

out. I reserve the remainder of the time and yield the floor.

The PRESIDING OFFICER. Who yields time?

#### VISIT TO THE SENATE BY FRENCH PARLIAMENTARY DELEGATION

Mr. MURKOWSKI. Mr. President, I ask unanimous consent that the Senate stand in recess for 2 minutes in order to allow the Senate to greet a French parliamentary delegation that is visiting us.

#### RECESS

There being no objection, the Senate, at 3:54 p.m., recessed until 4:01 p.m.; whereupon, the Senate reassembled when called to order by the Presiding Officer (Mr. KEMPTHORNE).

#### NUCLEAR WASTE POLICY ACT AMENDMENTS—MOTION TO PROCEED

The Senate continued with the consideration of the motion to proceed.

The PRESIDING OFFICER. Who yields time?

Mr. REID. Mr. President, I yield myself 25 minutes.

The PRESIDING OFFICER. The Senator may proceed.

Mr. REID. Mr. President, first of all, let me respond to a number of things brought up by my friend, the manager of this bill.

First of all, he is right about nuclear power. It produces a lot of electricity in the United States. But everyone recognizes those days are numbered. The average life expectancy of nuclear power in the United States is 15 years. After that it is going to be gone.

As I indicated yesterday, it might be 25 years with one of the reactors and it may 5 years with another. But nuclear power is all through in this country. It simply is too dangerous, and everyone knows that.

I will also speak to the question of what to do with spent fuel. That question has been raised. Senator BRYAN and I continually answer the question. It is very easy. We should leave it where it is—capsulated in the spent fuel rods kept in dry cask containers.

As Senator BRYAN mentioned today and I mentioned yesterday, there would be no fire that would damage the dry cask storage containers as would happen in a diesel truck or train. There would be no accident that would occur driving at speeds that would rupture the casks. It is safe and it is cheap. That is what should be done with nuclear waste for the foreseeable future.

I will also state, Mr. President, that the question still has never been answered: What about the environmental groups? Hundreds of them oppose this legislation—not two or three, not 20 or a couple score, but hundreds that are now a part of the record.

No question has ever been answered as to why these environmental groups

oppose the legislation. They oppose the legislation because it is dangerous for the environment. It would be different if there was an equal balance, half of them supported it and half of them did not. Every one of them—it is exclusive—all environmental groups oppose this legislation.

Let me also say, Mr. President, one of the things being lost in this debate is the fact that as we speak hundreds of millions of dollars are being spent in characterizing the repository at Yucca Mountain to determine if in fact that site is going to be scientifically safe for storage of nuclear waste. I repeat, this past year hundreds of millions of dollars have been spent. Next year the same—hundreds of millions of dollars will be spent characterizing that site.

Let us not lose sight of the fact that this legislation is a way to avoid the permanent repository. The very powerful, greedy nuclear industry that is promulgated by the utilities, basically what they want to do is short-circuit the present system. They do not want to take their chances at Yucca Mountain in having a safe, scientifically characterized site. They want to circumvent the system. They want to do away with environmental laws. They want to void the present law that says you cannot have temporary storage in the same State where a permanent site is being considered.

Why have we not heard anything about Yucca Mountain? That used to be the big debate. Because the nuclear industry wants to avoid Yucca Mountain. They want to do it the cheap way.

We have heard raised continually the fact that Nevada used to be a place where they set off bombs, atmospheric tests and underground tests, and more than 900, almost 1,000 of those tests have been detonated.

As I stated, the State of Nevada has sacrificed significantly for that. We did it because there were hundreds, thousands, tens of thousands of nuclear warheads pointed at the State of Nevada and the United States. Conversely, the United States of America pointed their weapons at the Soviet Union. The cold war has terminated. I repeat, this ended a dangerous era. It was a time of national crisis. We were all called upon to do what was necessary to protect this country. The State of Nevada did its share. We did what was right at a time of crisis.

The time has come now, though, to understand that that was then and this is now. There is presently no danger that would drive us to endanger our environment or public by reckless and ill-conceived actions. That is what this legislation is.

There is no nuclear waste crisis that any objective and competent study has been able to uncover. The Nuclear Waste Technical Review Board has testified to the lack of urgency and crisis with respect to moving spent nuclear fuel from its generation sites. The chairman of the board, under the direction of this Congress, testified last

year, and now the new chairman this year, that "There is no urgent, technical or safety reason to move spent fuel to a centralized storage facility." So there is no emergency.

Moreover, existing contamination from early nuclear tests is not at all comparable to the potential contamination from premature and reckless storage of spent nuclear fuel in Nevada.

Mr. President, one transportation container of spent nuclear fuel contains about the same amount of radioactive waste as 200 nuclear tests. One transportation container that will travel through the State of Colorado and many other States in this country contains the same amount of radioactive waste as from 200 nuclear tests.

We are contemplating more than 15,000 shipments of spent nuclear fuel. Some of these shipments will have two containers. So more than 3,000 times the amount of contamination from the nuclear testing program—3,000 times as much would be stored in the repository.

Measured another way, each nuclear explosion generates 125 pounds of radioactive material per megaton of yield. The average yield of tests conducted in Nevada is much less than the maximum yield permitted under the limited test ban treaty. Assuming the average yield to be about 85 kilotons, the total testing program in Nevada would have generated only about 5 tons of radioactive waste.

They are trying to move, with this cheap legislation, 70,000 tons of nuclear waste to Nevada. So anyone who compares the nuclear tests in Nevada, which build up 5 tons of radioactive waste, are either exaggerating, deceiving the American public, or do not know what they are talking about.

And anyone who wants can make their choice of the three. The fact is, scientifically, we have 5 tons of radioactive waste compared to 70,000 tons that they are going to try to haul along the railways and highways of this Nation.

Is it any wonder, Mr. President, that entities—cities, municipalities, counties—throughout this country have passed resolutions saying: Do not bring it through our cities.

Complete and enduring isolation of this highly radioactive material is necessary if we are to avoid many times the danger and damage caused by the nuclear testing program.

Mr. President, there has also been a lot of debate on this floor about onsite storage of spent nuclear fuel: It is going to break the country. It is going to break the power generating companies.

Well, let me just say this. This is, for lack of a better description, a scare tactic. It has no foundation in fact. Those who are propounding this have dismissed any thought of risk to the environment or to public health and safety, and any mention of such risk is waved away as scare tactics.

The Nuclear Waste Technical Review Board—remember we keep referring to

this because it is a scientific body that we have deemed legislatively to tell us what to do with nuclear waste—the Nuclear Waste Technical Review Board agrees that new transportation containers deserve full-scale testing to assure that these are as durable as those designed, tested, and procured many, many years ago.

That has not been done. The Technical Review Board agrees that we are not ready to undertake this massive program of nuclear waste shipments. That is why they have said, do not ship them. The scientific body, I repeat, this Congress has designated to tell us how to deal with nuclear waste, has told us, do not ship it.

The board agrees that a lot of planning is necessary and that it is crucial for emergency response teams all along the planned routes to be provided with equipment and training for managing the accidents that will happen, even with the best of planning.

The Nuclear Waste Technical Review Board goes further. They agree with the Senators from Nevada that it is absolutely critical that the promise of objective characterization that we have been given in years gone by be completed before any nuclear waste is shipped to Nevada. The board agrees that the 105th Congress should honor those promises made in earlier legislation.

The board agrees that serious uncertainties remain with respect to Yucca Mountain's suitability. The board's chairman testified to these concerns during the S. 104 hearings.

But let us go forward with Yucca Mountain. Let us not short circuit the system and have this legislation which is being promulgated and propounded and pushed by the very powerful nuclear utilities in this country.

The board agrees about these uncertainties. The board agrees that this process must proceed objectively without a hint of prejudice or even the appearance of a premature decision. Without this promise of high quality, objective assessment, the American people will never believe that permanent disposal of spent nuclear fuel can be done safely.

So, Mr. President, we are not using scare tactics. We are merely standing up for the public health and safety of our country's environment and for protecting the public confidence in the final disposition of spent nuclear fuel.

Instead of doing their job, the nuclear power industry, this powerful, disingenuous industry, and its lobby are busy using scare tactics to try to saddle the American taxpayer with the costs of managing the consequences of all of its profits.

These profits are, for lack of a better description, Mr. President, obscene. The nuclear power industry is required to report its costs and revenues annually. All utilities must do this because they represent a virtual monopoly. The so-called retained earnings of power utilities, with at least 20-percent nuclear

clear generation, average about 17 percent of total revenue.

Mr. President, this chart which I have here—these are in thousands of dollars, so this is a billion. Commonwealth Edison, \$1.083 billion net profit. This is not gross profits; net profit, 17.25 percent. Not bad.

You can pick any one of them you want. Virginia Electrical, \$731 million net profit, 17.54 percent.

Look at it. 20.5 percent, 18.9 percent. The average, Mr. President, as I have indicated, have profits of more than 17 percent.

I handled a case once. I sued Safeway Stores. The jury said I was entitled to punitive damages. I can remember going back trying to get discovery, getting information from Safeway Stores. I was astounded. Safeway Stores, with the tremendous volume they had, had made less than 2-percent profit. It was 1 percent-plus.

Our utilities who are crying, "We're starving to death," are making revenues of \$1 billion, 17.25 percent profit, an average of over 17 percent. Safeway Stores are making less than 2 percent, but our utilities, struggling as they are, are averaging 17 percent. These are only the nuclear utilities, because they are doing better than the rest.

So the so-called retained earnings of power utilities with at least 20 percent of the power they generate by nuclear energy averages about 17 percent. The simple interpretation of these numbers is that once the industry pays its operating costs and its capital mortgage obligations its profit is about 17 percent from all the revenues collected from the customers. Not bad.

A reduction of this obscene profit by just 1 percentage point, reducing the average profit from 17 to 16 percent, would completely cover the ratepayers' fees that are collected to pay for managing the waste, that was generated to the benefit of both the ratepayers and the industry.

So, Mr. President, these pious complaints from the nuclear industry and from the sponsors of S. 104 that the ratepayers are being gouged, are actually accurate. The problem is the gouger is the industry, not the Government. They, the industry, are the gouger. They are the gougers.

So for their next scare, their next fright, S. 104 advocates in the industry have developed their own views on how much more the storage costs of the nuclear waste would be until this permanent repository is operational. This is a dandy. Here is what they come up with here. They are saying that they will have to pay \$80 billion, that is what it will cost the taxpayer. They might as well pick a figure of \$400 billion. It has as much relevance. They could have picked \$80 dollars with as much relevance. They do not know what they are talking about. It is ridiculous.

Sponsors of S. 104 have argued that only passage of this bill will relieve every American family of a \$1,300 bill,

payable to the nuclear power industry. If that is not scare tactics, I do not know what is. The actual incremental cost, until a permanent repository is operational, is clearly not that much, it is not even close. The cost is negligible compared to their profits.

The Department of Energy has done a study that predicts \$8 million as the average fixed cost for onsite storage facility. They estimated the operational costs of onsite storage to be about \$750,000 per year for operating reactors, and as much as \$3 million for shutdown reactors.

Here is a monopoly that is gouging an obscene profit from customers at a 17-percent rate, claiming it should be awarded damages of \$80 billion when the actual costs are less than \$2 billion. How is that? The industry and their congressional supporters want the taxpayer to add to the industry's already obscene profits by awarding them billions of dollars that they did not earn, do not deserve, and did not spend. I am here to tell everyone within the sound of my voice that the nuclear industry will not get away with this nuclear extortion. That is what it is.

I wish words could describe my appreciation for the President of the United States saying he will veto this legislation. Mr. President, the Constitution of this country was not drafted to protect the majority. The Constitution of the United States was drawn to protect the minority. There is no better example of that, there is no better example of how this Constitution works than this legislation. Last year, 37 brave Democrats and Republicans said, "We think this is bad legislation." They were following the constitutional dictates that said if there are enough votes to sustain a veto, that legislation is history. It was history last year. It will be this year. We are wasting the taxpayers' time because the Constitution protects the minority. That is what we are doing here.

Now, there has already been a day in court which affirmed that the contract between DOE and the generators of this waste calls for DOE to deal with this spent nuclear fuel beginning in 1998. The court specifically avoided discussion of a remedy, should DOE not honor the terms of the contract, since a deadline has not been reached. Moreover, the standard contract clearly contains language for remedies for failures to meet its terms. They are conditional. It is likely, should a court get involved in determining the remedies—which will probably never happen—the case will focus on conditions leading to the breach. They are very clear if it is the fault of DOE, they pick up the cost. We know that. But the deadline has not been passed yet. It is unlikely any court will rule on breach of contract remedy prior to contract violation.

DOE has made a good-faith effort to involve the industry in developing the solution to the real problems that no repository exists prior to 1998. That good-faith gesture has been rejected

and rejected and rejected by the industry and the sponsors of S. 104 to justify their efforts to rip off the taxpayers, to justify their threats to seek billions of dollars in compensation for a \$2 billion incremental cost.

The industry does not want a resolution of this permanent repository dilemma. If one were found, they would not be able to unload all future costs to the taxpayer. Remember, Mr. President, this boils down to the fact that you can store nuclear waste onsite, as I indicated, for \$750,000 at an operational site. So the costs are negligible, but they are not willing to do that.

They would be pleased to see S. 104 succeed since they know an interim storage facility in Nevada would become the permanent resting spot for all the waste. In this instance, "interim," by the dictionary of those pushing S. 104, means forever. That needs to stop.

Again, I congratulate publicly the President of the United States for standing by something that is right. We know politically there are big utilities that are telling the President, Oh, do not do this. The President is standing for principle, and the people of this country should admire and respect that because this is going to prevent nuclear garbage from being hauled through the streets, highways, and railways of this country. I hope the President gets his due deserve for doing the right thing.

I reserve the balance of my time.

The PRESIDING OFFICER. The Senator from Alaska.

Mr. MURKOWSKI. Mr. President, I ask unanimous consent the cloture vote scheduled for 5:15 this afternoon, subject to the clearance from the ranking member of the Energy Committee, be contemplated to be vitiated, and further Senate action begin on Senate bill 104 for consideration at 1 o'clock on Wednesday, April 9.

I ask the Chair to withhold because I am just advised that there is one clarification needed.

Mr. CRAIG. If you are waiting for a clarification, I am more than happy to go ahead and speak and allow interruption at anytime necessary to clarify.

Mr. MURKOWSKI. I am happy to withdraw, if there is no objection, the unanimous-consent request.

Mr. BRYAN. I think the essence of what the chairman has proposed is agreeable to the Senators from Nevada, and I think implicit in what the chairman said is we will actually go on the bill at 1 o'clock tomorrow.

Mr. MURKOWSKI. That is the intent of the unanimous-consent agreement.

Mr. BRYAN. I just wanted to clarify. I thank the chairman.

Mr. MURKOWSKI. Mr. President, I will withhold the unanimous consent pending a clarification from the ranking member of the Energy and Natural Resources Committee.

I yield to my friend from Idaho, the cosponsor of the bill.

The PRESIDING OFFICER. The Senator from Idaho.

Mr. CRAIG. Mr. President, thank you. I thank my chairman for yielding, and I am pleased to hear the news that we can move to this bill without cloture, starting tomorrow. It appears that agreement is very close at hand.

In fact, I understand it is fine now, so I yield back to the chairman.

#### UNANIMOUS-CONSENT AGREEMENT

Mr. MURKOWSKI. Mr. President, I renew my request at this time. I ask unanimous consent the cloture vote scheduled at 5:15 today be vitiated, and further the Senate begin consideration of Senate bill 104 at 1 p.m. on Wednesday, April 9.

The leader advises me, for the information of all Senators, there will be no rollcall votes during the balance of today's session of the Senate.

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

Mr. MURKOWSKI. I yield back to my colleague.

The PRESIDING OFFICER. The Senator from Idaho.

Mr. CRAIG. Mr. President, the unanimous consent that our chairman has just put before the Senate and has been accepted is good news. It is good news that we can move immediately to consideration of S. 104 starting tomorrow afternoon.

I think it also portends what we all know here, that S. 104 has a substantial majority support in this Senate and the Senators from Nevada recognize, and we appreciate their recognition of the fact, that this is an issue that is of national scope. While I understand and appreciate their strong defense of Nevada, I also can recognize the need to speak nationally about a national problem and the responsiveness of States, like yours and like mine, who wish to find safe, sound, environmentally recognized storage locations for both high-level waste and nuclear spent fuel, to seek that location in the Yucca Mountain facility that is currently under investigation.

What I wish to do this afternoon is address several points that have been raised by my colleagues from Nevada, some of them yesterday, and some of them today. Before I do that, however, I want to turn briefly to the subject of underground nuclear weapons testing. Yesterday, I addressed this body and discussed in general terms the Nevada test site. I referred to a photo which I have here again behind me which is the Nevada test site. I asked my assembled colleagues to consider whether an interim storage site for spent nuclear fuel and waste could really have a detrimental impact on this land. Every one of the pockmarks in the landscape is a product of underground explosions of nuclear devices. This is the most exploded area on the face of the Earth, maybe other than where the late Soviet Union once did its underground testing, once it had stopped its atmospheric testing.

What I am suggesting is that this is not a pristine environment. It is a

place where it is reasonable and responsible, if the kinds of geologic testing that are now going on confirm the fact that we can build an underground deep geologic repository near this location, then we can put an interim storage facility here it would ultimately serve as a receiving and conditioning facility for transferring the waste to the deep underground geologic storage.

Weapons explosions have gone on here for decades. As I listened to my colleague, the senior Senator from Nevada yesterday, I got the sense that he is dead set against any nuclear materials in his State of Nevada. All I have to do is remind the Senators of Nevada, this is Nevada. This is where, for decades, our nuclear testing has gone on, on Federal properties, in that State. Is it not reasonable to assume that the Senate ought to have the right to look at and make consideration of this facility as an interim site?

I recall, however, that last year my colleague from Nevada did support the restart of underground nuclear testing at this very site. Now, Mr. President, I do not mention this to be critical to any Member who supported the testing program—the kind of program which is vital to both States and to our national interests. Defense missions are important, and we have to recognize and balance the issues. When I say that, of course, I defend the right of my colleagues to defend their interest. But it is time we look at national interests in the context and in the balance. Let us talk about what underground nuclear tests involve.

These pockmarks, as you see here, represent the drilling of a deep hole and the exploding of a nuclear device within that. These explosions leave all of these same nuclear components—the same ones that we talked about as being contained in the spent fuel and the high-level waste that we want to dispose of in an underground storage facility near the test site. I suggest, Mr. President, the kind of storage we are talking about is going to be quantum safer, quantum safer, than the kind of explosive activities that went on this terrain during the past decades. Nuclear testing was allowed at this site for decades. To our knowledge it has not caused serious concerns for the water table, or the types of standards we are requiring for a geologic repository at Yucca Mountain.

Now, I ask my colleagues to consider this. I want to quote from my former colleague, the Senator from Louisiana, Bennett Johnston, when we debated this matter last session. This is Senator Bennett Johnston speaking. "If it is safe to conduct hundreds of nuclear tests, it is much more safe to store \* \* \* nuclear waste under Yucca Mountain in containers which themselves pose quite a barrier to any contamination."

Now, I wish to address several comments that I heard yesterday, because I believe some clarification, or even correction, is necessary. We heard from

our Nevada colleagues that the Nuclear Waste Technical Review Board has said that an interim storage facility is simply not needed. For the benefit of my colleagues who were not present at the committee hearing on February 5, I am compelled to quote directly from the Chairman of the Nuclear Waste Technical Review Board, Dr. Cohon, in his testimony before the Energy and Natural Resources Committee. Under the heading of "Key Conclusions," Dr. Cohon said: "A centralized storage facility will be needed."

Let me repeat that. Dr. Cohon, Chairman of the Nuclear Waste Technical Review Board, said: "A centralized storage facility will be needed. Planning for it should begin immediately."

However, he did go on to state: "There are no compelling technical or safety reasons to move spent fuel to a centralized storage facility for the next few years."

"Technical or safety reasons \* \* \*."

Mr. President, you will notice that Dr. Cohon is silent on the other reasons—contractual obligations, lawsuits, failure to implement the 1998 deadline of the current waste act, financial liabilities.

Furthermore, as we all know and the DOE has acknowledged, it will take more than a few years to license and construct an interim storage facility. Even if we were to begin today, right now, immediately, it is still going to take time to make it happen and to make it happen through all of the Federal laws and with an environmentally safe, sound, and acceptable design.

Dr. Cohon testified that steps leading to centralized storage "should begin immediately." That is exactly what Dr. Cohon was speaking of. S. 104 directs that the steps leading to that interim storage be initiated.

Let me quote from the board's second key conclusion on the interim storage: "Significant advantages can be derived from siting a storage facility adjacent to the repository."

That is what the board has said. That is exactly what S. 104 does. For some reason, it is very difficult, if not absolutely incorrect, to portray that S. 104 is somewhere out of step with the current Nuclear Waste Policy Act or with the board's finding—this board of technical and professional people who had been brought together for the purpose of establishing the findings necessary to build a permanent repository.

Dr. Cohon goes on to recommend that an interim storage facility be located at the Nevada Test Site only after site viability is determined.

Mr. President, let me dismiss another allegation from our opponents—that S. 104 short-circuits the viability process. It flat doesn't happen, and the bill doesn't proceed in that manner. S. 104 sites an interim storage facility at the Nevada Test Site after site viability is complete—not before viability, not instead of viability, but after viability. That is what the language of the proposed law says.

I am growing weary of a variety of charges that relate to S. 104 short-circuiting the science of the waste program. That is the argument that has been placed by my opponents, that somehow the scientific progress gets short-circuited. That is unfounded. It is done to create fear among those who have not studied the issue thoroughly. It is always important on issues like nuclear waste and high-level nuclear radioactive materials that science be a major player. Therefore, it is always easy to wave the flag of "no science" and say it is an unsafe action or we should not be doing that. That simply is not the case here; it has never been the case. The scientists have been at the forefront of all of these actions, and they have led the development of the whole process to the point of where we are.

This brings me to another area that has been the subject of misinformation. My guess is that it is just going to be the subject of misinformation throughout the debate—the issue of transportation. During my remarks yesterday, I went through, in some detail, the tests that are required to be performed before the Nuclear Regulatory Commission will license the containers that are used to transport spent nuclear fuel over highways or railways. What I would like to do is repeat that this has never been an issue, and it isn't an issue now. That isn't to say it isn't a political issue; it is a political issue, but it cannot be argued on scientific grounds, on engineering grounds and, most important, after the 2,500 loads of nuclear material that have traveled across this country over the last several decades, it cannot even be argued after the fact that somehow there was an accident that resulted in human injury as a result of radiation. There were accidents, but the containers and the material were totally safe.

We did hear an allegation yesterday that it is so dangerous to transport these materials that we have never successfully licensed a shipping vessel for transportation of spent fuel. The fact is, not only have spent fuel shipping containers been successfully tested and licensed, the Nuclear Regulatory Commission currently has over 20 different types of shipping containers—not 20 different containers, but 20 different types of shipping containers—that it has successfully licensed. Let me repeat that. It has successfully licensed them for use over highways or railways. These are containers that have passed all of the tremendously rigorous tests that I outlined for you yesterday, such as the drop test, the puncture test, the fire test, the water immersion test; all of them have been licensed under those standards.

This brings me to another erroneous charge that I wish to dismiss. It is the charge that these testing requirements are not adequate to meet real-life accidents. Oh, my goodness. I can't imagine that even could be suggested. You don't drop a metal container 50 feet

onto a hard, immovable concrete slab and have that container bounce and stay whole time after time and even suggest that the test itself wasn't real life. It is extraordinary. It is well beyond the norm.

We have heard that the fire test requires a temperature of only 1,475 degrees Fahrenheit and that gasoline fires can burn hotter than this. Well, we need to look at all of the parameters of the fire test to see if it is tough enough for real-life accident conditions.

In response to the gasoline concern, Lawrence Livermore National Laboratory was asked to investigate if the fire temperature required for testing was hot enough. They concluded that when you look at all of the fire parameters, not just temperature, but duration, insulation, how the container is positioned in the flame, look at all of these factors in combination, actual fires would not exceed in overall severity the fire test that the shipping containers must go through. Now, this is one of the best scientific labs in the world. This is the best test that you can create anywhere to check the integrity of the container. After doing so, they said that the container was adequate to meet the standards and the risks involved.

The overall point is that these issues and allegations have been investigated, tested, studied, and, in every case, they have been ultimately debunked. Again, my argument, my premise is that this debate has nothing to do with science, nothing to do with geology, to date, nothing to do with engineering facts. Those have all been established for decades. Those facts are unrefutable. It has everything to do with politics.

There are enough studies and papers on these issues to fill technical libraries at every national laboratory across the country, including the Idaho National Laboratory. It is time to move beyond the hyperbole and scare tactics.

S. 104, the Nuclear Waste Policy Act of 1997, will allow the Government to fulfill the contractual obligation it assumed, under the law passed by this body in 1982. The deadline for action on this obligation is just 9 months away.

S. 104 will resolve the question of what to do with spent nuclear fuel and high-level radioactive waste in a timely manner.

So I urge my colleagues, as we begin this debate tomorrow on S. 104, to recognize that there are facts and there are fictions, and, most important, as is quite typical on this floor, there are politics. The politics of this issue is, you don't want it to happen in your backyard, even if it's now in your backyard. You don't want it to be moved across the country, although we have moved it for years with no human risk from radiation ever having happened. We have the greatest record in the world for transportation. We have built the best science that national engineering can allow. So what is the problem?

Well, the problem is if you can argue the issue long enough and if you can drag your feet long enough, you can bring an industry that provides 20 percent of the electrical power of this country to its knees, because it is the logic of those who substantially oppose the nuclear industry that if you don't responsibly deal with the waste created by that industry, ultimately the American public will no longer tolerate the generation of that waste and the industry itself has to be shut down.

What we are trying to do now is not deal with what I have just said, but deal with the waste we have already created. We have, for four decades in this country, created waste, whether it be defense waste, Government waste, or whether it is commercial spent fuel coming from commercial reactors that generate 20 percent of the electrical output of this country. It is only responsible that we deal with the waste we have, making sure, as other Congresses have concluded, that it is in a single, safe, deep geologic repository where we can rest assured of the kinds of environmental integrity and safety the American public expects.

That is really what S. 104 is all about—Federal obligation, Federal responsibility, liability to taxpayers, sound environmental activity, and wanting to find that single safe repository to which all of the waste from 41 States and over 80 locations can go.

I think it is important that we move ahead in a timely fashion. I am pleased we can move to the debate tomorrow. I hope that we can deal with the necessary amendments that would come up and that by the end of the week, we can move to final passage on this important legislation.

I yield the floor.

Mr. ALLARD. Mr. President, I rise in support of the cloture vote on S. 104. The Nuclear Waste Policy Act of 1997 is a crucial piece of legislation that deserves the support of both sides of Capitol Hill and the administration. It is responsible legislation, necessary legislation, and legislation that when enacted will provide the utmost safety for our constituents.

S. 104 provides for the safe transport of nuclear waste from numerous sites around the Nation to one safe, central location in Yucca Mountain. The Department of Energy must, by November 30, 1998, be accepting waste on an interim basis at the facility. By December 31, 2002, the DOE would be required to apply for authorization to construct a permanent repository at the site.

To put this in context we should examine the alternative to this legislation. Absent this legislation, or action by the courts, costs will continue to be accrued on our constituents. For example, storage of used nuclear fuel at an operating nuclear reactor can cost \$34 to \$50 million. More importantly from Colorado's perspective it is estimated that keeping spent fuel on site where the reactor has shut down can cost \$46

to \$64 million. While Colorado currently has no operating nuclear reactors, they do have one commercial facility that has a shut down nuclear reactor, Ft. St. Vrain. Currently, the costs of storage at Ft. St. Vrain are being paid by DOE, if DOE is forced to pick up similar costs around the Nation, it will be a hefty bill that I'm not sure they can afford. Colorado also is home to Rocky Flats, a facility that formerly made nuclear triggers. That facility also has waste that will ultimately end up at Yucca Mountain.

What other alternatives are there? If the court is forced to decide the issue and they require the Federal Government to pay the cost of onsite storage, American taxpayers would pay \$7.7 billion over the cost of one central temporary storage facility. Furthermore, additional costs from inaction could range from \$40 to \$80 billion. Where would this money come from?

Additionally, if this legislation isn't passed, the next opportunity Coloradoans will have for removal of this material will be in 2015. I find this unacceptable currently. Colorado has waste stored near millions of people on the Front Range. It is a hazard that we should fix, and this legislation is part of fixing that problem.

Both of these sites have waste that will ultimately be shipped to Yucca Mountain. From Ft. St. Vrain there is about 16 metric tons of spent nuclear fuel and from Rocky Flats there is contaminated plutonium that, once it is vitrified, will be sent to Yucca Mountain. My State needs this legislation, and has paid for this legislation, since the inception of the waste fee Colorado has paid roughly \$300,000 to the Nuclear Waste Management Program. We expect the Federal Government to honor its commitment.

Congress has the obligation to support this legislation with or without support from the administration. We have an obligation to act responsibly, even if the administration won't. Once again I thank Mr. CRAIG and Mr. MURKOWSKI for their leadership.

Mr. BRYAN addressed the Chair.

The PRESIDING OFFICER. The Senator from Nevada [Mr. BRYAN] is recognized.

Mr. BRYAN. Mr. President, debate is winding down today. I know we will have an opportunity to debate this issue throughout the next few days. I thought it might be helpful to clarify a statement made by the Senator from Idaho with respect to the canister issue.

The Senator from Nevada has not said that there are not canisters that have been approved, licensed, and used. There are indeed such canisters. The difference is the kind of canisters that are contemplated in the shipments that will be involved in sending some 75,000 metric tons of nuclear waste to a site in Nevada that have not yet been designed and have not yet been produced. So all of the film footage that the Nuclear Energy Institute and its

supporters have used is footage with respect to canisters that would not be used in the kind of massive shipments that are contemplated here.

What is contemplated here is a canister by rail that would accommodate 20 to 24 fuel assemblies. That would be the equivalent weight of about 125 tons; it is a rail cask. And each truck cask would weigh at least 25 tons. So the standards are out there, but they have not yet been designed and built.

There was a reference, at least lately, that the concerns expressed by the Senators from Nevada with respect to the standards that have been proposed for the new enlarged canister are standards that are more than adequate to meet the task, and, indeed, that there may be some scare tactics on our part in referencing those.

Let me just simply indicate that the Livingston, LA, fire—I want to be very clear on this—involved a 1982 train derailment. That is a fact. The circumstances of that accident are not theoretical or hypothetical. They are real. The Nuclear Regulation Commission itself—not a group of Nevada legislators or the scientists that have been engaged by Nevada to argue the case here but the Nuclear Regulatory Commission itself—applied the conditions in the aftermath of the Livingston, LA, fire to the standards that are to be used in this new enlarged cask configuration and acknowledged that the high temperatures in that fire—not a theoretical fire—would cause an NRC-approved cask to fail. In their words, "The radiological hazard would exceed compliance values by up to a factor of four." But the thing that needs to be emphasized—this is not some theoretical, unrealistic, utterly fantastic, farfetched, bizarre set of circumstances that have been conjured up. This relates to a real-life accident in 1982. In that accident, with the fire temperatures that were engendered as a consequence of that derailment applied to the standards which the NRC is proposing for this new canister configuration that would accommodate 20 to 24 fuel assemblies, it would fail. A radiological hazard would be created. That is a statement not by the Senator from Nevada but a statement by the NRC.

Let me make one additional point, if I may, with respect to the transportation issue. As an indication that we are not yet even ready to transport this volume of waste, I think the proponents of S. 104 would have us believe that if through some, in my judgment, irresponsible, reckless act on the part of the Congress to enact this legislation, if this were enacted today, indeed, if the storage facility were opened today, then immediately a mass migration of nuclear waste would occur from the repository sites currently; namely, at the nuclear reactors where they are located and where this flow of shipments began.

I think it is important to try to give some balance because this is not a panacea even if you buy into this corporate welfare program that the nuclear power utilities would have us embrace. I think the words of Dr. Jared Cohon, who is the chairman of the Nuclear Waste Technical Review Board—again, a body created by this Congress, not by some Nevada oversight group—points out:

Developing a storage facility requires more than a siting decision. It also requires the development of a transportation system and developing a transportation infrastructure, including the transportation cap, and enhanced safety capabilities along the routes necessary to move significant amounts of waste will likely take years longer than would be needed to develop a centralized storage facility.

I need to make that point again. I mean, the thrust of this debate—and you will hear much more from our colleagues who are saying that somehow it is a panacea of S. 104, if enacted and signed into law, that immediately the waste will be removed from the reactor sites. That is simply not true. Even if theoretically a site could be opened in the next year or 18 months—and absolutely no one believes that—siting interim storage would require at least 3 or 4 years.

But assume for the sake of argument that the site was available, what Dr. Cohon is telling us is that because we do not have the casks currently in existence—the standards, yes, but not the casks—that it would take us a while to develop the transportation system that would be required; that it will require a few years to get that done.

So all of this talk about the casks that have been depicted on film and all of the discussion about the casks being dropped from 30 feet, 50 feet, 60 feet, or 100 feet, are totally irrelevant. We are talking about casks that will not be used for this purpose. We are talking about a new configuration cask that has not yet been developed, and I think that point needs to be emphasized.

Let me make one other point, if I may, with respect to the notion that somehow because Nevada, responding to a patriotic call during the height of the cold war in 1951, agreed to allow nuclear testing at the Nevada test site—I was in the eighth grade the year the nuclear testing began in Nevada. I have to tell you that it was a different age and a different time than it is today. We were all pretty naive about what that was about. Were we excited? Yes. We all thought it was a great thing. We were on the cutting edge in technology. In those days the nuclear power lobby convinced America that everything would be nuclear, that we would have little reactors in our back yards and planes would be powered by nuclear fuel; locomotives; and, indeed, as was often said, the nuclear power will be so cheap that it can't be measured. That goes back 46 years ago.

In my hometown of Las Vegas, businesses changed their names to atomic groceries, atomic this and that. There

was an atomic hairdoo. Yes. Nevadans sensed that they were being asked to respond to a patriotic call of the Federal Government to respond to a confrontation that we had with a superpower, the Soviet Union. That frightened all of us. I hope that my friends would not suggest that because we responded to that, that there is somehow implicit a duty to accept civilian reactor wastes generated on site, a decision made by local utilities and local customers, and that that somehow be sent to us in Nevada.

I might just say parenthetically with respect to that rather naive world in which we lived in 1951, today every American pays as part of his or her tax dollars to the people who are downwind from those nuclear detonations that we were assured at the time that they were absolutely safe—"Don't worry about it. It is the most exciting thing in the world." We invited members of the fourth estate, the Department of Energy. Then it was called the Atomic Energy Commission. There was a little place. They built bleachers for them called News Nob. Come on up and see for yourselves. This is science. This is exciting stuff, folks.

We sent thousands of our military personnel to a place called Camp Desert Rock, and we dug trenches out there and showed them what the exposure would be like to atmospheric radiation.

Mr. President, if any responsible scientist suggested that that was absolutely safe today, I mean he or she would be hounded out of any kind of scientific academy that exists. We all know now that is dangerous stuff. It is very hazardous, and a lot of people downwind paid with their lives, and paid through genetic damage which they have experienced and suffered from cancers. As a consequence, each of us as taxpayers in America today compensate those victims.

Let me make a distinction, if I may. It has been suggested that somehow because the test sites were used for this purpose, it is an absolutely logical, inescapable conclusion that it should be the repository for this interim site. That is fallacious reasoning.

First of all, we are talking about two entirely different kinds of radioactivity. Remember what we are talking about here with high-level nuclear waste—stuff that by its very definition is deadly for thousands and thousands of years. Nobody quarrels with that in the debate—thousands and thousands of years. We all recall that in the aftermath of dropping two atomic bombs on Japan at the end of World War II—one at Hiroshima and one at Nagasaki—that those two cities did not remain isolated for decades or even a score of years. They were rebuilt immediately. The reason is that it is a different type of radiation. There is no question that there is a radiation hazard in the blinding seconds of the detonation. We have all seen that. But it is not the kind of residual radiation that requires isola-

tion and protection for thousands of years.

Let me make a couple of points. I know the distinguished chairman of the Energy Committee has taken the floor. I can assure him I will be just a couple of minutes.

Here is the difference. Trinity was the first successful atomic detonation in the history of the world at Alamogordo in the New Mexico desert on July 16, 1945. That is the first one. That is when we knew we had a bomb that would work. In order to equate the radioactive equivalent of what is referred to as the fission product inventory that would be stored in Nevada as a result of all of these 75,000 to 85,000 metric tons, it would require the equivalent of 2.3 million nuclear detonations—let me repeat that again: 2.3 million detonations—of the Trinity-sized atomic bomb to create the equivalent of what is proposed to be stored at the Nevada test site.

Placed in another context, because Nevada did agree to host the testing programs, based upon the average yearly testing rate during the period that the Nuclear Weapons Program was operational at the Nevada test site that was approximately 20 nuclear weapons detonations per year, in order to equate to the fission product equivalent of what is being proposed to be shipped here, it required that rate of testing, namely 20 nuclear weapons tests a year, for a period of from 10,000 to 100,000 years. So we are not talking about some finite distinction. We are talking about something that is of a totally different magnitude, a totally different character.

I say to my friends who tried to equate the nuclear testing program during the days of the cold war with storage of high-level nuclear waste from civilian reactors, you are talking about apples and oranges in a literal sense. So we are not talking about the same thing. We are talking about waste that by its very nature is deadly for thousands and thousands of years. No one disagrees with that. We are talking about nuclear detonations which have a totally different type of radioactive footprint and which would require the equivalent of 2.3 million Trinity detonations to get the same equivalency being discussed, or a testing protocol that would call for 20 nuclear detonations a year that would have to last from between 10,000 and 100,000 years to equal what is being proposed to be sent to Nevada.

I just think those two points need to be made.

Mr. President, I yield the floor.

Mr. MURKOWSKI addressed the Chair.

The PRESIDING OFFICER. The Senator from Alaska.

Mr. MURKOWSKI. Mr. President, the parliamentary procedure relative to time on this, in view of the fact that the vote has been vitiated, suggests that we are still bound by our time agreement.

The PRESIDING OFFICER. The Senator may consume as much time as he wishes.

Mr. BRYAN. If the distinguished Senator would yield for a question, I do not intend to offer any more comments today. I don't know of anybody on our side of the aisle who will.

I withhold the comment. I am informed that Senator BUMPERS may take the floor at 5 o'clock. I am not sure whether he will be speaking on this issue, or not. He may very well be. But as long as we can accommodate him, I say to the distinguished chairman that it is not my purpose to hold either the chairman or any other person to a time limit this evening.

Mr. MURKOWSKI. Mr. President, as I understand it, we will be on the bill beginning at 1 o'clock tomorrow. So I assume any Member can come over and speak on this or as if in morning business. With that interpretation, I am going to proceed for a few minutes more. Then that will be my conclusion, at least for today, relative to the topic at hand.

Mr. President, I am very pleased that we have reached an agreement to proceed to the bill, and, as a consequence, starting tomorrow at 1 o'clock, we will have to continue our debate. Many Members on our side have indicated an interest in coming over and being heard.

There are a couple of points I want to make at this time that I think bear a little examination. The other side has indicated that his legislation, S. 104, is unneeded, that it is unwise, that it is unsafe. I just cannot accept that.

First of all, to suggest it is unneeded disregards the obligation we have in a contractual commitment to take this waste in 1998. What good is a Government contract, for Heaven's sakes, if there is no intention, no desire to fulfill that contract?

Mr. President, 16 years have passed. It is clear that the waste will not be taken in 1998 as promised. Yet, the Federal Government has taken from the ratepayers some \$13 billion. And who has it been paid to? It has been paid to the Federal Government. And what has the Federal Government done with it? They have not held it in escrow. They have not held it in abeyance out there, ready to meet their obligation to take the waste in 1998. They put it in the general fund. Under the crazy bookkeeping procedures we have around here, it is going to take a significant appropriation to address this obligation. So, when the other side suggests that it is unneeded, I think we have to look a little bit deeper at the significance of a contractual commitment.

(Mr. HUTCHINSON assumed the chair.)

Mr. MURKOWSKI. There has been a lot of criticism of the nuclear industry out there. What has the nuclear industry done? They provided a reliable source of power. They are the second largest supplier of power generation

next to coal, 22 percent of our Nation's power. They are a dedicated group, highly technical people for the most part, dedicated to providing a reliable, safe source of energy for this country, for 22 percent of our dependents. They entered into a contractual agreement back in 1982. And where have we been since 1982? We have been here. We have been talking about it. We have been discussing. Yes, we have an obligation, but it is not due. It is due now, Mr. President. It is due next year. And we are not ready.

So what are they supposed to do? The other side would suggest, do not do anything now. Put it off. Wait until some time in the future when we have a permanent repository. How much time do we have to wait? Where is the future? The Secretary of Energy says this repository is not going to be ready, a permanent one at Yucca Mountain, until the year 2015. What, do we have to wait another 18 years? That is what the other side would have you believe.

What are the damages associated with the inability of the Government to fulfill its contractual commitment? There is full exposure, full employment for the lawyers. What we have around here is too much speculation. What we need are some facts. And the facts are that we have this stuff all over the country. The chart here shows where it is. We have the stuff spread in 41 States at 80 sites. We are proposing to address it and put it in one safe site. Where is that site? It is where we have held nuclear tests, out in the desert, for 50 years. So, when they say it is unneeded, I have to dispute that. First of all, it is needed because we are in violation of a contractual commitment that the Federal Government entered into in good faith.

What did the court say about it? The court said the Government is liable. They said that last year. The Federal Government is liable to take that waste. If we do not take it, there are going to be damages. How much are the damages? Full employment for the lawyers, it is estimated at \$59 billion.

Nevada is where we propose to put it. We are going to put it in temporary casks, on the surface, until such time as Yucca Mountain's permanent repository is done. We are going to remove it from all these sites around the country and put it in one place. If that is irresponsible, and America's environmental community is opposed to it, then they must be for this.

The other side makes an issue that no environmental group supports this legislation. What do they support? You and I know what they support. They support doing away with the nuclear industry in this country. That is their objective. And what do they propose, to make up that 21, 22 percent of our power generation? They do not want to address that. They say, "Wind power." Fine, I am for wind power. Solar? Fine, I am for solar. You just cannot generate sufficient amounts with the tech-

nology we have. How about hydrogen? Let us go that route? Great. But you have to be in the real world. They want air conditioning, they want the lights to go on. And the nuclear power industry is contributing to this, almost 25 percent of our total energy.

So, when they say it is unneeded, they are absolutely wrong. Do we want to shut down those nuclear plants because they are running out of storage space? They were licensed for so much space. You have seen pictures of those pools. You have seen the spent rods being stored there. That was not permanent storage. It was not designed for permanent storage. Everybody knows that. It was temporary, until such time as the Government could fulfill its contract.

Did the environmental community and the folks who are down at the White House who are opposed to this legislation, who, I might add, have no position on this issue, do they want us to have blackouts on hot summer days? What do they propose in the future, if we do not address this problem of adequate storage on hand when our storage is filled in those pools? Do we want to default on our Federal obligation? I have already talked about that. And, remember, the courts have upheld the obligation of the Federal Government.

What kind of precedent are we setting in this country for those who observe the way Government does business, to ignore the commitment to the ratepayers who have contributed with the expectation that the waste would be taken?

The comment was made by the other side that interim storage in Nevada was unneeded and unsafe. Is it safe to continue to store this waste in the pools that were designed to hold that waste for a temporary timeframe?

One of the Senators from Nevada says that the 100 millirem standard is unsafe. Let us talk about that, because those kinds of speculative arguments excite a lot of people. Again, it is speculation.

The current EPA radiation protection guidance is 500 millirem, 500. EPA is considering making it 100 millirem, to even be more protective. So, the current EPA radiation protection guidance says 500, but we have it at 100 in our bill. Additionally, we provide EPA with the authority to proscribe a stricter standard if needed. As a consequence, to suggest our bill is unsafe defies reality. We are promoting the public health and safety with a higher standard, if indeed it is needed.

We have heard it said that transportation is unsafe. We have shown that nuclear fuel was safely transported across the country every single day of the year, year in and year out, 2,400 shipments for 16 years, from 1979 to 1995, through every State in the Nation except South Dakota and Florida. It has been moving. Why has it been moving? It has been moving from all these different sites. It has been moving from universities that have test reactors, research reactors. It has been moving



from military sites, from Navy sites. It has been moving, moving, moving, and we have not had any accidents.

We talk about what kind of container is going to be involved. Obviously, it is going to be a safe container, the same kind that has moved this material in 2,400 shipments. So that is a bogus argument, to say it is unsafe. We have shown that casks cannot be breached with real world accidents. We have shown there has never been an accident involving the release of radiation. Of course, in Europe, in Asia, they move this stuff all over, all over the world. So, if you want to buy fear tactics, this is probably a good environment to buy them in because there are lots of them around here.

A further statement was made relative to our bill being unwise. I have trouble with that. If it was wise enough, sometime ago, for us to decide that it made sense to develop a permanent repository in Nevada, at a cost of some \$30 billion, which is not a sure thing, then why is it unwise to spend between \$1.5 to \$2 billion to build an interim that can handle the problem until the permanent is ready. If Yucca is not determined to be suitable, then we will have a place for the waste until another site is selected if we pass this bill. Either way, we will need an interim site. So this is a very wise, thoughtful approach.

Much has been made in this debate about the Nuclear Waste Technical Review Board, and what they have said. What the board has told us is that central storage is needed if Yucca comes on line, and that central storage is needed if it does not come on line. There may be disagreements about timing, but the end result is the same. We need interim storage, regardless of what happens with Yucca Mountain. We need it either way, Mr. President. Is it unwise to leave waste? Where are we going to leave the waste, with the status quo? That is what the other side proposes.

Is it wise to leave waste at 80 sites in 41 States in pools that were not designed for long-term storage and to leave it there? How long? Until Yucca's done, 2015 or longer. One State, Connecticut, has guards and fences around the pools of nuclear waste in one of our Senator's neighborhoods, a Senator in this body.

So when they say it is unneeded, unwise, unsafe, I suggest they look at reality and recognize there is, indeed, every reason to believe that it is safe to take it out of 80 sites in 41 States that we have safely transported across this country for over 16 years, and it is certainly needed because the pools are full and many of these reactors will not be able to be relicensed for additional storage, because they do not have any. They will have to shut down.

So I encourage the administration and the environmental community, if you do not like this bill, then come up with an answer. I encourage the environmental community to recognize

that as they address the legitimate concerns we all have over greenhouse gases, increased carbon emissions, where do we look for relief?

We just had a significant portion of the French Parliament here. They were acknowledged. We had a 2-minute recess. They told me in the back they wished us well with our effort to bury our waste. In France, they do not allow you to bury your waste because it is valuable, because they have embarked on a technology called reprocessing where, through a MAX fuel process, they recover the waste associated with those rods that are stored in the pools and they recover the energy in a plutonium form and put it back in the reactor with enriched uranium. Who is addressing the proliferation threat? They are burning theirs. We are proposing to put ours underground. In the meantime we are like ostriches running around saying, "We can't do this, we can't do that."

What are the Japanese doing? The Japanese have taken the French technology which, incidentally, we developed initially when we had proposed to reprocess. We cannot reprocess because we have a policy against reprocessing. But the Japanese have expanded on an effort to be totally independent of imported energy in Japan. What does that do to their industrial economy? It makes it pretty secure. They are going to depend on nuclear energy. If there is any country that has had an experience with nuclear energy that is more sensitive, I do not know what it could be other than Japan.

The Japanese are committed to a \$20 billion to \$24 billion project. I was up there last December. They are building a refueling, reprocessing, state-of-the-art facility. Do you know what they are doing now? They are sending their waste from their nuclear reactors over to France, the French are reprocessing, and the waste goes back vitrified. But they are going to do it themselves in Japan. They are going to recover the plutonium, put it back in the reactors and reduce the proliferation threat, because plutonium has value.

I am not here arguing the case for that. I am simply stating what is happening in the real world with state of the art. France is 70 percent dependent on nuclear power. We cannot even figure out what to do with our waste. The last nuclear plant was built in this country in 1979, 1980. That is where we are. Nobody in his right mind would try and build one today, because the permitting process would simply make it unfeasible, if there is such a word, certainly noneconomic from the standpoint of generating a return.

I can stand here on the floor of the Senate and predict that within 10 years, we will be going to Japan and we will be going to France for the advanced technology associated with disposal of high-level waste. What this administration has done is to allow in nuclear waste from other countries, but it will not address its obligation to the

nuclear power industry to take its waste that it has collected the money for the last 16 years, \$13 billion.

So I hope some of the folks down at the White House reflect a little bit on the obligations that we have made commitments and the reality that we have not performed. It is easy to criticize the nuclear industry with regard to nuclear waste, but let's be realistic and let's recognize, again, that they have performed their obligation. Now they are asking the Federal Government to perform theirs.

I want to conclude my debate today with a little reference on a portion of the statement that was made regarding the Nuclear Waste Technical Review Board and the points made in that debate on the other side.

My distinguished friends and colleagues from Nevada have in their statements, I think, misinterpreted or perhaps misunderstood some of the conclusions associated with the Nuclear Waste Technical Review Board. There has been an assertion that the Nuclear Waste Technical Review Board—which, as has been stated, is a panel of scientists appointed to review the Department of Energy's nuclear waste program—opposes the construction of an interim storage facility. The suggestion is they oppose it. This simply is not true, Mr. President.

Following a February hearing on S. 104, I asked the chairman of the board the following question, and this is from the record:

Those who oppose S. 104 have used the board's report as evidence that "technical and scientific experts" believe that a centralized temporary storage facility will not be needed. Is this the conclusion the board intended people to draw?

The chairman responded:

On the contrary, the board believes that a centralized storage facility will be needed—

Will be needed, Mr. President—

and the generic planning should begin immediately. Significant advantages can be derived from siting a storage facility adjacent to a repository.

OK, adjacent to Yucca Mountain is what S. 104 proposes. The board did state, however:

However, there are no compelling technical or safety reasons to move spent fuel to a centralized facility for the next few years.

I think we have here some questions of timing. "The next few years," the last time I checked, few meant two. In order to be able to move spent fuel in a few years—well, we started this process, and we have been, what, 16 to 17 years now trying to move this process along. We entered into a contract with the nuclear power industry to take it 16 years ago. Here we are today, 1 year away from a mandatory obligation to perform under a contract in 1998, and when is this one going to be ready? 2015. So we have 17, 18 years.

The other side said we should not start now, or they interpret the board's interpretation to mean there is no compelling or safety reason to move



spent fuel to a centralized storage facility in the next few years. If we started today in this process, which is what I hope we will do as soon as the Senate supports passage of this bill, we will not be able to start on this facility until we are into the year 2000. We all know that. So it is a question of timing.

It is only natural that the board begin this process. This is a technical body. They probably have no concept of the lead time legislation must have before it can become law and can result in planned action. Again, 17 years on this process already.

So as we move to the bill, I am willing to offer an amendment that would provide a new schedule for siting construction of the interim facility, recognizing 2 years is not going to do it. This is to take into account the passage of time since introduction of the original legislation. Mr. President, even before this amendment, in response to written questions, the chairman stated something else:

The difference in timing between the board's recommendations and the approach set forth in S. 104 are not substantial.

I think it is fair to say that my friends from Nevada have placed a good deal of faith in the board's judgment, but I would like to point out some of the board's statements that they won't tell you about. At the February hearing, Chairman Cohon stated that:

The board believes that the risks associated with transporting spent fuel are very low—

Very low—

and are likely to remain very low even when the number of shipments increases.

I hope that satisfies my friends from Nevada.

While my colleagues have asserted that nuclear waste can stay just where it is, and that is the position they have taken, the board has stated:

The board believes that one or more centralized spent fuel storage facilities will be needed somewhere if Yucca Mountain proves to be unsuitable for development as a repository.

Where is somewhere, Mr. President? Somewhere is out here at the Nevada site that was used previously for more than 800 nuclear weapons tests over 50 years. That is somewhere. It has to go somewhere. Nobody wants it. This is someplace, contrary to the claims we heard today that the Nuclear Waste Technical Review Board does believe that temporarily centralized storage of nuclear waste is needed and transportation of spent fuel is safe.

The last issue I would like to refute is a question of, well, why not wait until 1998? The administration says it objects to siting a temporary storage facility before 1998 when the viability assessment for Yucca Mountain will be completed. There have been those who asked, "Why can't we just wait for 1998 and pass the legislation then?" I think I have addressed that, but to anybody who has watched this process, the obvious answer is, it is going to take a few

years, more than a few years. It has taken over 2 years since the first introduction of this legislation, and we are still debating on the Senate floor.

S. 104 takes into account the viability assessment. It provides a procedure for choosing an alternative site if it is negative, and S. 104 gives the Department of Energy the authority it needs to begin the year or so of nonsite-specific work necessary to build an interim storage facility. Anyone who believes that the viability assessment will make passing legislation easier is out of touch with reality. The reality is that no one wants nuclear waste stored in their State, whether it be Arkansas or Alaska or Nevada. But we have to put it somewhere.

And this was good enough for 800 nuclear weapons tests over 50 years out in the Nevada desert where they have an experienced work force. They have security. They have the know-how. And it was selected as the best site for a permanent repository. We have expended \$6 billion in a process that ultimately is going to take an expenditure probably of \$30 billion to finish it.

At the committee hearing on Senate bill 104 in February, all four members of the Nevada delegation stated that no level of scientific proof would basically lessen their opposition to this project. I commend them for that; they are doing what they have to do for their State. If it was not Nevada, it would be some other State here.

But we have an obligation to put it somewhere. And that is the bottom line of this whole debate. When we go round and round and round, nobody wants it. We will not reprocess it like Japan, like France, and take advantage of advanced technology to counter proliferation threats. We cannot get the environmental community to responsibly address reprocessing. So we are hell-bent to bury it—as long as we do not bury it anywhere.

The ultimate reality is that the Federal Government has an obligation to start taking this waste next year. The obligation is to move nuclear waste, not to start thinking about how you might take waste in the future.

So, again, I would urge my colleagues to recognize that we have reached a crossroads. The job of fixing this program is ours. The time for fixing it is now. We have it at 80 sites in 41 States, and no one can convince me that is the best procedure to just leave it there.

We have made progress at Yucca. The 5-mile exploratory tunnel is soon going to be complete. And we can build on this progress. This bill continues the site characterization activities for that permanent repository. And do not believe anything else. But we cannot put all our eggs in the Yucca basket. We need this storage facility, this temporary facility now. Otherwise, Mr. President, what we are going to be doing—make no mistake about it; I want every Member to so note—we are going to be leaving it right where it is: in your State. If you are one of the 41

States, leave it right where it is for another generation to come along and debate it, talk about it.

In the meantime, we are leaving it in storage that was not designed for long-term storage. We can choose whether the Nation needs 80 interim storage sites or just one at the Nevada site where we exploded nuclear bombs during the cold war. It is safe. It is remote. It is monitored.

If Yucca is licensed, which I think it will be, it will be an easy task to move the material to the repository. And if Yucca is not licensed or found to be unsuitable, we will need a centralized interim site anyway. So we will be ahead of the game regardless of what happens at Yucca.

Mr. President, this is a step we should take. The time is now. And any attempt to escape this obligation would be unwise. It would be unsafe to fail to address the problem. And what is unneeded is further delay.

Mr. President, I thank you for the courtesy of recognizing me and wish you a good day and yield the floor.

Mr. BUMPERS addressed the Chair.

The PRESIDING OFFICER. The Senator from Arkansas.

Mr. BUMPERS. Mr. President, I came to the U.S. Senate in 1975. At that time, the nuclear debate was raging full blast. "Shall we or shall we not build more nuclear-electrical-generating plants?" I just finished 4 years as Governor of my State. And we had built two nuclear plants up on the Arkansas River. I believe the total cost of both of those plants was \$400 million. It was represented to me at the time, as Governor, that that would be by far the cheapest power we would ever know anything about.

But after I came to the Senate and began to investigate the feasibility and the advisability of taking this country down the nuclear path, I quickly came to the conclusion that I would resist any additional nuclear plants. There was another highlight on the front burner called the Clinch River breeder reactor to be built on the Clinch River down in Tennessee.

I remember in 1981, the Republicans took over this place, and Howard Baker, the Senator from Tennessee, and one of the finest men ever to serve in this body, became majority leader. I was trying to keep any additional nuclear plants from being licensed—and it was not a tough chore. A lot of people had made up their minds at that point that the nuclear option was not a good one. I fought for about 4 years to kill the Clinch River breeder.

But I was up against the majority leader. And as everybody here knows, as the old revenue said, when they announced United States versus Jones, he turned to his lawyer and said, "Them don't sound like very fair odds to me." And it was not very fair odds to go up against the majority leader on the Clinch River breeder, which was going to be built in his beloved Tennessee.

Howard Baker could always just pull out that one extra vote he needed. The

vote was always close, but when you are majority leader, you know, you can just call somebody over and say, "I need your vote," and you usually get it.

Finally, one year I was ahead by about six or seven votes as the votes were being cast, and I think Senator Baker decided that he was done for, and he turned everybody loose that had committed to him who did not really like the idea of the Clinch River breeder reactor and were only voting for it to accommodate him. He turned them loose, and I think we won that day by about 70 to 30. Happily, that was the end of the Clinch River breeder.

I had a group of people from France in my office this afternoon, some politicians and some deeply involved in the electrical industry. They wanted to talk about the new concept of restructuring the electricity industry in this country to go to retail competition. They are doing this in France. They are doing it in Germany and doing it all over Western Europe. And they wanted to talk to me about my bill.

One of them said, "Senator, we understand that you are the Senator who killed the breeder reactor."

"Mais oui."

He said, "If you had it to do over again, would you do it again?"

"You bet."

France is heavily dependent on breeder reactors. But they are also in the business of reprocessing and using MOX to generate power, and so on. I guess I am digressing a little bit to say about the breeder reactor, it is dead, dead; and I am glad it is dead.

The reason I did not like the breeder reactor is the same reason I did not like nuclear power, period. It is wonderful. It is the cleanest power you can have. You see that nice, clear white smoke coming out of those smokestacks in Russellville, AR. And you know there is nothing polluting about that plant.

But if you look inside, if you look inside the plant and you see those fuel rods, you have to ask yourself, since these things are going to be radioactive for thousands of years, how do you dispose of them? That is the reason I turned against nuclear power. I could not figure out a way on Earth that we were going to environmentally, acceptably dispose of those fuel rods.

So now, Mr. President, we are here today debating that very proposition and 35,000 tons of spent nuclear fuel created by the electrical generating companies of this country and thousands of tons more by the Pentagon. It has to be disposed of. And we have been laboring with the question of how we are going to do it. As we lawyers say, "Since the memory of man runneth not." We are doing our very best to keep faith with the people of this country and dispose of it in a way that they will be able to sleep at night.

Let me tell you one other thing. If we dispose of it the way the Senator from Alaska proposes right now, we may be

transporting that stuff all over the country two or three times. And, you know, I live in a little town of 2,500 people, Charleston, AR. You are being addressed right now almost entirely by the South Franklin County Bar Association. I was about the only lawyer in town—it is so little. But if I were a lawyer in Charleston, I would be very apprehensive about all that nuclear power coming from Russellville, AR, right up Highway 22. And the Presiding Officer knows exactly the location I am talking about. Coming right up Highway 22 through Charleston, AR, headed for Yucca Mountain.

So, what did we do? In 1982, we passed a bill called the Nuclear Waste Policy Act. A good bill. We said to the electrical industry in this country, the nuclear electrical industry, that you pay a fee to the U.S. Government every year. We will use your money to find and develop a permanent repository for this nuclear fuel.

We passed the bill. The deal was cut. We started collecting the fees. Both sides operating in ultimate good faith. No shenanigans. You pay us a fee every year and we will use it to find a site. We found a site called Yucca Mountain in the home State of my good friend, the junior Senator from Nevada.

I am on the same side of the Senator from Nevada. And if it were Arkansas instead of Nevada that they were putting it in, I would be like him sitting in my seat on this floor 24 hours a day trying to keep faith with my constituents and saying, what have we done to deserve 35,000 tons of nuclear waste dumped in our backyard? And I am sad about that. It is one of those things. Somebody has to do it.

So we find Yucca Mountain and everybody says this is the best possible site—not the perfect site, may not be the site ultimately chosen—but it is the site we are choosing to start spending this fee the utilities are paying us.

So, what have we done since 1982? We have dug a 5-mile hole, a tunnel in Yucca Mountain in anticipation of it ultimately being decided that it is by far the best place to locate this spent fuel. We have spent \$4.8 billion on that 5-mile hole. And we are going to spend a lot more before it is perfected.

But, Mr. President, the reason we stand here today debating this bill is this. We said to the utility industry, we will take your fuel—we being the U.S. Government, the Energy Department—we will take this 35,000 tons of spent fuel and we will start taking it in about January 1998. That is coming up. It will be here before you know it.

Now, the utilities have been operating in good faith, too. They have been paying their fees in anticipation of getting rid of this stuff which they are storing onsite at their nuclear plants.

Again, the Presiding Officer, I know, has been to those two nuclear sites in Arkansas.

Some of it is lying out in dry casks. Some of it is in water. But it is stored on site. We have 110 nuclear generating

plants in this country and 76 storage sites. For example, we only have one storage site in Russellville, but two generators. That is not uncommon in this country.

So we have the 110 nuclear generating plants generating more and more spent fuel and storing it at a considerable cost to them. There is no denying this is very expensive to the utilities. So they say: A deal is a deal. In 1982 we said we would start paying you, and you said January 1998 you would start taking the fuel off our hands and we could quit building all the facilities and storing it.

It is kind of ominous. Most Senators, I suppose, have been to the nuclear plants and looked at those things. You look at the pool of water, it has a very strange color, and the nuclear rods are in that water. I have never seen a real dry cask they put it in. My legislative director has a small mock-up model of a cask they put it in. What they will be doing, if all goes through according to S. 104, they will take that fuel out of water and put in the steel casks. The casks are big, they are expensive. They will put those fuel rods inside those casks, those that are not already there, and they will start transporting them from all over the United States to Nevada. You lucky dog. They will be transporting them to Nevada in those casks.

What the Senator from Alaska says, "We will pour a gigantic concrete slab and we will carry that stuff out there to Yucca Mountain." Not inside the mountain. This is somewhere around Yucca Mountain. I do not know where. We have the 5-mile tunnel built. We have a little more boring to do. But we will pour the concrete slab, transport the fuel out there, and just leave it out there in the open.

Now, this sounds simple, but it is a pretty expensive undertaking. What it means is if S. 104 passes and the President vetoes it and we override his veto, it will cost about \$4 billion over the next 5 years instead of the \$2 billion we are planning to spend on the permanent repository.

Mr. President, I tell you something interesting that has nothing to do with the debate. If, in August of next year—bear in mind there will be a determination made next August on whether or not Yucca Mountain is suitable. Incidentally, the reason we are here today is because the dates are at cross purposes. We have to start taking the fuel in January, but we do not know whether Yucca Mountain will be determined to be suitable until August of next year. So we are required to start taking the stuff 8 months before we know whether Yucca Mountain will be the ultimate repository. Now, if it is, if next August we find it suitable, there are still a lot of licensing procedures to go through, but basically we are in fat city. Everybody will be happy because Yucca Mountain has been determined to be suitable, and we will take all this waste that S. 104 wants to take out and

put on a concrete slab. In the year 2010 we will start taking it and putting it in that hole, that tunnel in the mountain, and we will seal that sucker up. You think about it. We will put 84,000 tons of spent nuclear fuel in this tunnel in Yucca Mountain and seal that thing. No guards and no monitors walking up and down hallways, putting a Geiger counter on it and see what the radiation is that is coming out of it. We will seal it up forever.

Now, before I get to the end of this tale, let me go back a moment and say this stuff is going to be in Yucca Mountain for thousands and thousands of years. And you know why? Because that is how long it is radioactive. You know what we are debating here today? Ten years. We are saying we cannot wait 10 years to make sensible decisions that affect the lives of every man, woman, and child in America. We have to do it right now because the utility industry is unhappy. They want us to take it now and transport it to Yucca Mountain and get it out of their back door. If they would have listened to me 20 years ago, they would not have a problem because they would not have all that waste. I was not that powerful then. I am not that powerful now either.

But think about this: We are talking about planting 84,000 tons of spent nuclear fuel in Yucca Mountain, to be reposed for thousands and thousands of years, and S. 104 says we cannot wait 10 years to find out. We cannot wait until August of next year to determine whether or not Yucca Mountain is a suitable repository. This is a monumental decision. We are not talking about the Kentucky Derby. We are talking about thousands of tons of lethal spent fuel and how we will dispose of it safely so the American people can sleep at night.

I share the concern of the Senator from Alaska about disposing of this stuff. I am not trying to drag my feet. Everybody knows we have to dispose of this stuff. We are talking about what is the best way to do it. What is in the national interest? What is sensible? What is the safest way to do it?

It is tragic that the Energy Department has to renege on its agreement, but it cannot help it. It was not their fault. It really was not anybody's fault that we did not get this all done by 1998. But the Energy Department says certainly if it is found suitable, we believe we can start taking this stuff by the year 2010 and doing it properly and in a way that everybody will find to be suitable and satisfying.

So what happens under this bill? If Yucca Mountain is found to be unsuitable next August, you have to go ahead and build this thing anyway, this interim storage site, unless the President of the United States finds an alternative site and Congress approves that alternative site all within 2 years. If anybody believes you can do that, hold up your hand. That is an absolutely impossible condition in S. 104. The

President cannot find another site and get Congress to approve that site within 2 years. We have been working on Yucca Mountain forever, and now we are in a posture of finally concluding a happy end to this situation. But even if Yucca Mountain is found to be unsuitable, S. 104 of the Senator from Alaska will still require that every pound of nuclear waste in this country be transported to Yucca Mountain, even though that is not going to be the permanent repository site.

So what happens then? We find another permanent repository site. We will load it all up and bring it back through Charleston, AR, once again. That will make the citizens happy. They already had the daylighters scared out of them bringing the fuel through their hometowns once. Now they will get it again. So why take it in the first place? Why not at least give the administration and the utility industry an opportunity to work out some kind of an arrangement whereby we will pay them—they are suing us now, and frankly they have a good lawsuit. I do not deny that. They have a good lawsuit. We agreed to take it in 1998, and we cannot do it. So we will have to pay.

So my question is why not pay them to leave it where it is for a few months until we can make a decision about the suitability of Yucca Mountain and proceed the way we have been proceeding?

Now, Mr. President, let me just close by making something of a confession. It is tempting to me to support this proposition. I would not vote for S. 104 under any circumstances, but the concept set out in S. 104 makes it very appealing and very attractive. As I say, I would not vote for an interim storage site right now because we are coming up on the time when we will know with some degree of certainty whether or not Yucca Mountain will be the place. Can we not wait? America, this is the central question. Can we not wait 10 years to determine that this is the safest place in the world and the best place in the world to store this stuff for thousands of years? What is 10 years in the scheme of the thousands of years that this stuff will be stored there?

The options are not good either way. I do not blame the utilities for wanting to get rid of the stuff, but I do not blame us for not wanting to take it. It is folly in the extreme for us to take that stuff out there and spend an extra \$2 billion to put in a concrete slab when we know, or will know next August almost to a reasonable degree of certainty, a year from now we will know whether or not we will be able to use Yucca Mountain, and if we are, would it not be infinitely better to transport that fuel one time—not twice, not three times—one time, to put it in a site in which we will all feel comfortable?

Mr. President, I know there are plenty of votes in this place to pass this bill. I know the President will veto it when it is presented to him. We will see

what happens after that. I am trying to call for a degree of sanity and reasonableness and saying I would like to get rid of it, too. Nobody has any stronger desire to get rid of this nuclear waste than I have.

The Senator from Nevada and I will probably be on opposite sides next time. If Yucca Mountain is found to be suitable, you can bet I will vote to put it there. I have not supported the Senators from Nevada because I like them, because they are friends; I supported them because I thought they were right. I have supported the Energy Department and the administration's position on this because I think they are right.

I am asking my colleagues, I know they are getting a lot of pressure on them both from the industry and the party and different people, but I tell you something, when you start playing politics with this issue, I plead for my colleagues to remember, people may disagree with you, but they like people who stand up for what they believe, even when it is not popular. People sometimes say to me, why do you guys not screw up your nerve and do something right, something courageous for a change? I hear that all the time. Do you know what they mean by courageous? Unpopular. If it is popular, it is not courageous.

Here is a bill that is very complicated, and the American people are not homed in on it. The people here know what they are doing. I am asking, for Pete's sake, listen to this debate and do what they think is sensible, in the best interests of the country.

I yield the floor. 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. MURKOWSKI. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

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

#### MORNING BUSINESS

Mr. MURKOWSKI. Mr. President, I ask unanimous consent that there now be a period for the transaction of morning business with Senators permitted to speak therein for up to 5 minutes each.

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

#### THE VERY BAD DEBT BOXSCORE

Mr. HELMS. Mr. President, at the close of business yesterday, Monday, April 7, 1997, the Federal debt stood at \$5,385,190,477,419.92.

Five years ago, April 7, 1992, the Federal debt stood at \$3,891,976,000,000.

Ten years ago, April 7, 1987, the Federal debt stood at \$2,288,906,000,000.

Fifteen years ago, April 7, 1982, the Federal debt stood at \$1,060,872,000,000.