

United States of America
Nuclear Regulatory Commission
Atomic Safety and Licensing Board

Before Administrative Judges:

Alex S. Karlin, Chair
Dr. Anthony J. Baratta
Dr. William M. Murphy

In the Matter of: PROGRESS ENERGY FLORIDA, INC. Combined License Application for Levy County Units 1 & 2	Dockets Numbers 52-029-COL and 52-030-COL December 17, 2010
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Intervenors' Reply to Staff Answer to Amended Contention 4

Intervenors hereby submit the following reply to Staff's Answer to Amended Contention 4. We realize that there has been a misunderstanding regarding our Amended Contention 4 (C-4). While there was much guidance on requirements for a valid contention, Intervenors located little guidance for post-DEIS roll-over for admitted contentions so we erred on the side of caution and re-submitted C-4, changing the reference to the DEIS rather than the ER, and including the fact that the Staff's reliance on the FLDEP COC, given that document's demonstrated deficiencies, would not ensure environmental protection the at Levy. All the sections below Amended C-4 are not new contentions but, rather, *support* for the amended contention, including our assertion that the DEIS did not cure the problems described in Contention 4 as originally admitted. From "II. Inappropriate Reliance on State of Florida Department of Environmental Protection Conditions of Certification (COC)" on simply contains our reasoning supporting the amended C-4.

Intervenors contend that our reference to the DEIS's reliance on the COC in our Amended Contention 4 is not untimely because until the DEIS was published there was no possible way to have known the Staff would consider the COC adequate protection for the

environment at Levy County. Our main problem was not that the DEIS did not make an independent determination of the impacts, but that it depended so heavily on the COC to ensure Levy would not cause environmental harm and therefore the impacts would be small. Many of the COC are hypothetical and/or will not be finalized until well into the project and by that time irreparable harm could occur to the ecosystem. As our motion stated:

Intervenors and their expert, Dr. Sydney Bacchus do not accept that the amended Conditions of Certification (FL Conditions) from the State of Florida Department of Environmental Protection (FDEP), instituted at the request of the Southwest Florida Water Management District (SWFWMD) (Attachment C), resolve the concerns that direct, indirect and cumulative hydro ecological impacts of the construction and operation of Levy Units 1 and 2 will be LARGE. (Motion at 3)

This is a broad contention dealing with complex, immensely interrelated hydrological issues. It is neither desirable nor possible to attempt to divide the environmental impacts.

Contrary to Staff's implication (Answer, p. 9) that Intervenors somehow want them to assume that PEF will not comply with the COC, Intervenors believe that PEF *will* comply, but that even meticulous compliance with the COC will not be enough to preclude irreparable harm to the ecosystem. Also contrary to Staff's assertion (Answer, p.10) that we are "attempting to litigate the adequacy" of the COC, Intervenors are merely attempting to inform the Board that it is inappropriate and ill-advised to accept the argument that mere COC compliance is enough to protect the resources at Levy. Nor do Intervenors contend that the NRC should "determine other agencies' permit authority" (Answer p.11). We do not dispute that FLDEP has the authority to implement its own COC. Our dispute lies with the DEIS's faith in those COC as insurance against LARGE impacts on the environment at Levy.

We do not assert that "the Staff relied on the Environmental Monitoring Plan in lieu of conducting its own analysis" (Answer, p.11) Rather, a non-existent Environmental Monitoring Plan cannot reasonably be considered adequate insurance against harm. Staff takes issue with our explanation of the problems of relying upon a non-existent plan, "the Joint Intervenors have not explained why the Staff would need to review a fully developed Environmental Monitoring

Plan.” It would seem self-evident that it is imprudent to stake protection upon a plan the details of which are unknown. Staff explains (Answer, p.12) why there is no cause for concern, “The State of Florida will review and approve the Environmental Monitoring Plan.” It is not, however, the mandate of the State of Florida to take a “hard look” at possible environmental harm caused by this major Federal action and to determine cumulative effects arising from this project when other major projects in the area are also factored in. It is not Florida’s duty to comply with NEPA. Staff has this obligation and cannot reasonably fulfill it by saying the State will do it. Furthermore, the COC provide that after a mere 5 years of an in-place EMP, PEF may be released from monitoring “if the District concurs with the request” (COC p. 33). No criteria for release are provided and since the “recalibrated” groundwater model predicts a groundwater drawdown of up to 2.5 feet over 60 years of operation (DEIS p.5-24) and the State of Florida/SWFWMD *have not reviewed the recalibrated model*,¹ 5 years is inadequate for even a baseline, much less protection.

Staff does not understand (Answer p.12) “why it is necessary for the Staff to review, for example, the details of PEF’s hydraulic testing program.” When Staff consistently depends upon the COC to protect the environment, it is incumbent upon Staff to make sure the COC will actually do so. It is painfully obvious that unless Staff reviews the requirements of the hydraulic testing program, *and any other state condition on which they depend*, there is no way for Staff to be sure protection from any program is adequate or has any chance of succeeding.

Staff’s objection to Interveners’ discussion on karst formation and sinkhole susceptibility at LNP is one we find puzzling. Though Staff asserts we did not bring up disputes with the geology in the ER (Answer p.13) Interveners did bring up the subject of karst and sinkholes and concomitant connections to the Floridan aquifer in our original petition (Petition, p.44). Indeed, the ASLB accepted our reasoning, as Original C-4, A.2. specifically concerns “Impacts resulting

¹ The “recalibrated” model was dated December 7, 2009 (Motion to Compel Oral Argument Tr. P.574 line 1) SWFWMD reviewed the model used for the COC in 2008 (Attachment 1).

from the site's connection to the underlying Floridan aquifer system." This connection is through the sinkholes and other dissolution and fracture connections characteristic of karst geology. The Staff, furthermore, does not object to Amended C-4 A-2 (Answer p.18). The FSAR clearly states (emphasis in bold), "The unit mapped **at the site** consists of sand, silt, and smectitic-clay decomposition residuum (zp), which is generally 1 – 2 m (3.2 – 6.5 ft.) thick. The map unit includes areas of eolian sand and locally derived colluvium and alluvium. **Sinkholes and other karst phenomena associated with the underlying limestone bedrock are common.**" FSAR 2.5-74. Staff's asserts that they based their conclusion on the ER, (a different PEF document but nonetheless part of the COL). Is the FSAR, which contradicts the ER, then wrong? This glaring incongruity calls into question the reliability and accuracy of the COL.² In any case, Interveners believe that it will be clear to the Board now, as it was originally, that karst development at Levy, with attendant connection to the underlying Floridan aquifer remains an issue that merits further investigation.

Staff takes issue with Interveners' assertion that an up to 5.8 Mgd drawdown could occur for more than a week (Answer p.17). We now understand Staff's reasoning why 5.8 Mgd is only possible for one week, but it is also possible that LNP could use 2.9 Mgd for two weeks, or a lesser amount for longer. The point is that the DEIS does not address a larger drawdown than the 1.58 Mgd for longer periods, nor does it address the effects of a drawdown or particularly this larger drawdown, during drought periods. An "average" drawdown limit ignores that LNP may deprive habitat and creatures of water during certain critical periods such as drought. Averages by definition encompass times of plenty *and* times of paucity and that an average has been maintained will be but cold comfort to living organisms under stress and dying in times of heat and drought when Levy is sucking more water out of the aquifer.

² Interveners find it deeply troubling that the thorough FSAR discussion on the LNP site's karst development and susceptibility to sinkhole formation was completely ignored by, and omitted in, the ER and DEIS and the reality of karst formation, sinkholes, and fractures glossed over. We understand that our focus was the ER (and now is the DEIS) nevertheless, when the two documents (FSAR and ER) are in such obvious conflict, someone should be asking why.

As far as our objections to the “recalibrated” model, Staff misunderstands them. We do not believe the model is unreliable *because* it was recalibrated. We say that if the original model (on which the COC the DEIS so heavily depends for protection of the ecosystem at Levy are based) were accurate, then changing a few things should not have changed the results so drastically. Since no one reviewed the model, *not even the Florida Department of Environmental Protection or SWFWMD*³ (neither of whom is apparently aware a newer model exists), there is no way to assess its accuracy. And if indeed this model *does* more accurately reflect the local conditions, and could adversely affect 2092.9 acres of wetlands with 563.4 acres experiencing water drawdowns greater than one foot as Staff asserts (DEIS p. 5-24), should not the FLDEP/SWFWMD be basing any COCs on *it* rather than on the old one that predicted no wetlands drawdowns and an overall drawdown of only six inches at most? (DEIS p. 5-24). Staff cannot have it both ways. If indeed the “recalibrated” groundwater model is reliable, why then is Staff relying on FLDEP COCs that use the old model that Staff found unacceptable? This is illogical, inconsistent, and has potentially harmful LARGE consequences.

Intervenors continue to insist that Levy and Tarmac Mine excavations and water withdrawals, given their temporal and geographical proximity need to be fully factored in to the environmental impacts at the LNP. A supplemental DEIS would accomplish this, as would a combined DEIS. Although Staff insists it would be improper to include Tarmac in the DEIS because the two projects are not connected, according to 40 CFR 1508.25, “To determine the scope of environmental impact statements, agencies shall consider 3 types of actions.” Connected actions are listed first but the latter two actions in 40 CFR 1508.25 (a) more closely reflect the LNP and Tarmac mine situation:

2 Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement.

³ See footnote 1.

3 Similar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography. An agency may wish to analyze these actions in the same impact statement. It should do so when the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions is to treat them in a single impact statement.

Cumulative impacts from these large excavations and groundwater users need to be fully determined and considered together because, as 40 CFR 1508.7 states, the agency is required to look at cumulative impacts “of other past, present and reasonably foreseeable future actions regardless of which agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” Interveners in no way agree that the impacts of the two projects separately are minor, and we insist that the cumulative impacts, particularly on groundwater, cannot be fairly dismissed by arbitrarily deciding that a doubling of the LNP water use⁴ will be a “relatively small amount of the flux moving through the groundwater system” (DEIS p. 4-23). The DEIS states that (emphasis in bold), “**Although no specific evaluation of the impacts of water use at the Tarmac mine on groundwater levels and wetlands was performed** ... the review team determined that the effects of water use at the Tarmac mine site on the groundwater resource would be of the same order of magnitude as those predicted for the LNP wellfield.” DEIS at 7-15. Interveners do not limit our concerns to only the wellfields at both projects but want the cumulative impacts of the projects to be accurately evaluated as demanded by 40 CFR 1508.7

It appears that Staff agrees with Interveners that most of the issues addressed in Amended Contention 4 are admissible. Where we disagree may well spring from the greenfield siting of LNP, which means the potential impacts will be far greater than on an already developed site. The result is a need for a DEIS that stringently evaluates potential impacts. Staff

⁴ “The Staff did not specifically evaluate Tarmac because it considered tarmac to be comparable to the Levy wellfield” (Answer, p.19)

has presented no new data that remedy the deficiencies of the DEIS and the lack of wisdom in relying on the COC, and the Amended Contention 4 should stand as submitted.

Respectfully Submitted,

_____/s/_____
Mary Olson
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Cara Campbell and Gary Hecker
The Ecology Party of Florida
on behalf of the Co-Interveners
December 17, 2010

Attachment 1
Communication from SWFWMD – Groundwater Model Review

Mary Olson

From: EcologyPartyNoNukes [nonukes@ecologyparty.org]
Sent: Friday, December 17, 2010 3:34 PM
To: Mary Olson
Subject: Fwd: Levy Nuclear Plant Permit

Begin forwarded message:

From: Paul Williams <Paul.Williams@swfwmd.state.fl.us>
Date: November 5, 2010 5:10:21 PM EDT
To: Cara Campbell <clc@slashconsumption.com>
Cc: Marti Moore <Martha.Moore@swfwmd.state.fl.us>, Pam Gifford <Pamela.Gifford@swfwmd.state.fl.us>, Steve Desmith <Steve.Desmith@swfwmd.state.fl.us>
Subject: RE: Levy Nuclear Plant Permit

Cara, Sorry this took so long...I drafted it then moved on to something else before I sent it.

What is the name of the primary reviewer of the LNP? When was the groundwater model last reviewed? **Robert Jaques was the initial primary reviewer. I believe that both Robert Jaques and I reviewed the most recent modeling in August thru October 2008.**

Where might I find SWFWMD data for daily rainfall- including where the collection sites are and the frequency of collection? **All of the Districts rainfall data collection stations were included in the web site reference I sent you. You can access our data collection system through our web site on-line to get any data we collect. Contact Steve Desmith if you have additional questions regarding resource data at his email address as above. I recommend trying the national weather service or NOAA for additional information.**

If there are any other organizations whose daily rainfall data the District uses, do you have the site information and collection frequency for them or can you tell me how to contact them? **See above.**

Has a Groundwater Basin Resource Availability Inventory been done for Levy County? **I am not sure what this is? The District and applicants use the District Wide Regulation Model (DWRM) for making permitting decisions for groundwater withdrawals. The DWRM model was used for permitting this use. In addition, the District uses another groundwater model known as the Northern District Model for making long term planning resource evaluations.**

Paul Williams

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:
Alex S. Karlin, Chairman
Dr. Anthony J. Baratta
Dr. William M. Murphy

In the Matter of

PROGRESS ENERGY FLORIDA, INC.

(Combined License Application for Levy County
Nuclear Power Plant, Units 1 and 2)

Docket No. 52-029-COL, 52-030-COL

ASLBP No. 09-879-04-COL-BD01

December 17, 2010

Certificate of Service

I hereby certify that copies of the Interveners Reply to NRC Staff Answer to Amended Contention 4 have been served on the following persons by Electronic Information Exchange on this 17th Day of December, 2010:

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/Signed (electronically) by/

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