

Environmental Defense Institute

News on Environmental Health and Safety Issues

January 2010

Volume 21 Number 1

DOE Releases Documents - Settles FOIA Claims

Lead attorney, Amy Powell for the team of Department of Justice lawyers, representing the Department of Energy (DOE) and attorney Mark Sullivan representing Keep Yellowstone Nuclear Free, Environmental Defense Institute and David McCoy (Plaintiffs) signed a final Settlement Agreement January 19th. This settles a five-year-old lawsuit forcing DOE to release environmental, health and safety documents and pay for Plaintiffs' attorney's fees. This Settlement leaves in place the precedent setting public right under the Freedom of Information Act to gain access to DOE's bogusly classified secret documents and litigate any DOE refusal to release additional reports.

The Settlement additionally stipulates: "Plaintiff further agrees to dismiss this action with prejudice. This release and dismissal shall not prevent Plaintiffs from in any way making future Freedom of Information Requests for any other documents, including updated or revised versions, or portions of updated or revised versions, of the documents at issue in the lawsuit, or from litigating any refusal by the Defendants to release such other documents to the Plaintiffs."

Despite this crucial Plaintiff win, it represents an indictment of the government's ongoing resistance (paid by our taxes) to the public's right to know what significant hazards are involuntarily imposed on residents of Idaho and Wyoming.

In a victory for open government, Wyoming Federal District Court Judge William F. Downes ordered the DOE to turn over some 1400 pages of documents evaluating the safety of the Advanced Test Reactor ("ATR") at the Idaho National Laboratory. In this Freedom of Information (FOIA) request filed by Plaintiffs, originally in July 2005, Judge Downes rejected the DOE's claims that it could withhold the documents and directed them to release the critical safety documents that Plaintiffs have been seeking under the FOIA within 10 days.

Plaintiffs welcomed this decision because we maintain that the redacted documents contain the DOE's assessment of the safety and consequences of an accident at the controversial ATR, the largest nuclear

test reactor in the world. We believe the public has a right to be fully informed of the likelihood and consequences of an accident at the ATR. We've been seeking these documents since we began focusing on the safety of the ATR, and we are thrilled with this much anticipated ruling," said Mary Woollen, Executive Director of KYNF. "I feel vindicated that the system of justice is working here in Wyoming, and that the decision of Judge Downes advances values important to our society: transparency and accountability in our government." Woollen added.

The Court's order "reaffirmed" the September 24, 2007 decision in this case. In that 2007 decision the Court rejected the DOE's arguments that the Documents could be withheld for security reasons. The Court, balancing the need for open government with the possible threat of a terrorist attack at INL, stated "blocking public access to information necessary to critically assess the ATR's safety runs the risk that government decisions to extend the life of the ATR will go unchecked, with the possibility of a devastating nuclear accident 100-miles from Yellowstone and Grand Teton National Parks, crown jewels of this country's national parks."

But, the Court stated, "in light of the weighty considerations...the Court believes it prudent to err on the side of caution." Thus, the Court ordered an "in camera" inspection of the documents. Judge Downes therefore met with DOE counsel and experts and reviewed the documents to determine whether redactions could be made, such as the exact location of certain systems or equipment, before the documents were released. Now, having completed that review, the Court has ordered that the documents be released.

"This decision protects both Greater Yellowstone, and the Nation's core democratic values," said Mark Sullivan, attorney for the Plaintiffs. "It's no secret that there is a 40 year old nuclear reactor at INL and that it has major safety shortcomings. DOE's own people have publicly stated that. We want to know more about what those safety shortcomings are, what risks they pose to surrounding communities and the environment, and now hopefully we can constructive-

ly embark upon this path," said Sullivan.

"We fully expect that the full release of these documents shines a bright light on many problems at the ATR relating to its age, wear, and inability to withstand a significant seismic event," said KYNF Executive Director Mary Woollen.¹

The documents are safety assessments that show the likelihood and consequences of an accident at the ATR. Our review process of all 1,400 pages is well underway. The DOE redactions (censorship) of hundreds of pages in the reports add an additional challenge. This analysis will be used to extensively update our 2006 *Unacceptable Risk at the Idaho National Laboratory Advanced Test Reactor – The Case for Closure Report*.²

A Nuclear Power Boost for Senate Bill

Tax incentives offered with climate measure

Steven Mufson reports in the *Washington Post* 10/28/09; "Will a heaping spoonful of nuclear power help Congress swallow a climate bill? Years after Three Mile Island, bill would put nuclear power on even footing with wind and solar. (See Carolyn Kaster/associated Press)

The Obama administration and leading congressional Democrats are wooing wavering Democrats and Republicans to back a climate bill by dangling federal tax incentives and new loan guarantees for nuclear power plant construction, even though financial analysts warn that huge capital needs and a history of cost overruns would constrain what many lawmakers hope will be a "nuclear renaissance."

The elements of a nuclear package under discussion include investment tax credits, a doubling or more of the existing \$18.5 billion in federal loan guarantees for new plants, giving nuclear plants access to a new clean energy development bank, federally financed training for nuclear plant workers, a new look at reprocessing nuclear fuel, and a streamlining of the regulatory approval process, according to corporate, congressional and administration sources.

¹ Keep Yellowstone Nuclear Free, Environmental Defense Institute, and David McCoy v. USDOE, Case No. 06-CV-205-D.

² *Unacceptable Risk at the Idaho National Laboratory Advanced Test Reactor – The Case for Closure* report is available at <http://environmental-defense-institute.org/publications>

Designed to put nuclear power on an even footing with wind and solar, the package comes on top of existing incentives, such as the production tax credit.

"It seems to me that when talking about ways to reduce emissions . . . that nuclear comes first," said [Sen. Lisa Murkowski](#) (R-Alaska), ranking Republican on the Senate Energy and Natural Resources Committee. Some GOP leaders like [Sen. Lamar Alexander](#) (R-Tenn.) want any climate bill to include plans for 100 new nuclear plants -- doubling the current fleet -- by 2030.

Even relatively liberal lawmakers such as Sen. [Mark Udall](#) (D-Colo.) are talking about the need to insert nuclear power incentives into a climate bill. President Obama has said he is open to new nuclear plants. And Energy Secretary Steven Chu has said that the country should "not stop at three or four, but should get tens of [new] reactors."

Asked how many Republicans could be won over to a climate bill with a substantial nuclear power provision, [Sen. Lindsey O. Graham](#) (R-S.C.) said: "At least half a dozen, depending on how this issue comes out. Maybe more." And, he added, "you're not going to get a bill without meaningful Republican participation."

Graham, who recently joined [Sen. John F. Kerry](#) (D-Mass.) to list common principles for a bill, including new nuclear incentives, said "people who are involved in writing this bill need to grasp the fact that America's turned the corner on nuclear power."

A few plants, not 100

But financial analysts and utility executives warn that while a package of federal tax and regulatory incentives might jump-start a few new nuclear plants, it will be nowhere near enough to lead to 100 facilities.

"That's \$1 trillion," said Aneesh Prabhu, a credit analyst for nuclear utilities at Standard & Poor's. "Some people say that by 2030 you could have quite a few going, but 100 is not feasible . . . The most optimistic number I've read is 50 of them by 2035 -- and that's the most optimistic number . . . That's from the perspective of financing."

The nuclear ambitions of GOP lawmakers exceed those of the nuclear power industry itself. "Industry's expectations are colored perhaps by knowing too much," said one utility executive, who spoke on the condition of anonymity to preserve his relations with lawmakers. Building 100 plants "would be extremely difficult, extremely difficult," he said.

In the United States, no one has begun construction

of a nuclear plant in more than 30 years. Nuclear firms say their technology is better and safer than ever, but critics frequently point to delays and cost overruns at a plant that France's Areva is building in Finland as an example of persistent obstacles. Separately, on Oct. 15, the Nuclear Regulatory Commission rejected a steel and concrete structure Toshiba's Westinghouse Electric said would shield its reactor against extreme weather.

Jacques Besnainou, president of Areva North America, said that the Finnish reactor was "a difficult project" with "a very difficult customer." He said that U.S. customers would benefit from its lessons. "Nuclear is not the only solution for the U.S., but there's no solution without nuclear energy," he said. Areva is investing \$400 million in a Virginia plant that will manufacture nuclear reactor components.

Another obstacle could be the price of natural gas, which offers a cheaper alternative. Natural gas power plants produce only half the carbon dioxide of coal-fired ones. With the discovery that vast shale gas resources can be tapped with new technology, natural gas prices are low and attractive for power producers.

Relying on subsidies

Analysts say nuclear plants will only be viable if natural gas prices stay higher than \$7 per one thousand cubic feet, but current prices are less than half that level. As a result, utility plans for new nuclear plants have lost momentum. Moody's said that more than half of loan guarantee applicants were at a "low" level of activity.

Without subsidies from taxpayers, the expense of new plants would abort the much ballyhooed "nuclear renaissance," analysts say. The new plants are expected to cost \$8 billion to \$10 billion each. Moody's analysts said it was a "bet the farm" endeavor for most companies."

Henry Sokolski, director of the Nonproliferation Policy Education Center, lamented that Senate Republicans were "giving up their economic principles in exchange for more federal subsidies for . . . super-expensive, financially risky nuclear power."

Lobbyists say that even a generous package of nuclear power subsidies might not attract the votes needed for a climate bill. A nuclear package is "necessary but not sufficient for a lot of Republicans," said an expert at one major utility.

Alexander said nuclear power subsidies would not win his vote "because the economy-wide cap-and-trade [system] is so flawed." A cap-and-trade system

is the centerpiece of both Senate and House climate bills; it would set a ceiling on greenhouse-gas emissions and allow companies to trade emission permits.

The \$18.5 billion of nuclear loan guarantees, included in legislation adopted under former president George W. Bush, would cover two or three nuclear plants. Administration officials have said that they might try to stretch that money by combining it with loan guarantees from Japan, home of some of the contractors seeking to build U.S. plants."

Zombie Nuke Plants

Christian Parenti reports in *The Nation* 12/7/09; "Oyster Creek Generating Station, in suburban Lacey Township, New Jersey, opened the same month Richard Nixon took office vowing to bring "an honorable peace" to Vietnam. This nuke plant, the oldest in the country, was slated to close in 2009 when its original forty-year license was ending. It had seen four decades of service, using radioactively produced heat to boil water into high-pressure steam that ran continuously through hundreds of miles of increasingly brittle and stressed piping.

If constructed today, Oyster Creek would not be licensed, because it does not meet current safety standards. Yet on April 8 the Nuclear Regulatory Commission (NRC)--the government agency overseeing the industry--relicensed Oyster Creek, extending its life span twenty years beyond what was originally intended.

Seven days later workers at the plant found an ongoing radioactive leak of tritium-polluted water. Tritium is a form of hydrogen. In August workers found another tritium leak coming from a pipe buried in a concrete wall. Radiation makes metal brittle, so old pipes must be routinely switched out for new ones. The second leak was spilling about 7,200 gallons a day and contained 500 times the acceptable level of radiation for drinking water.

That leaking pipe had erroneously--or perhaps fraudulently--been listed in paperwork as replaced. How this error occurred remains unclear. What seems likely is that the plant's previous owner, GPU Nuclear, was deliberately skimping on maintenance as it approached the end of the plant's license. Then Oyster Creek was sold to Exelon and won relicensing. How many other mislabeled, brittle, old components remain in the plant's guts is impossible to determine without a

massive audit and investigation. Unfortunately, stories like this are all too common: crumbling, leaky, accident-prone old nuclear plants, shrouded in secrecy and subject to lax maintenance, are getting relicensed all over the country.

In the face of climate change, many people who are desperate for alternatives to fossil fuels are considering the potential of nuclear power. The government has put up \$18.5 billion in subsidies to build atomic plants. As a candidate for president, John McCain called for forty-five new nuke plants.

Environmentalists have rightly pointed out the dangers this would entail. But new nukes are not the issue. As laid out in these pages last year [see Parenti, "What Nuclear Renaissance?" May 12, 2008], new atomic plants are prohibitively expensive. If enough public subsidies are thrown at the industry, one or two gold-plated, state-of-the-art, extremely expensive nuclear power stations may eventually be built, at most.

The real issue is what happens to old nukes. The atomic power industry has a plan: it wants to make as much money as possible from the existing fleet of 104 old, often decrepit, reactors by getting the government to extend their licenses. The oldest plants, most of which opened in the early 1970s and were designed to operate for only forty years, should be dead by now. Yet, zombielike, they march on, thanks to the indulgence of the NRC.

More than half of America's nuclear plants have received new twenty-year operating licenses. In fact, the NRC has not rejected a single license-renewal application. Many of these plants have also received "power up-rates" that allow them to run at up to 120 percent of their originally intended capacity. That means their systems are subjected to unprecedented amounts of heat, pressure, corrosion, stress and embrittling radiation.

These undead nukes are highly dangerous. But constant, careful (and expensive) inspection and maintenance would mitigate the risks. Unfortunately, the NRC does not require anything like that. And the industry often operates in a cavalier profit-before-safety style.

At the heart of the matter is the culture of the NRC. During his campaign Obama called the NRC "a moribund agency...captive of the industry that it regulates." Unfortunately, since then Obama's position has softened considerably.

The NRC is run by a five-member commission. When Obama came to office he inherited one open

seat; another opened soon after. Filling those seats with safety-conscious experts not in thrall to the industry would have done much to change the culture of the NRC.

The president's first move was a good one: he made commissioner Gregory Jaczko chair of the commission. Jaczko has openly questioned the safety culture of both the NRC and the industry and is respected among environmentalists as a serious and safety-oriented regulator.

But in October Obama nominated two people for the open seats. In classic fashion, he cut it down the middle. The relatively decent appointment, in the view of environmentalists, is George Apostolakis, a professor of nuclear science and engineering at MIT. He sits on a safety oversight board within the NRC. His academic specialty is probabilistic risk assessment of complex technological systems, risk management and decision analysis.

"He is safety-minded," says Ed Lyman, senior staff scientist for the Union of Concerned Scientists. "But I worry that his approach might be a little too theoretical, too academic. He might not be ready to really regulate the industry."

The other nominee, William Magwood, is described by environmentalists as a disaster. Magwood worked at the Department of Energy as the director of its nuclear energy program. In that capacity, he acted as a booster for the industry. He's made numerous public speeches promoting atomic energy. And most recently he worked as a consultant for the nuclear industry.

Because the NRC is an independent regulatory agency, the president's nominees must be confirmed by the Senate. A key player there--notorious climate-science denier Senator James Inhofe, ranking member on the Environment and Public Works Committee--greeted the appointments with a backhanded compliment to the president: "At the very least, the selection of these individuals indicates President Obama understands the importance of the NRC in rebuilding our nation's nuclear capabilities." Given the source, this was damning praise indeed.

Lax safety culture at the NRC is at least in part a result of the revolving door between the atomic power business and the commission, including both middle- and upper-level staff. The most prominent example of this involved commissioner Jeffrey Merrifield, who championed accelerated licensing and other major policy initiatives that directly benefited the Shaw

Group, the self-described "largest provider of commercial nuclear power plant maintenance and modifications services in the United States." Twelve days after Merrifield left the NRC, in 2007, he became a top executive at--yes--the Shaw Group. Then, in late October of this year, after pressure from public interest groups, the NRC's Office of the Inspector General found that Merrifield had violated government ethics rules by courting industry while still at the NRC.

This corrupt symbiosis between the industry and NRC is even found at the level of language. Critics say the staff habitually defers to the industry, rarely double-checking corporate assertions about safety. During relicensing, the NRC has used industry language verbatim in its reports. A recent random sampling of NRC relicensing reports conducted by its Office of the Inspector General found that almost half the language in the documents had been lifted verbatim or nearly so from industry applications. In other words, not only is the NRC failing to conduct its own research; it can't even rewrite the nuke industry's boilerplate self-justifications when issuing new licenses.

"Politically, the nuclear industry is very effective," says Richard Webster, legal director of the Eastern Environmental Law Center, which represents five citizens' groups fighting Oyster Creek. "If only they ran nuclear plants as well as they lobby."

This cozy relationship is helped by the fact that the nuclear power industry's drive for profit coincides with the NRC's bureaucratic will to survive. If all the old plants were mothballed, the *raison d'être* of the NRC (and maybe much of the bureaucracy itself) would disappear.

Environmentalists describe the relicensing and up-rate process as highly opaque, rigged in the industry's favor, designed to exclude public participation and marginalize opposition. They say safety is closely linked to transparency--which is in short supply.

Over the past two decades the NRC has also promulgated rules that effectively exclude from consideration many of the grounds on which the public could intervene to oppose relicensing. For example, the public cannot raise the issue of terrorism. Nor can it question maintenance plans, or waste storage plans, or even evacuation procedures.

The NRC's Office of the Inspector General found that its own agency had "established an unreasonably high burden of requiring absolute proof of a safety problem, versus lack of reasonable assurance of maintaining public health and safety, before it will act to

shut down a power plant."

The parameters for relicensing are sometimes shockingly permissive. For example, Oyster Creek, only fifty miles from Philadelphia, lacks a reactor containment shell strong enough to withstand a jet crash. And the geography around the plant isn't possible to evacuate: originally built in a rural area, the plant is now surrounded by sprawl. But the NRC takes none of that into account.

Even more amazing, Oyster Creek's relicensing process did not require testing metals in the plant's core for embrittlement. The containment shell, such as it is, was found to have been corroded down to half its intended thickness. Citizens' groups had to file a lawsuit just to get the NRC to hold a public hearing that would yield a ruling. And that was the first one the NRC had held during more than forty-five relicensing processes.

Indian Point, forty miles north of Times Square, is also applying for a new license. It too leaks radioactive water like a sieve: tens of thousands of gallons of radioactive, tritium- and strontium 90-laced water from one of its spent fuel pools have polluted groundwater and the Hudson River. The first of several leaks was discovered in 2005, but the plant's owner, Entergy, failed to report the problem for almost a month.

Vermont Yankee, also owned by Entergy, has one of the worst operating records in the country, runs at 120 percent capacity because of a 2006 power up-rate, and is well on its way to being relicensed. As detailed in these pages last year, Vermont Yankee has recently suffered a number of almost comical problems: a fire set off emergency mobilizations in three states; a cooling tower collapsed; a crane dropped a cask of atomic waste; parts of a fuel rod even went missing. To save money Entergy has been caught skipping routine maintenance and not hiring needed staff. This year the plant has been battling what seem to be unending leaks: in February the water cleanup system leaked, in May a condenser tube leak was identified but not repaired, in June there was a leak in a service water pipe. Then a recirculation pump unexpectedly reduced power and locked up, preventing the operators from changing its speed. And in August Entergy announced that it was not doing all of the required monthly radiological monitoring of its spent fuel.

FirstEnergy's Davis-Besse Nuclear Power Station in Ohio also wants a new twenty-year license. In 2002 that plant came very close to calamity. Largely by

chance, staff discovered a six-inch-deep hole in the reactor vessel head; only three-eighths of an inch of metal remained. This barrier protects against a reactor breach and a possible chain of events that could have led to a reactor meltdown. The hole could have been found and fixed earlier, but the plant's owner, FirstEnergy, requested that the NRC allow it to delay a mandated inspection. In October 2008 Davis-Besse workers also discovered a tritium leak.

This fleet of poorly regulated zombie plants is the real story of nuclear power. Building hundreds of new nukes to save us from climate change is a pipe dream—the time and expense necessary for that would be impossible to overcome in the decade or two remaining. And so the debate about the future of atomic power in the age of climate change functions mostly as a smoke screen behind which these old, leaky, crumbling plants are being pushed to the limit of their endurance. Half the fleet has already been relicensed and many up-rated to run at more than 100 percent of their designed capacity. To avoid dangerous accidents over the next two decades, the industry must be subject to real oversight. For that to happen, the NRC must be reformed.

There will likely be one more opening on the commission. If the risk of a real nuclear disaster is to be diminished, Obama must nominate a robust safety- and transparency-minded commissioner who will stand up to the powerful companies that own the zombie nuke fleet.

Obama Executive Order to Declassify 400 Million Pages of Formerly Secret Documents

Robert Siegal, Don Gonyea and Ari Shapiro report on *National Public Radio* 12/30/09 that President Obama signed an executive order on 12/29/09 that sets new rules for when government agencies can keep documents classified. The order is full of provisions that should make government transparency activists swoon. For example, within the next four years, the government will strive to declassify 400 million pages of historical documents.

One of candidate Barack Obama's earliest promises was to bring a new era of openness and transparency to the White House. Well, now after a year in office

and some early battles over records, open government advocates say the new administration is more transparent than its predecessors. And they're especially pleased with an executive order the president issued. It allows for the declassification of millions of documents going back more than half a century.

The executive order signed 12/29/09 fulfills a pledge the president made on his first full day in office. President Barack Obama starting today, every agency and department should know that this administration stands on the side not of those who seek to withhold information, but those who seek to make it known.

Now, that ringing pronouncement did not bring change overnight. Early requests from government watchdog groups and by journalists for White House visitor logs were turned down. Officials talked about privacy and the president's need to be able to seek counsel and get candid advice. Here's how Press Secretary Robert Gibbs put it at the time. "I think there are obviously occasions in which the president is going to meet privately with advisors on topics that are of great national importance."

But to open government advocates, that sounded all too familiar. Melanie Sloan of the group Citizens for Responsibility and Ethics in Washington in an interview with NPR back in June said; "Not only did the administration refuse to provide those records, we've sued them, and they have said that they are making the same arguments that the Bush administration did, that these are presidential records, even though this argument has already lost in court."

Ultimately the administration did begin making lists of White House visitors available to the public. And documents from government departments became more accessible. Talk to Sloan today, and her tone has changed. "We're not in a perfect place today, but we've seen a president and an administration on track making the changes folks in the open government community like to see."

As for this executive order, it means that the default position of the federal government is that no document can be considered permanently sealed and that eventually all records will be released to the public. Meredith Fuchs of the National Security Archives, a research institute not affiliated with the government, says she is especially pleased to see the pace of declassification accelerated for many documents that have long being kept secret. Fuchs continues; "It would lead to the release of hundreds of thousands,

millions of pages of records related to World War II, the Vietnam War, Korean War - I mean, things that historians are really eager to get their hands on.”

There are even wonkier parts of the order, too. Danielle Brian says those are the provisions that make her the most excited. She directs the Project on Government Oversight and states; “That's the kind of thing that, you know, that's no longer going to be an excuse to withhold documents.” Brian says the new rules will also keep the government from retroactively classifying documents. One of the things that's been a problem for us is third-agency documents, where we want a document that was actually originated by one agency, but another agency holds it. For example, the CIA asks the Justice Department to write an opinion about the definition of torture.

Still, even with a major change in the posture of the White House regarding transparency, open government groups say they'll continue to monitor this administration closely for its compliance with the new directives and to do the same with future administrations as well.

For more information on “Executive Order Reduces Total of Classification Papers” go to <http://npr.org>

Our Century of Fallout: Every Nuclear Detonation, Mapped

John Herrman published this compelling map of nuclear explosions since 1945. He reports; “Everyone's got a notion of how the last century went, in terms of nuclear explosions. There was Hiroshima, then Nagasaki. There were some nuclear tests out in the desert, and the ocean. But would you believe

there've been over 2000?”

In this map, which takes into account all the documented nuclear tests since 1945, two things really stand out. The few days in 1945 that saw the only use of nuclear weapons on humans register, when measured on the unfeeling scale of kilotons, as two small blips, aberrant in their location but unremarkable in their size. Then you see the key: *The scale is not linear*. If it was, the larger explosions would cover most of the map. That's the thing with nuclear weapons: It's easy to lose your sense of scale when it comes to how powerful they are, or what havoc they can wreak.

It paints (or visualizes) an unflattering portrait of the fifties and sixties not as golden years of postwar recovery and American prosperity, but as the years that the US and the Soviet Union, in blind competition with one another, spent all their time and untold amounts of their money *blowing their own countries up*. History!”

To view the above map go to: <http://gizmodo.com/tag/charts> EDI thanks J. Preston Truman for posting this news

All of us at the Environmental Defense Institute wish the very best of good things to all of our financial supporters who make it possible to publish this newsletter and our ongoing critical analysis of government reports on environmental, health and safety issues that affect us all.