Energy Matters

White House Moves Swiftly To Replace NRC's Jaczko

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By Roger Witherspoon

The White House, wasting no time lamenting the pending departure of embattled Nuclear Regulatory Commission Chairman Gregory Jaczko, has nominated Allison M. Macfarlane, a geologist with 20 years' experience in public policy and nuclear waste issues to replace him.

Dr. Macfarlane, who earned her doctorate in geology at the Massachusetts Institute of Technology and works currently as associate professor of Environmental Science and Policy at George Mason University in Virginia, is a member of the President's Blue Ribbon Commission on America's Nuclear Future.

Jaczko, three years into a five year term, resigned as head of the Nuclear Regulatory Commission Monday, ending months of open warfare with the staff and the other four commissioners over safety issues and a personal style often perceived as imperious. The speed of the nomination of Dr. Macfarlane, just three days after Jaczko announced his resignation, indicates the administration launched a search for his successor long ago, and his announcement came after they had settled on a replacement.

Jaczko's pending departure stills the agency's lone major voice pushing for increased safety measures at the nation's 104 nuclear power plants despite the its long-standing aversion to imposing costly fixes on the politically powerful industry. And it ends a bitter public feud which led to extraordinary, dueling hearings led by Democrats in the Senate, who supported his safety-first approach, and Republicans in the House who backed the four dissenting commissioners and called for his resignation.



Those hearings were prompted by a letter sent to President Obama by the other four commissioners asking for Jaczko's removal. And though the hearings took on a decidedly partisan tone – with the Republicans supporting the industry's antipathy to Jaczko and the Democrats aligned with environmental groups supporting him – the White House stayed noticeably neutral. Jaczko sat alone in the hearings, while Republican lawmakers and his four co-commissioners excoriated his conduct and his judgment. The Democratic support in those hearings has faded, however,

New Jersey Sen. Frank Lautenberg went so far as to declare at the Dec. 15, 2011 hearing that "he is the first chairman not to be in the pocket of the industry." But as the controversy continued to swirl around the chairman, Lautenberg has backed away from the increasingly isolated Jaczko.

Similarly, Senate Environment and Public Works Committee Chairwoman Barbara Boxer (D-Cal.) staunchly defended Jaczko at her December hearings and called the House hearings a day earlier a "witch hunt."

Afterwards, however, she too had little to say in his behalf, and her one-line statement yesterday merely thanked the chairman for his public service. Jaczko's only consistent support during a rocky three years as Chairman came from Congressman Edward Markey (D-Mass), who said in a statement that "Greg Jaczko has been one of the finest NRC Chairmen in the history of the commission... Greg has led a Sisyphean fight against some of the nuclear industry's most entrenched opponents of strong, lasting safety regulations, often serving as the lone vote in support of much-needed safety upgrades recommended by the Commission's safety staff."

The White House was low key in nominating Dr. Macfarlane. She was one of five prospective presidential appointees – including a new ambassador to Bulgaria – whose names were sent to the Senate after 5 PM Thursday for confirmation. But her nomination to head the complex nuclear agency – which guides development and operation of the nuclear power infrastructure; nuclear medicine and medical technology; and radioactive materials used in construction and other industries – drew an immediate rave from the Union of Concerned Scientists.

"Professor Macfarlane is a scientist with a long history of working on complex technical public policy issues," said Lisbeth Gronlund, co-director of the group's Global Security Program. "She was receptive to public feedback during her tenure on the Blue Ribbon Commission on America's Nuclear Future, and understands the importance of openness to the commission's effectiveness. We expect her to be a strong advocate for practical steps to enhance nuclear power safety and security."

Gronlund, a physicist, met Macfarlane 20 years ago when the nominee was a graduate student and Gronlund was in a post-doctorate program. "She was in geology and I was in physics," explained Gronlund, "but we were both interested in issues of science and public policy.

"For all these years, she has applied her technical training to understanding the issue of public input and public policy – and that is exactly what is needed at the NRC, someone who can combine those two areas and has a commitment to increasing nuclear safety.

"When she worked on the Blue Ribbon panel, she was the one responsible for the decision that there needs to have public buy-in of any repository site. Public engagement on issues of nuclear power is something she believes in and something she champions."

Jaczko's detractors were numerous. In a report last fall, the NRC's Inspector General criticized Jaczko for making decisions while keeping the other four commissioners in the dark. At one point in the post-Fukushima environment, Jaczko directed the staff to bring their findings directly to him and not share them with the other commissioners. While the IG concluded that Jaczko had not violated any laws, it was critical of his imperious style.



Among other things, Jaczko ordered the evacuation of Americans near the runaway nuclear reactors in Fukushima, Japan to at least 50 miles – five times the 10-mile American evacuation zone – because of the realistic danger of spreading radiation. He took the unilateral action after declaring a nuclear emergency, which gave him authority to act on his own. He was criticized by his fellow commissioners for issuing the declaration since the metastasizing nuclear situation in Japan did not directly threaten the United States which, in their view, was a prerequisite to any such declaration. They were also critical of the evacuation order, even though radiation was detected by US Navy vessels 80 miles off the stricken Fukushima coast.

Jaczko's biggest support came from safety watchdogs such as the Union of

Concerned Scientists. In a statement last month Ed Lyman, a physicist and head of the UCS Global Security Program, said "NRC commissioners have failed to require that the NRC enforce its own regulations and to address known safety problems.

"For example, four of the current commissioners—all but Chairman Gregory Jaczko—voted to allow the continued operation of 47 reactors that are out of compliance with fire protection regulations, despite knowing that fire is a major risk factor for core damage.

"Other commission votes have reduced the safety and security of U.S. reactors. For example, Commissioner Kristine Svinicki and three other commissioners—George Apostolakis, William Magwood and William Ostendorff—voted to allow plant owners to compromise defense-in-depth safety margins for emergency cooling systems when increasing the power output of reactors, despite repeated warnings from the NRC's own Advisory Committee on Reactor Safeguards. The same four also voted against a proposal by the NRC staff to require security background checks for individuals with access to nuclear plant sites under construction. The NRC staff wanted to protect plants against adversaries taking advantage of the lack of security to pre-position firearms, explosives or incendiary devices during construction that could be used after the plant began operating."

In the wake of the Fukushima Daiichi meltdowns, Jaczko found himself at odds with the other four and the staff over the assessment of safety margins at Mark 1 boiling water reactors – including Hope Creek and Oyster Creek in New Jersey – which are the same as those destroyed due to loss of power and an inability to operate their safety systems in the aftermath of the Japanese earthquake and tsunami. While all such plants are required to have Severe Accident Management Guidelines – written plans as to what to do to protect the public in the event of a reactor meltdown – they had not been evaluated to determine if they actually worked.

"I used to teach students – who were becoming NRC reactor inspectors –

about the SAM Guidelines," said David Lochbaum, nuclear safety engineer at UCS who taught at the NRC in 2009. "The first thing we taught our students was you are not allowed to look at these guidelines at your plant sites. You can't find out if they are good, bad, or indifferent.

"You have procedures to protect the public and the NRC can't look at them. What kind of game is this? It seems that in severe accidents you don't have to provide training, or have the right equipment. All you have to do is have written procedures somewhere and then wave a magic wand and everything will be fine."

In the wake of the March 11 disaster in Japan the NRC ordered special inspections of the SAMG documents in all 104 of the nation's reactors. They found at Indian Point, near New York City, and others, that while plants may have been designed to meet earthquake standards, the necessary systems to protect the reactor – such as fire equipment or the water mains coming in from the municipality – were not seismically hardened and, therefore, could be useless in a real emergency.

Jaczko's last showdown with the other commissioners came over the approval for new reactor licenses at the Vogtle Nuclear Power Plant in Georgia. Jaczko insisted that any license for a new reactor include an order that the plant would be modified if future evaluations of the disaster in Japan showed added safety measures were needed.

In an extraordinary dissent from the decision by the four-member Commission majority to grant the license, Jaczko wrote "I asked the Staff to recommend language for such a condition...in response, the Staff declined to provide the requested language" because it would imply they had doubts about the safety of the new plant.

The fact that the staff was in open revolt was a stunning rebuke to a Commission Chairman appointed by the President and a clear sign that he had little operational authority left. Despite the intense opposition from the nuclear industry and his fellow commissioners, Jaczko was never a radical reformer. He differed from them in that he is a physicist who came from the policy side of the nuclear issue, rather than from the industry itself. Jaczko was an aide to Rep. Markey and then to Senate President Harry Reid (D-Nev.), a staunch opponent of the plan to store the nation's high level radioactive waste inside Nevada's Yucca Mountain, which straddles public and Navajo land. As Commission Chairman, he blocked further funding for the Yucca Mountain project.

Yet, when he toured the Indian Point nuclear plant just above New York City earlier this spring, he raised the ire of environmental groups by stating in his view the region's emergency evacuation plan was a sound one and would work in a real emergency. He drew further criticism from these groups two weeks ago, when it was learned that the NRC had approved in December changes in their regulations to reduce the required number of emergency drills – with no notification or input from the region.

The opposition to Jaczko is led by Commissioner William Magwood IV, who in recent years was a consultant to TEPCO, Japan's dominant power company and operators of the failed Fukushima Daiichi nuclear power plants. Prior to that, Magwood worked at the Department of Energy where he was largely responsible for the resurrection of nuclear engineering programs in this country.



Magwood launched a program providing hundreds of millions of dollars in grants to engineering schools for enhanced training in nuclear education for professors, scholarships for nuclear engineering students, expanding nuclear engineering faculty, and improving the teaching of various disciplines within

the nuclear engineering field.

The educational grant program, explained Magwood in an interview, began with the realization that the field was dying in American universities. "There were something like 1,300 nuclear engineering students throughout the country in 1992," said Magwood, "and it went straight down for years. When I became director of nuclear energy at DOE in 1998 the number was 480 students in all nuclear engineering programs across the country. People thought nuclear engineering was coming to an end as a discipline, and we did need to reverse that."

His grant program brought the current annual average number of students in nuclear engineering disciplines to about 4,000.

It is partly because of Maywood's career-long drive to support nuclear energy development that his nomination to the Commission drew opposition from nearly every major environmental organization that worked on nuclear issues.

Jaczko said in his letter of resignation that he would remain on the job until a replacement has been confirmed by the Senate and is ready to take over.

"That could be difficult given the poisonous atmosphere in Congress. It is difficult to get a nominee through the Senate," said Lochbaum. "In this case, however, Commissioner Svinicki's term is up and she has been renominated. But the Democrats have said they will oppose it.

"But now there is an opening for a chairman who would be a Democratic appointee. The Senate is more likely to vote for a Democrat and a Republican than either alone, so chances are both sides will hold their noses and vote for the pair."