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Pilgrim Nuclear Plant in Massachusetts to Close by 2019

October 13, 2015-The owners of the Pilgrim Nuclear Power Station in Plymouth, Massachusetts, have announced that they will close the plant by June 2019. Entergy Corp. said Tuesday it is closing the only nuclear power plant in the state because of "poor market conditions, reduced revenues and increased operational costs." The decision by New Orleans-based Entergy Corp. comes about a month after federal inspectors downgraded the plant's safety rating to the lowest level and said they would increase oversight in the wake of a shutdown during a winter storm. Owners maintained that the plant remained safe although it needed millions of dollars in upgrades.

"The real issue here is the financial viability of the plant," said Bill Mohl, president of Entergy Wholesale Commodities. The decision to close the plant was a "decision of last resort," Mohl said. The 680-megawatt plant, which went online in 1972, was relicensed in 2012 for an additional 20 years and is the only nuclear power plant in Massachusetts. It employs about 600 people. The timing of the shutdown depends on several factors, including further discussion with ISO-New England, the operators of the regions' power grid. Entergy Chairman and Chief Executive Officer Leo Denault said the decision to close Pilgrim was "incredibly difficult." Management cited several reasons for the decision, including low current and forecast low wholesale energy prices that are expected to lead to annual losses of more than $40 million in revenue for Pilgrim. The company also blamed state energy poli-

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NRC Issues Operating License for Watts Bar Unit 2, Oversight Continues

October 22, 2015—The Nuclear Regulatory Commission has issued the Tennessee Valley Authority (TVA) a 40-year operating license for Watts Bar Unit 2. This is the first U.S. reactor the NRC has authorized to operate since 1996, when the agency issued the license for Watts Bar Unit 1.

The Watts Bar plant, located in Spring City, Tenn., about 60 miles southwest of Knoxville, now has two pressurized-water reactors. The Unit 2 license allows operation through Oct. 22, 2055.

"After devoting more than 200,000 hours over eight years conducting exten-

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NRC Issues Operating License for Watts Bar Unit 2, Oversight Continues

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sive safety reviews and inspections, we're satisfied Unit 2 is safe to operate and we've issued TVA the operating license," said Bill Dean, director of the NRC's Office of Nuclear Reactor Regulation. "We already monitor Unit 1's performance through our Reactor Oversight Process, which is used at all reactor sites throughout the country, and we're adding Unit 2 to that system. Staff from our Region II office in Atlanta will ensure TVA meets its requirements as it loads fuel into Unit 2 and runs tests before the unit starts generating electricity."

TVA had maintained Unit 2 in an incomplete state since 1985 and had extended the unit's construction permit since then. In 2007, the utility began efforts to complete Unit 2 and updated its operating license application in March 2009. The NRC staff completed its Unit 2 environmental review in May 2013 and the staff has been supplementing the Unit 2 safety evaluation report on an ongoing basis. The NRC's Advisory Committee on Reactor Safeguards also reviewed the staff's work and supported the licensing decision.

Watts Bar is the first site to comply with the agency's Fukushima-related Orders on Mitigation Strategies and Spent Fuel Pool Instrumentation. The agency has two Resident Inspectors at Watts Bar for day-to-day oversight of site activities, and an additional Resident Inspector for continued oversight of start-up activities at Unit 2. The Watts Bar 2 decision means there are now 100 U.S. commercial reactors licensed to operate.

U.S. Sens. Lamar Alexander and Bob Corker released the following statements on the announcement by the Nuclear Regulatory Commission that it has issued the Tennessee Valley Authority a 40-year operating license for Watts Bar Unit 2: Alexander: "Watts Bar Unit 2 is the country's first new reactor built in the 21st Century, and I am very pleased to see it is ready to go online. Soon, it will bring cheap, clean and reliable energy, as well as good-paying jobs, to the Tennessee Valley."

CONTACT: Scott Burnell, The Chattanoogan.com

Mexico May Add Two Reactors to Laguna Verde Power Station

September 26, 2015- Mexico's Energy Ministry says it may decide within the next 12 months whether to seek permits to build two new full-size nuclear reactors next door to the two that have been in revenue service since 1989 and 1994 respectively. Both units are 800 MW GE BWRs.

The Deputy Energy Minister for Electricity, Cesar Hernandez, told the Reuters wire service on 9/24 that internal studies are being developed that will help the agency decide whether to move forward with the plan.

The country has relied heavily on natural gas over the years for electricity generation. According to the World Nuclear Association, plans to build additional nuclear reactors have been under development since 2010. The government's studies urge it to look past low gas prices to consider building two more reactors at Laguna Verde as a first step in expanding nuclear capacity by 2026.

If built the units would be approximately 1000 MW with about 160 MW of the electricity from each reactor powering reverse osmosis sea water desalinization plants.

Hernandez did not provide Reuters with an estimate of the cost of the new reactors nor did he provide an estimate of what the electricity from the plants would cost to users. The government agency in charge of electricity charges different subsidized rates for residential, industrial, and agricultural customers.

Rates for residential users are low, even by US standards, at an average of $0.055/kWh. EIA data report that average U.S. residential power rates are at $0.126/kWh or about 57% higher than the government-subsidized rate in Mexico.

At current "overnight" prices of a minimum of $4,000 on average globally, the new reactors could cost at least $4 billion each assuming construction costs are lower in Mexico. The units could cost more depending on when construction breaks ground and which vendor supplies the major long lead time components. The new reactors would be built and operated by the Federal Electricity Commission of Mexico. In terms of licensing, the National Commission on Nuclear Safety and Safeguards (CNSNS) is a semi-autonomous body under the authority of the Ministry of Energy. It is responsible for regulations and safety for nuclear installations. CNSNS is also responsible for site evaluations and licenses for new nuclear reactors. In the case of Laguna Verde, the site is already in use as a nuclear power station.

Nuclear energy accounts for about 4.6% of electricity generation in Mexico according to the OECD/NEA. Two new units would double that figure.

Posted on Neutron Bytes

Nuclear Energy Must Be Part of the COP21 Climate Change Solution

October 16, 2015 - In December, representatives of world governments will take on one of the most daunting technological challenges of our time: ratifying an agreement to reduce carbon dioxide (CO2)emissions by 80 percent by 2050. They will meet in Paris for the 21st Conference of the Parties to the UN Framework Convention on Climate Change (COP21).

Unfortunately, there is a significant threat to any realistic plan being formulated in Paris – it's the Bonn Agreement. This agreement, an outdated holdover from COP6 in 2001, would place significant limitations on nations that want to choose nuclear energy to meet their carbon reduction goals. Given the scale of today's global challenge, every country needs access to the widest possible portfolio of low-carbon energy sources, including nuclear.

More than one billion people are living today without the basic energy resources we in the United States take for granted that are vital to health and prosperity. That number is estimated to grow to three billion by 2050 if action isn't taken now. We need the clean energy of all current nuclear power plants to minimize the use of fossil fuels as renewables seek to ramp up to the baseload scale that nuclear now provides. This may take many years to achieve. Without nuclear, more damage will be done to the environment and the world will be scrambling just to get back to current CO2levels, let alone reduce them even further.

Study after study has shown that it is unrealistic to expect the world to achieve an 80 percent reduction in CO2 emissions by 2050 without a significant expansion of nuclear energy generation. Yet under the agreement language currently being considered, developing nations wishing to make nuclear part of their energy/climate strategy would face major difficulties, as nuclear projects could be prohibited from receiving financial assistance from the climate pact's sizable development mechanisms. The proposal would also directly contradict the U.S. EPA's Clean Power Plan. It would prevent developed nations from counting the emissions reductions of nuclear plants constructed after 1997 toward their carbon target, while the U.S. plan explicitly acknowledges new nuclear is an acceptable compliance strategy.

Last week, I sent a letter to President Obama urging him to instruct the U.S. COP21 delegation to support removal of the Bonn language during the deliberations and help lead a "Coalition of the Realistic" to ensure that if any agreement is reached, nations are free to pursue their clean energy commitments without arbitrary limitations on the technological pathways they choose.

The men and women of the American nuclear technology community are committed to the environmental stewardship of our planet. Any restrictions on nuclear energy in the COP21 agreement will have a chilling effect on the development of current and future nuclear technologies that have the ability to lift billions of people out of poverty. Nuclear technology serves as the workhorse of the low-carbon energy needed to protect the world's atmosphere.

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White House Summit Spotlights Nuclear Energy's Value in Climate Change Fight

November 05, 2015. - The Obama administration on Friday convenes the White House Summit on Nuclear Energy examining the role of nuclear energy in reducing carbon emissions as part of efforts to combat the threat of climate change. Following is a statement from Marvin Fertel, the Nuclear Energy Institute's president and chief executive officer. "The nuclear energy industry eagerly anticipates tomorrow's White House Summit on Nuclear Energy. This event reflects recognition of the indispensable—and larger—role that nuclear energy must play in any successful effort to reduce greenhouse gas emissions from the electric sector. "The Nuclear Energy Institute and our member companies throughout the industry greatly appreciate the administration's decision to hold this summit as it moves toward implementation of the Environmental Protection Agency's Clean Power Plan and embarks upon the next round of emissions reduction negotiations during the international climate change talks in Paris in a few weeks. "Globally, nuclear energy generates 33 percent of the electricity supplied by zero-carbon sources. In the United States, nuclear energy is by far the largest source of zero-carbon power, generating 63 percent of the electricity from emission-free sources. This reality makes it clear that any credible, sustainable program to reduce carbon emissions must preserve existing reactors, encourage license renewal and encourage the construction of new nuclear energy facilities.

"Alarmingly, over the past three years, four reactors vital to regional economies and clean air efforts have been shut down prematurely already or will be retired prematurely within the next few years. If the United States is to substantially reduce carbon emissions, we cannot afford to prematurely close any more nuclear power plants because of flawed electricity markets. At the same time, new reactor construction—including development of small modular reactors and other advanced reactor technologies—should be pursued vigorously.

"Given the global growth of nuclear energy—with more than 200 reactors either under construction or in the licensing and advanced planning stage—it also is important that American nuclear energy vendors and suppliers have the opportunity to compete in international markets on level footing. This will simultaneously advance several objectives—reducing carbon emissions, creating U.S. jobs, improving nonproliferation practices and enhancing global nuclear safety. "Identification of opportunities to better realize nuclear energy's promise domestically and internationally is among the important outcomes we hope to realize during the summit."

By Nuclear Energy Institute, Washington, D.C

Nuclear Energy Must Be Part of the COP21 Climate Change Solution

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To fight climate change and ensure that nuclear technology will be available for future generations, the American Nuclear Society (ANS) has partnered with more than 100 organizations internationally to form Nuclear for Climate (#Nuclear4Climate), an international collaboration highlighting the need for nuclear energy to fight climate change. ANS will be attending COP21 in December to work toward these goals. Sending the strong message to those signing the COP21 agreement that nuclear must be treated equally with comparable low-carbon sources such as solar, wind and hydro is imperative. We are at a watershed moment in protecting the earth's climate. The world needs all low-carbon energy sources to prosper and to give developing nations the chance to provide electricity to their citizens. Let's make sure that nuclear technology is available as part of the climate solution.

By Eugene Grecheck, THE HILL, Grecheck is president of the American Nuclear Society.

Operators of Fitzpatrick Nuclear Plant File Notice of Closure with NRC

November 18, 2015- The owners of the James A. Fitzpatrick Nuclear Power Plant in Oswego County say talks with state officials to keep the facility open have been “unsuccessful,” and on Wednesday filed a notice with the federal Nuclear Regulatory Commission indicating they would close the money-losing plant. Meanwhile, the operators of another struggling nuclear facility were scheduled to have a closed-door meeting with senior state energy officials, according to sources with knowledge of the meeting. Entergy, which runs the Fitzpatrick plant, filed a notice with the NRC that the plant would permanently cease operations at the end of its current operating cycle. Fitzpatrick, which employs 600 and contributes $17 million in annual taxes, is expected to be closed in about a year. Entergy said the plant lost about $60 million this year, largely due to competition from cheap natural gas. Company officials were seeking some sort of financial incentives, similar to those used to incentivize the renewable industry, to bring down their costs.

Politico New York

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cy. "When we look at energy policies in Massachusetts we see a proposed clean energy standard that excludes nuclear, a preference for Canadian hydro power and the subsidization of gas pipeline capacity through electric ratepayers, and put that all together ... and it became clear to us that we needed to make the decision to retire Pilgrim," Mohl said.

The plant will remain under enhanced oversight by the federal Nuclear Regulatory Commission throughout the process, and Entergy expects to spend $45 million to $60 million at the plant during that time, he said. After shutting down, Pilgrim will transition to decommissioning. The Pilgrim nuclear decommissioning trust had a balance of about $870 million as of Sept. 30, Entergy said. Entergy's decision was met with mixed reaction from groups that have been fighting for decades to have the plant shut down and fiercely fought relicensing. The state will continue to live in the shadow of a plant that many people consider dangerous, said Arlene Williamson of Cape Downwinders. "Entergy doesn't have the financial ability to get Pilgrim out of the dog house, but it will continue to operate for four more years with many safety violations and mechanical failures," she said. But Mohl said the plant's neighbors have no reason worry, and that the spent nuclear fuel at the site will be safely placed in storage onsite and could be there for decades. He said cutting safety corners "is not an option and not the way we do business." "We are absolutely committed to safety," he said. Craig Pinkham, acting president of Utility Workers Union of America Local 369, which represents many Pilgrim workers, called on Entergy and the NRC to work together to keep the plant open. The plant, he said, provides 17 percent of the electrical power to Massachusetts. Gov. Charlie Baker, who in the past has expressed confidence in the plant's safety, said his concern now is meeting the electric generation needs of the region. "Losing Pilgrim as a significant power generator not only poses a potential energy shortage, but also highlights the need for clean, reliable, affordable energy proposals," the Republican governor said.

U.S. Sen. Edward Markey, D-Massachusetts, also called for a greater commitment to renewable energy. "Pilgrim Nuclear Power Station is just the latest example of how nuclear power simply cannot compete in the current energy market," he said. He later added: "With this announcement we must also recognize that the time is now in New England and around the nation to rapidly transition toward the safe, affordable clean energy of wind, solar and geothermal power and continue to invest in energy efficiency and making the vehicles on our roads even more fuel efficient."

Associated Press.

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NWI Consulting, LLC is a professional consulting firm specializing in power generation performance improvement services, specialized learning interventions, computer-based training, organizational development, accreditation renewal/recovery, and professional staff augmentation. NWI has a broad portfolio of U.S. and international clients in the electric generation industry and is headquartered in Knoxville, TN. NWI's power plant services includes supporting such areas as Operations, Training, Work Control, Outage Management, Performance Improvement, Nuclear Oversight, Maintenance, Radiation Protection, Chemistry, and Emergency Preparedness. NWI has assisted clients in other, more specialized efforts including Leadership/Management Development, Executive Coaching, Conflict Resolution, Multi-Discipline Assessments, Root Cause Analyses, NRC 95-003 Preparations and specialized Safety Analysis (50.59).

NWI News Update

The following key activities are being conducted by NWI professionals...

- INL Performance Improvement/CAP
- TVA Nuclear Power Group—BFNP QA/Performance Improvement
- Xcel's Monticello MELLA++ Project Management
- GGNS, Pilgrim, RBS, Waterford & Arkansas Nuclear One—Nuclear Safety Culture, Corrosion Control, PN14 and 95003 Recovery, Performance Improvement/CAP, Maintenance, Work Management & Corporate Support
- EPRI Service Life and Switchyard Reliability Programs

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