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Office of the Secretary, Rulemakings and Adjudications Staff
U.S. Nuclear Regulatory Commission
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OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

To Whomever It May Concern:

I am writing to urge the Nuclear Regulatory Commission and the Atomic Safety Licensing Board to deny Entergy's application for a 20-year license extensions for the two nuclear reactors, IP-2 and IP-3, at Indian Point Energy Facility in Buchanan, NY. They are reaching the end of their designed lifespan, are leaking and deteriorating, with a long, troubled history of mishaps and accidents, and the reactors and the spent fuel they continually generate constitute an already unacceptable and growing danger to many millions of Americans working and living in the area. Protecting public health and safety demands that these reactors be decommissioned promptly on schedule, not relicensed for another 20 years.

Located in the most densely populated region of the country, Indian Point is one of the most dangerous nuclear plants in the nation, according to the Nuclear Regulatory Commission (NRC) itself. During IP's operation we have witnessed serious nuclear accidents at Chernobyl and Three Mile Island, and most recently at Fukushima. In August 2011, New York experienced the effects of an earthquake, Hurricane Irene, and a tornado all in one week. Last week, there was an earthquake in Stamford, Connecticut, along one of the two fault lines that converge within a mile of Indian Point. Seismic risks, terrorism risk, the plant's considerable deterioration, lax management and other factors make a serious accident at Indian Point plausible and not dismissible.

Many factors make Indian Point's relicensing application flawed, and make denying it imperative, including:

Severely Narrowed Relicensing Process: Over the years the relicensing process for nuclear power plants has been severely narrowed to exclude critical information and criteria for public health and safety, such as increased population density, the lack of a viable evacuation plan that can actually be implemented and can serve populations in 50-mile radius as was recommended in the Fukushima disaster (the current plan covers only 10 miles and excludes the vast majority of the 20 million people living downwind of the plant), or the health impacts of ongoing releases of radioactivity into the air and water. To take just one example, the Atomic Safety Licensing Board's decision to exclude from consideration the two earthquake faults documented in 2008 by Columbia University's Lamont-Doherty Earth Observatory seismic experts contradicts important evidence. Indian Point was built four decades ago to withstand a 5.8 or 5.9 quake; we can expect a 7.0 quake or higher in this region according to Lamont-Doherty.

An Aging, Leaking, Troubled Plant: Relicensing decisions currently rest solely on the physical condition of the reactor and supporting equipment and exclude other considerations. That's not a rational approach to protect public safety and health, but even on that bureaucratically narrow basis alone, the plant should not be relicensed. IP2 has long ranked among the most unsafe reactors in the US. IP3 is the single most vulnerable reactor to earthquakes. One of the nation's oldest plants, Indian Point has a poor track record of accidents and safety violations -- a steam boiler rupture, transformer explosions, siren failures, clogged cooling system

intakes and planned and unplanned releases and ongoing leaks of radioactivity – and becomes more unsafe as it ages. Entergy has regularly sought -- and received -- exemptions from basic regulations such as fire safety. The spent fuel pools contain enough radioactivity to render our region *uninhabitable* and were found to be “exposed and unsecured” in a New York State report. The plant is leaking radioactive isotopes from the groundwater under the plant into the Hudson River -- I've seen the maps of the radiation leakage in Appendix A of [this document](#) filed with the NRC by the New York State Attorney General's office. We don't know the exact source of the leaks or the true extent of them, as corrosion is difficult to detect in buried piping.

Inadequate Security in an Age of Terrorism Threats: In addition to its many safety problems, Indian Point is a security risk and an avowed target of terrorists. It was buzzed by one of the planes that destroyed the World Trade Center on 9/11. At the time, Homeland Security Director Tom Ridge told the media that plant security was "the prerogative of the plant owner." In that light, IP security worker Clifton Travis Jr.'s allegations in a lawsuit recently filed in State Supreme Court in Westchester are of particular concern: the suit alleges that nearly half the lights on IP's perimeter don't work, and that security workers sleep on the job, play video games and watch DVDs. The plaintiff says Indian Point's safety provisions are so lax that he's suffered from crippling anxiety about it. He's not the only one.

Dangerously over-crowded fuel pools: The plant's spent fuel is highly radioactive and dangerous. Indian Point's spent fuel pools contain about three times the radioactivity as Fukushima's spent fuel pools. Spent fuel assemblies are densely packed into severely over-crowded fuel pools, which are housed in unfortified, vulnerable metal storage buildings, and they are leaking radioactivity into the Hudson. Because of the dense packing and the layer of debris that covers the bottom of the fuel pools, Entergy is unable to even see or inspect 60% of the fuel pool liners. The Boraflex panels, which are meant to absorb neutrons and prevent the rods from going critical, are degrading over time, with no studies and no data about whether they will function after their 40-year lifespan expires with the current license. As a result, the possibility of a spontaneous fuel pool fire and major release of lethal radioactivity is not negligible and is increasing over time.

De Facto On-Site Waste Storage: When the plant was first licensed it was widely believed that the federal government would open a national waste depository at Yucca Mountain to which spent fuel from Indian Point would be sent. That operating assumption is so contrary to fact that the DC Circuit Court of Appeals recently struck down the waste confidence decision, which should itself be sufficient argument for denying Indian Point relicensing. Indian Point is now storing 1,500 tons of highly-radioactive spent nuclear waste on site and would add an additional 1,000 tons if the plant is relicensed for another 20 years, an unacceptable threat to the region. It functions as a de facto long-term waste repository, which it was never designed to do, in the midst of the most populous region of the US, and on the shores of the Hudson. As the reactors continue to run and make more spent fuel, we are daily compounding the dangers of these fuel pools.

Health and Environmental Impacts: Although health impacts are not being considered in the relicensing hearings, studies have shown increased rates of cancers and other illnesses related to exposure to radioactivity. Long-term radiation exposure from nuclear plant emissions, even in tiny amounts, increases cancer risk. A recent study found elevated rates for 19 out of 20 types of cancer in the four counties closest to Indian Point (Westchester, Putnam, Rockland and Orange), including thyroid cancer rates 56.1% higher than the national average.

Though the nuclear industry paints itself as green, it is anything but. The lifecycle of nuclear energy emits four to five times more carbon than renewables, and continually creates lethal radioactive waste which accumulates on site. Indian Point contaminates our air, groundwater, and the Hudson River with radioactivity. Indian Point's once-through cooling system uses 2.5 billion gallons of water a day from the Hudson River, seriously impacting its still declining fish population. Its fish kills, thermal pollution and oil leaks have caused massive damage to Hudson River ecology. As stated above, Indian Point is leaking radioactivity into the Hudson. The New York State Department of Environmental Conservation has repeatedly detected the deadly radioactive

isotope strontium-90 in Hudson River fish. Meanwhile there are plans to build a desalination plant on the Hudson less than 3.5 miles away from IP's radioactive leaks to supply drinking water to Rockland County, and strontium-90 has been detected desalinated Hudson River water in pilot plant tests.

Lack of a Viable Evacuation Plan: Consultants paid by Entergy draft the evacuation plan, which is widely known to be a pro-forma, non-working plan. An independent study by former FEMA director James Witt found the plan inadequate to protect public health and safety. It is designed to evacuate only a “keyhole” -- a tiny two-mile radius around the plant, plus a 10-mile swath in the direction of the wind – but it’s incapable of doing even that. The effective two-mile coverage contrasts starkly with the NRC's recommendation that Americans within 50 miles of the stricken Fukushima plant evacuate. Japan had much more robust emergency planning than we have, real-time drilling not table top dills, e.g., and even the Fukushima evacuation was a chaotic traffic jam.

Commuter traffic jams our local roads now; they’d quickly become impassable in a nuclear emergency here. The evacuation plan prevents parents from picking up their schoolchildren. People without cars and many institutionalized populations are left to “shelter in place.” The plan ignores the 17.5-mile “peak fatality zone” and the 50-mile “peak injury zone,” which includes almost all of New York City.

Experts argue over the probability of an earthquake, a terrorist attack, or a fuel pool fire or other accident at Indian Point that would release large amounts of radioactivity. Whatever the probability of such an event, it’s clear the consequences would be devastating. Approximately 20 million people live or work within 50 miles of Indian Point. We lack radiation decontamination facilities for even a handful, much less the planning or the ability to accommodate massive numbers of nuclear refugees fleeing a radiological emergency at Indian Point.

Since no truly adequate evacuation plan exists or is possible in our congested region, the only remedy for protecting public safety is closing and decommissioning the plant on schedule.

Indian Point is Obsolete; We No Longer Need Its Power: When Indian Point was built, most of its electricity was used by local utilities. Now it is delivered to the grid and most of it is sold nationally to the highest bidder. Less than 25 percent of Indian Point's 2,000 MW capacity is used in New York State. This nuclear power is rapidly being replaced by energy efficiency and renewable, repowering and improved storage and transmission capability. Until recently 98% of the research, development and infrastructure investment went to nuclear and fossil fuel, and less than 2% to renewables and energy efficiency, but now this sector is experience rapid growth. In fact 4,000 megawatts of wind are being developed, mostly in the western part of the state, and Governor Cuomo’s Energy Highway is currently addressing ways to bring this excess power more efficiently to the greater New York metropolitan area.

Already, the vast majority of Indian Point’s power is sold out of state. Its reactors go offline routinely with no blackouts. If we closed it tomorrow without adding new capacity, there would be no disruption to the power grid, and only small cost increases. But plenty of cleaner, safer replacement power is immediately at hand.

There is plenty of credible evidence that there would be enough power available from existing and approved generating units in New York State and neighboring grids to meet the area's electricity needs with the permanent retirement of Indian Point at the end of its current licenses. For example:

- The October 2011 report by Synapse Energy Economics, a Cambridge-based research company, confirmed that closing Indian Point will not cause economic problems or electricity shortages in the State. Their report found that Indian Point now makes up only 12 percent of Con Ed's contracted capacity, down from 26 percent in recent years, and provides only 3 percent of New York City's total energy requirements – and just 16 percent of the total amount of electricity that New York City can receive from outside the five boroughs. Synapse found that enough power to replace Indian Point several times over can come online in the next three years. New power will come from modernizing existing gas plants to make them more efficient, building new transmission lines and other measures. Much of it is already in the pipeline.

- In January 2012, the NYS Assembly Committee on Energy and the Committee on Corporations, Authorities and Commissions concluded that coordinated investments in the existing transmission system, energy efficiency, and the completion of projects already in the planning process would provide more than enough resources to allow Indian Point to close without overburdening ratepayers or threatening reliability standards. The Power New York Act 2011, an energy and jobs bill, established a new Article X power plant siting makes it easier to permit smaller renewable projects and includes provisions to help make energy retrofits of homes and businesses more affordable-saving money and creating green-energy jobs.
- This week, NYPA announced that its contract to buy 200 MW for its government customers in NYC will end in September 2013 and not be renewed. That's an indication what little power Indian Point still supplies to our region will soon further decline sharply. Here's an excerpt from Reuters coverage of the announcement: "NYPA, meanwhile, said it will not extend the contract with Indian Point, and that if the agreement were to expire today, it would not need to renew it because there were excess supplies of low-cost power in the marketplace....NYPA said if it needs more power for its New York City government customers in the future, it would work with those customers to determine how to source that power. Those sources could include generators in the giant PJM power grid, which runs from New Jersey to Illinois, when private transmission company Hudson Transmission's new 660-MW power cable under the Hudson River connects New York City to New Jersey in 2013."

For all these reasons, Entergy's relicensing application for Indian Point merits denial. In addition, the following steps are needed to protect public health and safety:

- The NRC should require Entergy to move as much fuel out of the spent fuel pools as possible and into hardened dry cask storage to reduce the risk of an accident or spontaneous fire in the pool. This simple mitigation measure will make the nuclear waste storage safer in the short-term. Denying the plants relicensing application will prevent further accumulation of dangerous high-level nuclear waste.
- Congress should hold hearings or establish an independent commission to review nuclear safety and to expand what is considered in the relicensing process. This should include Congressional hearings on the NRC's ability to oversee safety at Indian Point, the storage and disposal of spent fuel, and evacuation planning.
- The NYS Department of Environmental Conservation should continue to withhold a water permit that the agency withheld in April 2010 because IP does "not and will not comply with existing New York State water quality standards." The current cooling system releases radioactive material (including tritium, strontium-90, and cesium) from spent fuel pools, pipes, tanks, and other systems into the Hudson River and kills billions of organisms every year, including endangered species.

Indian Point could never be licensed in its present location or condition today; to extend its current licenses would pose an unacceptable and needless threat to public health and safety. It's not just fringe elements who believe this and want Indian Point closed when its licenses expire. Former NRC Commissioner wrote of Indian Point in *The New York Times* in December 2011, "It doesn't make sense to allow such a threat to persist a half-hour's drive from our nation's largest city." Among the many others who have taken a stance against Indian Point relicensing are Governor Andrew Cuomo, members of New York's Congressional delegation, and many state and local elected officials including New York State Assemblymen Kevin Cahill and James Brennan, NYS Assemblywoman Naomi Rivera, and many others. A recent poll by ORC International found an overwhelming majority of Americans across the political spectrum want to start building a clean energy future now – without nuclear power. We don't need Indian Point's power and can't tolerate its growing threat to public health and safety for 20 more years. It's time for the NRC under its new commissioner to fulfill its mandate to protect the American public as opposed to the plant's private, for-profit corporate owner indemnified

at public expense. The ASLB should deny relicensing, and the NRC should require decommissioning funds to be used to close Indian Point on schedule when its current licenses expire.

Sincerely,

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