository has been prejudged and that the reviews by scientists and regulators are meaningless.

I say to my friend, the junior Senator from Nevada, that Nuclear Waste Technical Review Board—would you acknowledge that they are some of the greatest scientists we have in America today?

The PRESIDING OFFICER (Ms. COLLINS). The Senator from Nevada.

Mr. BRYAN. They are. They are not motivated by any political, geographic, sectional, or partisan bias. They are chosen because they have the preeminent qualifications. I believe the senior Senator was off the floor when I made the observation, we have had two successive technical review boards—the one that made its report in 1996, which the Senator will recall was part of our debate. But a new board, constituted under the distinguished chairmanship of the dean, as you just referenced, they have looked at the issue and have reached the same conclusion.

So, here you have a board of preeminent scientists examining the issue in 1996 and they reached the conclusion which you have just declared, namely that it is unnecessary, there is no advantage to it, indeed it is bad public policy. And, now the 1997 board, essentially consisting of new members, but equally eminent and distinguished scientists, has reached the same conclusion.

Mr. REID. I would also say to my friend, and ask his response to this—

would you agree with the board, the technical review board, that one of the most important things to do, as it relates to nuclear waste, is have public confidence?

Mr. BRYAN. I think that is absolutely essential. And that is one thing that has beleaguered this legislation, dating back to the 1982 act.

As the Senator from Nevada knows, because of the nuclear utilities' constant driving, pushing, insisting upon unrealistic deadlines, trying to shortcut science, this act has faced a considerable series of failures. And, as the board has pointed out from time to time, this is not something that you can rush. Indeed, it is something that needs to be very carefully reviewed. And because there is this constant pressure by the nuclear lobby to constrict the timelines, to shorten all of the opportunities for public comment, this legislation, and S. 104, would certainly fit within the same category—is not going to enjoy public confidence.

Indeed, the very point that the Senator has made on many occasions on the floor is true, that the 1998 timeframe, which has been invoked by the proponents of S. 104 as if it were a date carved in stone, attested to by all of the deities, is, in fact, a deadline which the scientific community urged not to be placed in the legislation for the very reason the Senator inquired of the junior Senator from Nevada, the timeline was unrealistic.

So, now, in effect they are using their argument of 1998 to, in effect, bootstrap their argument that 1998 will come and there will be no permanent resolution to it, and, therefore, we need this ill-conceived proposal that is before us.

Mr. REID. I ask my friend another question. Eminent scientists have said S. 104 is bad. You agree?

Mr. BRYAN. Absolutely true.

Mr. REID. Can you think of a single environmental organization in the world—well, let us limit it to the United States. Can you think of a single environmental organization, for-profit or nonprofit, that supports this legislation?

Mr. BRYAN. I cannot, and, in point of fact, every nationally recognized environmental group that I can think of has indicated its strong opposition to this legislation as being unsound environmental policy. I think the point that the Senator from Nevada makes is a good point. Frequently, in what I would refer to most respectfully and charitably as convoluted logic, I have heard S. 104 characterized as an important piece of environmental legislation. That would give new meaning to environmental legislation. No environmental organization, as the senior Senator points out, supports this legislation and, again, for the basic reason that it is unnecessary and it is bad policy. It simply is not good policy.

Mr. REID. If we change our course now, Madam President, there is no doubt in my mind that a permanent re-

pository will never be built and all the effort and all the money will just go down the drain as misguided nuclear politics.

The work done at Yucca Mountain is an essential part of the program that was promised to guarantee public health and safety at any site selected for a permanent repository. This guarantee was done in 1982 by Chairman Udall and others who were prominent in pushing this legislation through, the 1982 Nuclear Waste Policy Act.

Without their assurance, the Congress would never have supported the policy amendment, would never have supported the underlying legislation and the policy amendment that designated Yucca Mountain in 1987 as the only site to be characterized. The arguments then were, "We'll do such a grand job of scientific study and evaluation that there will be no question about Yucca Mountain suitability, reliability; we will never compromise on safety, not where the American public is concerned; we will do everything necessary to identify and resolve any concerns that Yucca Mountain might not be a suitable repository site; we guarantee Yucca Mountain will not become a storage site before all concerns have been satisfied."

Madam President, that was then, and this is now. Then was a time for promises that they hope everybody has forgotten. Now is a time for political expediency and smoothing the ruffled feathers of the powerful nuclear power-generating lobby. Now is the time for pushing the waste into Nevada before anything is ready, even without a repository site, even though the scientific community says no, even though the environmental community says no. Never mind repository reliability and permanent isolation from the environment. If anything happens, it will happen on someone else's watch, in someone else's backyard. That, Madam President, is bait and switch if I ever saw it. It is a well known, but not a highly respected way of doing business, and it should not be done here.

I have talked about the independent reviews by competent Government-chartered experts. We have talked about the Nuclear Waste Technical Review Board. Here is a direct quote that you will hear from the two Senators from Nevada of what the chairman of the Nuclear Waste Technical Review Board said:

... because there are no compelling technical or safety reasons to move spent fuel to a centralized storage facility for the next few years, siting a centralized facility near Yucca Mountain can be deferred until a technically defensible site-suitability determination is made. ... Deferring the siting of a storage facility until that time will help maintain the credibility of the site-suitability decision.

Madam President, I hear people and I know my friend from Nevada has heard the same thing, "Well, what are you going to do with the waste?"

If I can call upon my friend from Nevada again for a question, he will recall

last year in the debate there were dire urgings that if something did not happen last year, powerplants would close down last year. Do you recall in the early eighties statements similar to this being made?

Mr. BRYAN. I do, indeed. It was made in 1980. Neither the senior Senator from Nevada nor the junior Senator from Nevada were Members of this body or of the other one at that time. But then, as now, the nuclear utilities were urging the Congress to adopt interim storage, they then were called away from reactor storage. The statements were made during the floor debate that if this were, in fact, not done, that within the next 3 years, by 1983, nuclear utilities would have to close down and there would be brownouts.

As the senior Senator from Nevada knows, that was 1980. In a sense, if you took the date off that legislation and inserted the words "interim storage" for "AFR," it would be identical to the context of the debate.

If the senior Senator from Nevada will indulge me for a moment, this is what was said by the then chairman of the Energy Committee, Mr. Johnston, the distinguished Senator from Louisiana:

Mr. President, this bill—

Referring to the AFR legislation—

deals comprehensively with the problem of civilian nuclear waste. It is an urgent problem—

Sounds somewhat familiar, does it not?

Mr. President, for this Nation. It is urgent, first, because we are running out of reactor space at reactors for the storage of the fuel, and if we do not build what we call away-from-reactor storage and begin that soon, we could begin shutting down civilian nuclear reactors in this country as soon as 1983. . . .

I say to my friend from Nevada, that is, in essence, the debate that we heard in 1996. Just substitute a date and put it 3 or 4 years into the future. Those are the opening comments made by the chairman of the Energy Committee that we just heard. This is the nuclear utility refrain. It has become kind of a mantra, their Holy Grail, and, in point of fact, as the senior Senator from Nevada well knows, that is simply not the case. That is scare tactics; that is hysteria.

Mr. REID. I say also to my friend from Nevada, we established with the dry cask storage containers I spoke of earlier that if they burn from diesel fuel, that is bad. If you are in an accident because of going fast, that is bad. I say to my friend from Nevada, we acknowledged what some of the scientists are saying: Leave it where it is. Put these spent-fuel rods in dry cask storage containers in onsite storage. It would be safe, you would not have a diesel fire or accident from going fast. It would be safe and cheap. It would cost hardly anything to do that. There are utilities doing that right now, is that not true?

Mr. BRYAN. That is absolutely correct. There are a number of utilities

that do it. One is just about 40 miles from the Nation's Capital. It is authorized by the Nuclear Regulatory Commission. So this is not a proposal that originates from those of us in this body, it is a scientifically accepted alternative that is available onsite storage which provides a 100-year storage option without, as the senior Senator from Nevada correctly points out, the risk involved in transportation and handling.

I might just add parenthetically, with all the talk about the casks that are going to be used to be shipped across the country, those casks have not yet been designed and licensed.

Mr. REID. Even if they were, with the standards they have now been able to establish, it would be unsafe to transport them.

Mr. BRYAN. Absolutely.

Mr. REID. "Deferring the siting of a storage facility until that time will help to maintain the credibility of the site-suitability decision."

That is what was said by the chairman of the Nuclear Waste Technical Review Board, among other things.

These same reviews have cited the steady and productive progress toward the objective—and I underline and underscore "objective"—of determining Yucca Mountain's suitability for siting the Nation's repository for spent nuclear fuel and high-level radioactive waste.

The powerful, aggressive, obsessive nuclear power lobby is not willing to wait. They are not willing to wait. They do not care about the credibility of the site-suitability decision. They are only interested in getting it out of their pockets, out of their backyards and putting it someplace else. Their arguments, I say, are mindless and reckless. Their arguments are specious.

As we have indicated, spent fuel is safe right where it is. My friend, the senior Senator from Colorado, stated during the committee hearing that if the waste is safe enough to ship, it is safe enough to leave in place. That says it all.

The arguments for consolidation are without substance because an interim storage facility at Yucca Mountain will not reduce the number of storage sites. On the contrary, it will increase their number. This is fact, it is not supposition, it is not presumptive, it is not vulnerable to contradiction. Continuing operations will require onsite storage of spent fuel in cooling ponds or in an onsite interim facility for transportation staging.

Nuclear waste will always be stored temporarily at operating nuclear power-generating sites. For those generating sites that either have terminated operations or will terminate operations, preparation for transportation will take far more time than is required for the 1998 viability decision for Yucca Mountain. They know that. Preparations to ship this waste material across the country have hardly begun, and that is an understatement.

In his arguments against S. 104, the chairman of the Nuclear Waste Technical Review Board pointed out:

The country currently has a capacity to transport only a few hundred metric tons of spent fuel a year.

And, I might say as an aside, some people would agree we cannot even haul that much. He went on to say:

Developing a transportation infrastructure necessary to move significant amounts of waste, including the transportation of casks and enhanced safety capabilities along the routes, will take a few years longer than will be needed to develop the simple centralized storage facility currently envisioned by DOE. A site-suitability decision could be made beginning the interim storage facility with no lost time.

If transportation performance is not improved, there will be at least 50 accidents involving spent fuel or high-level radioactive waste on our railroads and highways here. That is what the average would be under the present statistics—50 accidents involving spent fuel or high-level nuclear waste. That is a lot of accidents, I must say.

Madam President, I want to close this part of my statement by reminding everyone why we are here. We are here because of the nuclear power lobby. There is no other reason. The President has said he is going to veto this legislation. The legislation will be vetoed. The President's veto will be sustained. There is no reason that we are doing this other than because of the nuclear power lobby, and some are trying to satisfy this lobby. We would be better off by dealing with the budget, which, I say to my friend from Nevada, as I understand the law, were we not to have completed a budget before the April break when we went home for Easter? Isn't that the law?

Mr. BRYAN. That is my understanding, that we are obligated to do so, but we have not yet done so.

Mr. REID. I will also state that if we do not have a budget, we cannot deal with the 13 appropriations bills. I am a member of the Appropriations Committee, and we have done nothing, basically, on our appropriations legislation because we have not gotten our marks from the Budget Committee. Thirteen appropriations bills and not a single one has been marked up.

We are absolutely going nowhere. But what are we doing here? We are spending a week on legislation that the President said he is going to veto, which failed last year because of that. If there were ever a colossal waste of legislative time, which means taxpayers' time, this is it. I yield the floor.

Mr. BRYAN addressed the Chair.

The PRESIDING OFFICER. The Senator from Nevada is recognized.

Mr. BRYAN. Madam President, the junior Senator from Nevada has been criticized and taken to task somewhat because he has referred to this legislation as a "mobile Chernobyl." In that criticism, it has been said, "Look, what happened at Chernobyl is a different situation entirely. There you

had a reactor explode. This is not going to explode." I concede that there are differences in terms of causation, but the results are equally devastating.

We are talking about the shipment of 85,000 metric tons of nuclear waste. That would involve, as has been estimated, about 15,638 shipments—6,217 by truck, roughly 9,421 by rail. So we are looking at about 15,638 to roughly 17,000 shipments.

Each of those truck casks would weigh 25 tons. Each rail cask would weigh 125 tons. One rail cask—one rail cask—carries the long-lived radiological equivalent of 200 Hiroshima bombs—200.

So when I use the "mobile Chernobyl" analogy, the risk to Nevadans, the risk to Americans, if indeed a rail cask ruptured as a result of an accident and radiation was released, it would be a mobile Chernobyl because the spread of radioactivity and the resultant contamination that results as a consequence could be widespread.

I would simply point out to those who are so sanguine about transportation that we are daily reminded that human error—the chairman of the Energy Committee pointed out that Chernobyl was a product of human error. Indeed, Madam President, I suspect that a great many of our accidents, maybe even a majority of them, are a product of human error. We see that every time there is a major rail collision or a train that is derailed as a consequence of some neglect in trackage. We have certainly seen it in the context of terrorist activities of late.

But the National Environmental Law Center provides that EPA data analysis shows that 7,959 accidents occurred during the transportation of toxic chemicals from 1988 to 1992. The American Petroleum Institute tells us that heavy truck accidents occur approximately six times for each million miles traveled with thousands of truck shipments. This means that at least 15 such accidents could be expected each year.

So the risks are considerable in terms of this transportation, all of which are unnecessary. It is not necessary or advisable or prudent or sound policy to do so.

This is frequently characterized as a Nevada battle. But let me just say, fairly recently there has been a proposal to move the nuclear waste from a port in Oakland through Nevada and into Idaho. It has generated a considerable amount of controversy, not only in my own State, but in California. I believe that those who are watching across the Nation should be aware of the fact that Nevadans are not the only ones who are placed at risk by this ill-conceived proposal.

The shipment routes involve 43 different States, and 51 million Americans live within 1 mile of either the rail or highway corridor routes.

On this chart that we are exhibiting, the highway corridors are depicted in red, the rail routes are depicted in blue. With the kinds of massive shipments we are talking about—125 tons

by rail, 25 tons by each truck cask—you could only use the major corridor routes. You would not use some back road or unimproved surface. You would need a full-scale transportation route.

With all the potential for accident, with all the potential for some serious, unintended, unavoidable consequence, we risk the lives of 51 million Americans to satisfy the request of a single industry in America—the nuclear utility industry. They are the only ones that bring us to the floor to debate this issue today. As my senior colleague pointed out, they were the ones in 1980 that brought it to the floor. They were the ones that brought it to the floor in 1996. And if we are successful, as I believe that we will be in 1997 in preventing this legislation from being enacted into law, based upon a carefully considered Presidential position that he will veto such legislation, I would predict that they will be back here in 1998, 1999, and the year 2000 because this is something that they covet and that is a priority for them.

So the transportation issue, of which we will comment more during the course of the debate tomorrow, is a consideration that affects 51 million Americans in 43 different States. As they say, you cannot get there from here. You have to take that lethal waste across the heart of America. Most of this waste—most of this waste—being east of the Mississippi River will involve transportation over literally thousands of rail or highway miles.

Let me briefly comment on a couple of other points. The chairman of the Energy Committee pointed out that there is a lawsuit that was filed. He said, as others have said, that it requires that the Department of Energy must take possession of nuclear waste that is stored throughout the reactor sites by 1998 and, if we do not do so, that all kinds of horrendous consequences will occur.

First, let me point out that the lawsuit was decided last year prior to the vote that we took on S. 1936, which is the predecessor to S. 104 and essentially in the significant aspects is virtually identical. So this is not a new development.

But I think it is important to comment because the utilities have sought to obfuscate the issue and have given the impression that, indeed, in 1998 there will be a series of Department of Energy trucks or vans or rail cars that must back up to every reactor site in America and begin to load those on board and that, lo and behold, if they do not have an interim storage facility, these vehicles will be traveling endlessly for all time and in perpetuity.

Nonsense. The lawsuit did conclude that the Department of Energy has an obligation, a legal responsibility. And you look to what the remedy is in the contracts.

In 1982, the Nuclear Waste Policy Act was enacted by the Congress, signed into law by President Reagan. In that

act it required utilities to enter into contracts with the Department of Energy. And all the utilities that are part of this debate have done so.

When you look at the contract, there are two provisions, two provisions that specifically deal with this issue.

I again remind my friends that 1998 was not a date sanctified by the scientific community. That was a date the utilities insisted upon. The Department of Energy and others argued that that date was unrealistic. "We're not going to be able to reach that date," they said. But the utilities said, "No. 1998, we want that." That is what the law reflected.

But in the contract that was required to be entered into with each of the utilities with the Department of Energy, there were two provisions. Both of these provisions are contained in article 9.

What it said is this: In anticipation that the 1998 date may not be fulfilled, it indicated that if the delays were unavoidable by the Department of Energy, that is, if the delays were beyond their control, that there was no culpability. Then the remedy that was provided was simply to reschedule the delivery dates. It makes some sense.

The other provision that is applicable—and I am sure the utilities will urge this point of view—is, indeed, there is culpability on the part of the Department of Energy. As a result of their culpability, it would be classified under the provisions of the contract as an "avoidable" delay. That, too, is part of article 9, section B.

The contract remedy is, in the event of any delay in the delivery, acceptance or transport caused by circumstances within the reasonable control of the Department of Energy or their respective contractors or suppliers, the charges and schedules specified by this contract will be equitably adjusted to reflect any estimated additional cost. That strikes me as being reasonable.

I had occasion in many years past to practice law, not nuclear utility law or environmental law, but what this says is that, look, if the Department of Energy is found to have been negligent in moving the process forward, the utility is entitled to an adjustment of what they are paying into the nuclear waste trust fund based upon additional costs that are being incurred. Indeed, that is not a novel concept.

When this Senator first came to the Senate in 1989, and in each session thereafter, joined by my senior colleague from Nevada, we have offered legislation that does indeed provide that the utilities would be entitled to an offset or compensation for the additional expense that they may incur as a result of this 1998 deadline being unattainable.

So there is no great mystery about the lawsuit. It changes nothing in the debate that we have, nothing whatsoever, and should not be used as a basis for supporting the legislation that is currently before us.

Finally, let me make just one additional comment that the senior Senator from Nevada addressed. That is that this legislation is not going to become law.

The President of the United States, as he did in 1996, indicated that this is bad policy, and following the advice and counsel of the scientific community—the Nuclear Waste Technical Review Board concluded that it was unnecessary, unwise, and indeed there is no necessity for this, no safety is to be gained by this massive shipment of 85,000 metric tons of waste. This is a scientific body that concluded that in 1996, and although the board is newly constituted with a new chairman and many new members, it reached the same conclusion in 1997, this very year, in testimony that verified that interim storage is not necessary. So the President, following the wise counsel of those who have examined this from a scientific and objective point of view, has indicated, as shown in testimony before the Senate Energy Committee, that this legislation will be vetoed if indeed it should reach his desk.

We will have much more to say about this issue as we debate it during the course of the next week or so. We will point out with greater particularity a number of the issues that we have touched upon lightly today. I just hope, for my colleagues who are watching and their staffs, that we not be misled. This is legislation that is a carbon copy of the legislation that was debated in S. 1936 in the last session of the Congress.

I yield the floor.

Madam President, I see no one else is on the floor seeking recognition. I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. DASCHLE. Madam President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. DASCHLE. Madam President, I ask unanimous consent to speak as in morning business for a period of about 10 minutes.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. DASCHLE. I thank the Presiding Officer.

Madam President, let me begin by complimenting my distinguished colleagues for their statements on the floor this afternoon. My intention is not necessarily to speak on that issue, but as I have in the past, I am supportive of their efforts and commend them once more for their concerted effort to bring some fairness to the issue that they have addressed. This is a matter of great import to the State of Nevada. No one has been more articulate, more aggressively persuasive on the issue than have the two distinguished colleagues from Nevada. I commend them and urge our colleagues to listen carefully to their counsel and support their

efforts as we proceed for the remainder of this week on this very important issue.

CRITICAL ISSUES TO ADDRESS

Mr. DASCHLE. Madam President, we have 7 weeks between now and the next legislative recess, a period within which a great deal of work must be done. This has not been our most productive Congress so far. There are a lot of reasons why we have not been as productive as we would like it to be. I hope now as we get into the very critical months of April and May that we spend as much effort as we can to bring about the consensus we must have on a series of issues that this Congress must address. Some of them have deadlines. Some of them do not. But all of them are of extraordinary importance to this body and to the American people.

There are two with deadlines that I hope we can begin work on in earnest this week. First and foremost, the Chemical Weapons Convention. There is no doubt we are facing the prospect that the United States could miss its opportunity to become a full-fledged member of the international convention responsible for bringing about the elimination of chemical weapons. If we fail to ratify the convention by the 29th of April, we will miss the opportunity to commit ourselves fully to the obligations of that convention and to the international community. We are told that enrollment of the convention requires at least 10 days, which means we only have until the 19th. In other words, we have fewer than 14 days within which all of the ramifications of that important convention can be addressed here on the Senate floor.

This has been the subject of extraordinary debate, countless deliberations, numerous hearings, and efforts on both sides of the aisle to resolve the differences that still exist.

It is my understanding that we are not that much closer today than we have been for several weeks. If that understanding is inaccurate, then I hope someone will come to clarify the current set of circumstances.

Madam President, we simply cannot wait. We must deal with this convention. Time is running out. We are not inclined to support any other legislation or the movement of any other bill until such time as we have some appreciation of where we are with regard to this convention and when we can expect it to come to the Senate floor. I give great credit to the majority leader for his efforts in attempting to do that. He has been patient and diligent, but, so far, I think it is fair to say that none of us have been successful. So while our approach has always been to try to work through this and to give everyone the benefit of the doubt in the hopes that, ultimately, we can come to a resolution, the bottom line is that time is quickly running out. When time has run out, the last laugh may be on us.

Madam President, the stakes are too high, the issue is too important, and the consequences are too severe for us to ignore this important deadline. We must confront it and we must recognize that this must occur this week. Hopefully, tomorrow must be the day we finally come to the conclusion about when it is this important treaty will come to the U.S. Senate for ratification. Anticipating failure, I don't think we have any other choice but to do all that we can to hold off on taking any action on any other piece of legislation until such time as we can anticipate success.

So, Madam President, I am very hopeful that tomorrow we can resolve whatever remaining procedural questions there may be in an effort to deal with this issue directly.

Second, let me just say that we are also running up against another deadline, and that deadline involves the budget. We already missed April 1. That was the deadline that the Budget Committee was supposed to have reported out its budget resolution. Now we have the important deadline of April 15. That is the deadline under the law for the Senate to pass a budget resolution.

I didn't hear the distinguished majority leader this morning, but I am told that he had indicated that they are waiting for the White House to take additional steps and to make an additional effort. I must say, Madam President, I have heard that excuse now for too long. The fact is that the President has taken the action that is required of him under the law. He has presented a budget on time. He has presented a budget, by the way, that balances by the year 2002, using CBO figures. So, Madam President, as far as I am concerned, the President has done what he is required to do. The question now is, can we? And will our Republican colleagues take the leadership that comes with being in the majority and meet the April 15 deadline?

I hope that we will no longer rely on excuses. I hope that we can come together, Republicans and Democrats, in the Budget Committee first, and second on the floor, and meet the obligations proposed by law, with no more excuses about who has acted under what circumstances. While the negotiations are not going well enough, the time has come to act now, and the time has come for us to come together, to work in the regular order under the budget process, through the Budget Committee, and get the job done.

So there is an array of pressing issues, Madam President. As I indicated, some have deadlines—the Chemical Weapons Convention and the budget. Time is running out. Excuses are getting old. Let's get on with the work and get the job done.

I yield the floor.

Mr. CRAIG addressed the Chair.

The PRESIDING OFFICER (Mr. ALLARD). The Senator from Idaho.

Mr. CRAIG. Mr. President, I assumed the minority leader was speaking on his own time.

Mr. DASCHLE. That is correct.

Mr. CRAIG. Apart from the debate on the nuclear waste bill.

Mr. DASCHLE. Yes.

The PRESIDING OFFICER. The pending question is the motion to proceed on the bill.

The Senator from Idaho.

Mr. CRAIG. Mr. President, before I speak in relation to the motion to proceed on S. 104, let me only say to the minority leader of the Senate, with due respect to him—and I do respect Senator DASCHLE—the Senate and the leadership of the Senate and the House, for well over a month and a half, deferred to the President and the responsibility of the President in submitting a budget to Congress. I sat on the floor of the U.S. House of Representatives and listened to our President refer to the submitting of a balanced budget; 12 times in the State of the Union address our President spoke of a balanced budget. We received that budget. No one chose, in their own good form, to criticize it. In fact, we sent it off to be analyzed by the Congressional Budget Office. And it came back.

I must report to the minority leader that it was not a balanced budget, and we all know that now. It was well out of balance by nearly \$100 billion for the 4 years of this President, with the inclusion of a major tax increase and some tax cuts. And then, of course, the year after this President leaves office, the tax cuts go away, the tax increases stay, and a major cut in programs or a major increase in revenue. That is why we haven't dealt with the budget, because we were willing to give this President the benefit of the doubt. Certainly the Senator knows that, and it was a fair willingness on our part.

Now that that day has passed, the Senate is beginning to work its will on the budget. We first wanted the President to have a fair and uncriticized opportunity, and that is exactly what he got. But in all fairness, the public now knows that this President's budget includes major spending increases and major new Federal programs and no real commitment to balance, not in the context of the political reality that certainly the minority leader operates in and that we operate in. No Congress has made those kinds of dramatic cuts, nor, frankly, have they raised that much revenue as the President is proposing, because while he appears to give on one hand, he rapidly takes away on the other.

In all instances, his program spending wraps up, a major increase in 1 year of \$25 billion of new domestic spending in this country. That is what we are wrestling with. Certainly, this Senate is going to deal with the budget, and they are going to deal with it in a very timely manner. What I hope we can do is something that I know the minority leader will appreciate and that is to deal with it in a bipartisan