



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

March 8, 2001

MEMORANDUM TO:

Chairman Meserve
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
Commissioner Merrifield

FROM:

Dennis K. Rathbun, Director
Office of Congressional Affairs

SUBJECT:

SENATOR DOMENICI INTRODUCES NUCLEAR ENERGY BILL

On March 7, 2001, Senator Pete V. Domenici (R-NM) introduced S. 472, the Nuclear Energy Electricity Supply Assurance Act of 2001. The Act, which includes the NRC's legislative proposals, is cosponsored by Senators Larry Craig (R-ID), Mike Crapo (R-ID), Bob Graham (D-FL), Chuck Hagel (R-NE), James Inhofe (R-OK), Jon Kyl (R-AZ), Mary Landrieu (D-LA), Blanche Lincoln (D-AR), Frank Murkowski (R-AK), Fred Thompson (R-TN), and George Voinovich (R-OH). Senator Domenici held a press conference on S. 472; Senators Murkowski, Craig and Lincoln attended the press conference with him. Joe Colvin and others from NEI and the nuclear industry attended -- and Senator Domenici gave Mr. Colvin an opportunity to speak to the group. Floor statements, S. 472, press releases from Senator Domenici, Senator Craig, and Joe Colvin are attached.

During the Press Conference Senator Domenici said he hoped as a Nation we could improve conservation efforts, but conservation was not enough to solve our energy problems. He referred to a chart that showed the cost per kilowatt hour for nuclear was cheaper than coal, oil, and gas. Another chart showed locations of nuclear plants throughout the country. Senator Domenici said S. 472 supports nuclear energy production, encourages new plant construction, assures a level playing field for nuclear power, creates waste solutions, and improves the NRC's regulations. Later, he added that the NRC is now regulating the industry properly - - and it was not in the past. Regarding waste, he said we will solve the problem, it is not difficult. He also responded to questions on the transmutation of waste and emphasized that the bill does not include a pilot facility. He added that over the years we should have been doing more with transmutation of spent fuel.

Senator Murkowski said that we have no energy policy and, if we want energy independence and security, we need nuclear power. Senators Craig and Lincoln also spoke in support of the bill and the need to ensure that nuclear power remains a viable energy source. Senator Lincoln said the plants in Arkansas have an excellent safety record.

Attachment: As Stated

cc:	EDO	OGC	NRR	RES	OPA	OIG
	OGC/Cyr	SECY	NMSS	CFO	OIP	ACRS/ACNW

Contact: Linda Portner, 415-1673

CONGRESSIONAL RECORD
SENATE
PAGE S1973
March 7, 2001

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS

By Mr. DOMENICI (for himself, Mrs. LINCOLN, Mr. MURKOWSKI, Ms. LANDRIEU, Mr. CRAIG, Mr. KYL, Mr. CRAPO, Mr. GRAHAM, Mr. THOMPSON, Mr. VOINOVICH, Mr. HAGEL, and Mr. INHOFE):

S. 472. A bill to ensure that **nuclear** \geq **energy** continues to contribute to the supply of electricity in the United States; to the Committee on Energy and Natural Resources.

Mr. DOMENICI. Mr. President, I joined with Senator Murkowski last week when he introduced the National Energy Strategy Act. His Bill addresses the broad range of issues that must underpin a credible approach to our nation's energy needs. It had key provisions for each major source of energy, including **nuclear** \geq **energy**.

I rise today to introduce the **Nuclear** \geq **Energy** Electricity Assurance Act of 2001, which expands and builds on the National Energy Strategy in the specific area of **nuclear** \geq **energy**. It provides a comprehensive framework for insuring that **nuclear** \geq **energy** remains a strong option to meet our future needs. It accomplishes for **nuclear** \geq **energy** what Senator Byrd's National Electricity and Environmental Technology Act does for clean coal technologies, which I also support.

There is no single "silver bullet" that will address our nation's thirst for clean, reliable, reasonably priced, energy sources. That's why the National Energy Strategy Act carefully reinforced the importance of many energy options. Energy is far too important to our economic and military strength to rely on any small subset of the available options.

Both **nuclear** \geq **energy** and coal are now major producers of our electricity. In fact, between them they provide over 70 percent. In both cases, their continued use presents significant risks. They illustrate a fundamental point, that absolutely every source of energy presents both benefits and risks. It's our responsibility to ensure that citizens are presented with accurate information on benefits and risks, information that is free from any political biases. And where risk areas are noted, it's our responsibility to devise programs that mitigate or avoid the risks. Senator Byrd's bill does this for coal technology, my bill does this for **nuclear** \geq **energy**.

Nuclear \geq **energy** now provides about 22 percent of our electricity from 103 nuclear reactors. The operating costs of **nuclear** \geq **energy** are among the lowest of any source. The Utility Data Institute recently reported production costs for nuclear at 1.83 cents per kw-hr, with coal at 2.08 cents per kw-hr.

Through careful optimization of operating efficiencies, the output of nuclear plants has risen dramatically since the 1980's; nuclear plants operated with an amazing 87 percent capacity factor in 2000. Since 1990, with no new nuclear plants, the output of our plants has still increased by over 20 percent. That's equivalent to gaining the output of about 20 new nuclear plants without building any.

Safety has been a vital focus, as evidenced by a constant decrease in the number of emergency shutdowns, or "scrams," in our domestic plants. In 1985, there were 2.4 scrams per reactor, last year there were just 0.03. While some use the Three Mile Island accident to highlight their concerns the fact remains that our safety systems worked at Three Mile Island and no members of the public were harmed.

Another example of the exemplary safety of nuclear reactors, when properly designed and managed, lies with our nuclear navy. They now operate about 90 nuclear powered ships, and over the years, they've operated about 250 reactors in all. In that time, they've accumulated 5,400 reactor-years of operation, over twice the number of reactor-years in our civilian sector. In all that time, they have never had a significant incident with their reactors. They are welcomed into over 150 major foreign ports in over 50 countries.

Interest in our nuclear plants is increasing along with dramatically increased confidence in their ability to contribute to our energy needs. Interest in re-licensing plants, to extend their lifetime beyond the originally planned 40 years, has greatly expanded. The NRC has now approved re-licensing for 5 reactors, and over 30 other reactors have begun the renewal process. Industry experts now expect virtually all operating plants to apply for license extension.

Nuclear energy is essentially emission free. We avoided the emission of 167 million tons of carbon last year or more than 2 billion tons since the 1970's. In 1999, nuclear power plants provided about half of the total carbon reductions achieved by U.S. industry under the federal voluntary reporting program. The inescapable fact is that nuclear energy is making an immense contribution to the environmental health of our nation.

But unfortunately, when it comes to nuclear energy, we're living on our past global leadership. Most of the technologies that drive the world's nuclear energy systems originated here. Much of our early leadership derived from our requirements for a nuclear navy; that work enabled many of the civilian aspects of nuclear power.

Our reactor designs are found around the world. The reprocessing technology used in some countries originated here. The fuel designs in use around the world largely were developed here. This nation provided the global leadership to start the age of nuclear energy.

Now, our leadership is seriously at risk. No nuclear plant has been ordered in the United States in over 20 years. To some extent, this was driven by decreases in energy demand following the early oil price shocks and from public fears about Three Mile Island and Chernobyl. But we also have allowed complex environmental reviews and regulatory stalemates to extend approval and construction times and to seriously undercut prospects for any additional plants.

As a nation, we cannot afford to lose the nuclear energy option until we are ready to specify with confidence how we are going to replace 22 percent of our electricity with some other source offering comparable safety, reliability, low cost, and environmental attributes. We

risk our nation's future prosperity if we lose the nuclear option through inaction. Instead, we need concrete action to secure the nuclear option for future generations. We must not subject the nation to the risk of inadequate energy supplies.

My bill is squarely aimed at avoiding this risk. I appreciate that my co-sponsors: Senators Lincoln, Murkowski, Landrieu, Craig, Graham, Kyl, Crapo, Thompson, Voinovich and Hagel share these concerns and support this bill to address them.

There are five broad aspects of this bill. First, it initiates programs to ensure that the operations of our current nuclear plants remain adequately supported. It authorizes expanded research and educational programs to ensure that we have a qualified workforce supporting nuclear issues. It sets up incentives for companies to increase the efficiency of existing plants. And it assures that the industries supporting our domestic nuclear fuel supplies remain viable.

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Second, it encourages construction of new plants, especially Generation IV plants. Technology to build these plants is close at hand. This bill not only supports research and development on these plants, it also supports development of the regulatory framework within the NRC that must be in place before they can be licensed.

Generation IV plants would

be cost competitive with natural gas, have significantly improved safety features with the goal of passive safety systems that would be immune to human errors, have reduced generation of spent fuel and nuclear waste, and have improved resistance to any possible proliferation.

In the U.S., Exelon Corporation has invested in design of a plant in South Africa that has many of these attributes.

Third, this bill has provisions to secure a level playing field for evaluation of nuclear energy relative to other energy sources. It seeks to avoid any scientifically inaccurate stigmas that have been placed on nuclear energy.

Fourth, this bill seeks to create improved solutions for managing nuclear waste. Our current national policy simply requires that we find a permanent repository for spent fuel. But spent fuel has immense residual energy. Our present plan simply assumes that future generations will be so energy-rich that they would have no interest in this major energy source.

I'm not at all sure that view serves our nation and those future generations very well. I've favored study of alternative strategies for spent fuel. As a minimum we should be doing research now to enable future generations to decide if spent fuel should still be treated as waste, or if it should be treated as a precious energy resource.

Advanced technologies for recycling spent fuel and regaining some of its energy value would also allow us to consider approaches to render the final waste form far less toxic than spent fuel. These approaches require transmutation of the long-lived radioactive species into either short-lived or stable species. This bill includes funding for a research project, based on modern accelerators, to study the economics and engineering aspects of transmutation. There is substantial interest in other countries in joining us in collaborative study of this option.

This accelerator project, almost as an added bonus, can also provide a backup source of the tritium required to maintain our nuclear stockpile. The bill provides for this application. The accelerator program, called Advanced Accelerator Applications or AAA, would also produce radioisotopes for medical purposes and would provide a great test bed for study of many nuclear engineering questions.

Before leaving the part of the bill dealing with spent fuel, let me emphasize how very compact these wastes are already and how much more compact they could be. For example, all the spent fuel rods from the last 40 years of our nation's <nuclear> <energy> production would only fill one football field to a depth of around 4 yards.

If we had encouraged reprocessing of spent fuel in this country, we would have dramatically less high level waste. In France, they reprocess spent fuel, both to reuse some of the residual energy and to extract some of the more inert components. Through their efforts, a container, smaller than two rolls of film, represents the final high level waste for a French family of four for twenty years.

And finally, the fifth and last part of this bill provides streamlining for a number of <Nuclear> <Regulatory> Commission procedures and outdated statutory restrictions.

For example, in a global energy market it makes sense to allow foreign ownership of power and research reactors located in the United States. At the same time, this amendment to the 1954 Atomic Energy Act retains U.S. security precautions in the original law.

Another amendment eliminates time-consuming and unnecessary antitrust review requirements. This section of the bill would also simplify the hearing requirements in a proceeding involving an amendment to an existing operating license or the transfer of an existing license. Further, another provision gives the NRC the authority to establish requirements to ensure that non-licensees fully comply with their obligations to fund nuclear plant decommissioning.

These and other changes to the 1954 Act will assist the NRC in its pursuit of more effective and responsive <regulation> of our domestic <nuclear> plants. These changes to the Atomic Energy Act have the support of the leadership of the NRC Chairman.

Mr. President, this bill enables <nuclear> <energy> to continue to be treated as a viable option for our nation's electricity needs. It would help ensure that future generations continue to enjoy clean, safe, reliable electricity and the many benefits that this energy source will provide.

Mr. President, I am privileged to take a little bit of the Senate's time to talk about something I think is very important. I have been working on this for a long time, but it just wasn't opportune to bring it up and give serious consideration to this issue. With the energy crisis in the United States, people are going to be able to understand that we truly have a shortage in the capacity to produce electricity, which takes care of our homes, feeds our industry, and provides a substantial portion of America's economic prosperity and growth.

So today I am going to talk about a bill I am introducing, with bipartisan support, which essentially tries to bring back to a level playing field for consideration <nuclear> <energy> and new nuclear powerplants.

This bill I am introducing is on my behalf and also for Senators Lincoln, Graham, Thompson, Voinovich, Hagel, Murkowski, Landrieu, Craig, Kyl, and Crapo, I believe I will have another 10 to 12 cosponsors soon, all of whom see the importance of the United States of America making sure we are taking care of all energy, looking out for and moving in the direction of every energy source we have that is safe and at the right level of risk, and that we proceed to develop those for America's future.

One of those that can't be left out, in my opinion, is the entire field of nuclear energy and what is needed to bring America back to a leading role in the world in terms of nuclear power and future generations of nuclear powerplants.

As a precursor to a few remarks, I want to indicate to the Senate, and those interested, that every American ought to be concerned about the fact that America doesn't have enough energy being produced to keep ourselves going at our current rate, much less at the natural growth rate that everybody expects.

My first little exhibit here is a very interesting evaluation and analysis of America's current sources of electricity at the end of 1999. (We don't have a more current one, but it hasn't changed much.) Everybody should know that in the United States coal-burning powerplants produce 51.4 percent of our electricity. Somehow or another, even though coal provides 51 percent, we aren't building very many coal powerplants because we have not moved fast enough with new technology, and there are many who don't want to build any more coal-burning plants, even if we can get their pollution down to a safe and nonrisky rate.

Then if we look at the next big source of electricity, it is nuclear energy, 19.8 percent. Might I say that while this power crisis has come about, the nuclear powerplants in the United States have been producing at a higher rate. They have produced far more electricity without adding any new plants because the regulatory schemes have become reasonable instead of unreasonable and generating capacity has risen. Capacity used to be 70 percent; it is now up to 90. Incidentally, if we had time, we would show you that even during that period of time, the safety record has become better rather than worse. We have a very interesting chart that would show that.

Let's move on. Natural gas, which we are now rapidly building, everywhere I turn and look, people are building a new powerplant with natural gas. A little bit of electricity comes from oil, 3.1 percent. And then hydroelectricity is 8.3 percent. Others sources are in yellow on the chart-and I am telling it like it is. That yellow represents 2.3 percent, solar, wind, biomass, geothermal, and others. Of that yellow, I believe solar and wind are about a half a percent of the 2.3 percent. So there are those who say we can solve our energy problem with those items that are in yellow here. I say, good luck. Let's proceed as rapidly as we can. But I have a hunch that to increase those latter sources to a larger ratio within our energy sources, we will have a long way to go.

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We would have to produce these wind fields with windmills on them beyond anything Americans expect. They expect this should not be the case if we have another way.

Understand that hydroelectricity is a small amount, but it is pretty important. Even in the last administration, they were talking about knocking down some dams so we would have less of

this. Actually, that is pretty risky for America's future.

For those who are wondering where we are in terms of cost, I want to show them something. This is the electricity production costs. My good friend occupying the Chair is from Oklahoma. He produces gas and oil in his State. The best we could do is get information for the end of 1999. The distinguished Senator and those in attendance know that the natural gas price has gone up substantially since 1999. I could not bring more recent cost data because we do not have anything more current.

Since the only thing we want to use is natural gas, we have put an enormous demand on natural gas while those who supply it are struggling to keep pace. So the price of natural gas has gone up in a rather extraordinary manner. I think everybody in this Senate would agree with that. That is because the market is taking hold of a very small portion that is free to be traded and those who own it are saying: What will you pay for it?

That is going up, but even in 1999, here is what it cost Americans. The green line is nuclear power. We see that it is the lowest. In 1999, it is beginning to get even lower than coal-burning powerplants. This next line is oil. One can see it is below natural gas. These are the numbers: Nuclear, 1.83; coal, 2.07; oil, 3.18; and gas, 3.52 cents per kilowatt-hour.

Of course, just because energy is more expensive, it does not mean we should not use it, but I believe the American people over the next 10 to 25 years ought to have a mix so there is a market balance and there is some competition for these various sources of energy. I believe that is why so many Senators have joined in this bill.

I want to quickly tell you what it does. It supports nuclear energy, and it does that in many ways. The Nuclear Energy Research Initiative, called NERI, which is being funded-we are going to authorize it to make sure it continues.

Nuclear energy plant optimization is a few million dollars. This helps certification of these plants for an extended licensure period.

Incidentally, that is happening. We are relicensing them. Those who are doing that are sure they are safe. I wish I had time. I would show you relicensing versus closing them down, which some people would like. This will add an enormous amount of energy over the next 20 to 30 years. I have a chart showing that, but I will not use your time on that.

We also have nuclear energy education support. America used to be not only the leading producer of nuclear power, but we were the leader in all of the science and technology. We moved from the atom bomb to peaceful uses. The great scientists converted it and made nuclear powerplants. These plants are getting more and more modern in the world, yet America is letting our technology and our science sit still. We want to move that ahead in our universities where more people who want to choose engineering and science are given an opportunity to get into the nuclear field because it is important to America's future.

We encourage new plant construction. That will not come overnight, but it is interesting that while the United States debates an issue of what we do with the waste that comes out of the nuclear powerplants-and I am sure the occupant of the chair and most Senators if they study it carefully will clearly come down on the side that this is not a difficult problem-people who do not want nuclear power at all make it a problem. But technically, scientifically, and

safetywise, it is not a problem. It is now a problem because the State of Nevada does not want it, so they are using every political means. That is their prerogative. But somehow, somewhere, America will be moving in the direction of getting that problem solved. We are working on a long-term solution.

Incidentally, in this bill we suggest and create waste solutions. We create an Office for Spent <Nuclear> <Fuel> in the Department. If you have a Department of Energy for the greatest nation on Earth, you surely ought to have within it, on its domestic side of achievements and activities, an office for research on spent <nuclear> <fuel>. Which great country would not have that except us? But we went through 15 years when we threw almost everything nuclear out of the Department of Energy, as if it were not an energy source, as if it would go away.

The spirit and energy of coming back and doing something significant is prompted because the world in the future wants to be free and wants to have production of wealth. People want to be part of a world in which the poor countries should get richer over the next 10, 20, 30 years, not poorer, and America wants to be part of that. We all have to worry about energy supplies.

In South Africa, they are moving ahead with the next generation of a nuclear powerplant that is going to be completely different from the powerplants we have today. We are sending a few people there to help with licensure and regulation, but America should be leading the way. We should be there with the scientists, engineers, and American companies moving to the next generation.

There is a next generation. It is not cooled necessarily by water. There are other ways to cool it. Incidentally, it will have passive safety features so it cannot melt down. That is the one issue everybody puts up when they say do not touch <nuclear> <power> because they want to scare us to death-it might have a meltdown. But this new powerplant cannot do that, as a matter of fundamental design parameters.

In this bill, we are going to create waste solutions. We are looking at an advanced accelerator, called AAA. We are also looking at advanced fuel recycling. Ultimately we may have a whole new way to change the quality of high-level waste through a process called transmutation. The end product will mostly no longer be high-level waste; they will be able to dispose of the products from transmutation in a very easy way.

I was talking about waste. I was going to show the Senate a container we received as a demonstration. This holds the waste from a family of four in France for 20 years-a family of four, year round for 20 years. That is the total waste they generate because they have 80 percent <nuclear> <power>. But here we are making <nuclear> <waste> the most enormous problem in the world, and letting it stop our pursuit of the cleanest, most environmentally friendly source of energy around. If we are looking at balancing environmental needs with energy, nothing beats nuclear.

We also encourage new plant construction in this bill. That means evaluation of options to complete some unfinished powerplants and Generation Four Reactors. These are the next generation. We are funding them to try to catch up.

We are also going to assure a level playing field for <nuclear> <power>. By that I mean it has not been entitled to some of the luxuries of credits in terms of clean air and the like that other forms of energy have. That is going to change.

Last, we are going to improve the NRC regulations.

I close by saying the United States has 103 nuclear powerplants producing 20 percent of our energy.

Let me state how safe <nuclear> <power> is. First, we have about 90 ships at sea that have as part of their structure one or two nuclear powerplants. I want to make sure those who are interested know about these ships sailing the seas with nuclear powerplants. I am talking about nuclear powerplants that are just like the nuclear powerplants that exist in America on this chart. They might be smaller, but they are the same and produce the same kind of power.

In 1954, we put the first one in the ocean. Today, we have them sailing everywhere with that reactor and <nuclear> <fuel> on board. Yet they are permitted to dock all around the world except New Zealand. Does anybody believe they could dock all over the world if they were unsafe? There would be an outcry to put them 80 miles out, but they are right in the docks. They are welcome because they are absolutely safe. There has never been a nuclear accident since 1954 in the entire nuclear Navy history.

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In the end, one of the issues will be what risks we take. Overall, we take fewer risks by using <nuclear> <power> than by almost any other source because we produce dramatic environmental consequences on the plus side with <nuclear> <power>.

Mr. President, I ask unanimous consent that the text of the bill be printed in the RECORD.

There being no objection, the bill was ordered to be printed in the RECORD, as follows:

S. 472

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.-This Act may be cited as the "<Nuclear> <Energy> Electricity Supply Assurance Act of 2001".

(b) TABLE OF CONTENTS.-The table of contents of this Act is as follows:

Sec. 1. Short title; table of contents.

Sec. 2. Findings.

Sec. 3. Definitions.

TITLE I-SUPPORT FOR CONTINUED USE OF <NUCLEAR> <ENERGY>

SUBTITLE A-PRICE-ANDERSON AMENDMENTS

Sec. 101. Short title.

- Sec. 102. Indemnification authority.
- Sec. 103. Maximum assessment.
- Sec. 104. Department of Energy liability limit.
- Sec. 105. Incidents outside the United States.
- Sec. 106. Reports.
- Sec. 107. Inflation adjustment.
- Sec. 108. Civil penalties.
- Sec. 109. Applicability.

SUBTITLE B-LEADERSHIP OF THE OFFICE OF <NUCLEAR> <ENERGY>, SCIENCE, AND TECHNOLOGY AND THE OFFICE OF SCIENCE

- Sec. 111. Assistant Secretaries.

SUBTITLE C-FUNDING OF CERTAIN DEPARTMENT OF ENERGY PROGRAMS

- Sec. 121. Establishment of programs.
- Sec. 122. <Nuclear> <energy> research initiative.
- Sec. 123. <Nuclear> <energy> plant optimization program.
- Sec. 124. Uprating of nuclear plant operations.
- Sec. 125. University programs.
- Sec. 126. Prohibition of commercial sales of uranium and conversion held by the Department of Energy until 2006.
- Sec. 127. Cooperative research and development and special demonstration projects for the uranium mining industry.
- Sec. 128. Maintenance of a viable domestic uranium conversion industry.
- Sec. 129. Portsmouth gaseous diffusion plant.
- Sec. 130. Nuclear generation report.

TITLE II-CONSTRUCTION OF NUCLEAR PLANTS

- Sec. 201. Establishment of programs.
- Sec. 202. Nuclear plant completion initiative.
- Sec. 203. Early site permit demonstration program.
- Sec. 204. <Nuclear> <energy> technology study for Generation IV Reactors.
- Sec. 205. Research supporting regulatory processes for new reactor technologies and designs.

TITLE III-EVALUATIONS OF <NUCLEAR> <ENERGY>

- Sec. 301. Environmentally preferable purchasing.
- Sec. 302. Emission-free control measures under a State implementation plan.

Sec. 303. Prohibition of discrimination against emission-free electricity projects in international development programs.

TITLE IV-DEVELOPMENT OF NATIONAL SPENT ≤NUCLEAR≥ ≤FUEL≥ STRATEGY

Sec. 401. Findings.

Sec. 402. Office of spent ≤nuclear≥ ≤fuel≥ research.

Sec. 403. Advanced fuel recycling technology development program.

TITLE V-NATIONAL ACCELERATOR SITE

Sec. 501. Findings.

Sec. 502. Definitions.

Sec. 503. Advanced Accelerator Applications Program.

TITLE VI-≤NUCLEAR≥ ≤REGULATORY≥ COMMISSION REFORM

Sec. 601. Definitions.

Sec. 602. Office location.

Sec. 603. License period.

Sec. 604. Elimination of foreign ownership restrictions.

Sec. 605. Elimination of duplicative antitrust review.

Sec. 606. Gift acceptance authority.

Sec. 607. Authority over former licensees for decommissioning funding.

Sec. 608. Carrying of firearms by licensee employees.

Sec. 609. Cost recovery from Government agencies.

Sec. 610. Hearing procedures.

Sec. 611. Unauthorized introduction of dangerous weapons.

Sec. 612. Sabotage of nuclear facilities or fuel.

Sec. 613. Nuclear decommissioning obligations of nonlicensees.

Sec. 614. Effective date.

SEC. 2. FINDINGS.

Congress finds that-

- (1) the standard of living for citizens of the United States is linked to the availability of reliable, low-cost, energy supplies;
- (2) personal use patterns, manufacturing processes, and advanced cyber information all fuel increases in the demand for electricity;
- (3) demand-side management, while important, is not likely to halt the increase in energy demand;
- (4)(A) ≤nuclear≥ ≤power≥ is the largest producer of essentially emission-free electricity;

- (B) nuclear energy is one of the few energy sources that controls all pollutants;
- (C) nuclear plants are demonstrating excellent reliability as the plants produce power at low cost with a superb safety record; and
- (D) the generation costs of nuclear power are not subject to price fluctuations of fossil fuels because nuclear fuels can be mined domestically or purchased from reliable trading partners;
- (5) requirements for new highly reliable baseload generation capacity coupled with increasing environmental concerns and limited long-term availability of fossil fuels require that the United States preserve the nuclear energy option into the future;
- (6) to ensure the reliability of electricity supply and delivery, the United States needs programs to encourage the extended or more efficient operation of currently existing nuclear plants and the construction of new nuclear plants;
- (7) a qualified workforce is a prerequisite to continued safe operation of-
- (A) nuclear plants;
- (B) the nuclear navy;
- (C) programs dealing with high-level or low-level waste from civilian or defense facilities; and
- (D) research and medical uses of nuclear technologies;
- (8) uncertainty surrounding the costs associated with regulatory approval for siting, constructing, and operating nuclear plants confuses the economics for new plant investments;
- (9) to ensure the long-term reliability of supplies of nuclear fuel, the United States must ensure that the domestic uranium mining, conversion, and enrichment service industries remain viable;
- (10)(A) technology developed in the United States and worldwide, broadly labeled as the Generation IV Reactor, is demonstrating that new designs of nuclear reactors are feasible;
- (B) plants using the new designs would have improved safety, minimized proliferation risks, reduced spent fuel, and much lower costs; and
- (C)(i) the nuclear facility infrastructure needed to conduct nuclear energy research and development in the United States has been allowed to erode over the past decade; and
- (ii) that infrastructure must be restored to support development of Generation IV nuclear energy systems;
- (11)(A) to ensure the long-term viability of nuclear power, the public must be confident that final waste forms resulting from spent fuel are controlled so as to have negligible impact on the environment; and
- (B) continued research on repositories, and on approaches to mitigate the toxicity of materials entering any future repository, would serve that public interest; and
- (12)(A) the Nuclear Regulatory Commission must continue its stewardship of the safety of our nuclear industry;
- (B) at the same time, the Commission must streamline processes wherever possible to provide timely responses to a wide range of safety, upgrade, and licensing issues;
- (C) the Commission should conduct research on new reactor technologies to support future regulatory decisions; and
- (D) a revision of certain Commission procedures would assist in more timely processing of license applications and other requests for regulatory action.

SEC. 3. DEFINITIONS.

In this Act:

- (1) COMMISSION.-The term "Commission" means the Nuclear Regulatory Commission.
- (2) EARLY SITE PERMIT.-The term "Early Site Permit" means a permit for a site to be a future location for a nuclear plant under subpart A of part 52 of title 10, Code of Federal Regulations.

(3) **≤NUCLEAR≥ PLANT.**-The term "≤nuclear≥ plant" means a ≤nuclear≥ ≤energy≥ facility that generates electricity.

(4) **SECRETARY.**-The term "Secretary" means the Secretary of Energy.

TITLE I-SUPPORT FOR CONTINUED USE OF ≤NUCLEAR≥ ≤ENERGY≥

SUBTITLE A-PRICE-ANDERSON AMENDMENTS

SEC. 101. SHORT TITLE.

This subtitle may be cited as the "Price-Anderson Amendments Act of 2001".

SEC. 102. INDEMNIFICATION AUTHORITY.

(a) **INDEMNIFICATION OF ≤NUCLEAR≥ ≤REGULATORY≥ COMMISSION LICENSEES.**-Section 170c. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(c)) is amended-

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(1) in the subsection heading, by striking "LICENSESES" and inserting "LICENSEES"; and

(2) by striking "August 1, 2002" each place it appears and inserting "August 1, 2012".

(b) **INDEMNIFICATION OF DEPARTMENT OF ENERGY CONTRACTORS.**-Section 170d.(1)(A) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)(1)(A)) is amended by striking ", until August 1, 2002,".

(c) **INDEMNIFICATION OF NONPROFIT EDUCATIONAL INSTITUTIONS.**-Section 170k. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(k)) is amended by striking "August 1, 2002" each place it appears and inserting "August 1, 2012".

SEC. 103. MAXIMUM ASSESSMENT.

Section 170b.(1) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(b)(1)) is amended in the second proviso of the third sentence by striking "\$10,000,000" and inserting "\$20,000,000".

SEC. 104. DEPARTMENT OF ENERGY LIABILITY LIMIT.

(a) **AGGREGATE LIABILITY LIMIT.**-Section 170d. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is amended by striking paragraph (2) and inserting the following:

"(2) **LIABILITY LIMIT.**-In an agreement of indemnification entered into under paragraph (1), the Secretary-

"(A) may require the contractor to provide and maintain the financial protection of such a type and in such amounts as the Secretary shall determine to be appropriate to cover public liability arising out of or in connection with the contractual activity; and

"(B) shall indemnify the persons indemnified against such claims above the amount of the financial protection required, in the amount of \$10,000,000,000 (subject to adjustment for inflation under subsection t.), in the aggregate, for all persons indemnified in connection with the contract and for each nuclear incident, including such legal costs of the contractor as are approved by the Secretary.".

(b) **CONTRACT AMENDMENTS.**-Section 170d. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is amended by striking paragraph (3) and inserting the following:

"(3) CONTRACT AMENDMENTS.-All agreements of indemnification under which the Department of Energy (or its predecessor agencies) may be required to indemnify any person, shall be deemed to be amended, on the date of enactment of the Price-Anderson Amendments Act of 2001, to reflect the amount of indemnity for public liability and any applicable financial protection required of the contractor under this subsection on that date."

SEC. 105. INCIDENTS OUTSIDE THE UNITED STATES.

(a) AMOUNT OF INDEMNIFICATION.-Section 170d.(5) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)(5)) is amended by striking "\$100,000,000" and inserting "\$500,000,000".

(b) LIABILITY LIMIT.-Section 170e.(4) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(e)(4)) is amended by striking "\$100,000,000" and inserting "\$500,000,000".

SEC. 106. REPORTS.

Section 170p. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(p)) is amended by striking "August 1, 1998" and inserting "August 1, 2008".

SEC. 107. INFLATION ADJUSTMENT.

Section 170t. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(t)) is amended-

(1) by designating paragraph (2) as paragraph (3); and

(2) by adding after paragraph (1) the following:

"(2) ADJUSTMENT.-The Secretary shall adjust the amount of indemnification provided under an agreement of indemnification under subsection d. not less than once during each 5-year period following the date of enactment of the Price-Anderson Amendments Act of 2001, in accordance with the aggregate percentage change in the Consumer Price Index since-

"(A) that date of enactment, in the case of the first adjustment under this subsection; or

"(B) the previous adjustment under this subsection."

SEC. 108. CIVIL PENALTIES.

(a) REPEAL OF AUTOMATIC REMISSION.-Section 234Ab.(2) of the Atomic Energy Act of 1954 (42 U.S.C. 2282a(b)(2)) is amended by striking the last sentence.

(b) LIMITATION FOR NONPROFIT INSTITUTIONS.-Section 234A of the Atomic Energy Act of 1954 (42 U.S.C. 2282a) is amended by striking subsection d. and inserting the following:

"d. Notwithstanding subsection a., no contractor, subcontractor, or supplier of the Department of Energy that is an organization described in section 501(c)(3) of the Internal Revenue Code of 1986 that is exempt from taxation under section 501(a) of the Code shall be subject to a civil penalty under this section in any fiscal year in excess of the amount of any performance fee paid by the Secretary during that fiscal year to the contractor, subcontractor, or supplier under the contract under which a violation occurs."

SEC. 109. APPLICABILITY.

(a) INDEMNIFICATION PROVISIONS.-The amendments made by sections 103, 104, and 105 do not apply to a nuclear incident that occurs before the date of enactment of this Act.

(b) CIVIL PENALTY PROVISIONS.-The amendments made by section 108(b) do not apply to a violation that occurs under a contract entered into before the date of enactment of this Act.

SUBTITLE B-LEADERSHIP OF THE OFFICE OF ≤NUCLEAR≥ ≤ENERGY≥, SCIENCE, AND

TECHNOLOGY AND THE OFFICE OF SCIENCE

SEC. 111. ASSISTANT SECRETARIES.

(a) IN GENERAL.-Section 203(a) of the Department of Energy Organization Act (42 U.S.C. 7133(a)) is amended in the matter preceding paragraph (1) by striking "eight" and inserting "ten".

(b) FUNCTIONS.-On appointment of the 2 additional Assistant Secretaries of Energy under the amendment made by subsection (a), the Secretary shall assign-

- (1) to one of the Assistant Secretaries, the functions performed by the Director of the Office of Science as of the date of enactment of this Act; and
- (2) to the other, the functions performed by the Director of the Office of ~~Nuclear~~ ~~Energy~~, Science, and Technology as of that date.

SUBTITLE C-FUNDING OF CERTAIN DEPARTMENT OF ENERGY PROGRAMS

SEC. 121. ESTABLISHMENT OF PROGRAMS.

The Secretary shall establish or continue programs administered by the Office of ~~Nuclear~~ ~~Energy~~, Science, and Technology to-

- (1) support the ~~Nuclear~~ ~~Energy~~ Research Initiative, the ~~Nuclear~~ ~~Energy~~ Plant Optimization Program, and the ~~Nuclear~~ ~~Energy~~ Technology Program;
- (2) encourage investments to increase the electricity capacity at commercial nuclear plants in existence on the date of enactment of this Act;
- (3) ensure continued viability of a domestic capability for uranium mining, conversion, and enrichment industries; and
- (4) support university nuclear engineering education research and infrastructure programs, including closely related specialties such as health physics, actinide chemistry, and material sciences.

SEC. 122. ~~NUCLEAR~~ ~~ENERGY~~ RESEARCH INITIATIVE.

(a) AUTHORIZATION OF APPROPRIATIONS.-There are authorized to be appropriated to the Secretary, for a ~~Nuclear~~ ~~Energy~~ Research Initiative to be managed by the Director of the Office of ~~Nuclear~~ ~~Energy~~, Science, and Technology for grants to be competitively awarded and subject to peer review for research relating to ~~nuclear~~ ~~energy~~-

- (1) \$60,000,000 for fiscal year 2002; and
- (2) such sums as are necessary for fiscal years 2003 through 2006.

(b) REPORTS.-The Secretary shall submit to the Committee on Science and the Committee on Appropriations of the House of Representatives, and to the Committee on Energy and Natural Resources and the Committee on Appropriations of the Senate an annual report on the activities of the ~~Nuclear~~ ~~Energy~~ Research Initiative.

SEC. 123. ~~NUCLEAR~~ ~~ENERGY~~ PLANT OPTIMIZATION PROGRAM.

(a) AUTHORIZATION OF APPROPRIATIONS.-There are authorized to be appropriated to the Secretary for a ~~Nuclear~~ ~~Energy~~ Plant Optimization Program to be managed by the Director of the Office of ~~Nuclear~~ ~~Energy~~, Science, and Technology for a joint program with industry cost-shared by at least 50 percent and subject to annual review by the Secretary of Energy's ~~Nuclear~~ ~~Energy~~ Research Advisory Committee-

- (1) \$15,000,000 for fiscal year 2002; and

(2) such sums as are necessary for fiscal years 2003 through 2006.

(b) **REPORTS.**-The Secretary shall submit to the Committee on Science and the Committee on Appropriations of the House of Representatives, and to the Committee on Energy and Natural Resources and the Committee on Appropriations of the Senate an annual report on the activities of the Nuclear Energy Plant Optimization Program.

SEC. 124. UPDATING OF NUCLEAR PLANT OPERATIONS.

(a) **IN GENERAL.**-The Secretary, to the extent funds are available, shall reimburse costs incurred by a licensee of a nuclear plant as provided in this section.

(b) **PAYMENT OF COMMISSION USER FEES.**-In carrying out subsection (a), the Secretary shall reimburse all user fees incurred by a licensee of a nuclear plant for obtaining the approval of the Commission to achieve a permanent increase in the rated electricity capacity of the licensee's nuclear plant if the licensee achieves the increased capacity before December 31, 2004.

(c) **PREFERENCE.**-Preference shall be given by the Secretary to projects in which a single updating operation can benefit multiple domestic nuclear power reactors.

(d) **INCENTIVE PAYMENTS.**-

(1) **IN GENERAL.**-In addition to payments made under subsection (a), the Secretary shall offer an incentive payment equal to 10 percent of the capital improvement cost resulting in a permanent increase of at least 5 percent in the rated electricity capacity of the licensee's nuclear plant if the licensee achieves the increased capacity rating before December 31, 2004.

(2) **LIMITATION.**-No incentive payment under paragraph (1) associated with any single nuclear unit shall exceed \$1,000,000.

(e) **AUTHORIZATION OF APPROPRIATIONS.**-There is authorized to be appropriated to carry out this section \$15,000,000 for each of fiscal years 2002 and 2003.

SEC. 125. UNIVERSITY PROGRAMS.

(a) **IN GENERAL.**-The Secretary may, as provided in this section, provide grants and other forms of payment to further the national goal of producing well-educated graduates in nuclear engineering and closely related specialties that support nuclear energy programs such as health physics, actinide chemistry, and material sciences.

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(b) **SUPPORT FOR UNIVERSITY RESEARCH REACTORS.**-The Secretary may provide grants and other forms of payments for plant upgrading to universities in the United States that operate and maintain nuclear research reactors.

(c) **SUPPORT FOR UNIVERSITY RESEARCH AND DEVELOPMENT.**-The Secretary may provide grants and other forms of payment for research and development work by faculty, staff, and students associated with nuclear engineering programs and closely related specialties at universities in the United States.

(d) **SUPPORT FOR NUCLEAR ENGINEERING STUDENTS AND FACULTY.**-The Secretary may provide fellowships, scholarships, and other support to students and to departments of nuclear engineering and closely related specialties at universities in the United States.

(e) **AUTHORIZATION OF APPROPRIATIONS.**-There are authorized to be appropriated to carry out this section-

(1) \$34,200,000 for fiscal year 2002, of which-

(A) \$13,000,000 shall be available to carry out subsection (b);

(B) \$10,200,000 shall be available to carry out subsection (c) of which not less than \$2,000,000 shall be available to support health physics programs; and

(C) \$11,000,000 shall be available to carry out subsection (d) of which not less than \$2,000,000 shall be available to support health physics programs; and

(2) such sums as are necessary for subsequent fiscal years.

SEC. 126. PROHIBITION OF COMMERCIAL SALES OF URANIUM AND CONVERSION HELD BY THE DEPARTMENT OF ENERGY UNTIL 2006.

Section 3112(b) of the USEC Privatization Act (42 U.S.C. 2297h-10(b)) is amended by striking paragraph (2) and inserting the following:

"(2) SALE OF URANIUM HEXAFLUORIDE.-

"(A) IN GENERAL.-The Secretary shall-

"(i) sell and receive payment for the uranium hexafluoride transferred to the Secretary under paragraph (1); and

"(ii) refrain from sales of its surplus natural uranium and conversion services through 2006 (except sales or transfers to the Tennessee Valley Authority in relation to the Department's HEU or Tritium programs, minor quantities associated with site cleanup projects, or the Department of Energy research reactor sales program).

"(B) REQUIREMENTS.-Under subparagraph (A)(i), uranium hexafluoride shall be sold-

"(i) in 1995 and 1996 to the Russian Executive Agent at the purchase price for use in matched sales pursuant to the Suspension Agreement; or

"(ii) in 2006 for consumption by end users in the United States not before January 1, 2007, and in subsequent years, in volumes not to exceed 3,000,000 pounds U3O8 equivalent per year."

SEC. 127. COOPERATIVE RESEARCH AND DEVELOPMENT AND SPECIAL DEMONSTRATION PROJECTS FOR THE URANIUM MINING INDUSTRY.

There is authorized to be appropriated to the Secretary \$10,000,000 for each of fiscal years 2002, 2003, and 2004 for-

(1) cooperative, cost-shared, agreements between the Department and the domestic uranium mining industry to identify, test, and develop improved in-situ leaching mining technologies, including low-cost environmental restoration technologies that may be applied to sites after completion of in-situ leaching operations; and

(2) funding for competitively selected demonstration projects with the domestic uranium mining industry relating to-

(A) enhanced production with minimal environmental impact;

(B) restoration of well fields; and

(C) decommissioning and decontamination activities.

SEC. 128. MAINTENANCE OF A VIABLE DOMESTIC URANIUM CONVERSION INDUSTRY.

(a) IN GENERAL.-For Department of Energy expenses necessary in providing to Converdyn Incorporated a payment for losses associated with providing conversion services for the production of low-enriched uranium (excluding imports related to actions taken under the United States/Russia HEU Agreement), there is authorized to be appropriated \$8,000,000 for each of fiscal years 2002, 2003, and 2004.

(b) RATE.-The payment shall be at a rate, determined by the Secretary, that-

(1)(A) is based on the difference between Converdyn's costs and its sale price for providing conversion services for the production of low-enriched uranium fuel; but

(B) does not exceed the amount appropriated under subsection (a); and

(2) shall be based contingent on submission to the Secretary of a financial statement satisfactory to the Secretary that is certified by an independent auditor for each year.

(c) **TIMING.**-A payment under subsection (a) shall be provided as soon as practicable after receipt and verification of the financial statement submitted under subsection (b).

SEC. 129. PORTSMOUTH GASEOUS DIFFUSION PLANT.

(a) **IN GENERAL.**-The Secretary may proceed with actions required to place the Portsmouth gaseous diffusion plant into cold standby condition for a period of 5 years.

(b) **PLANT CONDITION.**-In the cold standby condition, the plant shall be in a condition that-

(1) would allow its restart, for production of 3,000,000 separative work units per year, to meet domestic demand for enrichment services; and

(2) will facilitate the future decontamination and decommissioning of the plant.

(c) **AUTHORIZATION OF APPROPRIATIONS.**-There is authorized to be appropriated to carry out this section-

(1) \$36,000,000 for fiscal year 2002; and

(2) such sums as are necessary for fiscal years 2003, 2004, and 2005.

SEC. 130. NUCLEAR GENERATION REPORT.

(a) **IN GENERAL.**-Not later than 180 days after the date of enactment of this Act, the Commission shall submit to Congress a report on the state of \leq nuclear \geq \leq power \geq generation in the United States.

(b) **CONTENTS.**-The report shall-

(1) provide current and historical detail regarding-

(A) the number of commercial nuclear plants and the amount of electricity generated; and

(B) the safety record of commercial nuclear plants;

(2) review the status of the relicensing process for commercial nuclear plants, including-

(A) current and anticipated applications; and

(B) for each current and anticipated application-

(i) the anticipated length of time for a license renewal application to be processed; and

(ii) the current and anticipated costs of each license renewal;

(3) assess the capability of the Commission to evaluate licenses for new advanced reactor designs and discuss the confirmatory and anticipatory research activities needed to support that capability;

(4) detail the efforts of the Commission to prepare for potential new commercial nuclear plants, including evaluation of any new plant design and the licensing process for nuclear plants;

(5) state the anticipated length of time for a new plant license to be processed and the anticipated cost of such a process; and

(6) include recommendations for improvements in each of the processes reviewed.

TITLE II-CONSTRUCTION OF NUCLEAR PLANTS

SEC. 201. ESTABLISHMENT OF PROGRAMS.

(a) SECRETARY.-The Secretary shall establish a program within the Office of ≤Nuclear≥ ≤Energy≥, Science, and Technology to-

- (1) demonstrate the ≤Nuclear≥ ≤Regulatory≥ Commission Early Site Permit process;
- (2) evaluate opportunities for completion of partially constructed nuclear plants; and
- (3) develop a report assessing opportunities for Generation IV reactors.

(b) COMMISSION.-The Commission shall develop a research program to support ≤regulatory≥ actions relating to new ≤nuclear≥ plant technologies.

SEC. 202. NUCLEAR PLANT COMPLETION INITIATIVE.

(a) IN GENERAL.-The Secretary shall solicit information on United States nuclear plants requiring additional capital investment before becoming operational or being returned to operation to determine which, if any, should be included in a study of the feasibility of completing and operating some or all of the nuclear plants by December 31, 2004, considering technical and economic factors.

(b) IDENTIFICATION OF UNFINISHED NUCLEAR PLANTS.-The Secretary shall convene a panel of experts to-

- (1) review information obtained under subsection (a); and
- (2) identify which unfinished nuclear plants should be included in a feasibility study.

(c) TECHNICAL AND ECONOMIC COMPLETION ASSESSMENT.-On completion of the identification of candidate nuclear plants under subsection (b), the Secretary shall commence a detailed technical and economic completion assessment that includes, on a unit-specific basis, all technical and economic information necessary to permit a decision on the feasibility of completing work on any or all of the nuclear plants identified under subsection (b).

(d) SOLICITATION OF PROPOSALS.-After making the results of the feasibility study under subsection (c) available to the public, the Secretary shall solicit proposals for completing construction on any or all of the nuclear plants assessed under subsection (c).

(e) SELECTION OF PROPOSALS.-

(1) IN GENERAL.-The Secretary shall reconvene the panel of experts designated under subsection (b) to review and select the nuclear plants to be pursued, taking into consideration any or all of the following factors:

- (A) Location of the nuclear plant and the regional need for expanded power capability.
- (B) Time to completion.
- (C) Economic and technical viability for completion of the nuclear plant.
- (D) Financial capability of the offeror.
- (E) Extent of support from regional and State officials.
- (F) Experience and past performance of the members of the offeror in siting, constructing, or operating nuclear generating facilities.
- (G) Lowest cost to the Government.

(2) **REGIONAL AND STATE SUPPORT.**-No proposal shall be accepted without endorsement by the State Governor and by the elected governing bodies of-

- (A) each political subdivision in which the nuclear plant is located; and
- (B) each other political subdivision that the Secretary determines has a substantial interest in the completion of the nuclear plant.

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(f) **REPORT TO CONGRESS.**-

(1) **IN GENERAL.**-Not later than June 1, 2002, the Secretary shall submit to Congress a report describing the reactors identified for completion under subsection (e).

(2) **CONTENTS.**-The report shall-

- (A) detail the findings under each of the criteria specified in subsection (e); and
- (B) include recommendations for action by Congress to authorize actions that may be initiated in fiscal year 2003 to expedite completion of the reactors.

(3) **CONSIDERATIONS.**-In making recommendations under paragraph (2)(B), the Secretary shall consider-

- (A) the advisability of authorizing payment by the Government of Commission user fees (including consideration of the estimated cost to the Government of paying such fees); and
- (B) other appropriate considerations.

(g) **AUTHORIZATION OF APPROPRIATIONS.**-There is authorized to be appropriated to carry out this section \$3,000,000 for fiscal year 2002.

SEC. 203. EARLY SITE PERMIT DEMONSTRATION PROGRAM.

(a) **IN GENERAL.**-The Secretary shall initiate a program of Government/private partnership demonstration projects to encourage private sector applications to the Commission for approval of sites that are potentially suitable to be used for the construction of future nuclear power generating facilities.

(b) **PROJECTS.**-Not later than 60 days after the date of enactment of this Act, the Secretary shall issue a solicitation of offers for proposals from private sector entities to enter into partnerships with the Secretary to-

- (1) demonstrate the Early Site Permit process; and
- (2) create a bank of approved sites by December 31, 2003.

(c) **CRITERIA FOR PROPOSALS.**-A proposal submitted under subsection (b) shall-

- (1) identify a site owned by the offeror that is suitable for the construction and operation of a new nuclear plant; and
- (2) state the agreement of the offeror to pay not less than ½ of the costs of-
 - (A) preparation of an application to the Commission for an Early Site Permit for the site identified under paragraph (1); and
 - (B) review of the application by the Commission.

(d) **SELECTION OF PROPOSALS.**-The Secretary shall establish a competitive process to review and select the projects to be pursued, taking into consideration the following:

- (1) Time to prepare the application.

- (2) Site qualities or characteristics that could affect the duration of application review.
- (3) The financial capability of the offeror.
- (4) The experience of the offeror in siting, constructing, or operating nuclear plants.
- (5) The support of regional and State officials.
- (6) The need for new electricity supply in the vicinity of the site, or proximity to suitable transmission lines.
- (7) Lowest cost to the Government.

(e) COOPERATIVE AGREEMENTS.-The Secretary may enter into cooperative agreements with up to 3 offerors selected through the competitive process to pay not more than ½ of the costs incurred by the parties to the agreements for-

- (1) preparation of an application to the Commission for an Early Site Permit for the site; and
- (2) review of the application by the Commission.

(f) AUTHORIZATION OF APPROPRIATIONS.-There is authorized to be appropriated to carry out this section \$15,000,000 for each of fiscal years 2002 and 2003, to remain available until expended.

SEC. 204. <nuclear> <energy> TECHNOLOGY STUDY FOR GENERATION IV REACTORS.

(a) IN GENERAL.-The Secretary shall conduct a study of Generation IV <nuclear> <energy> systems, including development of a technology roadmap and performance of research and development necessary to make an informed technical decision regarding the most promising candidates for commercial deployment.

(b) UPGRADES AND ADDITIONS.-The Secretary may make upgrades or additions to the <nuclear> <energy> research facility infrastructure as needed to carry out the study under subsection (a).

(c) REACTOR CHARACTERISTICS.-To the extent practicable, in conducting the study under subsection (a), the Secretary shall study <nuclear> <energy> systems that offer the highest probability of achieving the goals for Generation IV <nuclear> <energy> systems established by the <Nuclear> <Energy> Research Advisory Committee, including-

- (1) economics competitive with natural gas-fueled generators;
- (2) enhanced safety features or passive safety features;
- (3) substantially reduced production of high-level waste, as compared with the quantity of waste produced by reactors in operation on the date of enactment of this Act;
- (4) highly proliferation resistant fuel and waste;
- (5) sustainable energy generation including optimized fuel utilization; and
- (6) substantially improved thermal efficiency, as compared with the thermal efficiency of reactors in operation on the date of enactment of this Act.

(c) CONSULTATION.-In conducting the study, the Secretary shall consult with-

- (1) the Commission, with respect to evaluation of regulatory issues; and
- (2) the International Atomic Energy Agency, with respect to international safeguards.

(d) REPORT.-

(1) **IN GENERAL.**-Not later than December 31, 2002, the Secretary shall submit to Congress a report describing the results of the roadmap and plans for research and development leading to a public/private cooperative demonstration of one or more Generation IV ≤nuclear≥ ≤energy≥ systems.

(2) **CONTENTS.**-The report shall contain-

(A) an assessment of all available technologies;

(B) a summary of actions needed for the most promising candidates to be considered as viable commercial options within the five to ten years after the date of the report with consideration of regulatory, economic, and technical issues;

(C) a recommendation of not more than three promising Generation IV ≤nuclear≥ ≤energy≥ system concepts for further development;

(D) an evaluation of opportunities for public/private partnerships;

(E) a recommendation for structure of a public/private partnership to share in development and construction costs;

(F) a plan leading to the selection and conceptual design, by September 30, 2004, of at least one Generation IV ≤nuclear≥ ≤energy≥ system for demonstration through a public/private partnership; and

(G) a recommendation for appropriate involvement of the Commission.

(e) **AUTHORIZATION OF APPROPRIATIONS.**-There are authorized to be appropriated to carry out this section-

(1) \$50,000,000 for fiscal year 2002; and

(2) such sums as are necessary for fiscal years 2003 through 2006.

SEC. 205. RESEARCH SUPPORTING REGULATORY PROCESSES FOR NEW REACTOR TECHNOLOGIES AND DESIGNS.

(a) **IN GENERAL.**-The Commission shall develop a comprehensive research program to support resolution of potential licensing issues associated with new reactor concepts and new technologies that may be incorporated into new or current designs of nuclear plants.

(b) **IDENTIFICATION OF CANDIDATE DESIGNS.**-The Commission shall work with the Office of ≤Nuclear≥ ≤Energy≥, Science, and Technology and the nuclear industry to identify candidate designs to be addressed by the program.

(c) **ACTIVITIES TO BE INCLUDED.**-The research shall include-

(1) modeling, analyses, tests, and experiments as required to provide input into total system behavior and response to hypothesized accidents; and

(2) consideration of new reactor technologies that may affect-

(A) risk-informed licensing of new plants;

(B) behavior of advanced fuels;

(C) evolving environmental considerations relative to spent fuel management and health effect standards;

(D) new technologies (such as advanced sensors, digital instrumentation, and control) and human factors that affect the application of new technology to current plants; and

(E) other emerging technical issues.

(d) **AUTHORIZATION OF APPROPRIATIONS.**-There is authorized to be appropriated to carry out this section-

- (1) \$25,000,000 for fiscal year 2002; and
- (2) such sums as are necessary for subsequent fiscal years.

TITLE III-EVALUATIONS OF <NUCLEAR> <ENERGY>

SEC. 301. ENVIRONMENTALLY PREFERABLE PURCHASING.

(a) ACQUISITION.-For the purposes of Executive Order No. 13101 (3 C.F.R. 210 (1998)) and policies established by the Office of Federal Procurement Policy or other executive branch offices for the acquisition or use of environmentally preferable products (as defined in section 201 of the Executive order), electricity generated by a nuclear plant shall be considered to be an environmentally preferable product.

(b) PROCUREMENT.-No Federal procurement policy or program may-

- (1) discriminate against or exclude nuclear generated electricity in making purchasing decisions; or
- (2) subscribe to product certification programs or recommend product purchases that exclude nuclear electricity.

SEC. 302. EMISSION-FREE CONTROL MEASURES UNDER A STATE IMPLEMENTATION PLAN.

(a) DEFINITIONS.-In this section:

(1) CRITERIA AIR POLLUTANT.-The term "criteria air pollutant" means a pollutant listed under section 108(a) of the Clean Air Act (42 U.S.C. 7408(a)).

(2) EMISSION-FREE ELECTRICITY SOURCE.- The term "emission-free electricity source" means-

(A) a facility that generates electricity without emitting criteria pollutants, hazardous pollutants, or greenhouse gases as a result of onsite operations of the facility; and

(B) a facility that generates electricity using <nuclear> <fuel> that meets all applicable standards for radiological emissions under section 112 of the Clean Air Act (42 U.S.C. 7412).

(3) GREENHOUSE GAS.-The term "greenhouse gas" means a natural or anthropogenic gaseous constituent of the atmosphere that absorbs and re-emits infrared radiation.

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(4) HAZARDOUS POLLUTANT.-The term "hazardous pollutant" has the meaning given the term in section 112(a) of the Clean Air Act (42 U.S.C. 7412(a)).

(5) IMPROVEMENT IN AVAILABILITY.-The term "improvement in availability" means an increase in the amount of electricity produced by an emission-free electricity source that provides a commensurate reduction in output from emitting sources.

(6) INCREASED EMISSION-FREE CAPACITY PROJECT.-The term "increased emission-free capacity project" means a project to construct an emission-free electricity source or increase the rated capacity of an existing emission-free electricity source.

(b) TREATMENT OF CERTAIN STATE ACTIONS AS CONTROL MEASURES.-An action taken by a State to support the continued operation of an emission-free electricity source or to support an improvement in availability or an increased emission-free capacity project shall be considered to be a control measure for the purposes of section 110(a) of the Clean Air Act (42 U.S.C. 7410(a)).

(c) ECONOMIC INCENTIVE PROGRAMS.-

(1) **CRITERIA AIR POLLUTANTS AND HAZARDOUS POLLUTANTS.**-Emissions of criteria air pollutants or hazardous pollutants prevented or avoided by an improvement in availability or the operation of increased emission-free capacity shall be eligible for, and may not be excluded from, incentive programs used as control measures, including programs authorizing emission trades, revolving loan funds, tax benefits, and special financing programs.

(2) **GREENHOUSE GASES.**-Emissions of greenhouse gases prevented or avoided by an improvement in availability or the operation of increased emission-free capacity shall be eligible for, and may not be excluded from, incentive programs used as control measures on the national, regional State, or local level.

SEC. 304. PROHIBITION OF DISCRIMINATION AGAINST EMISSION-FREE ELECTRICITY PROJECTS IN INTERNATIONAL DEVELOPMENT PROGRAMS.

(a) **PROHIBITION.**-No Federal funds shall be used to support a domestic or international organization engaged in the financing, development, insuring, or underwriting of electricity production facilities if the activities fail to include emission-free electricity production facility projects that use <nuclear> <fuel>.

(b) **REQUEST FOR POLICIES.**-The Secretary of Energy shall request copies of all written policies regarding the eligibility of emission-free nuclear electricity production facilities for funding or support from international or domestic organizations engaged in the financing, development, insuring, or underwriting of electricity production facilities, including-

- (1) the Agency for International Development;
- (2) the World Bank;
- (3) the Overseas Private Investment Corporation;
- (4) the International Monetary Fund; and
- (5) the Export-Import Bank.

TITLE IV-DEVELOPMENT OF NATIONAL SPENT <NUCLEAR> <FUEL> STRATEGY

SEC. 401. FINDINGS.

Congress finds that-

(1) before the Federal Government takes any irreversible action relating to the disposal of spent <nuclear> <fuel>, Congress must determine whether the spent fuel should be treated as waste subject to permanent burial or should be considered to be an energy resource that is needed to meet future energy requirements; and

(2) national policy on spent <nuclear> <fuel> may evolve with time as improved technologies for spent fuel are developed or as national energy needs evolve.

SEC. 402. OFFICE OF SPENT <NUCLEAR> <FUEL> RESEARCH.

(a) **DEFINITIONS.**-In this section:

(1) **ASSOCIATE DIRECTOR.**-The term "Associate Director" means the Associate Director of the Office.

(2) **OFFICE.**-The term "Office" means the Office of Spent <Nuclear> <Fuel> Research established by subsection (b).

(b) **ESTABLISHMENT.**-There is established an Office of Spent <Nuclear> <Fuel> Research within the Office of <Nuclear> <Energy> Science and Technology of the Department of Energy.

(c) **HEAD OF OFFICE.**-The Office shall be headed by the Associate Director, who shall be a member of the Senior Executive Service appointed by the Director of the Office of <Nuclear> <Energy> Science and Technology,

and compensated at a rate determined by applicable law.

(d) DUTIES OF THE ASSOCIATE DIRECTOR.-

(1) **IN GENERAL.**-The Associate Director shall be responsible for carrying out an integrated research, development, and demonstration program on technologies for treatment, recycling, and disposal of high-level nuclear radioactive waste and spent <nuclear> <fuel>, subject to the general supervision of the Secretary.

(2) **PARTICIPATION.**-The Associate Director shall coordinate the participation of national <laboratories>, universities, the commercial <nuclear> industry, and other organizations in the investigation of technologies for the treatment, recycling, and disposal of spent <nuclear> <fuel> and high-level radioactive waste.

(3) **ACTIVITIES.**-The Associate Director shall-

(A) develop a research plan to provide recommendations by 2015;

(B) identify promising technologies for the treatment, recycling, and disposal of spent <nuclear> <fuel> and high-level radioactive waste;

(C) conduct research and development activities for promising technologies;

(D) ensure that all activities include as key objectives minimization of proliferation concerns and risk to health of the general public or site workers, as well as development of cost-effective technologies;

(E) require research on both reactor- and accelerator-based transmutation systems;

(F) require research on advanced processing and separations;

(G) include participation of international collaborators in research efforts, and provide funding to a collaborator that brings unique capabilities not available in the United States if the country in which the collaborator is located is unable to provide support; and

(H) ensure that research efforts are coordinated with research on advanced fuel cycles and reactors conducted by the Office of <Nuclear> <Energy> Science and Technology.

(e) **GRANT AND CONTRACT AUTHORITY.**-The Secretary may make grants, or enter into contracts, for the purposes of the research projects and activities described in subsection (d)(3).

(f) **REPORT.**-The Associate Director shall annually submit to Congress a report on the activities and expenditures of the Office that describes the progress being made in achieving the objectives of this section.

SEC. 403. ADVANCED FUEL RECYCLING TECHNOLOGY DEVELOPMENT PROGRAM.

(a) **IN GENERAL.**-The Secretary, acting through the Director of the Office of <Nuclear> <Energy>, Science, and Technology, shall conduct an advanced fuel recycling technology research and development program to further the availability of electrometallurgical technology as a proliferation-resistant alternative to aqueous reprocessing in support of evaluation of alternative national strategies for spent <nuclear> <fuel> and the Generation IV advanced reactor concepts, subject to annual review by the <Nuclear> <Energy> Research Advisory Committee.

(b) **REPORTS.**-The Secretary shall submit to the Committee on Science and the Committee on Appropriations of the House of Representatives and the Committee on Energy and Natural Resources and the Committee on Appropriations of the Senate an annual report on the activities of the advanced fuel recycling technology development program.

(c) **AUTHORIZATION OF APPROPRIATIONS.**-There are authorized to be appropriated to carry out this section-

(1) \$10,000,000 for fiscal year 2002; and

(2) such sums as are necessary for fiscal years 2003 through 2006.

TITLE V-NATIONAL ACCELERATOR SITE

SEC. 501. FINDINGS.

Congress finds that-

- (1)(A) high-current proton accelerators are capable of producing significant quantities of neutrons through the spallation process without using a critical assembly; and
- (B) the availability of high-neutron fluences enables a wide range of missions of major national importance to be conducted;
- (2)(A) public acceptance of repositories, whether for spent fuel or for final waste products from spent fuel, can be enhanced if the radio-toxicity of the materials in the repository can be reduced;
- (B) transmutation of long-lived radioactive species by an intense neutron source provides an approach to such a reduction in toxicity; and
- (C) research and development in this area (which, when the source of neutrons is derived from an accelerator, is called "accelerator transmutation of waste") should be an important part of a national spent fuel strategy;
- (3)(A) nuclear weapons require a reliable source of tritium;
- (B) the Department of Energy has identified production of tritium in a commercial light water reactor as the first option to be pursued;
- (C) the importance of tritium supply is of sufficient magnitude that a backup technology should be demonstrated and available for rapid scale-up to full requirements;
- (D) evaluation of tritium production by a high-current accelerator has been underway; and
- (E) accelerator production of tritium should be demonstrated, so that the capability can be scaled up to levels required for the weapons stockpile if difficulties arise with the reactor approach;
- (4)(A) radioisotopes are required in many medical procedures;
- (B) research on new medical procedures is adversely affected by the limited availability of production facilities for certain radioisotopes; and
- (C) high-current accelerators are an important source of radioisotopes, and are best suited for production of proton-rich isotopes; and
- (5)(A) a spallation source provides a continuum of neutron energies; and
- (B) the energy spectrum of neutrons can be altered and tailored to allow a wide range of experiments in support of nuclear engineering studies of alternative reactor configurations, including studies of materials that may be used in future fission or fusion systems.

SEC. 502. DEFINITIONS.

In this title:

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- (1) OFFICE.-The term "Office" means the Office of Nuclear Energy, Science, and Technology of the Department of Energy.
- (2) PROGRAM.-The term "program" means the Advanced Accelerator Applications Program established under section 503.
- (3) PROPOSAL.-The term "proposal" means the proposal for a location supporting the missions identified for the program developed under section 503.

SEC. 503. ADVANCED ACCELERATOR APPLICATIONS PROGRAM.

- (a) ESTABLISHMENT OF PROGRAM.-The Secretary shall establish a program to be known as the "Advanced Accelerator Applications Program".

(b) **MISSION.**-The mission of the program shall include conducting scientific or engineering research, development, and demonstrations on-

- (1) accelerator production of tritium as a backup technology;
- (2) transmutation of spent ≤nuclear> ≤fuel> and waste;
- (3) production of radioisotopes;
- (4) advanced nuclear engineering concepts, including material science issues; and
- (5) other applications that may be identified.

(c) **ADMINISTRATION.**-The program shall be administered by the Office-

- (1) in consultation with the National Nuclear Security Administration, for all activities related to tritium production; and
- (2) in consultation with the Office of Civilian Radioactive Waste Management, for all activities relating to the impact of waste transmutation on repository requirements.

(d) **PARTICIPATION.**-The Office shall encourage participation of international collaborators, industrial partners, national laboratories, and, through support for new graduate engineering and science students and professors, universities.

(e) **PROPOSAL OF LOCATION.**-

(1) **IN GENERAL.**-The Office shall develop a detailed proposal for a location supporting the missions identified for the program.

(2) **CONTENTS.**-The proposal shall-

- (A) recommend capabilities for the accelerator and for each major research or production effort;
- (B) include development of a comprehensive site plan supporting those capabilities;
- (C) specify a detailed time line for construction and operation of all activities;
- (D) identify opportunities for involvement of the private sector in production and use of radioisotopes;
- (E) contain a recommendation for funding required to accomplish the proposal in future fiscal years; and
- (F) identify required site characteristics.

(3) **PRELIMINARY ENVIRONMENTAL IMPACT ASSESSMENT.**-As part of the process of identification of required site characteristics, the Secretary shall undertake a preliminary environmental impact assessment of a range of sites.

(4) **SUBMISSION TO CONGRESS.**-Not later than March 31, 2002, the Secretary shall submit to the Committee on Energy and Natural Resources and Committee on Appropriations of the Senate and the Committee on Science and Committee on Appropriations of the House of Representatives a report describing the proposal.

(f) **COMPETITION.**-

(1) **IN GENERAL.**-The Secretary shall use the proposal to conduct a nationwide competition among potential sites.

(2) **REPORT.**-Not later than June 30, 2003, the Secretary shall submit to the Committee on Energy and Natural Resources and Committee on Appropriations of the Senate and the Committee on Science and the Committee on Appropriations of the House of Representatives a report that contains an evaluation of competing proposals and a recommendation of a final site and for funding requirements to proceed with construction in future fiscal years.

(g) AUTHORIZATION OF APPROPRIATIONS.-

(1) PROPOSAL.-There is authorized to be appropriated for development of the proposal \$20,000,000 for each of fiscal years 2002 and 2003.

(2) RESEARCH, DEVELOPMENT, AND DEMONSTRATION ACTIVITIES.-There are authorized to be appropriated for research, development, and demonstration activities of the program-

(A) \$120,000,000 for fiscal year 2002; and

(B) such sums as are necessary for subsequent fiscal years.

TITLE VI-~~NUCLEAR~~ ~~REGULATORY~~ COMMISSION REFORM

SEC. 601. DEFINITIONS.

Section 11 of the Atomic Energy Act of 1954 (42 U.S.C. 2014) is amended-

(1) in subsection f., by striking "Atomic Energy Commission" and inserting "~~Nuclear~~ ~~Regulatory~~ Commission";

(2) by redesignating subsection jj. as subsection ll.; and

(3) by adding at the end the following:

"jj. FEDERAL NUCLEAR OBLIGATION.-The term `Federal nuclear obligation´ means-

"(1) a nuclear decommissioning obligation;

"(2) a fee required to be paid to the Federal Government by a licensee for the storage, transportation, or disposal of spent ~~nuclear~~ ~~fuel~~ and high-level radioactive waste, including a fee required under the ~~Nuclear~~ ~~Waste~~ Policy Act of 1982 (42 U.S.C. 10101 et seq.); and

"(3) an assessment by the Federal Government to fund the cost of decontamination and decommissioning of uranium enrichment facilities, including an assessment required under chapter 28 of the Energy Policy Act of 1992 (42 U.S.C. 2297g).

"kk. NUCLEAR DECOMMISSIONING OBLIGATION.-The term `nuclear decommissioning obligation´ means an expense incurred to ensure the continued protection of the public from the dangers of any residual radioactivity or other hazards present at a facility at the time the facility is decommissioned, including all costs of actions required under rules, regulations and orders of the Commission for-

"(1) entombing, dismantling and decommissioning a facility; and

"(2) administrative, preparatory, security and radiation monitoring expenses associated with entombing, dismantling, and decommissioning a facility."

SEC. 602. OFFICE LOCATION.

Section 23 of the Atomic Energy Act of 1954 (42 U.S.C. 2033) is amended by striking "; however, the Commission shall maintain an office for the service of process and papers within the District of Columbia".

SEC. 603. LICENSE PERIOD.

Section 103c. of the Atomic Energy Act of 1954 (42 U.S.C. 2133(c)) is amended-

(1) by striking "c. Each such" and inserting the following:

"c. LICENSE PERIOD.-

"(1) IN GENERAL.-Each such"; and

(2) by adding at the end the following:

"(2) COMBINED LICENSES.-In the case of a combined construction and operating license issued under section 185(b), the initial duration of the license may not exceed 40 years from the date on which the Commission finds, before operation of the facility, that the acceptance criteria required by section 185(b) are met."

SEC. 604. ELIMINATION OF FOREIGN OWNERSHIP RESTRICTIONS.

(a) COMMERCIAL LICENSES.-Section 103d. of the Atomic Energy Act of 1954 (42 U.S.C. 2133(d)) is amended by striking the second sentence.

(b) MEDICAL THERAPY AND RESEARCH AND DEVELOPMENT.-Section 104d. of the Atomic Energy Act of 1954 (42 U.S.C. 2134(d)) is amended by striking the second sentence.

SEC. 605. ELIMINATION OF DUPLICATIVE ANTITRUST REVIEW.

Section 105 of the Atomic Energy Act of 1954 (42 U.S.C. 2135) is amended by striking subsection c. and inserting the following:

"c. CONDITIONS.-

"(1) IN GENERAL.-A condition for a grant of a license imposed by the Commission under this section in effect on the date of enactment of the Nuclear Assets Restructuring Reform Act of 2001 shall remain in effect until the condition is modified or removed by the Commission.

"(2) MODIFICATION.-If a person that is licensed to construct or operate a utilization or production facility applies for reconsideration under this section of a condition imposed in the person's license, the Commission shall conduct a proceeding, on an expedited basis, to determine whether the license condition-

"(A) is necessary to ensure compliance with section 105a.; or

"(B) should be modified or removed."

SEC. 606. GIFT ACCEPTANCE AUTHORITY.

(a) IN GENERAL.-Section 161g. of the Atomic Energy Act of 1954 (42 U.S.C. 2201(g)) is amended-

(1) by inserting "(1)" after "(g)";

(2) by striking "this Act;" and inserting "this Act; or"; and

(3) by adding at the end the following:

"(2) accept, hold, utilize, and administer gifts of real and personal property (not including money) for the purpose of aiding or facilitating the work of the Commission."

(b) CRITERIA FOR ACCEPTANCE OF GIFTS.-

(1) IN GENERAL.-Chapter 14 of title I of the Atomic Energy Act of 1954 (42 U.S.C. 2201 et seq.) is amended by adding at the end the following:

"SEC. 170C. CRITERIA FOR ACCEPTANCE OF GIFTS.

"(a) IN GENERAL.-The Commission shall establish written criteria for determining whether to accept gifts under section 161g.(2).

"(b) CONSIDERATIONS.-The criteria under subsection (a) shall take into consideration whether the acceptance of a gift would compromise the integrity of, or the appearance of the integrity of, the Commission or any officer or employee of the Commission."

(2) CONFORMING AMENDMENT.-The table of contents of the Atomic Energy Act of 1954 (42 U.S.C. prec. 2011) is amended by adding at the end of the items relating to chapter 14 the following:

"Sec. 170C. Criteria for acceptance of gifts."

SEC. 607. AUTHORITY OVER FORMER LICENSEES FOR DECOMMISSIONING FUNDING.

Section 161i. of the Atomic Energy Act of 1954 (42 U.S.C. 2201(i)) is amended-

(1) by striking "and (3)" and inserting "(3)"; and

(2) by inserting before the semicolon at the end the following: ", and (4) to ensure that sufficient funds will be available for the decommissioning of any production or utilization facility licensed under section 103 or 104b., including standards and restrictions governing the control, maintenance, use, and disbursement by any former licensee under this Act that has control over any fund for the decommissioning of the facility".

SEC. 608. CARRYING OF FIREARMS BY LICENSEE EMPLOYEES.

(a) IN GENERAL.-Chapter 14 of title I of the Atomic Energy Act of 1954 (42 U.S.C. 2201 et seq.) (as amended by section 606(b)) is amended-

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(1) in section 161, by striking subsection k. and inserting the following:

"k. authorize to carry a firearm in the performance of official duties such of its members, officers, and employees, such of the employees of its contractors and subcontractors (at any tier) engaged in the protection of property under the jurisdiction of the United States located at facilities owned by or contracted to the United States or being transported to or from such facilities, and such of the employees of persons licensed or certified by the Commission (including employees of contractors of licensees or certificate holders) engaged in the protection of facilities owned or operated by a Commission licensee or certificate holder that are designated by the Commission or in the protection of property of significance to the common defense and security located at facilities owned or operated by a Commission licensee or certificate holder or being transported to or from such facilities, as the Commission considers necessary in the interest of the common defense and security;" and

(2) by adding at the end the following:

"SEC. 170D. CARRYING OF FIREARMS.

"(a) AUTHORITY TO MAKE ARREST.-

"(1) IN GENERAL.-A person authorized under section 161k. to carry a firearm may, while in the performance of, and in connection with, official duties, arrest an individual without a warrant for any offense against the United States committed in the presence of the person or for any felony under the laws of the United States if the person has a reasonable ground to believe that the individual has committed or is committing such a felony.

"(2) LIMITATION.-An employee of a contractor or subcontractor or of a Commission licensee or certificate holder (or a contractor of a licensee or certificate holder) authorized to make an arrest under paragraph (1) may make an arrest only-

"(A) when the individual is within, or is in flight directly from, the area in which the offense was committed; and

"(B) in the enforcement of-

"(i) a law regarding the property of the United States in the custody of the Department of Energy, the Commission, or a contractor of the Department of Energy or Commission or a licensee or certificate holder of the Commission;

"(ii) a law applicable to facilities owned or operated by a Commission licensee or certificate holder that are designated by the Commission under section 161k.;

"(iii) a law applicable to property of significance to the common defense and security that is in the custody of a licensee or certificate holder or a contractor of a licensee or certificate holder of the Commission; or

"(iv) any provision of this Act that subjects an offender to a fine, imprisonment, or both.

"(3) OTHER AUTHORITY.-The arrest authority conferred by this section is in addition to any arrest authority under other law.

"(4) GUIDELINES.-The Secretary and the Commission, with the approval of the Attorney General, shall issue guidelines to implement section 161k. and this subsection."

(b) CONFORMING AMENDMENT.-The table of contents of the Atomic Energy Act of 1954 (42 U.S.C. prec. 2011) (as amended by section 7(b)(2)) is amended by adding at the end of the items relating to chapter 14 the following:

"Sec. 170D. Carrying of firearms."

SEC. 609. COST RECOVERY FROM GOVERNMENT AGENCIES.

Section 161w. of the Atomic Energy Act of 1954 (42 U.S.C. 2201(w)) is amended-

(1) by striking ", or which operates any facility regulated or certified under section 1701 or 1702,";

(2) by striking "483a of title 31 of the United States Code" and inserting "9701 of title 31, United States Code,";
and

(3) by inserting before the period at the end the following: ", and, commencing October 1, 2002, prescribe and collect from any other Government agency any fee, charge, or price that the Commission may require in accordance with section 9701 of title 31, United States Code, or any other law".

SEC. 610. HEARING PROCEDURES.

Section 189a.(1) of the Atomic Energy Act of 1954 (42 U.S.C. 2239(a)(1)) is amended by adding at the end the following:

"(C) HEARINGS.-A hearing under this section shall be conducted using informal adjudicatory procedures established under sections 553 and 555 of title 5, United States Code, unless the Commission determines that formal adjudicatory procedures are necessary-

"(i) to develop a sufficient record; or

"(ii) to achieve fairness."

SEC. 611. UNAUTHORIZED INTRODUCTION OF DANGEROUS WEAPONS.

Section 229a. of the Atomic Energy Act of 1954 (42 U.S.C. 2278a(a)) is amended in the first sentence by inserting "or subject to the licensing authority of the Commission or to certification by the Commission under this Act or any other Act" before the period at the end.

SEC. 612. SABOTAGE OF NUCLEAR FACILITIES OR FUEL.

Section 236a. of the Atomic Energy Act of 1954 (42 U.S.C. 2284(a)) is amended-

(1) in paragraph (2), by striking "storage facility" and inserting "storage, treatment, or disposal facility";

(2) in paragraph (3)-

(A) by striking "such a utilization facility" and inserting "a utilization facility licensed under this Act"; and

(B) by striking "or" at the end;

(3) in paragraph (4)-

(A) by striking "facility licensed" and inserting "or ≤nuclear> ≤fuel> fabrication facility licensed or certified"; and

(B) by striking the period at the end and inserting "; or"; and

(4) by adding at the end the following:

"(5) any production, utilization, waste storage, waste treatment, waste disposal, uranium enrichment, or ≤nuclear> ≤fuel> fabrication facility subject to licensing or certification under this Act during construction of the facility, if the person knows or reasonably should know that there is a significant possibility that the destruction or damage caused or attempted to be caused could adversely affect public health and safety during the operation of the facility;"

SEC. 613. NUCLEAR DECOMMISSIONING OBLIGATIONS OF NONLICENSEES.

(a) IN GENERAL.-The Atomic Energy Act of 1954 is amended by inserting after section 241 (42 U.S.C. 2015) the following:

"SEC. 242. NUCLEAR DECOMMISSIONING OBLIGATIONS OF NONLICENSEES.

"(a) DEFINITION OF FACILITY.-In this section, the term `facility` means a commercial nuclear electric generating facility for which a Federal nuclear obligation is incurred.

"(b) DECOMMISSIONING OBLIGATIONS.-After public notice and in accordance with section 181, the Commission shall establish by rule, regulation, or order any requirement that the Commission considers necessary to ensure that a person that is not a licensee (including a former licensee) complies fully with any nuclear decommissioning obligation."

(b) CONFORMING AMENDMENT.-The table of contents of the Atomic Energy Act of 1954 (42 U.S.C. prec. 2011) is amended by inserting after the item relating to section 241 the following:

"Sec. 242. Nuclear decommissioning obligations of nonlicensees."

SEC. 614. EFFECTIVE DATE.

(a) IN GENERAL.-Except as provided in subsection (b), this title and the amendments made by this title take effect on the date of enactment of this Act.

(b) RECOMMISSIONING AND LICENSE REMOVAL.-The amendment made by section 613 takes effect on the date that is 180 days after the date of enactment of this Act.

Mrs. LINCOLN. Mr. President, today I join Senator DOMENICI in introducing the ≤Nuclear> ≤Energy> Electricity Assurance Act of 2001. Simply put, this bill is designed to ensure that ≤nuclear> ≤energy> remains a viable energy source well into the future of this country.

The ≤Nuclear> ≤Energy> Electricity Assurance Act of 2001 has many important provisions and I will talk specifically about a couple of them today.

We should pursue innovative technologies to reduce the amount of ≤nuclear> ≤waste> that we will eventually have to store permanently in a geologic repository. Technologies such as

<nuclear> <waste> reprocessing would allow us to recycle about 75 percent of the <nuclear> <waste> we have today. And there are technologies such as transmutation that would increase the percentage of recycled waste even further. This bill establishes a new national strategy for <nuclear> <waste> by creating the Office of Spent <Nuclear> <Fuel> Research and beginning the Advanced Fuel Recycling Technology Development Program within the Department of Energy to study and focus on achievable <nuclear> <fuel> reprocessing initiatives. A strong <nuclear> <fuel> reprocessing program is necessary to ensure we can make <nuclear> <fuel> a truly renewable fuel source. It simply makes sense.

In my home State of Arkansas, we have one nuclear powerplant located just outside the small town of Dardanelle. This facility has provided safe, clean, emission-free power to all Arkansans for many years, and I aim to see that it remains for many more. This bill will help ensure that this happens by providing incentive funding for utilities to invest in increased efficiency and capacity of each nuclear powerplant.

This bill takes safe, legitimate steps toward bringing more <nuclear> <power> online, providing incentives to increase <nuclear> <power> efficiency, and strengthening the pursuit of needed reprocessing technologies. I look forward to the debate on this bill and providing this Nation with a safe, economical, and environmentally safe energy supply.

Mr. MURKOWSKI. Mr. President, I rise today to congratulate Senator Domenici on the introduction of his very fine bill regarding <nuclear> <energy> in this country. He has been a strong advocate of strengthening and reassessing the US approach to nuclear technologies and this bill goes a long way toward attaining these goals. Senator Domenici has been an active participant in all aspects of nuclear production, nonproliferation and our nation's security and has been very helpful to me in my role as Chairman of the Energy and Natural Resources Committee. He has always been supportive of efforts to deal with our nation's <nuclear> <waste> and recently co-sponsored my "National Energy Security Act of 2001," a bipartisan approach to ensuring our nation's energy security.

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Senator Domenici's bill is significant because it addresses both short-term and long-term issues. Our bills share many provisions, including: renewal of the Price-Anderson Act, authorizations for <Nuclear> <Energy> Research Initiative, NERI, <Nuclear> <Energy> Plant Optimization, NEPO, and <Nuclear> <Energy> Technology Programs, NETP, encouraging <nuclear> <energy> efficiencies, and creation of an office of spent <nuclear> <fuel> research.

Short-term goals of increasing efficiencies are especially important in a time when this country is running short of generation capacity. What is happening in California could happen elsewhere and we need to ensure we get the most of existing generation. In 1999, U.S. nuclear reactors achieved close to 90 percent efficiency. Total efficiency increases during the 1990's at existing plants was the equivalent of adding approximately twenty-three 1,000 megawatt power plants. And keep in mind, that is all clean, non-emitting generation. Despite what environmentalists want you to think, nuclear is clean. It is the largest source of U.S. emission free generation, producing approximately 70 percent of our nation's clean-burning generation in 1999.

In addition, Senator Domenici's bill encourages and funds long-term progress in nuclear issues. If we are to have a viable nuclear industry in the future, we must have properly educated

and trained professionals. To achieve that goal, Senator Domenici's bill encourages education in the hard sciences by funding recommendations made by the <Nuclear> <Energy> Research Advisory Committee to support nuclear engineering. Senator Domenici's bill also encourages developing waste solutions, a problem that has bedeviled the industry since the first fuel rods were removed from a commercial plant. The federal government said it would take responsibility for this waste but has yet to do so. Senator Domenici's "Office of Spent <Nuclear> <Fuel> Research" would develop a national strategy for spent fuel, including the study of reprocessing and transmutation. The bill also includes authorization for advanced accelerator applications and advanced fuel recycling technology development.

Unless this nation is able to address the <nuclear> <waste> issue, we are in danger of losing the nuclear option. And in this time of increasing demand for clean, stable, reliable sources of energy, we just can't afford to lose <nuclear> <energy>. <Nuclear> <energy> is on the upswing. Four or five years ago, who would have thought we would hear talk of buying and selling plants and even building new plants. But it is happening! In this deregulated environment, nuclear plants are becoming hot commodities, if you will pardon the pun.

And US industry is actually putting its money where its mouth is. By the end of 2001, Chicago-based Exelon Corporation will have invested \$15 million in a South African venture to build a pebble bed modular reactor. Designed to be simpler, safer, and cheaper than current light-water reactors, these pebble bed reactors have captured the attention of several companies and the NRC and Senator Domenici's bill will help to smooth the path for new reactor technologies.

If we ever hope to achieve energy security and energy independence in this country, we cannot abandon the nuclear option. It is an important and integral part of our energy mix. Our economy depends on <nuclear> <energy>. Our national security depends on <nuclear> <energy>. Our environment depends on <nuclear> <energy>. Our future depends on <nuclear> <energy>.

If we do not create reasonable energy diversity with an increased reliance on nuclear generation, we endanger ourselves, our future, and our children's future.

Ms. LANDRIEU. Mr. President, today I rise as an original co-sponsor of the <Nuclear> <Energy> Electricity Supply Assurance Act of 2001. I commend the senior Senator from New Mexico for his passion and persistence on this issue.

The U.S. is currently experiencing unusually high and volatile energy prices. Residents of my state of Louisiana as well as citizens across the country are facing abnormally high gas prices this winter and cannot pay their bills. While there are some steps we can take in the short run to help, the situation is complex in nature and any attempt at an overall solution will require a number of different remedies over the long run focusing on both the supply and demand side of the equation.

The need to increase our domestic supply of energy is apparent. One of the great strengths of the electric supply system in this country is the contribution that comes from a variety of fuels such as coal, nuclear, natural gas, hydropower, oil and renewable energy. The diversity of available fuels we have at our disposal should enable us to balance cost, availability and environmental impacts to the best advantage. Unfortunately, we have not made adequate use of this supply.

While most of the attention this winter has focused on the role of natural gas, coal and <nuclear> <energy> actually both make a larger contribution to the electricity supply system of the United States, representing approximately 55 and 20 percent respectively of our nation's electricity supply. Each of the above mentioned sources of electricity has unique advantages and disadvantages. While it would not be wise to rely too heavily on any single fuel for its electricity, we must not allow our misconceptions to dissuade us from ignoring others altogether.

One source of energy which I believe we are not making proper use of is <nuclear> <power>. There are currently 103 <nuclear> <power> plants in this country but no new plants have been ordered since 1978. Two of these plants are located in my state of Louisiana where <nuclear> <power> generates 15 percent of the electricity. We have witnessed firsthand the numerous benefits of <nuclear> <energy>.

First, <nuclear> <energy> is efficient and cost effective due to low operating costs and high plant performance. Also, <nuclear> <energy> is reliable in that it is not subject to unreliable weather or climate conditions, unpredictable cost fluctuations or dependence on foreign suppliers. Thirdly, contrary to popular perception, <nuclear> <energy> has perhaps the lowest impact on the environment including air, land, water and wildlife of any energy source because it emits no harmful gases into the environment, isolates its waste from the environment and requires less area to produce the same amount of electricity as other sources. Finally, although many people associate the issue of <nuclear> <power> with the accident at Three Mile Island in 1979, its safety record has been excellent, particularly in comparison with other major commercial energy technologies.

The bill being introduced today will help provide <nuclear> <power> with its proper place in the energy policy debate taking place in our country. Three of the more important provisions contained in this legislation are: the encouragement of new plant construction through loan guarantees to complete unfinished plants; the assurance of a level playing field for <nuclear> <power> by making it eligible for federal "environmentally preferable" purchasing programs and research supporting regulations for new reactor designs with proper focus on safety and efficiency.

Over the next several months the members of the United States Senate will engage in a critical debate over the future of our nation's energy policy. I look forward to participating in this discussion and advocating for the important role of <nuclear> <power>. While development of <nuclear> <power> alone will not take care of our energy needs, it should be part of the answer.

Mr. CRAIG. Mr. President, I am very pleased to stand with my friend and colleague, Senator PETE DOMENICI, as an original cosponsor of the <Nuclear> <Energy> Electricity Supply Assurance Act of 2001. Following on the heels of the introduction of the comprehensive energy bill last week, this bill takes a closer look at <nuclear> <energy> specifically and lays out a concrete plan to secure the continued viability of <nuclear> <energy>, our largest source of emissions, free electricity.

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Let me also note that I am very pleased that this is a bipartisan effort. I appreciate my colleagues from across the aisle who are joining with us in acknowledging that it is vital to take steps now in support <nuclear> <energy> and thereby, help to increase our energy

independence.

The <Nuclear> <Energy> Electricity Supply Assurance Act of 2001 is a package of measures which help our current energy situation by supporting <nuclear> <energy> research and development, by encouraging new plant construction, by assuring a level playing field for <nuclear> <power> by acknowledging <nuclear>'s clean air benefits, and by improving the <regulatory> process. Although the bill does not explicitly address the <nuclear> <waste> repository at Yucca Mountain, the bill does create an Office of Spent <Nuclear> <Fuel> Research at the Department of Energy and provides for research into advanced <nuclear> <fuel> recycling technologies such as those being studied at Argonne National Laboratory in Idaho.

If my colleagues are wondering why it is important that we address the energy issue, they need look no further than the headlines. However, I would like to bring my colleagues' attention to a study that was recently released on the subject of energy. The Center for Strategic and International Studies here in Washington, DC, recently released its study entitled, "The Geopolitics of Energy into the 21st Century." Their findings are sobering and I want to take a moment to highlight some of their conclusions. I do this to provide the global context for our energy picture and to explain why it is so critical that this <nuclear> <energy> bill and the comprehensive energy package introduced last week receive our full attention.

This study on the geopolitics of energy found that during the next 20 years, energy demand is projected to expand more than 50 percent and that electricity will continue to be the most rapidly growing sector of energy demand. Energy supply, not simply reductions in demand, will need to be expanded substantially to meet this demand growth and that the choice of primary fuel used to supply power plants will have important effects on the environment. Interestingly, this growth in demand will not be fueled primarily by the United States, as some might think. Developing economies in Asia and in Central and South America will show the greatest increase in consumption.

The study points out that although the world drew some portion of its energy supplies from unstable countries and regions throughout much of the twentieth century, by the year 2020, fully 50 percent of estimated total global oil demand will be met from countries that pose a high risk of internal instability. Furthermore, the study concludes that a crisis in one or more of the world's key energy-producing countries is highly likely at some point between now and the year 2020.

Given these predictions, I am alarmed by our current dependence on imported energy. I think it represents a very serious vulnerability in our energy picture. This situation makes it critical that the Senate act on energy legislation, to put in place the long term steps that will help us climb out of the energy deficit we find ourselves in. Problems, such as the current energy crisis, that have been years in the making will not be remedied overnight, but we need to start taking steps now to improve what we can.

Taking constructive steps to strengthen our energy picture is what the <Nuclear> <Energy> Electricity Supply Assurance Act of 2001 is about. One of the first steps to be taken, is to recognize the tremendous contribution that <nuclear> <energy> already is making to our domestic energy picture. I think my colleagues might be surprised to hear that the U.S. nuclear industry is considered the strongest in the world. Measured in terms of output, the U.S. nuclear program is as large as the programs of France and Japan combined. <Nuclear> <energy>

recently replaced coal as having the lowest electricity production cost, approximately 1.83 cents.

The process for extending nuclear power plant licenses has been successfully demonstrated by the Nuclear Regulatory Commission. Two plants have been successfully relicensed and three more are in the process now. Additionally, the nuclear industry continues to improve the efficiency of its currently operating nuclear plants. During the past 10 years, these gains in efficiency have added 23,000 megawatts to the power grid. This is the equivalent of adding 23 additional 1,000 megawatt power plants. This additional power has satisfied approximately 30 percent of the growth in U.S. electricity demand during the 1990s.

What I have not mentioned in all this, is the important contribution nuclear energy makes in meeting clean air goals. If this nuclear generation were not in place, some other carbon-emitting source of generation would probably be taking its place. In fact, if you look at the portfolio of emission-free power generation in the U.S., nuclear energy comprises about 69 percent of our emission-free power, with hydroelectric power making up about 29 percent and the remaining less than 2 percent is made up by geothermal, wind and solar.

The Nuclear Energy Electricity Supply Assurance Act of 2001 will authorize the exploration of advanced nuclear reactor designs which meet the goals of being economic, having enhanced safety features, while also reducing the production of spent fuel. The development of "Generation Four" nuclear reactors is something I am really excited about because much of the work done so far on Generation Four reactor design has been done at the Idaho National Engineering and Environmental Laboratory and at Argonne West National Laboratory in my home state of Idaho. One of the reasons I am so optimistic about the ability of this country to tackle these tough energy challenges is the good work that I have seen coming out of our laboratories. When we unleash our best minds on these issues, really wonderful ideas come forth. That kind of creativity and initiative is what this bill is attempting to harness.

I am excited to be a part of this bill and I thank Senator DOMENICI for partnering with me early on in the development of this bill and soliciting my input. I think we have a good product. As we move forward, I am sure we will receive additional innovative ideas. That is the challenge to all of us as we address our energy crisis-bringing the best ideas to bear. This bill is a good start to that process.

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News Release

Senator Pete V. Domenici

FOR IMMEDIATE RELEASE

MARCH 7, 2001

DOMENICI INTRODUCES NUCLEAR ENERGY BILL TO FOSTER GREATER ELECTRIC GENERATION, WASTE MANAGEMENT

WASHINGTON -- U.S. Senator Pete Domenici today called on the nation to abandon its old fears over nuclear energy, and embrace new nuclear energy technologies that hold the potential for helping ease the nation out of its energy woes.

Domenici today introduced the **Nuclear Energy Electricity Assurance Act of 2001** that expands and builds on the National Energy Strategy (NES) in the specific area of nuclear energy. The legislation, which has bipartisan support, contains a comprehensive set of provisions aimed at fostering greater use of nuclear energy while supporting advanced research into technologies to minimize wastes created by this environmentally friendly energy source.

“As a nation, we cannot afford to lose the nuclear energy option until we are ready to specify with confidence how we are going to replace 22 percent of our electricity with some other source offering comparable safety, reliability, low cost, and environmental attributes,” Domenici said. “We risk our nation’s future prosperity if we lose the nuclear option through inaction. Instead, we need concrete action to secure the nuclear option for future generations. We must not subject the nation to the risk of inadequate energy supplies.”

The bill includes five major components to: support nuclear energy production; encourage new plant construction; assure a level playing field for nuclear power; create waste solutions; and, improve Nuclear Regulatory Commission (NRC) regulations.

The legislation authorizes \$406 million for these initiatives, including \$120 million for the advanced accelerator applications (AAA) program aimed at tapping the immense residual energy in spent fuel. Currently, the federal government allocates \$131 million for these activities, including \$68 million for AAA and accelerator protection of tritium programs (APT).

Currently 103 U.S. nuclear reactors provide about 22 percent of the nation’s electricity. The operating costs of nuclear energy are among the lowest of any source. The Utility Data Institute recently reported production costs for nuclear energy at 1.83 cents per kilowatt-hour, with coal second at 2.08 cents per kilowatt-hour.

Domenici noted that nuclear energy is essentially emission free, with this power source avoiding the emission of 167 million tons of carbon last year or more than 2 billion

tons since the 1970's. In 1999, nuclear power plants provided about half of the total carbon reductions achieved by U.S. industry under the federal voluntary reporting program.

“Despite contributions to the nation’s environmental health and a solid safety record, the United States has basically abandoned its leadership in the field of nuclear energy. We’ve erected so many regulatory hurdles that there hasn’t been a single new nuclear power plant built in more than 20 years,” Domenici said.

“Nuclear energy is not the end all, be all of our energy needs. In fact, there is no single silver bullet that will solve our nation’s thirst for clean, reliable, reasonably priced, energy sources,” he said. “Nuclear energy is just one subset. Our job is to objectively weigh the risks and benefits of this energy source, and take action to tap into that power. I believe it is important to our long-term economic and military strength.”

The bill is a continuation of an initiative outlined by Domenici in an October 1997 speech at the Harvard University Belfer Center for Science and International Affairs, in which he called for a national dialogue on nuclear issues, and aired concerns about the U.S. nuclear policies in relation to domestic energy requirements, and national and global security.

The following is a brief summary of the Nuclear Energy Electricity Assurance Act:

Support for Nuclear Energy

- ▶ Renews the expiring Price Anderson Law, providing essential liability coverage for nuclear activities.
- ▶ Elevates DOE directors for Nuclear Energy and Science to Assistant Secretary levels.
- ▶ Authorizes \$60 million for Nuclear Energy Research Initiative, and \$15 million for Nuclear Energy Plant Optimization.
- ▶ Authorizes \$32.4 million to implement Nuclear Energy Research Advisory Committee recommendations on meeting the serious deficiencies in U.S. university programs supporting nuclear engineering education.
- ▶ Authorizes \$15 million for incentives for utilities to make capital investments to improve plant efficiency to increase electrical capacity by at least 5 percent.
- ▶ Authorizes \$18 million to keep viable domestic mining and conversion industries.
- ▶ Authorizes \$36 million to place the Portsmouth, Ohio, gaseous diffusion plant into cold standby, correcting actions to accomplish this goal by the Clinton administration that have since been deemed illegal by the General Accounting Office.
- ▶ Requires a NRC report on the status of new and re-licensed plants, including recommendations for NRC process improvements.

Encourage New Plant Construction

- ▶ Authorizes \$3 million for DOE to study opportunities to complete unfinished plants and quickly add power to our electrical grids.

- ▶ Authorizes \$50 million for DOE R&D on the Generation IV reactor program.
- ▶ Authorizes \$25 million, not derived from user fees, for NRC research supporting development of a regulatory framework for new reactor designs.
- ▶ Authorizes \$15 million for DOE to utilize the NRC Early Site Permit process for up to three demonstration sites in order to validate the NRC process, and create a “bank” of locations that are pre-approved by NRC for siting of a nuclear power plant.

Assure a Level Playing Field for Nuclear Power

- ▶ Qualifies electricity generated by nuclear power plants as meeting the definition of an “environmentally-preferable” product required under section 201 of *Executive Order 13101*, meaning no federal procurement policy may discriminate against nuclear generated electricity.
- ▶ Allows State Implementation Plans for the Environmental Protection Agency to include economic incentives to ensure continued operation or new construction of emission-free power sources.
- ▶ Asserts that no federal funds can support domestic or international organizations that exclude nuclear energy from consideration in projects they support.

Develop Waste Solutions

- ▶ Authorizes the development of a national strategy for spent fuel, including study of reprocessing and transmutation of spent fuel (Title III of S.1287 in the 106th Congress).
- ▶ Authorizes \$120 million for a DOE program on advanced accelerator applications, including R&D on ATW, APT, radioisotopes, and nuclear engineering research—with an aim of establishing a high current accelerator.
- ▶ Authorizes \$10 million for a DOE R&D program on electrometallurgical technologies in support of alternative strategies for spent fuel and the Generation IV reactor program.

Improve NRC Regulations

- ▶ Eliminates exclusion of foreign ownership of power and research reactors in the United States.
- ▶ Stops duplicative antitrust review requirements.
- ▶ Simplifies the NRC hearing requirements involving an amendment to existing operating licenses, or the transfer of existing operating licenses.
- ▶ Gives the NRC authority to ensure that non-licensees fully comply with obligations for nuclear plant decommissioning.
- ▶ Authorizes assorted other provisions to improve NRC efficiency, including making it a federal crime to sabotage certain facilities, if the action could jeopardize public health or safety.



UNITED STATES SENATOR • IDAHO

LARRY CRAIG

NEWS RELEASE

For Immediate Release
March 7, 2001

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CRAIG SPONSORS NUCLEAR ENERGY BILL

Legislation Focuses on Research and Development and Secures Future of Nuclear Energy

WASHINGTON, DC - Today Idaho Senator Larry Craig helped introduce as an original cosponsor the bipartisan Nuclear Energy Electricity Supply Assurance Act of 2001, which lays out a plan of action to secure the continued role of nuclear energy in our nation's energy portfolio. Specifically, the bill steps up energy research and development, encouraging new plant construction, acknowledging nuclear's clean air benefits, and improving the regulatory process. The bill creates an Office of Spent Nuclear Fuel Research at the Department of Energy and provides for research into advanced nuclear fuel recycling technologies, such as those being studied at Argonne National Laboratory in Idaho.

"Newspaper headlines across the nation and the energy bills in the mailboxes of consumers spell out our critical need for an energy policy that doesn't fall apart, and this bill is a solid move in the direction of establishing the nuclear energy component of a national energy policy," said Craig. "Given the environmental ethic and technological advancements of the United States, there is no excuse for our country's current energy dependence on foreign nations who may be unstable suppliers over the long term," continued Craig.

Nuclear energy is the largest source of emissions-free electricity, accounting for 69 percent of the emission-free power generation portfolio in the U.S. Hydroelectric power makes up about 29 percent, and the remaining less than 2 percent is made up by geothermal, wind and solar. The Nuclear Energy Electricity Supply Assurance Act of 2001 builds on the National Energy Security Act of 2001 (S388-389), which Craig also helped introduce late last month.

"The combination of the two bills sets in motion both short and long term steps that will help us climb out of the energy deficit we find ourselves in. This energy crisis has been years in the making, and will not be remedied overnight, but we need to start taking steps now to improve what we can," said Craig.

The bill would also significantly expand current exploration of the next generation - called "Generation 4" - advanced nuclear reactor designs.

"The development of "Generation 4" nuclear reactors is something I'm really excited about because much of the work done so far has been coordinated at the Idaho National Engineering and Environmental Laboratory and Argonne West National Laboratory in my home state of Idaho," said Craig. "The results so far, along with the international collaboration that is taking place under the Generation 4 initiative, are very encouraging. This bill will take the preliminary Generation 4 results and expand them into a meaningful research and development program. These new and innovative technologies are what it's going to take to put our energy policy on the right track," concluded Craig.

01-08

Contact NEI's media relations staff at 202/739-8000 during business hours or 703/644-8805 after hours and weekends.

Sen. Domenici's Nuclear Energy Legislation Is Bold Stroke for Secure U.S. Energy Future

WASHINGTON, D.C., March 7, 2001—U.S. Sen. Pete Domenici (R-N.M.) today introduced landmark federal legislation designed to ensure that nuclear energy continues to contribute to the supply of electricity in the United States. The Nuclear Energy Institute's president and chief executive officer, Joe F. Colvin, made the following statement in response to Domenici's introduction of the Nuclear Energy Electricity Supply Assurance Act of 2001.



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“The nuclear energy industry commends Senator Domenici for his leadership in supporting an electricity technology that is vital to our nation’s hopes of enjoying a strong, secure energy future. Nuclear energy is the United States’ leading emission-free source of electricity, and is the only expandable, large-scale electricity source that does not emit air pollutants and can meet the baseload energy demands of a growing, modern economy.

“As cosponsors of this visionary legislation, Senators Larry Craig, Mike Crapo, Bob Graham, Chuck Hagel, Jon Kyl, Mary Landrieu, Blanche Lincoln, Frank Murkowski, Fred Thompson and George Voinovich also deserve recognition. Their bipartisan support for nuclear energy’s inclusion in a diverse energy portfolio serves our country in good stead.

“Senator Domenici’s legislation provides concrete steps to set our nation on a sound energy course for decades to come. Notably, the legislation has a large scope—from improving the efficiency of existing power plants, to an early site permit demonstration program to help achieve new power plant construction at three sites, to denoting nuclear power as an ‘environmentally preferable’ product for federal purchasing programs. All are solid, common-sense proposals.

“Energy is a real-world, every day need for each and every American. Individual consumers, small businesses and major industrial customers alike depend on a ready, reliable supply of affordable electricity. As recent events in California have shown, millions of jobs and our nation’s economic well-being are put at risk when the electricity supplies that the digital economy demands are not available.

-more-

Nuclear Energy Bill Is Bold Stroke for Economy, Environment

Page 2 of 2

“Senator Domenici recognizes the nation’s long-term need for nuclear power in a diverse portfolio of energy sources. The comprehensive legislation that he has introduced today is a bold stroke to assure a strong role for nuclear energy in our nation’s electricity infrastructure, and the industry calls upon other members of the Senate to support it.”

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The Nuclear Energy Institute is the nuclear energy industry's Washington-based policy organization. This news release and additional information about nuclear energy are available at <http://www.nei.org>