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Japan's Nuke Dangers Nowhere Near Resolved

Reiji Yoshida reports in the *Japan Times* February 8, 2012; "In December, Prime Minister Yoshihiko Noda announced the "conclusion" of the meltdown crisis at the Fukushima No. 1nuclear plant, saying Tokyo Electric Power Co. was managing to keep the three crippled reactors cool, as well as the facility's spent fuel pools.

But a former special adviser to Naoto Kan, who was prime minister when the crisis started, warned that the situation is far from resolved and said Fukushima has exposed a raft of serious nuclear problems that Japan will have to confront for years.

"I would say (the crisis) just opened Pandora's box," HiroshiTasaka, who has a doctorate in nuclear engineering and is now a professor at Tama University, said in a recent interview with *The JapanTimes*.

He was one of a select group who glimpsed the secret worst-case scenario document written up by the Japan Atomic Energy Commission on March 25that was later reportedly quashed by the government.

According to the scenario, the biggest risk during the meltdown crisis wasn't the reactors themselves but the spent fuel pools sitting atop them, particularly the one above reactor 4, which still contains about1,500 nuclear fuel assemblies, Tasaka said.

Unlike reactors 1, 2 and 3, the No. 4 unit was offline for regular checks when disaster struck on March 11 and thus didn't suffer a meltdown. But its fuel rods were in the pool outside the reactor, and its coolant water fell dangerously low.

Adding to the danger is that the fuel pool is now directly exposed to the outside environment after a hydrogen explosion blew off the upper part of the reactor building on March 15, Tasaka noted.

The potential heat from the pool was also much higher than other pools because 204 of the 1,535 assemblies were still "new ones" that had been temporarily removed from reactor 4 for regular checks.

The Fukushima crisis has highlighted the dangers of spent fuel pools, which are outside the robust primary containment vessels of the reactors themselves, Tasaka said.

Under the current circumstances, the nation has no prospect of starting up the experimental high-level nuclear waste processing facility in Rokkasho, Aomori Prefecture, because of both technical difficulties and the sentiments of antinuclear activists.

This means utilities must store their spent fuel assemblies in cooling pools at their respective reactor sites as a "temporary measure." This situation greatly increased the danger at Fukushima No. 1 on March 11.

"The storage capacities of the spent fuel pools at the nation's nuclear power plants are reaching their limits," Tasaka wrote in a new book, "Kantei Kara Mita Genpatsu Jiko No Shinjitu"("The Truth About the Nuclear Accident as Viewed from the Prime Minister's Office").

According to Tasaka, the utilities' fuel pools were about 70 percent full on average in 2010, but the figure was 80 percent at Fukushima No.1.

The makeshift cooling systems set up at Fukushima No. 1 to stabilize the stricken reactors and fuel pools have greatly reduced the possibility of another catastrophe, Tasaka said, but the ad hoc system for decontaminating the coolant water is nevertheless generating large amounts of highly contaminated waste every day.

Making matters worse, the government doesn't have any place to permanently store it, he wrote.

Tasaka is also deeply concerned about the "groundless optimism "displayed by bureaucrats and business leaders as they rush to restart dozens of reactors that remain halted for safety checks since March11.

"I understand quite well the intentions of the government, which now wants to send out a message of hope. But at this stage, all the risks should be put on the table," he said.

The nation's nuclear regulators must carry out drastic reforms to regain the people's trust. This is an imperative for the government if it wants to keep pushing nuclear power, Tasaka said.

He recalled viewing the government's worst-case scenario in late March. He was officially appointed special adviser to the prime minister on March 29.

The document detailed a hypothetical Fukushima crisis worst case: Eventual contamination from the plant would require the government to assist residents in the Tokyo area to evacuate if they wanted to voluntarily "migrate," based on the same evacuation protocols adopted for the 1986 Chernobyl accident.

The scenario assumed another hydrogen explosion would occur in the reactor 1 building and radiation would force all of the workers at the plant to evacuate.

All of the pools storing hundreds of nuclear fuel assemblies would eventually lose their cooling ability and the assemblies would melt down and breach the pools.

According to Kyodo News, the simulation was "so shocking" that top government officials decided to keep the paper secret by treating it as a mere personal document of Japan Atomic Energy Commission Chairman Shunsuke Kondo, who compiled the simulation. The government only gave it official recognition at the end of December, according to Kyodo.

More than 10 months after he saw the worst-case scenario paper, Tasaka is still not sure if such scary information should immediately be made public during a nuclear plant crisis.

The assumed worst case was extreme and people did not need to immediately flee the Tokyo area even in March or April, Tasaka said. Disclosing the simulation could have caused panic in the capital, he said.

Tasaka was obliged to keep secret what he learned through his work at the prime minister's office and was not in a position to decide what information was to be made public during the crisis.

He said he decided to start talking about the worse-case scenario only after Kan mentioned some of its highlights during an interview with the media in September.

Tasaka believes the media and government should lay some ground rules in advance on what sensitive information should be made clear in a nuclear crisis.

Meanwhile Here in the U.S. There Are 31 Nuclear Reactors Like Fukushima

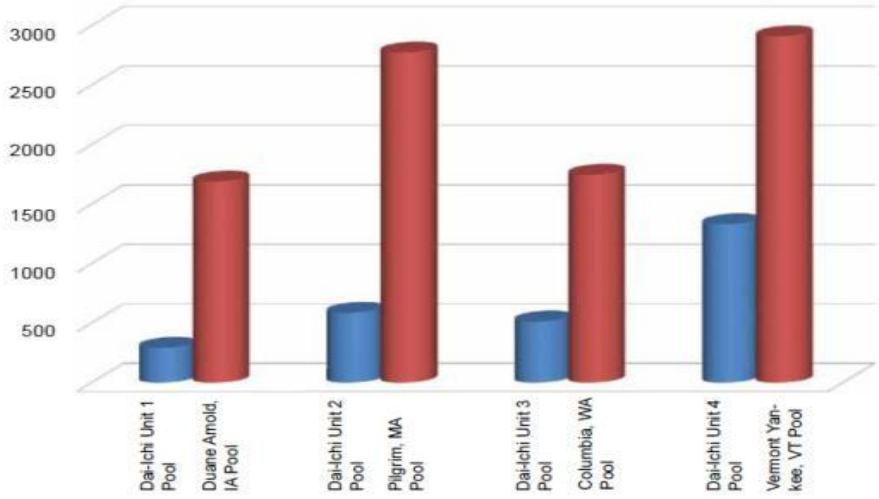
By Robert Alvarez

There are some 31 boiling water reactors [BWR] in this country of similar design to those at Fukushima, holding some of the largest concentrations of radioactivity on the planet in crowded spent fuel pools ~ 100 feet above the ground They hold 4 to 5 times more than their original designs intended and are protected by structures one would find at big box stores.

Yet, after being warned about this extraordinary hazard for nearly a decade, now underscored by the Fukushima-Daichi nuclear disaster, the nuclear industry and its co-dependent regulator are staunchly opposed to reducing this hazard by thinning out the pools and moving spent fuel older than five years into dry, hardened storage casks. U.S. reactor owners plan to maintain high density pools for the next 40 or so years, when the reactors are scheduled to permanently close.

As the figure below indicates U.S. BWR spent fuel pools are holding much more than at the Fukushima-Daichi site. For instance the pool at Vermont Yankee is holding about 75 million curies of long lived-radioactivity. About 40% is cesium-137, more than 10 times than released at Chernobyl.

Figure 8: Spent Fuel Assemblies in Pools at the Dai-Ichi Nuclear Complex in Fukushima and Indvidual U.S. Boiling Water Reactors



Sources: All Things Nuclear, Union of Concerned Scientists, March 21, 2011; NEI, March 2011; DOE/EIS-0250, Appendix A, Table A-7, Energy NW, March 29, 2011.

Robert Alvarez reports 2/21/12 "Here is a recent photo, below, of the Unit No. 4 at the Fukushima-Daichi nuclear ruins provided by Akio Matsumura. It is quite sobering.

The pool at Unit No. 4 contains 1,538 fuel assemblies, including a full core that was freshly discharged prior to the accident. Based on data from the U.S. Department of Energy, a spent fuel assembly from a typical boiling water reactor contains about 30,181 curies (~1.1E+12 becquerels) of long-lived radioactivity. So the Unit No. 4 pool contains roughly 49 million curies (~1.8E+18 Bq), of which about 40 percent if Cs-137. (Source: U.S. Department of Energy, Final Environmental Impact Statement, for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada, 2002, Appendix A, Tables A-7, A-8, A-9, A-10, BWR/ Burn up = 36,600 MWd/MTHM, enrichment = 3.03 percent, decay time = 23 years.) The risk of yet another highly destructive earthquake occurring even closer to the Fukushima reactors has increased, according to the European Geosciences Union. http://blogs.wsj.com/japanrealtime/2012/02/15/could-fukushima-daiichi-be-ground-zero-for-the-next-big-one/ This is particularly worrisome for Daiichi's structurally damaged spent fuel pool at Reactor No. 4 sitting 100 feet above ground, exposed to the elements. Drainage of water from this pool, resulting from another quake could trigger a catastrophic radiological fire involving about eight times more radioactive cesium than released at Chernobyl."

Robert Alvarez, an Institute for Policy Studies senior scholar, served as senior policy advisor to the Secretary of Energy during the Clinton Administration and wrote the recently released report Spent Nuclear Fuel Pools in U.S.; Reducing the Deadly Risks of Storage, available at www.ips-dc.org also see The Legacy of Hanford (Government, World Leaders, Regions and Countries)

Fears Growing as Fukushima Reactor Temperature Rising

No. 2 Reactor Temperature Up to 82C

Published on Sunday, February 12, 2012 by Common Dreams staff; "Tokyo Electric Power Co. (TEPCO) has said today that the temperature inside the No. 2 reactor in the Fukushima nuclear power plant had risen to 82C, a high since the reactor had attained a cold shutdown in December, raising concerns that the plant is no longer stable.

A worker wearing a protective suit checks the connection point of a hose to the No.2 reactor during a response training session as part of a safety regulations exercise at the first floor of the waste treatment building of TEPCO's tsunami-crippled Fukushima Daiichi Nuclear Power Plant in Fukushima prefecture, in this handout photo taken January 26, 2012. (TEPCO) **Kyodo** news reports:

Tokyo Electric Power Co. said Sunday the temperature at the bottom of the No. 2 reactor at its crippled Fukushima No. 1 nuclear plant rose further to 82 C, but the reactor has not gone critical. While the thermometer reading at shortly after 2 p.m. marked a new high since the reactor attained a cold shutdown in December, the utility known as TEPCO said it has confirmed that sustained nuclear reactions are not taking place in the reactor as no radioactive xenon has been detected inside its containment vessel.

TEPCO reported the latest development immediately to the Nuclear and Industrial Safety Agency of the Economy, Trade and Industry Ministry as the temperature exceeded the limit of 80 C designated by the company's safety regulation for maintaining a cold shutdown, it said.

It is considered desirable to keep the temperature below 80 C, while the bottom of a reactor pressure vessel must be kept below 100 C in a stable cold shutdown, in view of the margin of error of thermometers, according to TEPCO officials.

The Guardian adds that the temperature may actually be over 100C: "Confirmation that the temperature has risen above 80C could force the government to reverse its declaration two months ago that the crippled plant was in a safe state known as cold shutdown.

Cold shutdown is achieved when the temperature inside the reactors remains below 100C and there is a significant reduction in radiation leaks. Given that Tepco assumes a margin of error of 20C, the actual temperature could have risen to 102C.

Plant workers are unable to take accurate readings of the temperature inside the damaged reactor because radiation levels are still too high for them to enter and examine the state of the melted fuel, which is thought to be resting at the bottom of the reactor's pressure vessel.

The result has been a series of wildly different readings: two other thermometers positioned at the bottom of No 2 reactor showed the temperature at 35C, local media reported. Tepco said it did not know the cause of the apparent temperature rise, but speculated that it might be due to problems with the supply of coolant or a faulty thermometer.

We May Yet Lose Tokyo… Not to Mention Alaska… and Now Georgia, Too

Harvey Wasserman reports 2/10/12 in *Common Dreams*: "As the Nuclear Regulatory Commission approves a construction/operating license for two new reactors in Georgia, alarming reports from Japan indicate the Fukushima catastrophe is far from over.

Reactor pushers have welcomed the NRC's approval of the new Westinghouse AP-1000 design for Georgia's Vogtle. Two reactors operate there now, and the two newly approved ones are being funded with $8.3 billion in federally guaranteed loans and state-based rate hikes levied in advance of the reactors' being completed. (Photo: Georgia Power Co.)

Thousands of tons of intensely radioactive spent fuel are still in serious jeopardy. Radioactive trash and water are spewing into the environment. And nuclear engineer Arnie Gundersen reports that during the string of disasters following March 11, 2011's earthquake and tsunami, Fukushima 1's containment cap may actually have lifted off its base, releasing dangerously radioactive gasses and opening a gap for an ensuing hydrogen explosion.

There are some two dozen of these Mark I-style containments currently in place in the US.

Newly released secret email from the NRC also shows its Commissioners were in the dark about much of what was happening during the early hours of the Fukushima disaster. They worried that Tokyo might have to be evacuated, and that airborne radiation spewing across the Pacific could seriously contaminate Alaska.

Reactor pushers have welcomed the NRC's approval of the new Westinghouse AP-1000 design for Georgia's Vogtle. Two reactors operate there now, and the two newly approved ones are being funded with $8.3 billion in federally guaranteed loans and state-based rate hikes levied in advance of the reactors' being completed.

NRC Chair Gregory Jazcko made the sole no vote on the Vogtle license, warning that the proposed time frame would not allow lessons from Fukushima to be incorporated into the reactors' design.

The four Commissioners voting to approve have attacked Jaszco in front of Congress for his "management style," but this vote indicates the problem is certainly more rooted in attitudes toward reactor safety.

The approval is the first for a new construction project since 1978. The debate leading up to it stretched out for years. Among other things, the Commission raised questions about whether the AP1000 can withstand earthquakes and other natural disasters. Even now the final plans are not entirely complete. Only two other US reactors---in neighboring South Carolina---are even in the

pre-construction phase. As in Georgia, South Carolina consumers are being forced to pay for the reactors as they are being built. Should they not be completed, or suffer disaster once they are, the state's ratepayers will be on the hook.

The industry is heralding the Vogtle approval as a major boon to the "Nuclear Renaissance." But it comes alongside the announcement that all 17 reactors owned by the Tokyo Electric Company are shut, as are all but two of Japan's 50-plus nukes.

Germany has decided to shut all its nukes by 2022. New reactor financing in Great Britain is under legal attack, as it is in Florida. India has announced that in 2011 it led the world in new green energy projects. China has yet to make its future nuclear commitments clear in the wake of the Fukushima disaster. And no American utility is readily available to follow in Vogtle's path, with operating reactors in Vermont and New York's Indian Point under fierce governmental attack. Florida's Crystal River is beset by huge bills for faulty repair work, and may be headed for permanent shutdown. Both currently licensed reactors at California's San Onofre are closed following radioactive leaks, and a disturbing pattern of tube holes in newly installed steam generators has surfaced at a number of reactors across the US.

But the biggest shock waves this week were caused by Tama University Professor Hiroshi Tasaka, a key advisor to Prime Minister Naoto Kan during the Fukushima disaster.

Warning that Fukushima is "far from over," Tasaka said official assurances of the complex's alleged safety were based on "groundless optimism." Tasaka cited more than 1500 fuel rods dangerously exposed to the open atmosphere at Unit Four alone. The waste problem has gone nationwide, he said in a newly published book, as "the storage capacities of the spent fuel pools at the nation's nuclear power plants are reaching their limits,"

Tasaka's statements came as a new temperature spike unexpectedly stuck Fukushina Unit Two. For reasons not yet clear, heat releases in excess of 158 degrees Farenheit spewed from the core, prompting Tokyo Electric to pump in more water and boric acid meant to damp down an apparently on-going chain reaction. Prof. Tasaka and others warn that this in turn will contribute to spreading still more radiation into the water table and oceans.

With bitter debate raging in Japan, the US and elsewhere over the killing power of Fukushima's emissions, the certification of a new US reactor design may someday be remembered as a bizarre epitaph for the 20th century's most expensive failed technology.

Without state ratepayers and federal taxpayers being forced to foot the bill, new reactor construction in the US is going nowhere.

And without a final resolution to the on-going horrors at Fukushima, the entire planet, from Tokyo to Alaska to Georgia and beyond, remains at serious radioactive risk.

Harvey Wasserman's Solartopia! Our Green-Powered Earth, A.D. 2030, is at www.solartopia.org. His *Solartopia Green Power Hour* runs at www.talktainmentradio.com. He is senior advisor to Greenpeace USA and the Nuclear Information & Resource Service, and writes regularly for www.freepress.org

CAN IT HAPPEN HERE?

By David McCoy

As we watch the explosions at nuclear reactors in faraway Japan, we may feel that nothing like this could happen here. But New Mexicans have two nuclear reactors in their back yard, both at Sandia National Laboratories. One of the nuclear reactors is in a building that cannot be made safe should a large earthquake happen in Albuquerque. The reactor is located within the take-off and landing pattern used by both Kirtland and the Albuquerque Sunport.

Dense housing tracts, freeways, military housing, day care centers and schools are located within and along the boundaries of Kirtland AFB where the nuclear reactors are housed.

One of the Sandia reactors is decades old and has no containment that would keep its radiation from contaminating military personnel, their families and residents of Albuquerque. Ground rupture can occur at the location of the reactor that is in the southwest portion of Sandia Labs. The surrounding public has not been informed of any provisions for evacuation if they even exist.

Kirtland AFB and Sandia are riddled with earthquake faults. A major earthquake in the Albuquerque area has the potential for human injury and building damage throughout the region. Due to age and poor design, many Sandia buildings and structures cannot withstand a large earthquake and could release a chemical cloud exposing many thousands of persons, according to the 1999 Sandia Environmental Impact Statement.

One reactor is located in the same unsafe building with a hot cell facility that handles high level radioactive waste. The potential for the increased danger from failure of the building's shared safety systems in the event of a strong earthquake has not been analyzed.

The Defense Nuclear Facilities Safety Board found seven years ago that unexamined dangers for fire hazards, an airplane crash and equipment operations existed for Sandia's nuclear facilities. To this date, the Safety Board still has not made a decision to block approval for the operation of this dangerous nuclear reactor.

According to the Safety Board staff the ventilation system at the Sandia Nuclear reactor is not built to earthquake safety standards that could prevent a radioactive plume from escaping from the building and the hot cell facility into the community.

Sandia has stated that it would not be feasible to modify the building structure and ventilation system to act as a safety class confinement system, because the building is a decades old structure which does not meet earthquake safety criteria.

So the public is at put risk from continued operations of an unsafe nuclear reactor that is in a building too old to be upgraded for safety.

A January 24, 2005 Sandia analysis, *The Path Ahead to Improve the Nuclear Safety Basis Process at Sandia National Laboratories,* identified the root cause that "Sandia has failed to manage the nuclear safety basis program in a formal, systematic manner based on recognized management system standards." The report stated that "Nuclear safety basis activities have been a low priority for Sandia senior management."

By allowing the reactor and hot cell operations in a building that cannot be made safe for earthquakes, Sandia is violating federal laws that require protection for the workers, public and environment. (10 Code of Federal Regulations Section 830.204).

How do we protect ourselves from acts of nature when there is information we don't have? The Safety Board has no authority to enforce nuclear reactor safety standards. The Department of Energy allows operation of this reactor far short of the standards. According to DOE official, Thomas D'Agostino, DOE does not plan to upgrade the nuclear reactor to protect the public. The public cannot watch a nuclear meltdown in Japan without having a sense of urgency to prevent a nuclear crisis here in New Mexico.

David B. McCoy, Executive Director Citizen Action New Mexico (a nuclear watchdog group) dave@radfreenm.org

With New Plants Approved, Anti-Nuke Coalition Readies for Fight

Published on Thursday, February 9, 2012 by Common Dreams ; " As expected, the Nuclear Regulatory Commission voted this afternoon to extend licenses to build two nuclear reactors at the Vogtle nuclear power plant in Georgia, the first such licenses granted in over thirty years. A statement from the NRC said:

An anti-nuclear rally in Georgia. (Credit: southeastenergy.wordpress.com) *The Nuclear Regulatory Commission has concluded its mandatory hearing on Southern Nuclear Operating Company's (SNC) application for two Combined Licenses (COL) at the Vogtle site in Georgia. In a 4-1 vote, the Commission found the staff's review adequate to make the necessary regulatory safety and environmental findings, clearing the way for the NRC's Office of New Reactors to issue the COLs.*

The **Associated Press reports**:

Allison Fisher, an energy expert for the consumer advocacy group Public Citizen, called the NRC's action — less than a year after the Japan crisis — a step in the wrong direction. 'It is inexplicable that we've chosen this moment in history to expand the use of a failed and dangerous technology,' she said.

While other countries such as Germany are reversing their commitment to nuclear power, "the U.S. is approving new reactors before the full suite of lessons from Japan has been learned and before new safety regulations that were recommended by a task force established after the meltdown crisis at Fukushima have been implemented," Fisher said.

And Kevin Kamps from **Beyond Nuclear** said this in response to the decision:

An NRC license does not guarantee ultimate project success. Atomic reactors have been NRC licensed and then nearly, or even entirely, constructed, and still blocked from operating.

Two reactors at Midland, Michigan were almost completely constructed when watchdogs proved they were sinking into the ground like the Leaning Tower of Pisa. They were then cancelled, at a loss of billions of dollars.

Nuclear power plants in Marble Hill and Bailey, Indiana that were under construction were

cancelled when the Citizens Action Coalition proved in court that the nuclear utilities' 'Construction Work in Progress' charges on electricity bills had been illegal, forcing the return of hundreds of millions of dollars to ratepayers.

A nuclear power plant at Shoreham, New York, was entirely constructed, but then prevented from operating because of the impossibility of mass evacuation during an accident. Again, billions of dollars were wasted.

If Vogtle 3 and 4 default on their loan repayments, it'll be 15 times worse than the Solyndra debacle. U.S. taxpayers would be on the hook for $8.3 billion due to the federal nuclear loan guarantees that President Obama awarded to the nuclear utilities proposing Vogtle 3 and 4. The nuclear utilities have no skin in the game, representing a tremendous moral hazard.

And if eventually fired up, radiological risks for residents downwind and downstream of Vogtle nuclear power plant will be added to the financial risks for American taxpayers. As shown at Fukushima Daiichi in Japan, an accident at the Vogtle site could render all four atomic reactors unusable, not to mention the off-site radioactive catastrophe.

The Nuclear Regulatory Commission is expected to approve licenses for the Atlanta-based Southern Co. to build and operate two nuclear reactors in Georgia, the first issued since the Three Mile Island nuclear accident in 1979. Anti-nuclear organizations, however, do not intend to allow the new plants to proceed without a fight.

The **Associated Press** **reports** this morning:

The first U.S. nuclear power plant in a generation is expected to win approval Thursday. The Nuclear Regulatory Commission is expected to approve Southern Co.'s request to build two nuclear reactors in the southern state of Georgia.

If approved, the $14 billion reactors could begin operating as soon as 2016 and 2017. The NRC last approved construction of a nuclear plant in 1978, a year before a partial meltdown of the Three Mile Island nuclear plant in Pennsylvania raised fears of a radiation release and brought new reactor orders nearly to a halt.

The NRC approved a new reactor design for the Georgia plant in December. Utility companies in Florida and the Carolinas also plan new reactors that use the same design by Westinghouse Electric Co.

The planned reactors are remnants of a once-anticipated building boom that the power industry dubbed the "nuclear renaissance."

But, **according** to the **Environmental News Service**, "nine national, state and regional groups are asking the agency to delay its decision until the groups can file a challenge in federal court."

The Vogtle construction site as of August 2011 with Unit 3 site in the upper left and Unit 4 in the lower right. (Photo by Southern Company)

Within days, the groups say they will file legal action alleging that the NRC is violating federal law by issuing the license without considering the lessons

of the catastrophic Fukushima Daiichi accident in Japan touched off by the 9.0 magnitude earthquake and resulting tsunami on March 11, 2011 that shut down power to the plant's cooling system. In the following week, three hydrogen gas explosions led to meltdowns of nuclear fuel and widespread release of radiation to air, land and sea in the worst nuclear accident since Chernobyl.

They will ask the court to order the NRC to prepare a new environmental impact statement for the two reactors proposed at the Vogtle site that explains how cooling systems for the reactors and spent fuel storage pools will be upgraded to protect against earthquakes, flooding and prolonged loss of electric power to the site.

The groups are asking that the environmental impact statement detail how emergency equipment and plans for the nuclear plant will be revised to account for accidents affecting multiple reactors on the Vogtle site, as happened at Fukushima Daiichi.

The organizations are preparing to file their lawsuit next week in the U.S. Court of Appeals for the District of Columbia Circuit. They will ask the NRC on Thursday to give the nine organizations time to review the licensing decision.

The nine groups challenging the NRC are the Friends of the Earth, the Southern Alliance for Clean Energy, Blue Ridge Environmental Defense League, Center for a Sustainable Coast, Citizens Allied for Safe Energy, Georgia Women's Action for New Directions, North Carolina Waste Awareness and Reduction Network, Nuclear Information and Resource Service and Nuclear Watch South.

The groups, in addition to challenging the environmental and safety concerns, are also raising questions about the tax-payer subsidies and rate increases that will follow construction of the new reactors.

Bloomberg reports:

"The federal government is putting the American taxpayer on the hook for billions of dollars to build nuclear reactors that corporations would never risk building themselves," Jim Riccio, a nuclear policy analyst for Greenpeace USA, an anti- nuclear group, said in an e-mail.

Southern has begun preliminary construction on the Vogtle project, which has cost more than $2 billion so far. Since January 2011, the company has charged customers a fee on their utility bills to help recover its costs, according to the Southern Alliance for Clean Energy of Knoxville, Tennessee.

Day of Remembrance Set for Victims of Nuclear Testing Fallout

JUDY FAHYS reports in *The Salt Lake Tribune* 1/24/12; "In Salt Lake City, downwinders will honor the silent victims of the Cold War in the Hall of Governors at the state Capitol at noon on Friday. Speakers will include U.S. Rep. Jim Matheson, Salt Lake City downwinder Mary Dickson, Salt Lake City Mayor Ralph Becker, Salt Lake County Mayor Peter Corroon, and a bipartisan group of current and former state representatives.

Later on Friday, the Utah Campaign to Abolish Nuclear Weapons plans a candlelight vigil,

5:30 p.m., at the Episcopal Church Center of Utah, 75 S. 200 East. In Orem, a commemoration is set for noon in the Library Lecture Hall, Room 120, at Utah Valley University. The event will include films as well as a history of fallout in Utah County by downwinder J. Preston Truman. Elsewhere in Utah, resolutions and proclamations marking the Day of Remembrance have been passed by Springdale Mayor Pat Cluff. The Kane County Commission passed a resolution Monday. Additional events are planned throughout the West, with vigils in Boise, Idaho; Kingman, Ariz., northern New Mexico, southwest Colorado and Montana.

More uranium workers get compensation

The U.S. Labor Department is notifying some former uranium workers and their families they are now eligible for benefits under the Uranium Mill Tailings Radiation Control Act. The workers were employed at 17 facilities in the West, including the Mexican Hat mill in Utah and the nearby Monument Valley mill in Arizona.

Former employees, or their survivors, may be eligible if they worked at any of the facilities during a period of covered U.S. Department of Energy-funded environmental remediation efforts. In several cases, mill facilities already covered have expanded periods of eligibility, such as the mill in Monticello. For more information about the uranium workers' benefits, call toll-free at 866-888-3322 or visit the DEEOIC's website at www.dol.gov/owcp/energy/.

Salt Lake Tribune Updated Jan 25, 2012 12:08AM

Commemorative events are set for Friday in Salt Lake City to mark more than six decades of nuclear weapons tests and the impacts they had on people around the West. Gov. Gary Herbert, local leaders in Salt Lake City, Salt Lake County, Kane County and Springdale have designated Jan. 27 as a Day of Remembrance for Downwinders.

Events are planned in conjunction with a U.S. Senate resolution, sponsored by Idaho Republican Sens. Mike Crapo and Jim Risch, to honor "Americans who, during the Cold War, worked and lived downwind from nuclear testing sites and were adversely affected by the radiation exposure" from above ground nuclear weapons tests.

Nearly 1,000 nuclear weapons were detonated at the Nevada Test Site during the Cold War, and they sent clouds of radioactive fallout across the United States, exposing a generation of Americans to radiation.

"By designating the day when testing began in Nevada as 'National Day of Remembrance for America's Downwinders,' the Senate has given us a unique opportunity to pause that day to honor those who died, those who are sick or have suffered as a result of their participation in the nation's nuclear testing program," said Downwinders Director Preston J. Truman, "and to resolve that it must never happen again." He added: "We hope that people across the West will join with us that day to remember and to look ahead to a future with justice for those who sacrificed for the nation and for a world free of nuclear weapons."

Truman said he hopes the recognition will give new life to efforts get funding to complete health-effects studies, such as the Utah Thyroid Study. He also would like to see renewed efforts to get proper medical care for those affected by fallout, expand the Radiation Exposure Compensation Act to and ratify a nuclear test ban treaty. Cosponsored by New Mexico

Democrats, Jeff Bingaman and Tom Udall, and Colorado Democrats, Mark Udall and Michael Bennett, the resolution says "Downwinders paid a high price for the development of a nuclear weapons program."

Medical Journal Article: 14,000 U.S. Deaths Tied to Fukushima Reactor Disaster Fallout

Impact Seen As Roughly Comparable to Radiation-Related Deaths After Chernobyl; Infants Are Hardest Hit, With Continuing Research Showing Even Higher Possible Death Count.

WASHINGTON, Dec. 19, 2011; *PRNewswire-USNewswire;* "An estimated 14,000 excess deaths in the United States are linked to the radioactive fallout from the disaster at the Fukushima nuclear reactors in Japan, according to a major new article in the December 2011 edition of the *International Journal of Health Services*. This is the first peer-reviewed study published in a medical journal documenting the health hazards of Fukushima.

Authors Joseph Mangano and Janette Sherman note that their estimate of 14,000 excess U.S. deaths in the 14 weeks after the Fukushima meltdowns is comparable to the 16,500 excess deaths in the 17 weeks after the Chernobyl meltdown in 1986. The rise in reported deaths after Fukushima was largest among U.S. infants under age one. The 2010-2011 increase for infant deaths in the spring was 1.8 percent, compared to a decrease of 8.37 percent in the preceding 14 weeks.

The IJHS article is published and available online: http://www.radiation.org.

Just six days after the disastrous meltdowns struck four reactors at Fukushima on March 11, scientists detected the plume of toxic fallout had arrived over American shores. Subsequent measurements by the U.S. Environmental Protection Agency (EPA) found levels of radiation in air, water, and milk hundreds of times above normal across the U.S. The highest detected levels of Iodine-131 in precipitation in the U.S. were as follows (normal is about 2 picocuries I-131 per liter of water): **Boise, ID (390);** Kansas City (200); Salt Lake City (190); Jacksonville, FL (150); Olympia, WA (125); and Boston, MA (92).

[EPA's maximum concentration level allowed in drinking water for Iodine-131 is 108 pico-curies per liter.]

Epidemiologist Joseph Mangano, MPH MBA, said: **"This study of Fukushima health**

hazards is the first to be published in a scientific journal. It raises concerns, and strongly suggests that health studies continue, to understand the true impact of Fukushima in Japan and around the world. Findings are important to the current debate of whether to build new reactors, and how long to keep aging ones in operation."

Mangano is executive director, Radiation and Public Health Project, and the author of 27 peer-reviewed medical journal articles and letters.

Internist and toxicologist Janette Sherman, MD, said: **"Based on our continuing research, the actual death count here may be as high as 18,000, with influenza and pneumonia, which were up five-fold in the period in question as a cause of death. Deaths are seen across all ages, but we continue to find that infants are hardest hit because their tissues are rapidly multiplying, they have undeveloped immune systems, and the doses of radioisotopes are proportionally greater than for adults."**

Dr. Sherman is an adjunct professor, Western Michigan University, and contributing editor of *"Chernobyl - Consequences of the Catastrophe for People and the Environment"* published by the NY Academy of Sciences in 2009, and author of *"Chemical Exposure and Disease and Life's Delicate Balance - Causes and Prevention of Breast Cancer."*

The Centers for Disease Control and Prevention (CDC) issues weekly reports on numbers of deaths for 122 U.S. cities with a population over 100,000, or about 25-30 percent of the U.S. In the 14 weeks after Fukushima fallout arrived in the U.S. (March 20 to June 25), deaths reported to the CDC rose 4.46 percent from the same period in 2010, compared to just 2.34 percent in the 14 weeks prior. Estimated excess deaths during this period for the entire U.S. are about 14,000."

EDITOR'S NOTE: A streaming audio replay of a related news events and articles are available on the Web at http://www.radiation.org

SOURCE Joseph Mangano and Janette Sherman, International Journal of Health Services.

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