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Business and Policy Coverage of the Power, Natural Gas, Oil, Nuclear and Renewable Industries

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FERC members rap Wellinghoff comments on grid attack

by JEFF BEATTIE

Obliquely criticizing media interviews on the subject given by former commission Chairman Jon Wellinghoff, three members of the Federal Energy Regulatory Commission Thursday warned that heavy media attention given to an April attack on a California substation—and discussion of incident details—could encourage “copycat” attacks or prompt industry and policymakers to over-react with costly and excessive new physical grid protections.

The commissioners raised the issue at FERC’s monthly open meeting Thursday, although none specifically named Wellinghoff,

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airborne radiation detected above ground following WiPP leak

BY GEORGE LOBSENZ

Trace levels of plutonium and americium were detected above ground near the fence line of the Energy Department’s Waste Isolation Pilot Plant following an apparent leak from a waste container that was first detected Friday in the underground transuranic waste disposal repository in New Mexico, DOE officials said Thursday.

At a news conference about the first leak from WiPP since it began waste disposal operations 15 years ago, Joe Franco, the manager of DOE’s WiPP office, also acknowledged that there had been a delay of several days before New Mexico officials were informed by DOE that radiation had leaked to the surface from

the repository, which the department discovered February 15 from above-ground monitoring.

Ryan Flynn, the newly appointed secretary of the New Mexico Environment Department (NMED), said the state was not notified by DOE about the above-ground leak until February 19, when an independent WiPP monitoring center at New Mexico State University publicly released data from an air monitoring station located along the WiPP access road that showed americium and plutonium levels above previously seen background levels.

Flynn agreed with Franco that the americium and plutonium levels were well below federal regulatory “action levels” for radionuclide releases and posed no threat to public health and safety.

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Nuke closures in RGGI states would spike carbon prices—UBS

by CHRIS HOLLY

The potential retirement of nuclear power plants in New York and elsewhere in the Northeast could make the recently tightened carbon reduction targets in the nine-state Regional Greenhouse Gas Initiative “unattainable,” an analysis released Thursday by the Wall Street analyst UBS Utilities concludes.

The UBS analysis takes a decidedly gloomy view of the impact of nuke plant closures in the Regional Greenhouse Gas Initiative (RGGI), the nation’s first multi-state effort to reduce power plant greenhouse gas emissions through an emissions cap-and-trade program.

Even the retirement of just one of New York’s four nuke plants—Entergy’s embattled but profitable 2,063 megawatt Indian Point—would hike the state’s carbon dioxide (CO₂) emissions by at least 26 percent, making further nuclear retirements in the state “unpalatable,” UBS said.

Closing the three remaining New York nuclear plants—the 1,773 MW Nine Mile Point, the 855 MW Fitzpatrick and the 581 MW R.E. Ginna facilities—would boost the state’s CO₂ emissions by another 37 percent, UBS said.

“As such, we see the state’s carbon goals as entirely unattainable with further [nuclear plant] retirements, increasing total state emissions by at least 60 percent, and the

entire RGGI region’s by [about] 25 million [short] tons, a cause for wider regional concerns,” UBS said.

RGGI states recently approved a 45 percent reduction in available emission allowances for use in the cap-and-trade program, which was launched in 2005 to demonstrate the effectiveness of market-based mechanisms in reducing greenhouse gas emissions and driving new investment in clean energy and energy efficient technologies.

The dramatic tightening of the RGGI cap was needed because the states already had cut emissions below the level targeted for 2018 due to the economic recession, mild weather and significant investments in energy efficiency and renewable energy by RGGI utilities.

Accordingly, RGGI allowance
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TransCanada eyeing PSC action for Keystone XL route approval

TransCanada officials said Thursday they may abide by a court decision and apply to the Nebraska Public Service Commission to gain approval for a new route through the state for their Keystone XL oil sands pipeline.

The company said it might pursue PSC approval while Nebraska Attorney General Jon Bruning (R) presses his appeal of the state court decision, which nullified action by Nebraska Gov. Dave Heineman (R) approving a new route through the state for Keystone XL.

Bruning's appeal sets the stage for a

legal proceeding that could last a year. In Nebraska, all appeals are filed with the state Court of Appeals, and then the state Supreme Court can decide which they will hear.

Brian Jorde, an attorney for the Domina Law Group that represented landowners who sued Heineman in the court case, said he expected the Supreme Court to accept the case and that they could make a decision in eight to 12 months.

On Wednesday, Lancaster County District Court Judge Stephanie Stacy ruled that the Nebraska law that gave Heineman the

authority to approve the Keystone route in 2013 was unconstitutional because the Nebraska Constitution gives authority to regulate pipelines to the PSC.

TransCanada executives told investors during a conference call Thursday that they were considering whether to apply for approval with the PSC while the appeal of the court decision moves forward. They said they expected the PSC could make a decision within seven months.

However, Jorde said he believes the PSC would give the pipeline far more rigorous review than it received from the Nebraska Department of Environmental Quality and Heineman, and that it was far from certain whether the PSC would approve a Keystone route.

Nuke closures in RGGI states would spike carbon prices... (Cont'd from p. 1)

prices rose to \$3 per metric ton in the December 2013 auction, up from a low of \$1.86 per ton in the September 2010 auction.

UBS said any significant loss in nuclear capacity could push RGGI allowance prices up to the \$10 cap in 2017, a level at which RGGI rules allow the sale of extra allowances from a reserve intended to ease price spikes.

The UBS analysis comes as New York Gov. Andrew Cuomo (D), widely seen as a likely candidate for the 2016 Democratic presidential nomination, has made it clear that he wants the Indian Point plant to shut down on the grounds that its proximity to New York City would place millions of people at risk if a serious accident were to occur.

While the Nuclear Regulatory Commission has approved a license extension for Indian Point, the plant's Clean Water Act permit has expired, and the state appears to be insisting that Entergy install cooling towers at the plant to address a variety of impacts on the Hudson River from the plant's prodigious cooling water withdrawals and heated water discharges.

Entergy, which is operating on a temporary water permit, has said that installing cooling towers would render the plant uneconomic to operate, and has proposed less expensive technology to reduce Indian Point's impacts on fish and other aquatic organisms.

The state appears unwilling to budge, however, and New York regulators last fall approved a suite of transmission, energy efficiency and demand reduction programs that collectively are designed to offset the

potential loss of Indian Point's capacity, even though Entergy has vowed not to close the plant.

Aside from the political pressure on Indian Point, smaller plants in New York and other RGGI states are facing serious economic competition from low-cost gas-fired generation, and UBS noted that those economic pressures will only grow as additional pipeline capacity is built to bring cheap Marcellus Shale gas production all the way to New England, which currently has gas pipeline constraints.

While New England, New York and the Mid-Atlantic region saw significant spikes in spot market gas prices during the bitter cold weather of January and early February, the new pipeline capacity will make the RGGI region awash in gas within a few years, further lowering the cost of gas-fired generation and putting even more pressure on nuclear generation in the region.

"Should gas basis be largely eliminated with new pipeline construction, we estimate New England power prices could decline by [about] 40 percent," UBS said.

UBS, however, suggested that the specter of sky-high CO2 allowance prices in the later years of the decade due to the loss of significant amounts of nuclear generation will lead RGGI state leaders to "blink first" and provide support to keep existing for nuclear generation in operation.

Most notably, UBS suggested New York officials might step in after a power supply contract currently held by Exelon's Ginna nuclear plant with Rochester Gas & Electric expires in

June.

While RGGI officials declined to comment on the UBS analysis, a recent analysis of the new RGGI cap by Thomson Reuters Point Carbon, an international carbon market analyst, suggests that utilities may have more breathing room than the UBS analysis indicates.

The Point Carbon analysis, released February 4, notes that RGGI emissions fell from 92 million tons in 2012 to 86 million tons in 2013, a drop of six percent and the third consecutive year in which emissions declined. Point Carbon also updated its long-term emissions forecast, dropping its forecast of 2014 emissions from 86 million tons to 83 million tons. The RGGI target for 2020 is 62 million tons.

At the same time, the Point Carbon analysis estimates that utilities have banked a whopping 122 million tons of allowances, which Point Carbon said would be sufficient to balance the market through 2019.

However, the analysis acknowledged that Point Carbon expects the market "will be highly sensitive to fundamentals moving forward."

Nonetheless, a Point Carbon sensitivity analysis indicated that the recent decision by Entergy Corp. to shutter the 604 MW Vermont Yankee plant would result in 1 million tons more emissions per year—assuming the capacity were replaced with gas-fired generation. The sensitivity analysis suggests it would take the closure of five to 10 nuclear plant in RGGI to consume all of the banked RGGI allowances.

Airborne radiation detected above ground following leak... (Cont'd from p. 1)

However, he told reporters: "I have questions as to why it took a couple of days to verify that a radiological event had taken place outside the underground."

Franco agreed that state officials should have been notified sooner of DOE's discovery of the above-ground leak, which prompted the department to start up an emergency operations center at WIPP on February 15.

"They should have been notified immediately," Franco said. "We should have done that on the 15th."

Flynn said New Mexico Gov. Susana Martinez (R) would be in Washington today to meet with federal officials about the WIPP leak and planned response actions.

And under questioning from reporters, Flynn said the incident would cause the state to review its support for proposals to expand the disposal of transuranic waste at WIPP as well as recent moves by local officials at Carlsbad, N.M., to consider storing other nuclear wastes in salt caverns near WIPP.

He also said the state had no intention of reconsidering a June deadline for DOE's Los Alamos National Laboratory to remove transuranic waste now stored at the New Mexico nuclear weapons facility by shipping it to WIPP.

WIPP is currently in a maintenance shutdown until March 10, but it is clear the facility will be closed to waste shipments from other DOE sites for some time while the cause of the leak is investigated and any necessary safety and cleanup measures are taken.

Franco said WIPP workers would not be able to go into the repository for weeks to determine why the leak occurred. He said possible causes included an unexpected roof-fall in WIPP's salt caverns or a waste barrel falling off a storage rack, though he said there had been no geologic disturbances in the area. He also said an underground fire at WIPP February 5 was not a likely cause because it was located thousands of feet from any waste container.

However, Franco confirmed that the radiation leak was from a waste container, saying underground monitoring data showed radionuclide "signatures" that were consistent with the type of wastes known to be stored in WIPP containers.

He also said the very low surface radiation readings are consistent with indications that high-efficiency particle (HEPA) filters in WIPP ventilation shafts had automatically kicked on when radiation was detected underground Friday night, preventing most of the radiation from escaping to the surface.

Franco said radiation levels in the repository had declined significantly since Friday night, indicating the leak was a one-time event.

He said recent underground monitoring showed radiation levels entering the HEPA filters were about 200 disintegrations per minute (dpm)—a measure of the intensity of a source of radiation—while radiation levels on the outlet side of filters were around 40-50 dpm. Franco said peak radiation levels measured Friday night were 4.4 million dpm.

Generally speaking, 60 dpm is equal to one becquerel, a measure of radiation exposure, and the federal Environmental Protection Agency action limit for radionuclides applicable to WIPP is 37 becquerels.

DOE called the news conference at WIPP after researchers at the Carlsbad Environmental Monitoring and Research Center (CEMRC), a DOE-funded entity associated with New Mexico State University, issued a press release Wednesday saying their analyses showed that low levels of americium-241 and plutonium-239 and plutonium-240 were detected by an ambient air sampling station located about a half-mile northwest of WIPP along the access road to the nuclear waste disposal facility.

The researchers said their surface monitoring data was from an analysis of a filter installed at the air sampling station by CEMRC personnel on February 11, prior to DOE's February 14 announcement that it had detected radiation within the WIPP underground.

CEMRC said that following DOE's announcement, the air sampling station filter was removed for analysis on February 16 and that it subsequently found 0.64 becquerels of americium-241 and 0.046 becquerels of plutonium-239 and 240 were deposited on the filter media.

"The levels detected during this time period are higher than the normal background

levels of radioactivity from transuranic elements commonly found at this sampling station, thus their presence during this specific time frame appears to indicate a small release of radioactive particles from the WIPP underground exhaust shaft in the brief moments following when the radiation event occurred and when the WIPP ventilation system shifted to the filtration mode," CEMRC said in its press release.

CEMRC said it has previously detected americium-241 and plutonium-239 and 240 on filters at this station on four separate occasions since 2003, but the highest activity measured on those occasions was 0.0005 becquerels for americium-241 and 0.004 becquerels for plutonium-239 and 240. The researchers said the composition of various plutonium isotopes in those readings showed that radioactivity was likely the result of global fallout from atmospheric nuclear weapons tests conducted from the 1940s to the 1960s.

CEMRC said it would conduct similar plutonium "ratio analysis" on the recent radiation readings, but "given the higher activity and the short timeframe from which the activity occurred, it is likely that this activity came from within the WIPP repository itself."

In a press release Wednesday, DOE said CEMRC's detection of trace amounts of americium and plutonium was "consistent with the fact that HEPA filters remove at least 99.97 percent of contaminants from the air, meaning a minute amount still can pass through the filters.

"As noted by the CEMRC, an independent environmental monitoring organization, the levels found from the sample are below the levels established by the Environmental Protection Agency to ensure public health is protected, the department added.

CEMRC said analysis of filters from another air sampling located 11.8 miles southeast of WIPP on a state highway showed no detection of radioactive particles at that location. WIPP is located about 26 miles east of Carlsbad.

DOE officials said they are conducting extensive surface radiation monitoring to determine the extent of any releases from the underground.



ISO New England chair leaving

Kathryn Jackson, chair of the board of ISO New England Inc., the regional grid operator, is stepping down effective April 25, and the ISO board said Thursday it elected

member Philip Shapiro as vice chairman to become chairman on Jackson's departure.

Jackson, who is leaving to join the board of Portland General Electric Co. in Oregon,

has been ISO New England's chair since February 2013.

Shapiro has been a member of the grid operator's board since 2010 and is currently chief financial officer of Babson College in Massachusetts.

FERC members rap Wellinghoff comments on grid attack.. (Cont'd from p. 1)

the former FERC chairman who left in November for the law firm of Stoel Rives LLP.

Instead, each of the three commissioners gingerly alluded to the former chairman, and each expressed slightly different concerns about recent attention given a gunshot assault last April that damaged a Pacific Gas & Electric substation in California.

Wellinghoff gained prominent mentions in the media this month after giving interviews about that attack, and U.S. grid security in general, to the Wall Street Journal and National Public Radio, among other outlets.

Although news of the incident has been public for months, Wellinghoff's interviews stressed the sophisticated nature of the attack, and the media reports discussed some details that were not widely known. While the stories cited multiple sources, in the Journal article Wellinghoff called the event "the most significant incident of domestic terrorism involving the grid that has ever occurred."

Most pointed in his criticism of the flurry of media reports on the incident—although still not very direct—was Republican FERC Commissioner Philip Moeller, who issued a written statement Thursday reacting to the February 5 Journal article on the PG&E substation attack that included an interview with Wellinghoff.

Moeller said the United States has "the world's most advanced and robust electric transmission system that can respond instantly to planned and unplanned outages and even attacks.

"However, highlighting any real or perceived vulnerabilities and sharing specific security information or responsive actions may inadvertently promote the prospect of additional copycat attacks," he said.

Asked later to elaborate, Moeller told reporters: "I am saying public officials should be cautious—or former public officials should be cautious—in their statements because you don't want to be giving away details that could encourage additional attacks."

Moeller said he was not referring to any particular former public official, but Welling-

hoff was the only former public-sector official named in the Journal article.

Commissioner John Norris—like Wellinghoff, a Democrat—made clear he was referring to the former chairman while expressing different concerns about attention given the attack on the Metcalf substation.

"My concern is that many people have jumped on this reaction train with regard to Metcalf, and while I don't mean to disregard the incident in any way, I would remind everyone that it is an isolated incident and to my knowledge no conclusions have been drawn [by] law enforcement agencies about the nature of the attackers...," said Norris in lengthy comments at the start of Thursday's meeting.

"And yet a number of elected officials, and our former colleague, have called for significant measures specifically geared toward erecting physical barriers to our grid infrastructure.

"While there may be some locations where it would be appropriate or wise to increase physical barriers, I caution [against] over-reaction in this area," Norris said. "Our future is in a much smarter and more nimble grid, along with better communication and coordination, to mitigate against multiple forms of risk," including cybersecurity threats, geomagnetic disturbances and severe weather, Norris said.

Norris noted that the United States has 55,000 substations over 100 kilovolts in size, plus more than 400,000 circuit miles of transmission lines, that would be cripplingly expensive to fully shield from physical attack.

"I'm getting the impression that it could be billions of dollars spent on creating barriers and fences in response to one isolated incident and addressing only one element of multiple threats to our system," he said.

But Wellinghoff, reached by phone after Thursday's meeting, said he has not been advocating physical security changes nearly that sweeping or expensive.

Instead, Wellinghoff said he has urged new protection at only the most critically located, high-voltage U.S. substations, which he said

number less than 100.

Wellinghoff also strongly rejected any suggestion that he improperly revealed security-sensitive information or encouraged "copycat" attacks in interviews on the Metcalf incident.

"None of the information that I have discussed was classified, and no one has indicated to me that I've revealed something. The only thing that I've discussed publicly with any reporters is information that was previously publicly available," Wellinghoff said.

"Certainly no one should be discussing security details. What we should be discussing is that we need physical security on the most critical substations—I do not think anyone disagrees with that."

Grid security is not a new concern for Wellinghoff, who as FERC chairman was outspoken on the need for new federal grid protection legislation. During Wellinghoff's tenure, FERC also took numerous steps to boost grid protections, along with the North American Electric Reliability Corp (NERC).

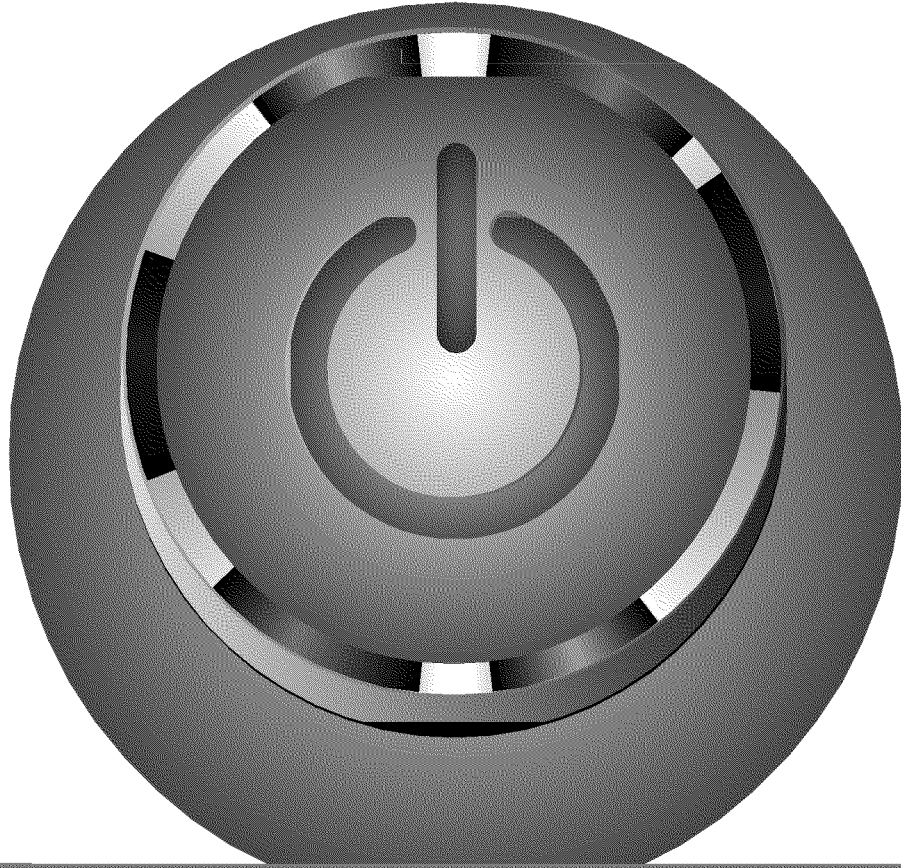
Like anyone starting a private practice, however, Wellinghoff's recent media appearances may also have been designed partly to gain attention for his firm, several sources pointed out this week.

In Thursday's meeting, acting FERC Chairman Cheryl LaFleur said nothing about Wellinghoff's Metcalf media interviews, although she noted "a lot of attention" given recently to physical grid security.

But LaFleur appeared to refer to Wellinghoff's comments when further queried by reporters after the meeting.

"We have taken a view as a commission that you should be communicating the lessons-learned from these events with the people who can apply those lessons, and [that more broadly] communicating details of either what happened...or specific steps taken, like how many inches a camera was moved or whatever, could potentially get the information in the wrong hands," LaFleur said.

"So we have taken a different approach in our information communication."



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