

## **Groups File Office of Hearings and Appeals Petition on DOE/Idaho Delays in Releasing ATR Documents**

**On** September 30, 2010 the Environmental Defense Institute (EDI) and Keep Yellowstone Nuclear Free (KYNF) filed a formal Petition with the Office of Hearings and Appeals to direct the Department of Energy/Idaho (DOE/ID) to release all documents requested under the groups' Freedom of Information Act (FOIA) request.

At issue is EDI/KYNF Freedom of Information Act request dated June 23, 2010 for documents relating to the DOE owned nuclear reactor - operated by Battelle Energy Alliance (BEA) Advanced Test Reactor (ATR).

Documents sought relate to the operating, environmental and health safety reports – a matter of significant public attention and concern. The ATR is a 45 year-old nuclear reactor located at the Idaho National Laboratory (INL).

As of this writing, DOE is again obfuscating the release of nearly all of the requested documents despite the fact that they acknowledge their existence but need more time to decide whether or not to release them. In 2006 we were forced to file a lawsuit in U.S. Federal Court to force DOE to release 2005 Freedom of Information documents on ATR and even then these released documents - when ordered by the Court were eventually released - were severely redacted/censored.<sup>1</sup> We hoped the Obama Administration – claiming a new openness/transparency in government – would be different than Bush's cling to secrecy. Tragically, nothing has changed.

Specifically, DOE/ID is again claiming that the ATR Severe Accident Analysis – Upgraded Final Safety Analysis Report and the Emergency Management Hazards Assessment “are being reviewed.” Based on our previous experience, this translates; DOE/ID is redacting/censoring documents (claiming “national security”) for release; which means, that again, the public is denied a full/accurate documentation on ATR operations.

On ATR Design Basis Reconstitution, DOE/ID gets creative claiming; “Design Basis Reconstitution’ is the name of an effort under the Life Extension Program, it is not a document.” Yet, reasonable due diligence response would be to provide a copy of the ‘Life Extension Program where this “effort” is discussed. Additionally, requestors are cognizant of – for example but not limited to – PL-534

“ATR Design Reconstitution Program Plan” and current updates.

On ATR shutdowns, DOE/ID claims: “There were no ATR ‘emergency shutdowns’ due to any condition or event.” However, we are cognizant of (and cite as an example but not limited to) INL Reactor Outage Procedure and Documentation (Identifier DOP 7.2.7) and Shift Record Sheets (2/5/08) and later current reports. The release of these documents would be necessary proof as to the absence of scrams and the verification of the DOE/ID statement. Additionally, we are cognizant of DOE/ID Occurrence Reports showing that there were apparently seventeen ATR shutdowns between 2007 and 8/16/10.<sup>2</sup> It does not require an expert to legitimately conclude that there are fundamental ATR safety system malfunctions that DOE/ID is unwilling to release and that this represents a major nuclear accident waiting to happen.

On ATR radiation monitoring reports; DOE/ID claims “There is no responsive documentation beyond what was provided in 2008-2009.” Again, we are cognizant of DOE/ID 7/21/10 News Release titled “Annual report shows potential INL radiation doses” that specifically states; “Operations at the Advanced Test Reactor, an operating nuclear reactor at the INL, resulted in a dose equivalent to about 11.6% of the total INL site dose.” DOE/ID is acknowledging the existence of the current INL NESHAP report, so clearly there is “responsive documentation” available.

The bottom line in all of this is that the public must not be prevented from access to documentation on a major hazard that could affect southeastern Idaho and western Wyoming if the ATR experiences a major accident.

*To access a copy of the above FOIA Appeal and related EDI reports go to: <http://environmental-defense-institute.org>*

**Please Remember to Vote on  
November 2**

<sup>1</sup> U.S. District Court, District of Wyoming, Case No. 06-CV-205-D.

<sup>2</sup> EDI 9/6/10 INL Operations Report Excerpts Related to the Advanced Test Reactor. For a copy go to EDI's website.

## Defense Nuclear Facilities Safety Board Refuses to Conduct a Safety Review of the Advanced Test Reactor

In a 9/23/10 letter to attorney Mark Sullivan representing Keep Yellowstone Nuclear Free (KYNF) and the Environmental Defense Institute (EDI), the Defense Nuclear Facilities Safety Board<sup>3</sup> refused to “initiate an investigation of health and safety matters at the Advanced Test Reactor (ATR) at the Idaho National Laboratory. **The Board has determined that it cannot devote resources to ATR at this time.**”

The DNFSB letter did acknowledge that it had jurisdiction over the National Nuclear Security Administration that supports the ATR production of radioactive tritium also used in the DOE program to build the new generation of nuclear bomb arsenal. “It does not, however, pose any special risks to the reactor’s operation or increase the chances of off-normal events.” It is tragic that the DNFSB never considered the fundamental operation of the ATR – a 45 year-old reactor long past its 20 year design life. Moreover, the DNFSB is legally independently mandated by Congress to provide safety analysis of defense related nuclear operations.

Additionally, DNFSB completely ignored ongoing and future plutonium-238 at the ATR for NASSA and other military uses. DOE’s June 2010 “Start-up Plan for Plutonium-238 Production for Radioisotopes Power Systems” specifically identifies the ATR as one of the primary Pu-238 production reactors at the Idaho National Laboratory. The Plan also budgets \$30,000,000 for Fiscal Year 2011.<sup>4</sup>

In a letter to DNFSB, attorney Mark Sullivan wrote; “The ATR is Unsafe. Briefly stated, our concerns regarding the ATR are as follows. The ATR is nearly 45

<sup>3</sup> The Defense Nuclear Safety Board is a Congressionally mandated oversight body under 42 U.S.C. ss 2200g. The Navy nuclear propulsion program activities are excluded from the Board’s jurisdiction by 42 U.S.C ss2286g(I)(A).

<sup>4</sup> Start-up Plan for Plutonium-238 Production for Radioisotopes Power Systems; DOE June 2010 Report to Congress. “A production rate of up to two kilograms per year can be accomplished in existing [ATR] facilities modified as needed for upgrades to equipment and support services. Target fabrication and Neptunium-237 (Np-237), used in preparation of targets as feed material for the production of Pu-238 is currently stored at the Idaho National Laboratory. DOE’s preliminary cost range estimate to implement this Pu-238 production scheme is \$75 – 90 million.” [page 5]

years old (and based on a design that is nearly 60 years old) and lies in the heart of a seismically active region. It lacks secondary containment typical of commercial nuclear reactors which would prevent a catastrophic release of radiation in the event of an accident. According to analyses performed by the DOE and its consultant, the ARES Corporation, many of its essential safety systems are corroded from age and wear, and replacement parts are simply unavailable. By DOE’s own assessment, the ATR’s essential primary and secondary cooling systems, as well as its emergency firewater injection system are likely to fail in the event of a major earthquake causing a loss-of-coolant accident with potentially horrendous ramifications. DOE’s own estimate of the potential radiation releases from the ATR in the event of loss-of-coolant accident is 175 million curies, including six million curies of radioactive iodine-131. In sum, the facility poses an unacceptable threat to tens of thousands of people and the Greater Yellowstone ecosystem.”<sup>5</sup>

## Onsite Dry Storage of Spent Nuclear Fuel is Best Interim Solution

**D**ry above-ground on the generators site is the best interim storage approach for spent nuclear fuel (SNF) that will remain highly radioactive for tens-of-thousands of years. Dry storage is where SNF is put into heavily steel/lead shielded casks (that can also be eventually used as shipping containers) that are then put into large concrete structures that additionally shield the radiation. SNF water coolant pools will likely always be required for “green” SNF where the highly radioactive short-lived radionuclides can “safely” decay. Dry storage is additionally best for the following reasons;

1. SNF should stay at the generators site where the cost/hazard burden is born by the generator as opposed to shipping the fuel to a centralized DOE location like the Idaho National Laboratory where it can languish for an indefinite time. Moreover, a centralized DOE SNF facility means we the collective taxpayer will pay for the costs/hazard burden which is not fair because the utilities and the communities that used the power should legitimately pay for the interim storage costs.

2. Commercial nuclear power reactors – as well as DOE

<sup>5</sup> See: Final Programmatic Environmental Impact Statement for Accomplishing Expanded Civilian Nuclear Energy Research and Development and Isotope Production Missions in the US, December 2000, DOE/EIS-0310, Section I.1.1.1.2.

reactors – SNF cooling pools are full. So the original racks in the pools that keep the SNF spaced so adequate water can circulate to remove the decay heat produced by the fuel; are being “re-racked” with less space between the individual fuel rods in order to save space. This means the SNF is more vulnerable to coolant failures where the decay heat literally boils off the coolant water and the whole mass can go critical releasing radiation into the atmosphere. This nearly happened at France’s La Hague SNF storage pools when power was lost to the coolant pumps. Luckily, power was restored before all the coolant water boiled off.

**Centralized interim storage of SNF is not a good plan for the following reasons:**

1. Since no permanent repository for SNF and other high-level nuclear waste has NOT been established in the US (Yucca Mt. in Nevada is now not an option), the hazards of transporting SNF twice is problematic. A permanent repository could be located anywhere in the continental US; so why keep moving it around (with the accompanying transportation hazards) when it can stay where it is (at the generators site) until such time as a permanent/permitted repository is eventually established?

2. DOE spent billions over several decades trying to develop Yucca Mt. in Nevada; however, it never passed basic criteria as a safe/permanent SNF repository. This same nuclear waste locating process will have to be begun again to identify a new site which could be located anywhere and again take decades.”

**MIT Report Endorses  
Centralized Interim Storage  
for Spent Reactor Fuel at INL**

**P**eter Behr, E&E reports 9/17/10; “A Massachusetts Institute of Technology task force report called yesterday for the United States to create a few centralized storage sites for spent nuclear reactor fuel in the next decades, while researching new reactor designs that could reduce the challenges of permanent geological burial of nuclear wastes.

The report, "The Future of the Nuclear Fuel Cycle," co-chaired by MIT professors Mujid Kazimi, Ernest Moniz and Charles Forsberg, also concludes that worldwide supplies of uranium will be sufficient to serve a tenfold increase in light water reactors, each operating for 60 years. "There is no shortage of uranium resources that might constrain future commitments to build new nuclear plants for at least much of this century," the report says.

That judgment leads to another: that the United States

and other countries should continue to rely for decades on the "once through" open fuel cycle with light water reactors. That would allow time for more research on "fast" reactor designs whose operation generates new fuel and becomes self-sustaining.

Nuclear waste research and planning ought to look out to a 100-year horizon, the report says. But solutions that emerge could be adopted sooner. "We're not saying, 'Just exhale and sit back,'" Moniz said. The MIT report calls for a \$1 billion annual research budget on fuel cycle issues.

Proposals for centralized waste facilities envision spent fuel storage in large concrete casks -- which could be above ground, or in covered pits -- as used fuel is commonly stored now at reactor plants around the country. The Nuclear Regulatory Commission this week upheld a staff conclusion that on-site storage is safe for at least 60 years.

**A way to end an expensive lawsuit**

Removing this fuel to one or more centralized facilities would take the wastes off the hands of nuclear plant operators, which are suing the federal government for renegeing on a commitment to store the wastes, beginning in 1998, a service the utilities are paying for but not receiving. Thus far, payments for the program by utility customers, plus accumulated interest, total \$24 billion, the industry says.

The report sidesteps the controversy over the proposed Yucca Mountain nuclear waste repository in Nevada. Following a commitment to Senate Majority Leader Sen. Harry Reid (D-Nev.), the Obama administration has cut off funding for the underground burial site and wants to withdraw with prejudice the Energy Department's 8,600-word construction authorization application to the Nuclear Regulatory Commission, submitted two years ago.

An NRC Atomic Safety and Licensing Board denied DOE's motion, saying withdrawal would violate Congress' clear intent. The NRC commissioners are now reviewing the board's action.

The MIT report says that the United States can and should create a permanent geological repository for spent fuels eventually. "The issue isn't whether you can site geological repositories," Forsberg said. "Lots of people have been doing it," he said. The United States has gone about it in the wrong way by trying to force it on Nevada, the MIT panel said.

The United States should not advance work on closed-cycle, fast breeder reactors in which the combustion of uranium generates surplus supplies of plutonium fuel, a focus of weapons proliferation risks, the report recommends. Instead, it calls for research on fast light water reactors that would produce enough new uranium fuel to be self-sustaining but not create surplus fuel.

"Today we do not have sufficient knowledge to make informed choices for the best cycles and associated

technologies," the MIT report says. "There is adequate time before any choice for deployment need to move away from the current open fuel cycle."

That proposal was challenged by Thomas Cochran, senior scientist with the Natural Resources Defense Council. He faulted the report for not making it plain that nuclear fuel reprocessing and fast reactors are non-starters economically. MIT should have said that "fast reactors are priced out of the market and you see no way that they will get back in. ... Otherwise, you're teaching fairy tales at MIT."

Moniz responded, "We don't feel quite so certain about the trajectory of the cost differential of light water reactors and fast reactors."

### **Concerns about some future supply deals**

To deter proliferation, the task force recommended that the United States and other suppliers of nuclear reactor fuels should actively pursue fuel leasing agreements with the growing number of countries that are embarking on new nuclear power programs. The supply group countries would commit to provide reactor fuel and reclaim used fuel, and would offer financial incentives that deter the new programs from moving to fuel enrichment or reprocessing, because of the threat of fuel diversion to weapons development.

MIT's preference would be for commercial leases for fixed time periods, backed by solid government and international compacts covering security and supply, Moniz said.

Sharon Squassoni, a senior fellow with the Center for Strategic and International Studies, has warned that the nonproliferation fuel regime managed informally by the Nuclear Suppliers Group of nations has been weakened dramatically by recent fuel supply deals, including the 2005 agreement between the United States and India, which has not signed the nuclear Nonproliferation Treaty. "Some countries are looking at that and saying, 'Why not us?'" she said in an interview.

Moniz said the United States is no longer in the position it held a generation ago, when it could say "Follow the leader" on energy and proliferation policies. "Right now, there is a big issue of [the United States] being technology leaders or technology takers." The U.S. position on nuclear fuel issues would be stronger if it followed a consistent policy, but that's not the case. "Let's face it, we're all over the map," he said.

Several members of the MIT task force and its advisory committee -- including Moniz; Richard Meserve, president of the Carnegie Institution for Science; and Philip Sharp, president of Resources for the Future -- are also on the Obama administration's Blue Ribbon Commission on America's Nuclear Future. The commission is charged with recommending policies for processing, storing and disposing of used fuel from civilian and military reactors

and high-level radioactive waste -- the same agenda addressed by the MIT report.

A range of witnesses at the commission's public hearings have supported creation of one or more centralized storage facilities, leading some observers to believe that the commission will support that option when it makes its report, due next July.

### **Some communities offer to host site**

State Delegate Sally Jameson (D), a Maryland legislator representing the National Conference of State Legislatures, told the commission at a May public hearing that her organization is in touch with several communities that would volunteer to host an interim used fuel storage facility. "Such communities exist and are ready to step forward," she said, without naming them.

Spent fuel from 10 decommissioned nuclear plants in Maine, Connecticut, Wisconsin, Oregon, Michigan, Colorado, Illinois, California and Massachusetts should be the first materials stored in interim facilities, so that the cleanup of these sites can be completed and the land redeveloped, she said.

NRDC's Cochran told the Blue Ribbon Commission that he supported centralized storage of used fuel in dry cask containers for reactors that have been shut down, but not for spent fuel at operating reactors. "That's an opportunity for the government to go ahead and demonstrate they can manage that process," he said. Cochran suggested that the central storage facility could conceivably be located at Idaho National Laboratory in Idaho Falls, or on the site of the former Fort St. Vrain reactor in northern Colorado.

Another witness, Michigan utility commissioner Greg White, appearing on behalf of the National Association of Regulatory Utility Commissioners, threw his support to proposals to place control of a interim storage site in the hands of a new waste management corporation rather than the Energy Department.

Marvin Fertel, president of the Nuclear Energy Institute, representing nuclear plant owners, said the idea was worth considering. NEI has been asked by a small number of communities to describe the technical issues and business opportunities involved in creating an interim storage site, said Steven Kraft, NEI's senior director for used fuel management. He declined to name them. "Some of them said, 'Thank you; we'll get back to you.'" Others continue to look at the idea.

Even if a community and a state were all in favor of such a project, it could take seven to 10 years to complete the research and analysis and get it opened, he said.

### **'First mover' plants will be key**

Incentives could clinch a deal, Kraft said. Moniz said that a community accepting a storage site could receive federal research funding on spent fuel management and possibly put itself in line for a reprocessing site much

further down the road.

Yesterday's MIT report follows a 2003 study from the university on nuclear power that urged federal support for a handful of new reactors that would test the future of new nuclear power plants in the United States.

The new report asks the government to accelerate incentives for the construction of seven to 10 "first mover" plants with approved new designs, to demonstrate whether the plants can be built on time and on budget. The Energy Department has given conditional approval to a loan guarantee for construction of two new reactors in Georgia and is reviewing proposals for three other plants. However, the \$10 billion remaining in the initial loan guarantee program authority will not stretch far enough for all three.

The MIT report says that federal incentives should be limited to the "first movers," arguing that "nuclear energy should be able to compete on the open market as should other energy options."

The cost of capital to construct a new nuclear power plant is significantly higher than for building a new coal- or natural gas-fired plant, because of the uncertainties about construction costs and timetables and the ability of new nuclear power plants to compete with other generation, the MIT report says.

The completion of the "first mover" plants will answer those questions one way or the other. If the plants are successfully built, that risk premium should disappear, dropping the "levelized" or total cost of power from the new nuclear plants down to 6.6 cents per kilowatt-hour, the MIT report concludes. Electricity from the new plants could then compete with coal and natural gas, even without an added carbon emission charge on fossil fuel plants, the report says. "The first few U.S. plants will be a critical test for all parties involved," it says.

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*Editors Note: Natural Resources Defense Council (NRDC) Tom Cochrane's above statement is half right on dry SNF storage and half very wrong on centralized DOE storage at the Idaho National Laboratory as the previous article articulates.*

**Groups Claim 'Small Modular Reactors' No Panacea for What Ails Nuclear Power**  
*Fact Sheet Explores Cost, Safety and Waste Issues Glossed Over by Industry*

**PR**Newswire-USNewswire/ reports 9/29/10; "The same industry that promised that nuclear power would be

"too cheap to meter" is now touting another supposed cure-all for America's power needs: the small modular reactor (SMR). The only problem is that SMRs are not only unlikely live up to the hype, but may well aggravate cost, safety, and environmental problems, according to a new fact sheet prepared by the Institute for Energy and Environmental Research (IEER) and Physicians for Social Responsibility (PSR).

Titled "Small Modular Reactors: No Solution for the Cost, Safety, and Waste Problems of Nuclear Power," the new IEER/PSR presentation is available online at <http://www.ieer.org/fctsheets/small-modular-reactors2010.pdf>.

The small modular reactor is being pitched by the nuclear power industry as a sort of production-line auto alternative to hand-crafted sports car, with supposed cost savings from the "mass manufacturing" of modestly sized reactors that could be scattered across the United States on a relatively quick basis.

The facts about SMRs are far less rosy. As the IEER/PSR document notes: "Some proponents of nuclear power are advocating for the development of small modular reactors as the solution to the problems facing large reactors, particularly soaring costs, safety, and radioactive waste. Unfortunately, small-scale reactors can't solve these problems, and would likely exacerbate them."

Co-author Arjun Makhijani, the president of IEER, holds a Ph.D. in engineering (specialization: nuclear fusion) from the University of California at Berkeley. He said: "Amidst the evaporating hopes for a nuclear renaissance, nuclear power proponents are pinning their hopes on small modular reactors without thinking carefully about the new problems they will create such as inspecting production lines in China, procedures for recalls, or the complications and costs of a variety of new forms of nuclear waste."

The supposed cost benefits of SMRs are also subject to debate. The costs of mass manufacturing would be offset at least in part by loss of economies of scale. Further, modular construction will impose much higher costs on the first units, increasing the uncertainty and risk of initiating nuclear power projects. As IEER/PSR researchers note:

"The cost picture for sodium-cooled reactors is also rather grim. They have typically been much more expensive to build than light water reactors, which are currently estimated to cost between \$6,000 and \$10,000 per kilowatt in the US. The costs of the last three large breeder reactors have varied wildly. In 2008 dollars, the cost of the Japanese Monju reactor (the most recent) was \$27,600 per kilowatt (electrical); French Superphenix (start up in 1985) was \$6,300; and the Fast Flux Test Facility (startup in 1980) at Hanford was \$13,800. This gives an average cost per kilowatt in 2008 dollars of about \$16,000, without taking into account the fact that cost escalation for nuclear

reactors has been much faster than inflation ... Spent fuel management for SMRs would be more complex, and therefore more expensive, because the waste would be located at many more sites."

The IEER/PSR fact sheet also raises significant safety-related concerns. Eliminating secondary containment would decrease costs but raise safety issues, while including that containment would raise costs. As regards to sodium-cooled reactors they note: "The world's first nuclear reactor to generate electricity, the EBR I in Idaho, was a sodium-potassium-cooled reactor that suffered a partial meltdown. EBR II, which was sodium-cooled reactor, operated reasonably well, but the first US commercial prototype, Fermi I in Michigan had a meltdown of two fuel assemblies and, after four years of repair, a sodium explosion. The most recent commercial prototype, Monju in Japan, had a sodium fire 18 months after its commissioning in 1994, which resulted in it being shut down for over 14 years. The French Superphenix, the largest sodium-cooled reactor ever built, was designed to demonstrate commercialization. Instead, it operated at an average of less than 7 percent capacity factor over 14 years before being permanently shut."

The Pebble Bed Modular Reactor (PBMR) exemplifies the types of problems that SMR technology has encountered in the past two decades. The factsheet concludes that "Despite 50 years of research by many countries, including the United States, the theoretical promise of the PBMR has not come to fruition. The technical problems encountered early on have yet to be resolved, or apparently, even fully understood. PBMR proponents in the US have long pointed to the South African program as a model for the US. Ironically, the US Department of Energy is once again pursuing this design at the very moment that the South African government has pulled the plug on the program due to escalating costs and problems."

And what about SMRs as some kind of "silver bullet" for averting global warming? The IEER/PSR fact sheet points out: "Efficiency and most renewable technologies are already cheaper than new large reactors. The long time -- a decade or more -- that it will take to certify SMRs will do little or nothing to help with the global warming problem and will actually complicate current efforts underway. For example, the current schedule for commercializing the above-ground sodium cooled reactor in Japan extends to 2050, making it irrelevant to addressing the climate problem. Relying on assurances that SMRs will be cheap is contrary to the experience about economies of scale and is likely to waste time and money, while creating new safety and proliferation risks, as well as new waste disposal problems."

The Institute for Energy and Environmental Research provides policy-makers, journalists, and the public with

understandable and accurate scientific and technical information on energy and environmental issues. IEER's aim is to bring scientific excellence to public policy issues in order to promote the democratization of science and a safer, healthier environment.

The Physicians for Social Responsibility Safe Energy program focuses on protecting public health, taxpayer dollars, and national security by preventing the construction of expensive, dirty, and dangerous new nuclear reactors. More than 60 years since the first civilian nuclear reactor was turned on, a mature industry is still dependent on government subsidies and economically unsound, mired in unresolved safety issues, and a threat to public health.

*SOURCE: Institute for Energy and Environmental Research, for more go to: [www.ieer.org](http://www.ieer.org)*

## Nuclear Waste Piles Up With No Disposal Plan

**Raju** Chebium reports 9/16/10 in the Asbury Press (New Jersey) that: thousands of tons of potentially lethal radioactive waste have been piling up across the nation for more than a generation, but the federal government has yet to decide how to get rid of it permanently.

"Everybody realizes that the collapse of the Yucca Mountain program means many years of on-site storage with no end in sight. Even the people who want nuclear power don't want waste in their backyards," said nuclear expert Arjun Makhijani, president of the Institute for Energy and Environmental Research.

After axing a multibillion-dollar plan to bury the waste beneath Yucca Mountain, Nev., President Barack Obama has asked an expert panel to recommend alternatives. But the panel's report isn't due until January 2012. And the group's recommendations aren't binding on the White House or Congress.

In short, the country's political leaders are no closer to a safe, permanent disposal plan for nuclear waste than they were a generation ago, when nuclear power became widespread and the Cold War was in full swing.

The nation's accumulated 70,000 tons of extremely radioactive, "high level" waste — uranium and plutonium — has sat in "temporary" storage in 35 states since at least the 1950s. "The country at large is beset by a whole host of problems, so it's not surprising that they aren't paying attention to this," said nuclear expert Arjun Makhijani, president of the Institute for Energy and Environmental Research. "Everybody realizes that the collapse of the Yucca Mountain program means many years of on-site storage with no end in sight. Even the people who want

nuclear power don't want waste in their backyards."

The waste will continue to pile up as the nation's 104 nuclear power plants win license renewals from federal regulators. It's expected to reach 153,000 tons by 2055, according to a November report from the Government Accountability Office, Congress' investigative agency.

Commercial nuclear waste, which is solid, is stored in deep pools of water at many power plants. Some of it also is stored in huge steel-and-concrete containers called dry casks, which cost about \$1 million apiece, according to Rod McCullum, a waste expert at the power industry's Nuclear Energy Institute.

Jim Riccio, a nuclear energy analyst at the environmental group Greenpeace, said the Obama administration should tell the industry to move more of the fuel rods from pools, where they're more vulnerable to terrorist attack, to dry casks. "Dry casks are not perfect, but they are a heck of a lot better," he said.

In addition to the commercial waste, about 91 million gallons of high-level liquid waste is stored at South Carolina's Savannah River Site, Washington state's Hanford Site and the Idaho National Laboratory. That waste comes from making fuel for nuclear weapons during the Cold War era. The defense waste is slowly being converted into glass rods through a process called vitrification to allow for more efficient storage and transport.

David McIntyre, a spokesman for the U.S. Nuclear Regulatory Commission, said current on-site storage methods are safe and will contain the radiation for the foreseeable future. So federal lawmakers feel they can put off making tough political decisions about what to do with the nuclear waste, said John Gervers, a nuclear-waste consultant in New Mexico. "It's going to continue to pile up," he said. "Ultimately, there has to be someplace (where) all that waste has to go. In my opinion, a permanent repository is the way to go."

The White House says even if the expert panel recommends a permanent "geologic" resting place for the waste, such a repository won't be built at Yucca Mountain, located about 100 miles northwest of Las Vegas in the home state of Democratic Senate Majority Leader Harry Reid. A 1982 law set a 1998 deadline for building a permanent disposal site, but it didn't happen.

It wasn't until 2002 that Congress, acting on President George W. Bush's recommendation, fixed up Yucca Mountain as the permanent site. Since then, taxpayers have spent more than \$10 billion for exploratory work at the site, including building a deep tunnel.

Soon after becoming president, Obama announced he would cancel the Yucca Mountain project — a decision that South Carolina, Washington and some other local governments are fighting in federal court. Those state and local governments have teamed up with the nuclear

industry to argue before the NRC that the administration can't terminate work on the project, only Congress can.

The nuclear energy industry is pushing for an interim storage facility where spent fuel rods could be stored while a geologic repository is built. The government also should allow the industry to recycle the used fuel rods to extract all possible use from them, said McCullum at the Nuclear Energy Institute. Though legal in France, such "reprocessing" has been banned in the U.S. since 1977. President Jimmy Carter outlawed the practice that year, citing the potential for countries to use the plutonium byproduct to make atomic weapons.

*MORE ONLINE: [www.gao.gov/new.items/d1048.pdf](http://www.gao.gov/new.items/d1048.pdf), to access the Government Accountability Office's "Nuclear Waste Management" report, issued in November 2009."*

### **New Voting Requirements Voters in Idaho and many other states are now required to produce a photo ID that can include:**

- \* An Idaho driver's license or driver's license from the state where you are voting or photo ID card;**
- \* A U.S. passport or federal photo ID card;**
- \* A tribal photo ID card;**
- \* A current student photo ID issued by an Idaho high school or post secondary education institution.**

This is a critical encroachment on U.S. Citizen's civil rights – especially the elderly that no longer drive, the eligible young and others that do not have easy access to the required government issued photo IDs. These government issued IDs are difficult and expensive to purchase. Déjà the old pole tax that for decades effectively blocked the poor and minority American citizens from voting.