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Docket: NRC-2009-0337
Notice of Receipt and Availability of Application for a Combined License

Comment On: NRC-2009-0337-0020
Combined License Application for Turkey Point Nuclear Plant, Unit Nos. 6 and 7; Draft Environmental Impact Statement

Document: NRC-2009-0337-DRAFT-0150
Comment on FR Doc # 2015-05099

Submitter Information

3/5/2015
80 FR 12043
(153)

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General Comment

Sirs,

I request that you deny FPL's request to spend in excess of 18 Billion dollars in order to construct two new AP-1000 reactors at Turkey point and operate them mid 2020's onwards to 2090's.

1st.
The estimated sea level rise by the end of this century is from 1 to 2 meters(7 feet), maybe higher. While the proposed reactors and mechanical draft cooling towers may be sufficiently elevated and safe from day to day flooding. FPL's customer base will NOT have similar protections, hundreds of thousands, maybe more than a million South Florida's households will be risk of flooding during high tide & storm events. I.E. Demand for electricity will drop off as large portions of South Florida flood in a semi-permanent fashion.

2nd
During 2014 the NRC granted a FPL request to continue operating reactor units 3 & 4 when cooling discharge temperatures exceeded 100 degrees Fahrenheit. This was a combination of newly increased up rating of power on reactor units 3 & 4 to 2644MWt each, and high ambient temperatures.

Ambient air temperatures is a combination atmospheric conditions and the localized waste heat sources in the vicinity ~6.6GWt range. With the proposed addition of units 6 and 7, thermal waste dissipation on site will

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Add = A. Williamson (AEW)

increase to ~11GWt (peak) for a period of at least ten years until reactor units 3 and 4 are finally retired. This extra atmospheric thermal energy will further decrease the evaporation and the cooling ability of the 5,800 miles of cooling canals which support NG/Oil Units 1,2 and Reactor Units 3, 4.

3rd..
The Westinghouse AP-1000 reactor design has a number of tradeoffs, fewer active emergency cooling systems, significantly reduced concrete content, larger secondary containment volume with passive cooling, etc. Normally these would be considered improvements, except these enhancements have also added a new risk factor, buoyancy.

If a tsunami, 60-80ft or higher impacts these relatively lightweight/high cubic volume secondary containment structure, it will achieve buoyancy.

Ref: Canary islands volcano subsidence has been modeled (Ward and Day. Cumbre Vieja Volcano -- Potential collapse and tsunami at La Palma, Canary Islands) estimated Florida beaches would be impacted by a 20-25 meter Tsunami, flooding several kilometers inland.

Once the secondary containment achieves buoyancy the main steam pipes and control connections to the turbine and control buildings would be highly stressed, and very likely rupture. Such a major mechanical disruption would likely compromise the connected steam generators and the primary coolant loop. Once the flooding event is over, the containment structure itself might end up flopped on it's side, thus defeating AP-1000's passive emergency cooling system.

The Atlantic seaboard would be devastated. But like we've seen at Fukushima, the subsequent meltdown and semi-permanent radioactive contamination of surrounding area and the Atlantic ocean would make things far worse for survivors.

4th.
Seaside nuclear power plants are vulnerable targets with a large multiplier factors (5,000 to 50,000x verses tactical n-weapon) for radioactive fallout and contamination. In a world that seams to becoming more unstable as time progresses, it's just a matter time before one these facilities are targeted.

5th.
FPL's overall electrical energy demand has stabilized and is very slowly increasing. With more focus on energy efficient appliances. LED/LCD tv's, Even cable/sat boxes are now being investigated, more efficient A/C, more thermal installation, etc. As electronics reduce chip feature size, power consumption decreases, modern tablets and cell phones consume a fraction of the energy of the devices they replaced. Air conditioners are now more efficient SEER 14 (Jan 1, 2015) minimum by law.

Based on FPSC data for the period 2003 to 2012, FPL's overall electricity sales increased 2.7% for that ten year period. Yet for the period 2013 to 2022 FPL projects a 16% net sales growth! I would say FPL's projections are more than overly optimistic!

Ref: Review Of The 2013 Ten-Year Site Plans For Floridas Electric Utilities, FPSC October 2013

Item 6 (loss of net metering) is omitted due to limited space. Complete versionof letter attached in .pdf format.

In summary,

FPL's allowed profits are based upon a percentage return on total assets(ROI). This still applies even when rate

payers pay for those assets upfront(proposed TP units 6 and 7), Florida statute 366.93.

Turkey Points units 6 and 7 are designed to be overpriced white elephants, designed to extract maximum funds from the ratepayers and nothing else. FPL has every incentive to build overpriced capacity, and to discourage outside investment in alternative renewable energy sources.

Please do not reward, poorly thought out proposals because that is your job (at the NRC).

Respectfully, Tim Keating.

Attachments

FPL-turkeypoint

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6th.

The cost of nuclear energy is steadily increasing as time progresses, the cost of solar(PV) energy is going the opposite direction. Yet FPL has taken steps to strongly discouraged solar power, by removing old mechanical meters(Net Meter capable, spinning backwards), and replaced them with GE I-210+ smart meters programmed to PENALIZE customers for ANY ENERGY RETURNED to the grid.

Ref: See Installation manual GE I-210+ available accumulation modes, default "Delivered plus Received energy", instead of the correct mode "Delivered - Received energy"(net metering).

Distributed residential PV energy reduces grid losses, thermal degradation of transformers, wear & tear, and carbon foot print when it's needed most. Utility company still makes a significant profit with residential PV, since it no longer needs to generate 1.10 to 1.25x units of energy in order to grid deliver 1.0 units to end customer during daytime high usage periods. Instead, the utility can purchase 1.01 units from the next door neighbor's PV setup, and deliver it with almost no loss of energy.

Yet despite these distributed generation advantages FPL continues to discourage Solar installations by imposing high overhead costs/requirements on those who attempt to install renewables.

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