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

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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-0081
Comment on FR Doc # 2015-05099

Submitter Information

3/5/2015
@FR 12043

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General Comment

Please see attached comments (MS Word)

Attachments

Written comments to NRC re FPL Units 6 and 7

SUNSI Review Complete
Template = ADM - 013
E-RIDS= ADM-03
Add= A. Williamson (ARW)

Possibility of excess thermal discharge into Boulder Zone

In the event that the cooling towers, designed to dissipate a heat load of 22.763×10^9 Btu/hr (1.53×10^{10} Btu/hr for both units) (3-25) are unable to discharge this amount of thermal energy, then heated wastewater would likely enter the deep injection well. Has any research been done to calculate the impact of the additional BTUs on the water in the Lower Floridan Aquifer?

Possibility of upward migration occurring at lower than 85 Mgd maximum injection rate due to increased wastewater buoyancy.

“An EPA study of 93 deep-well injection facilities in South Florida also indicates that fluid movement underground is influenced by buoyancy created by temperature and density differences between native and injected waters.” (2-56). Is it possible that heated wastewater, which would affect its temperature and therefore, its buoyancy, could exhibit upward migration at lower injection rates?

Possible effect of long-term injection of wastewater into Boulder Zone

The maximum injection rate appears to be between 84 and 85 Mgd. Have calculations been made to determine if the Lower Floridan Aquifer can accommodate between 30.066 and 31.205 Ggy for the expected 35 year life of the two proposed nuclear units 6 and 7?

Possible upward migration of wastewater due to underestimate in injection rates

At higher injection rates, upward migration of wastewater has previously been seen: “Upward migration of treated municipal wastewater injected into the Boulder Zone has been observed 12 mi north of the proposed Turkey Point site at the Miami-Dade SDWWTP, where injection rates are around 97 Mgd. (2-55).

Is it possible that the estimated maximum 84-85 Mgd might be exceeded by 14% and lead to 97 Mgd injection rates, which could migrate upwardly?

Possibility of migration of wastewater into Atlantic Ocean over 35 year life of project

“It is thought that the Boulder Zone connects to the Atlantic Ocean at a depth of about 2,500 ft about 25 mi off the coast of Miami.” (2-53). Is it possible that wastewater from the deep injection wells could end up in the Atlantic Ocean over the expected life of units 6 and 7?

Notes:

I note that tritiated water, due to wastewater passing through the nuclear reactors, cannot be separated out: “Liquid radioactive effluent would be discharged to the deep-injection wells” (3-34). Should there be upward migration of wastewater from the Boulder Zone, it will come with its own built-in tracer.

I understand that the Safety Evaluation Report is not subject to public hearing. Based on discussions with local experts on sea level rise, the USACE's projected one foot rise over the 35 year life of the project seems overly conservative. If FPL's nuclear unit 6 and 7 are approved and built, and they become islands within the next 10-15 years due to one foot of SLR, the NRC will face review of its approval.

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