

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

September 15, 2010

INTERVENER'S RESPONSE TO APPLICANT'S MOTION FOR SUMMARY DISPOSITION OF
CONTENTION 8A

This pleading is in response to the Applicant (Progress Energy of Florida or PEF) moving for Summary Disposition of recently admitted contention 8A which focuses on the need for a plan in the event of the accumulation of so-called "low-level" radioactive waste on the proposed Levy County nuclear reactor site. We find there are material disputes in this matter, and therefore reject in whole the notion of Summary Judgment on Contention 8A and ask that the proceeding proceed to a full hearing.

The package includes this document, a certification (Attachment A), a declaration from Dr. Marvin Resnikoff (Attachment B), a statement of material facts forming the basis for material dispute (Attachment C), a report cited herein "Risk of a Lifetime" from Union of Concerned Scientists (Attachment D), NUREG BR-0216 (Attachment E) and provision of two previous declarations from Diane D'Arrigo (Attachments F and G) all offered by the co-interveners, Nuclear Information and Resource Service, The Ecology Party of Florida and The Green Party of Florida.

I. Introduction and Procedural Background (condensed version)

Progress Energy decided to consider building some new nuclear power plants. Progress Energy Florida selected a site in Levy County that currently has no industrial development, proximal to several bodies of surface water, on top of an area that is a recharge zone for freshwater springs, adjacent to many reserves, preserves, protected areas, and members of the three intervening organizations. The application for a combined operating license (COL) was submitted to the Nuclear Regulatory Commission (NRC) in 2008 and the NRC offered a public notice of the opportunity for a hearing and the opportunity to petition to intervene. In February of 2009 the present team of interveners filed a petition. Of 12 contentions offered in the petition on July 8, 2009, three contentions were admitted (in part) by this Board (LPB 09-10) and standing of the three intervening organizations was recognized. Two of the admitted contentions concerned omissions in the application with respect to so-called “low-level” radioactive waste (so-called LLRW), one focused on environmental impacts, the second on safety concerns (original Contentions 7 & 8) related to the extended storage of so-called LLRW that would be generated if Levy County Units 1 & 2 are constructed and operate subsequent to NRC granting a COL.

In the process of fulfilling Requests for Additional Information (RAI’s), the COL omission on safety was “mooted” and a settlement was reached which allowed for the timely submission of a new contention. The plan offered by PEF in its RAIs and subsequently in the current Motion has been deemed by the interveners to be insufficient to meet the concerns of our members living near the site and also the licensing requirements for a COL. The plan in short states that Levy will have 1 -2 years of solid waste storage space (depending on rate of waste generation) and then there are procedures in place – a 50.59 internal analysis, and if deemed necessary according to the 50.59 – then an application to NRC (at that time) for a license amendment to subsequently expand the waste storage facilities. The Applicant offers NRC guidance

documents for the storage of so-called “low-level waste” but is not offering any definite details for the extended storage of so-called LLRW on the Levy site at this time.

The new contention 8 was timely offered on May 14, 2010 expressing the inadequacy of the PEF “plan” which was subsequently admitted (as written) by this Board on August 9 as “Contention 8A” :

Progress Energy Florida’s (PEF’s) COL application is inadequate to satisfy 10 C.F.R. 52.79 because it assumes that class B and C radioactive waste generated by proposed Levy Units 1 and 2 will be promptly (e.g., within two years) shipped offsite, while currently there is an absence of access to a licensed disposal facility or capability to isolate the radioactive waste from the environment. The proposed amendment to the Levy County COL also fails to offer sufficient information to demonstrate the adequacy of PEF’s plans for storing Class B and C radioactive waste on the Levy site if offsite disposal capacity is not available within two years. PEF’s plan to postpone most of its decisions regarding how and where to store the waste (including “minimizing” the volume of the waste) until sometime after issuance of the license for Levy violates Section 52.79 and also the Atomic Energy Act’s requirement that safety findings must be made before the license is issued.

The Movant claims that it is acting “on the grounds that no genuine issue of material fact exists with respect to that Contention”(8A) (Motion, line 1). However, this Board, in admitting

Contention 8A (August 8, 2010) stated:

...the Board rules that proposed C-8A provides sufficient information to show “that a genuine dispute exists . . . on a material issue of law or fact” as required by 10 C.F.R. § 2.309(f)(1)(vi). The proposed contention refers to specific provisions of the COLA (Section 11.4.6) as supposedly deficient. C-8A raises material issues and is supported by sufficient information. We find it satisfies 10 C.F.R. § 2.309(f)(1)(v).

While some of the analysis in that ruling rivets on the legal discussion offered by interveners in both the motion for the new contention and the reply brief offered on June 15, the contention was admitted as written – so we will defend all aspects of the contention here.

The applicant, on August 27 filed a Motion for Summary Disposition (Motion) of Contention 8A, which is the reason for this response. The attached Certification (Attachment A) offers some further insight as to why the interveners oppose this Motion but were also unable to engage in sincere settlement discussion. We emphasize here that we believe there are material

disputes (see Attachment C), and therefore reject in whole the notion of Summary Disposition of Contention 8A. Summary Disposition, as the Movant notes, is reserved for matters where there is no material dispute.

We dispute any assertions that question, or imply question about the credibility or expertise of Diane D'Arrigo who has offered declarations in support of the original contention (Petition of February 6, 2009) and also Contention 8A (May 14, 2010). Both of these Declarations are provided here as Attachments F and G. Ms D'Arrigo has a 25 year career of full-time engagement on radioactive waste policy, regulation, disposal licensing processes and concerns. There is no one in the United States with more institutional memory on these matters than Ms D'Arrigo. Since it is the habit of the NRC to employ people who do not all have doctorates, and many of whom have not yet clocked 25 years in their field, we trust that diplomas are not the only measure of expertise employed by this agency. The current pleading defending Contention 8A and Ms D'Arrigo's former Declarations are here supported by an additional declaration by Dr. Marvin Resnikoff (Attachment B). Dr. Resnikoff has been declared in this case already – provided as a disclosure on September 1, 2009 (Attachment H); the Certification offers additional information relevant to the offering of his declaration at this time.

We find that there are quite a few material issues – including some new ones developed for this pleading -- that form the basis for material dispute – and include Attachment C which supports the arguments offered here.

II. The Material Disputes

A. No place to send the waste.

The basis for contention 8A is the reality that today there is nowhere that PEF can send any radioactive waste generated at the proposed Levy County Units 1 & 2 if approved, save for Class A so-called LLRW, and the high likelihood that this situation may persist. While some options may exist for Class B & C with waste brokers or processors, none would guarantee a

permanent disposition for the material. Diane D'Arrigo has offered two declarations, one with the original petition, one with the submission of this contention (Attachments G and F), and Dr. Marvin Resnikoff offered a third a year ago (Attachment H) and brings an additional declaration here (Attachment B) – which affirms Ms D'Arrigo's declarations and expands upon the issues of concern. Here are points 2, 3 and 4 from Attachment B:

2. The purpose of this declaration is to provide technical support for joint intervenors contention 8 by outlining the details that are required in a plan that protects the health and safety of the public and workers for storing low-level waste for time periods greater than two years at the proposed PEF Levy County 1 & 2 nuclear site. I agree with many of the points made by Diane D'Arrigo in her declaration and will not repeat these points here.

Operational Status of LLRW Disposal Sites

3. As Ms. D'Arrigo has enumerated, only the US Ecology facility in Richland, Washington and the EnergySolutions facility in Barnwell, South Carolina can accept class A, B and C LLRW, and only from the Northwest, Rocky Mountain and Atlantic compacts. Waste Control Specialists (WCS) has a license to store a limited amount of waste from the Texas-Vermont compact. This may change by votes of the Compact Commission, but several lawsuits are pending that may affect the outcome.
4. Another uncertainty is whether the Vermont Yankee reactor is allowed to operate past the year 2012. Decommissioning would yield a large volume of class B and C waste to the WCS facility... (there is further affirmation of this view in items 5 and 13 of the declaration, Attachment B).

We rely upon these experts, nonetheless, much of the information D'Arrigo and Resnikoff offer is also reflected in NRC's own NUREG/BR-0216 Rev 2 Radioactive Waste: Generation, Storage, Disposal (Attachment E). For instance:

“For low-level waste, three commercial land disposal facilities are available, but they accept waste only from certain states or accept only limited types of low-level wastes. The remainder of the low-level waste is stored primarily at the site where it was produced, such as at hospitals, research facilities, clinics and nuclear power plants.” see pages 4-5 (pdf pages 8 -9).

All of these expert opinions support the view that it is likely that if PEF's Levy County reactors are licensed and generate this radioactive waste, there will not be able to do anything with class B and C wastes except store it on site for an extended period, perhaps well beyond

the 1 – 2 years that the Levy plan provides in terms of physical reality. Our members have expressed deep concern about Levy County becoming a waste dump – and are entitled to the provisions of both the NRC Code and the Atomic Energy Act for protection as stated in Contention 8A.

Dr. Resnikoff takes time and care to repeat many of the points made by D'Arrigo and expand upon them in terms of the low likelihood of off-site disposal (see Attachment B, items 3-5). Nonetheless this dispute is not only prognostication on the future; it is also about the practicality of the PEF plan in material terms.

B. Let's try their plan.

The applicant has done very little to alter their response to co-intervener's new contention in this Motion. Their "plan" is simple – assess the problem when it comes up, via an internal analysis (50.59) and if deemed necessary apply to the NRC for a license amendment (initially described in RAIs to NRC staff, elaborated in both the June 8th "Answer" to the new contention and the current Motion). So here is a hypothetical scenario – we are not asserting this WILL happen – merely that it could happen.

The DCD (Design Control Document) in Chapter 11.4.2.1 gives the projections for how quickly the temporary storage area for solid waste could fill – that estimate is that it would take "more than a year" – but the projected time frame at an average rate of waste generation is "more than 2 years." This projection fails however to take into account that there is strong basis to posit that it is more likely than not that the facilities will generate a lot more waste in the first year(s) than subsequently. Known as the "bathtub curve" (see report "The Risk of a Lifetime" from Union of Concerned Scientists offered as Attachment D) we are not asserting that there will be catastrophic accidents – merely that incidents that could result in more so-called LLRW being generated are more likely in the start-up phase of a new operation. (Again, we are

painting this hypothetical picture merely to point out that it is within the realm of possibility that PEF could need more than the maximum capacity in first year + of operation and require additional storage space rather urgently.)

The “plan” which PEF offers contains no “trigger” point for the 50.59 process, nor offer any timeline for obtaining a license amendment in order to expand waste storage. In searching for any document from the nuclear industry or its regulator on timelines for license amendment there seemed to be far too much variation to site a single source.

While the interveners fully support the public dimension of the license amendment process – it is the participation as well as NRC time, which dictate that this activity may not be quick (even if no one opposes!). Once the license amendment is granted, presumably there is construction time as well. The Applicant seems to be laboring under the illusion that it is possible to “pause” the production of this waste once it commences. If ever started up, until the reactor is fully decommissioned there will be so-called LLRW generated daily. This process will not “pause” for the procedures which PEF is to rely upon, which suggests that there is the possibility that there could be an un-reviewed contingency plan cobbled together as a stop-gap while PEF executes the proposed contingency plan. This does not provide for the safety review required by NRC regulations prior to the granting of the COL (10.cfr52.79(a) see legal discussion below.)

As Dr Resnikoff points out (declaration at 8) some of the waste generated in an ongoing way can cause radiation exposure that will exceed quarterly limits for workers in a matter of minutes. The provision for this sort of material must not be left to chance or improvisation.

Again, we merely point to a gap; interveners are not asserting that any of this would happen; simply stating that it could happen, and if it did, our members and the workers at Levy County 1 and 2 would not be protected to the level that simply embracing the current circumstance (no radioactive waste disposal) could provide.

Again revisiting NUREG/BR-0216 Rev 2 – we are not providing information on hazard that NRC does not tell us also. Here is an excerpt:

How hazardous is low-level waste?

The danger of exposure to radiation in low-level radioactive waste varies widely according to the types and concentration of radioactive material contained in the waste. Low level waste containing some radioactive materials used in medical research, for example, is not particularly hazardous unless inhaled or consumed, and a person can stand near it without shielding. Low-level waste from processing water at a reactor, on the other hand, may be quite hazardous. For example, low-level waste could cause exposures that could lead to death or an increased risk of cancer. (NUREG/BR-0216 Rev 2 Page number 24, pdf page 28).

Under the offered “plan” we suggest that this is the appropriate moment for the 50.59 process to occur and that instead of supporting PEF kicking the can down the road (perhaps not very far at all) to a license amendment the NRC should instead support a full hearing of the issues of Contention 8A prior to granting the license in the first place.

C. Demonstration of Compliance.

The crux of Contention 8A is that PEF must give a level of detail sufficient for NRC staff to make a finding – as to whether or not “radioactive effluents and radiation exposures (will be) within the limits set forth in part 20 of this chapter” (52.79(a)(3)) and further that 52.79(a) requires that these issues be resolved “by the Commission before issuance of a combined license...” (Further discussion of these passages is offered in the legal dispute section below.) Our example above illustrates that it is not credible for the Applicant, or their Regulator to assert that the granting of the COL with the “plan” that PEF offers herein will allow the demonstration of compliance with the requirements of Part 20. In addition, as stated in the 2010 Declaration of Dr. Resnikoff some elements of the waste stream, specifically the resins generated from normal operations, pose specific problems not addressed:

Safety and security for these materials are assured by the DCD for immediate disposal, but there is no discussion for indefinite storage. There is no discussion for the processing of these materials for indefinite storage in terms of containers, buildings, locations. From the DCD, it is not clear to me how NRC staff can conclude that workers and the public are protected. (Attachment B, from item 11)

In addition, (Attachment B item 14), the accumulation of radioactive waste on the site beyond the stated (possibly optimistic) storage capacity of 2 years will result in source term that must be included in all analyses of accidents or other non-normal operating conditions. There is no such consideration of these matters prior to the granting of the COL in the strictly procedural approach offered by PEF.

D. There are other options

It is within the scope of this proceeding for the Board to rule that it would be prudent to postpone approval of further waste generation until a satisfactory permanent waste disposition has been obtained. We mention this simply because this is the view of a majority of the members whom we humbly represent. This is, of course, a material dispute with the applicant and probably the NRC staff...and probably a majority of the appellate body. That does not make our position incorrect.

E. How likely is it that we are wrong?

The applicant strongly invokes NRC policy and preference that so-called LLRW be shipped off as rapidly as possible for disposal off-site (for instance Motion page 12, and footnote 16). In our view, the declarations of Diane D'Arrigo and Dr. Resnikoff and NUREG/BR-0216 Rev 2 underscore the difficulty of dealing with this complex and dangerous material. It is likely that these issues (and more) contribute to the NRC and applicant preference for rapid shipment of the waste off-site where possible. It is also the case however, that these very same concerns are shared by people in every community that has been given the opportunity to live with a waste disposal site. So far the answer has been "no thank you" to the siting of new disposal sites. The material dispute in this case is not on the advisability of not keeping this waste—but the ability of the applicant to recognize that it is not alone in this view. The Applicant alone, however, would make the waste in

question, and therefore must at the least meet the regulations of the NRC as upheld by the Board and the Commission in this case, and more thoroughly provide for the safety of its workers and neighbors than the concatenation of future paper work.

III. Lack of Legal Disputes

First: it was the Board itself and subsequently Commission that brought up 10 CFR 52.79 and specified (a)(3) in the initial ruling on contentions and then the ruling on the PEF appeal. The Commission upheld the Board's reading of 52.79(a)(3) and admission of contention 8 (in part) (see CLI-10-02, January 10, 2010, pages 22-25). Please note that when Contention 8A was admitted as written, it invokes 10 CFR 52.79 with no specification of subparts. Perhaps understated in the discussion, we find that elements of nearly every subsection of 52.79 make our case. It is however evidence of the need for the NRC "gap analysis" being conducted in the NMSS section of the Commission that the regs as written, for instance 52.79(a)(4) while relevant in part, for instance "The design of the facility including:" as invoked by Judge Barrata, is clearly about the reactor structure itself.

Another section of this regulation that has relevance is 52.79(16) (i) and (ii):

- (16)(i) The information with respect to the design of equipment to maintain control over radioactive materials in gaseous and liquid effluents produced during normal reactor operations, as described in § 50.34a(d) of this chapter;
- (ii) A description of the process and effluent monitoring and sampling program required by appendix WE to 10 CFR part 50 and its implementation.

Again, this is not exactly right – so we do rely primarily upon 52.79(a) and 52.79(a)(3) and reflect that the lack of regulation should not be defended as if it were regulation. The goal of the regulation is clear: provide sufficient detail in order for the Regulator to resolve the safety issues prior to granting the COL (paraphrase of 52.79(a)).

Second: The Commission itself has affirmed the reasonable nature of the intervener's concerns. The Commission states on page 24 of its CLI-10-02 ruling:

Absent a licensed LLRW disposal facility that will accept waste from the Levy County facility, it is reasonably foreseeable that LLRW generated by normal operations will be stored at the site for a longer term than is currently envisioned in Progress' COL application. (emphasis added)

Third: "Means of control" is a straw man – the issue is demonstration of compliance with radiation protection standards.

The Applicant devotes a long discussion in the Motion to the question of "means of control" in response to 10 CFR 52.79(a)(3):

(3)The kinds and quantities of radioactive materials expected to be produced in the operation and the means for controlling and limiting radioactive effluents and radiation exposures within the limits set forth in part 20 of this chapter;

The core of this regulation is demonstration that the limits can be met; it is a very long laundry list of "to do's" for what the applicant must include in the FSAR.

. The one illustration given above (there are other hypothetical scenarios that could be offered) shows that PEF's proposed plan does not deliver any certainty whatsoever about demonstration of compliance with Part 20, or any other regulation. Means is not the issue and the preface to this whole regulation 10 CFR 52.79(a) makes this clear:

(a) The application must contain a final safety analysis report that describes the facility, presents the design bases and the limits on its operation, and presents a safety analysis of the structures, systems, and components of the facility as a whole. The final safety analysis report shall include the following information, at a level of information sufficient to enable the Commission to reach a final conclusion on all safety matters that must be resolved by the Commission before issuance of a combined license:

The Applicant is to provide design bases, limits on operation, safety analysis of the facility as a whole, information sufficient to enable the Commission to resolve safety matters... The Motion is devoid of a discussion of this section of 10CFR52.79.

As argued by Interveners recently in offering Contention 8A (May 14, 2010) and the first round of defense (June 15, 2010), it is incumbent upon NRC to make a finding as to whether 10CFR20 and ALARA have been met, for workers and the public prior to granting the COL. As cited above the Commission itself has state that the extended storage of so called LLRW is “reasonably foreseeable.” As stated in Dr. Resnikoff’ s current Declaration (item 11 as the conclusion of points 7 – 11) with regard to extended storage “From the DCD, it is not clear to me how NRC staff can conclude that workers and the public are protected.” Dr Resnikoff adds:

“If this issue moves towards a hearing before the Atomic Safety And Licensing Board, I will discuss this issue and issues concerning other radioactive waste forms, to show that the DCD does not provide assurance that the health and safety of workers and the general public will be protected.”

It would not be consistent to approve a plan which contains obvious potential short falls in delivery of compliance with its own safety regulations.

Fourth: The Applicant alleges that it has no choice – and that may be so, but the Board and the Commission do. On page 13 of the Motion, the Applicant states that NRC guidance outlines a plan similar to that which it offers in lieu of a hearing on Contention 8A, and further states that it “must” follow these procedures.

Interveners concede that it would probably be bad form for a COL applicant to openly announce that it was not going to follow NRC Guidance. However, it is well established [NEED CITE] that Guidance does not have the force of regulation. We (all parties) find ourselves inconveniently in several transitions at once: first—the rejection of shallow-land burial as an

acceptable (let alone good) “neighbor” by dozens of communities in as many years; second the recognition by many policy analysts that on-site storage is a reality – and probably one with more future than many others; and third the realization by NRC that the shifts in national waste policy will require further regulation and elaboration of existing regulation.

We heard the Commission in CLI-09-03 (Tennessee Valley Authority February 2009) that a full hearing of the issues on so-called LLRW is appropriate given the state of flux on disposal of so-called LLRW caused by the closure of the Barnwell facility to all but the Atlantic Interstate Compact in 2008 (see Attachments B, F and G for more discussion of this closure). The Commission quotes the Director of Operations as stating: [waste disposal] “is not generally considered reliable (i.e., generators do not have good assurance that disposal will be available to them over the next 5 to 10 years).” (page 11)

...and goes on to state (pages 11-12):

The questions of the safety and environmental impacts of onsite low-level waste *storage* are, in our view, largely site- and design-specific, and appropriately decided in an individual licensing proceeding, provided that litigants proffer properly framed and supported contentions.⁴² Indeed, a “low-level waste confidence” rule would not, if it followed the pattern set by the high-level waste confidence rule, alter any requirements to consider in the adjudicatory proceeding the environmental impacts of waste storage during the term of the license.

It is important to note the final words of this excerpt: “term of the license” not term of the DCD design.

We have demonstrated that there are material issues in dispute. And we are also concerned that a judgment on these issues at this juncture may not resolve the matters raised in Contention 8A during the pendency of the case. 10 C.F.R. § 2.710(d)(1) says that the presiding officer “need not consider a motion for summary disposition unless its resolution will serve to expedite the proceeding if the motion is granted.” The issuance of the staffs’ AFSER (which we presume is still in development), the ACRS reading of it and any possible rulemaking activity

that the Commission may engage in during calendar 2011 on these issues could all present new information with respect to the issues admitted as Contention 8A. It is premature to rule now.

IV. Vogtle / Levy

Intervenors acknowledge that several other Boards have ruled and sometimes ruled repeatedly in other COLs (including Bellafonte 3 & 4, North Anna 3, Vogtle 5 and 6, Fermi 3, Calvert Cliffs 3...), and affirm that the lateral structure of the ASLB for site-specific hearings is appropriate, since the sites **are** specific. Part of what intervenors would do in continuing to build a case on so called LLRW generation and extended storage at Levy 1 & 2 is examine the record on LLRW during extreme weather events, as required in 52.79(a)(1)(iii). The likelihood of hurricane impact is substantially lower at Vogtle than at Levy. We are continuing to look at the Levy-specific dimensions that extended storage of so called LLRW would have and believe that the full hearing process is the appropriate opportunity for all parties to do so.

Another point of distinction between the two sites, which warrants a separate, Levy-specific consideration of these issues is that, unlike the Vogtle site, Levy is not yet contaminated with industrial radioactivity. Meeting the regulations for levels of “allowable” radioactivity on a reactor site under NRC regs is different than the Greenfield status that Levy now enjoys, in terms of health and safety as well as “environmental impact.” In addition to the safety and security of our members, in Levy / Citrus, the Biome of this and all the communicating areas via air, water, food and DNA “sheds” deserve a site-specific reading and hearing of these issues.

V. Applicants NRC and Intervenors – the role of the outsider

The intervenors would like to, for a brief moment, reflect that part of the argument made by the Movant reflects an almost cultural or “reflexive” attitude that seems to be endemic in the attempt to site and license the first new nuclear power reactors in three decades. There is a palpable assumption – presumption – that the new “one-step” COL process of Part 52

(advertised as simple and expedited) therefore exempts the applicant from providing detail and specificity in some information. This mindset is delivered in footnote 14 on page 12 of the motion, where regs under part 50 (the old two-step licensing) is contrasted with part 52 stating specifically:

“ Accordingly, it follows that information regarding the “means” for onsite storage of solid waste under 10c.f.r52.79(a)(3) calls for something less than the “general description” of such facilities is required in the construction permit context.”

Intervenors have been encouraged by the repeated rulings of this Board in this case, and the Commission (in this case, and broadly across the COLs) that Low-Level Radioactive Waste is being treated as a substantial concern, and that regulations regarding it should not be given short shrift. We hope that this view will prevail and that our case can be fully developed in the Levy County hearing.

VI. Conclusion why this contention should be heard

For all of the reasons stated here, supported by Attachments A – H, we ask that the Board reject the Motion for Summary Disposition and give Contention 8A a full hearing.

Respectfully Submitted

Mary Olson
Southeast Regional Coordinator,
on behalf of the Co-Intervenors

Asheville, North Carolina
September 15, 2010

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

September 15, 2010

Certificate of Service

I hereby certify that copies of these "Response of Interveners to Applicant's Motion for Summary Disposition of Contention 8A" have been served on the following persons by Electronic Information Exchange on this 15th day of September 2010:

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/Signed (electronically) by/

Mary Olson
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September 15, 2010

Attachment A
Certification

Certification

"I certify that I have made a sincere effort to make myself available to listen and respond to the moving party, and to resolve the factual and legal issues raised in the motion, and that my efforts to resolve the issues have been unsuccessful."

The applicant's counsel contacted me and the co-interveners convened with PEF attorneys by phone. We had a good discussion of all three contentions. We pledged willingness to engage further on one (4); accepted the inevitable on one (7); and responded, after due consideration and discussion in our community that we would oppose Summary Disposition of this contention (C-8A). Frankly, the movant has offered no new issues or information that substantially change this motion from the answer given to the filing of Contention 8A, which of course we opposed.

It is incorrect perhaps to assume that the applicant's world, or that of the regulator is any less complex than representing an organization that itself endeavors to represent a diverse community; nonetheless, the equation and timing of the motion is complex. The injury of one of our experts, Diane D'Arrigo, and her need for real rest in order to recover has complicated the moment. I could not respond in the affirmative to good faith settlement discussions at this time since the defense of our existing case – which I truly believe has merit -- is not setting precedent within my organization or community whereas settlement discussion would be. Ms. D' Arrigo's participation is essential in cutting a new trail. Since Ms. D'Arrigo will recover (it is a concussion), but the timeline is nothing I can commit to, I had to decline the offer of talks on the schedule created by the applicant's motion.

Since settlement would be a precedent setting occasion and few public servants have clocked the number of hours on so-called "low-level" radioactive waste policy as Ms. D'Arrigo, this team was not ready to undertake it without her participation, and her engagement during her recovery period would be against doctor's orders.

We did engage in an initial conversation with the Applicant's counsel – and while honoring here the agreement that any settlement discussion is completely “off the record” I will simply say that there was sufficient exchange to indicate that the “table” we would attempt to “sit at” in order to talk in good faith was in fact still two tables with next to no “overlap.” Therefore I additionally add that there are substantive grounds to assert that “good faith” effort would not result in settlement at this juncture.

Finally, there is reason to question whether a summary disposition at this time will in fact expedite the case. The U.S. Nuclear Regulatory Commission is engaged in a large process in the realm of so-called “low-level” waste regulation – in fact, all waste regulation. It is not clear to me what the timeline is for the so-called “low-level” portion of this activity – but it is entirely possible that an NRC rulemaking on these issues will be active before the 2012 hearing date in this case. Clearly this may clarify – but it may also complicate this proceeding since participation in the rulemaking may bring new information forward, etc. Summary disposition is intended to “expedite” a proceeding and yet the issues remain viable until the termination of the hearing process, in which case the Board might side with the movant, only to find a new round on these issues reopened before the hearing date. 10 C.F.R. § 2.710(d)(1) says that the presiding officer “need not consider a motion for summary disposition unless its resolution will serve to expedite the proceeding if the motion is granted.”

Respectfully Submitted,

_____/s/_____
Mary Olson
On behalf of
Nuclear Information and Resource Service
Ecology Party of Florida
Green Party of Florida

September 14, 2010
Asheville, NC

Attachment B
Declaration of Dr Marvin Resnikoff

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

)	
In the Matter of)	
)	
Progress Energy Florida)	Docket Nos. 52-029 and 52-030
)	
(COL Application for Levy County, Units 1 & 2))	
)	September 15, 2010

**DECLARATION OF MARVIN RESNIKOFF, Ph.D.
IN SUPPORT OF INTERVENORS' CONTENTION 8**

Under penalty of perjury, Marvin Resnikoff does hereby state as follows:

Statement of Qualifications

1. My name is Marvin Resnikoff. I am the Senior Associate at Radioactive Waste Management Associates (RWMA). My business address is 18 The Square, Suite 26, Bellows Falls, Vermont 05101. RWMA works on behalf of public interest groups and State and local governments, and also serve as expert witnesses in personal injury cases involving radiation. I have over 35 years in the technical issues related to low-level radioactive waste storage and disposal. I have authored or co-authored four books on radioactive waste issues and have appeared as an expert witness in licensing cases involving proposed low-level waste facilities in North Carolina, California, Nebraska, Texas and Illinois. I have also served as an EPA technical advisor to a public interest group overseeing the remediation of the Maxey Flats, Kentucky landfill. I am also a member of the Health Physics Society.

Purpose of Declaration

2. The purpose of this declaration is to provide technical support for joint intervenors contention 8 by outlining the details that are required in a plan that protects the health and safety of the public and workers for storing low-level waste for time periods greater than two years at the proposed PEF Levy County 1 & 2 nuclear site. I agree with many of the points made by Diane D'Arrigo in her declaration and will not repeat these points here.

Operational Status of LLRW Disposal Sites

3. As Ms. D'Arrigo has enumerated, only the US Ecology facility in Richland, Washington and the EnergySolutions facility in Barnwell, South Carolina can accept class A, B and C LLRW, and only from the Northwest, Rocky Mountain and Atlantic compacts. Waste Control Specialists (WCS) has a license to store a limited amount of waste from the Texas-Vermont compact. This may change by votes of the Compact Commission, but several lawsuits are pending that may affect the outcome.
4. Another uncertainty is whether the Vermont Yankee reactor is allowed to operate past the year 2012. Decommissioning would yield a large volume of class B and C waste to the WCS facility. The Vermont Legislature has a unique role to play. At the last session, the State Senate has denied Vermont Yankee permission to operate past 2012. The entire matter will be pushed into the gubernatorial election, where the leader of the State Senate is running for Governor.
5. It is also important to point out that the Vermont Yankee reactor has had several years of leakage of H-3, Sr-90 and Cs-137 radionuclides into the from underground pipes into the surrounding soil. This contaminated soil, likely LLRW, Class A, will also have to be exhumed and disposed at an LLRW facility. As part of written agreements, the State will require that the site be restored to Greenfield status.

Onsite Storage and Processing

6. Ms. D'Arrigo states in para. 20 of her declaration that "The applicant must provide greater detail about the waste, its condition, the processes it will undergo, how it will be stored and where, considering the likelihood that extended onsite waste storage will be necessary. Will storage be in buildings and if so what will the structures be? If outside, exposed to the elements, how will safety and security be assured? Where will the storage area or buildings be located? Will they be within the protected area? What treatment options will be carried out onsite and where?" I agree with these valid concerns and provide more detail below.
7. PEF discusses in Revision 16, section 11.4 of the DCD, how it will handle solid waste management. "The solid waste management system is designed to collect and accumulate spent ion exchange resins and deep bed filtration media, spent fuel cartridges, dry active wastes and mixed wastes generated as a result of normal plant operation, including operational occurrences." As discussed by the applicant, the total volume of radwaste to be stored in the radwaste building is 1417 cubic feet at the expected rate, and 2544 cubic feet at the maximum rate. (11.4-5, DCD) Since the useful storage volume in the packaged waste storage area is approximately 3900 cubic feet (11.4-6), the applicant is admitting that it has space for up to two years storage. The DCD further states that "all ion exchange resin beds are disposed and replaced every refueling cycle." (11.4-5, DCD).

Similarly, the activated carbon guard bed and all wet filters are replaced every refueling cycle. (11.4-5, DCD) The applicant admits that it has no provisions for permanent storage of radwaste. (11.4-4, DCD)

8. In this declaration, I will focus on the spent resins and wet filters, since the dose rates can exceed 15 R/hr on contact. (11.4-9, DCD). That is, worker exposures can exceed the quarterly limit in the matter of minutes. These materials may also contaminate the environment outside of the protected area. At other facilities, in particular, the now decommissioned Connecticut Yankee facility, processing of these materials led to high concentrations of radionuclides in the underlying aquifer, up to 150 pCi/L of Sr-90. I was an expert witness for the public interest group CAN before the NRC in decommissioning hearings regarding CT Yankee.
9. According to the applicant, handling of such materials, when unshielded, may be done with reach rod tools. That is, if shielding is not available, workers are kept further away from the radiation source. This is possible if space is available.
10. To handle the spent resins, the applicant has two spent resin storage tanks and one high integrity container “at the west end of the rail car bay of the auxiliary building that “provide more than a year of spent resin storage at the expected rate.” The spent resin handling operations are discussed in section 11.4.2.3.1, DCD.
11. Resins and filter media with contact dose rates greater than 15 R/hr are shielded. Thus, reading between the lines of the DCD (because there is no discussion for how several years worth of materials with high contact dose rates will otherwise be managed), I assume that such materials will be placed in shielded containers somewhere, inside or outside, and indefinitely, until they can be disposed of. Safety and security for these materials are assured by the DCD for immediate disposal, but there is no discussion for indefinite storage. There is no discussion for the processing of these materials for indefinite storage in terms of containers, buildings, locations. From the DCD, it is not clear to me how NRC staff can conclude that workers and the public are protected.
12. If this issue moves towards a hearing before the Atomic Safety And Licensing Board, I will discuss this issue and issues concerning other radioactive waste forms, to show that the DCD does not provide assurance that the health and safety of workers and the general public will be protected.
13. I agree with Ms. D’Arrigo that there is no offsite disposal for PEF available at present and that PEF must therefore plan for indefinite storage. The DCD does not describe how this will be done and cannot be relied upon by NRC staff for that purpose.

14. If indefinite storage results in an accumulation of radioactive waste on the Levy site beyond the capacity projected in the DCD, inclusion of consideration of this source term in many accident / non-normal operating scenarios will be important.

I declare that the foregoing facts are true and correct to the best of my knowledge and that the statements of opinion are based on my best professional judgment.

_____/s/_____
Marvin Resnikoff

September 15, 2010



RADIOACTIVE WASTE
MANAGEMENT ASSOCIATES

Marvin Resnikoff, Ph.D. Curriculum Vitae

EDUCATION:

Ph.D., Physics	1965, University of Michigan
M.S., Physics	1962, University of Michigan
B.A., Physics/Math	1959, University of Michigan

SUMMARY OF PROFESSIONAL EXPERIENCE:

Marvin Resnikoff is Senior Associate at Radioactive Waste Management Associates and is an international consultant on radioactive waste management issues. He is Principal Manager at Associates and is Project Director for dose reconstruction and risk assessment studies of radioactive waste facilities and transportation of radioactive materials. Dr. Resnikoff has concentrated exclusively on radioactive waste issues since 1974. He has authored or co-authored four books on radioactive waste issues.

He has conducted dose reconstruction studies of oil pipe cleaners in Mississippi and Louisiana, residents of Canon City, Colorado near a former uranium mill, residents of West Chicago, Illinois near a former thorium processing plant, and residents and former workers at a thorium processing facility in Maywood, New Jersey. He has also served as an expert witness for plaintiffs in Karnes County, Texas, Milan, New Mexico and Uravan, Colorado, who were exposed to radioactivity from uranium mining and milling activities. He is continuing to work on personal injury cases involving former workers and residents at the ITCO and other oil pipe cleaning yards in Louisiana and Texas. He also evaluated radiation exposures and risks in worker compensation cases involving former workers at Maywood Chemical Works thorium processing plant. He also served as an expert witness in a case involving the Port St. Lucie reactors and brain cancer developed by two children and in a case involving clean-up of an abandoned radioactive materials processing facility in Webster, Texas. He is presently working on several land contamination cases in Louisiana, Texas and New York. In June 2000, he was appointed to a Blue Ribbon Panel on Alternatives to Incineration by DOE Secretary Bill Richardson.

In addition to dose reconstruction and land contamination cases, Dr. Resnikoff also works on the risk of transporting radioactive material. Under a contract with the State of Utah, Dr. Resnikoff was a technical consultant to DEQ on the proposed dry cask storage facility for high-level waste at Skull Valley, Utah. He assisted the State on licensing proceedings before the Nuclear Regulatory Commission. He has also prepared studies on transportation

risks and consequences for the State of Nevada and the Nevada counties: Clark, White Pine, Lander and Churchill. In addition, at hearings before state commissions and in federal court, he investigated proposed dry storage facilities at the Point Beach (WI), Prairie Island (MN), Palisades (MI), Maine Yankee, Connecticut Yankee and Vermont Yankee reactors. He is presently working for the State of Nevada on Yucca Mountain repository issues before the Nuclear Regulatory Commission (NRC). He is also serving as an expert witness for Earthjustice on a proposed NRC license for a food irradiator at the Honolulu, Hawaii airport.

He has conducted studies on the remediation and closure of the leaking Maxey Flats, Kentucky radioactive landfill for Maxey Flats Concerned Citizens, Inc. and of the leaking uranium basin on the NMI/Starmet site in Concord, Massachusetts under grants from the Environmental Protection Agency. He co-authored a study on the cost of remediating the former West Valley, New York reprocessing plant site. He also conducted studies of the Wayne and Maywood, New Jersey thorium Superfund sites and proposed low-level radioactive waste facilities at Martinsville (Illinois), Boyd County (Nebraska), Wake County (North Carolina), Ward Valley (California) and Hudspeth County (Texas). He investigated phosphogypsum plants in Florida, Texas and Alberta, Canada, and served as an expert witness in a personal injury case involving a Texas phosphogypsum worker. He also served as an expert witness for CRPE, a public interest groups, regarding the proposed expansion of the Buttonwillow, California NORM landfill. He is presently working for Earthjustice re. the licensing of an irradiation facility near the Honolulu airport in Hawaii.

In Canada, he conducted studies on behalf of the Coalition of Environmental Groups and Northwatch for hearings before the Ontario Environmental Assessment Board on issues involving radioactive waste in the nuclear fuel cycle and Elliot Lake tailings and the Interchurch Uranium Coalition in Environmental Impact Statement hearings before a Federal panel regarding the environmental impact of uranium mining in Northern Saskatchewan. He also worked on behalf of the Morningside Heights Consortium regarding radium-contaminated soil in Malvern and on behalf of Northwatch regarding decommissioning the Elliot Lake tailings area before a FEARO panel. He conducted a study for Concerned Citizens of Manitoba regarding transportation of irradiated fuel to a Canadian high-level waste repository. He is presently working for Greenpeace reviewing the environmental assessment for a proposed intermediate level waste repository under Lake Huron, and for the Provincial Womens Council of Ontario on radioactive waste management costs in a proceeding before the Ontario Energy Board.

In February 1976, assisted by four engineering students at State University of New York at Buffalo, Dr. Resnikoff authored a paper that, according to *Science*, changed the direction of power reactor decommissioning in the United States. His paper showed that power reactors could not be entombed for long enough periods to allow the radioactivity to decay to safe enough levels for unrestricted release. The presence of long-lived radionuclides meant that large volumes of decommissioning waste would still have to go to low-level or high-level waste disposal facilities. He assisted public interest groups on the decommissioning of the Yankee-Rowe, Diablo Canyon, Big Rock Point and Haddam Neck reactors.

He was formerly Research Director of the Radioactive Waste Campaign, a public interest organization conducting research and public education on the radioactive waste issue. His duties with the Campaign included directing the research program on low-level commercial and military waste and irradiated nuclear fuel transportation, writing articles, fact sheets and reports, formulating policy and networking with numerous environmental and public interest organizations and the media. He is author of the Campaign's book on "low-level" waste, *Living Without Landfills*, and co-author of the Campaign's book, *Deadly Defense, A Citizen Guide to Military Landfills*.

Between 1981 and 1983, Dr. Resnikoff was a Project Director at the Council on Economic Priorities, a New York-based non-profit research organization, where he authored the 390-page study, *The Next Nuclear Gamble, Transportation and Storage of Nuclear Waste*. The CEP study details the hazard of transporting irradiated nuclear fuel and outlines safer options.

Dr. Resnikoff is an international expert in nuclear waste management, and has testified often before State Legislatures and the U.S. Congress. He has extensively investigated the safety of the West Valley, New York and Barnwell, South Carolina nuclear fuel reprocessing facilities. His paper on reprocessing economics (Environment, July/August, 1975) was the first to show the marginal economics of recycling plutonium. He completed a more detailed study on the same subject for the Environmental Protection Agency, "Cost/Benefits of U/Pu Recycle," in 1983. His paper on decommissioning nuclear reactors (Environment, December, 1976) was the first to show that reactors would remain radioactive for several hundred thousand years. In March 2004, Dr. Resnikoff was project director and co-author of a study of groundwater contamination at DOE facilities, *Danger Lurks Below*.

Dr. Resnikoff has prepared reports on incineration of radioactive materials, transportation of irradiated fuel and plutonium, reprocessing, and management of low-level radioactive waste. He has served as an expert witness in state and federal court cases and agency proceedings. He has served as a consultant to the State of Kansas on low-level waste management, to the Town of Wayne, New Jersey, in reviewing the cleanup of a local thorium waste dump, to WARD on disposal of radium wastes in Vernon, New Jersey, to the Southwest Research and Information Center and New Mexico Attorney General on shipments of plutonium-contaminated waste to the WIPP facility in New Mexico and the State of Utah on nuclear fuel transport. He has served as a consultant to the New York Attorney General on air shipments of plutonium through New York's Kennedy Airport, and transport of irradiated fuel through New York City, and to the Illinois Attorney General on the expansion of the spent fuel pools at the Morris Operation and the Zion reactor, to the Idaho Attorney General on the transportation of irradiated submarine fuel to the INEL facility in Idaho and to the Alaska Attorney General on shipments of plutonium through Alaska. He was an invited speaker at the 1976 Canadian meeting of the American Nuclear Society to discuss the risk of transporting plutonium by air. As part of an international team of experts for the State of Lower Saxony, the Gorleben International Review, he reviewed the plans of the nuclear industry to locate a reprocessing and waste disposal

operation at Gorleben, West Germany. He presented evidence at the Sizewell B Inquiry on behalf of the Town and Country Planning Association (England) on transporting nuclear fuel through London. In July and August 1989, he was an invited guest of Japanese public interest groups, Fishermen's Cooperatives and the Japanese Congress Against A- and H-Bombs (Gensuikin).

Between 1974 and 1981, he was a lecturer at Rachel Carson College, an undergraduate environmental studies division of the State University of New York at Buffalo, where he taught energy and environmental courses. The years 1975-1977 he also worked for the New York Public Interest Group (NYPIRG).

In 1973, Dr. Resnikoff was a Fulbright lecturer in particle physics at the Universidad de Chile in Santiago, Chile. From 1967 to 1973, he was an Assistant Professor of Physics at the State University of New York at Buffalo. He has written numerous papers in particle physics, under grants from the National Science Foundation. He is a 1965 graduate of the University of Michigan with a Doctor of Philosophy in Theoretical Physics, specializing in group theory and particle physics. Dr. Resnikoff is a member of the American Public Health Association and the Health Physics Society.

PROFESSIONAL EXPERIENCE:

April 1989 - present **Senior Associate**, Radioactive Waste Management Associates, management of consulting firm focused on radioactive waste issues, evaluation of nuclear transportation and military and commercial radioactive waste disposal facilities.

1978 - 1981; 1983 - April 1989 **Research Director**, Radioactive Waste Campaign, directed research program for Campaign, including research for all fact sheets and the two books, *Living Without Landfills*, and *Deadly Defense*. The fact sheets dealt with low-level radioactive waste landfills, incineration of radioactive waste, transportation of high-level waste and decommissioning of nuclear reactors. Responsible for fund-raising, budget preparation and project management.

1981 - 1983 **Project Director**, Council on Economic Priorities, directed project which produced the report *The Next Nuclear Gamble*, on transportation and storage of high-level waste.

1974 - 1981 **Instructor**, Rachel Carson College, State University of New York at Buffalo, taught classes on energy and the environment, and conducted research into the economics of recycling of plutonium from irradiated fuel under a grant from the Environmental Protection Agency.

- 1975 - 1976 **Project Coordinator**, SUNY at Buffalo, New York Public Interest Research Group, assisted students on research projects, including project on waste from decommissioning nuclear reactor.
- 1973 **Fulbright Fellowship** at the Universidad de Chile, conducting research in elementary particle physics.
- 1967 - 1972 **Assistant Professor of Physics**, SUNY at Buffalo, conducted research in elementary particle physics and taught range of graduate and undergraduate physics courses.
- 1965 - 1967 **Research Associate**, Department of Physics, University of Maryland, conducted research into elementary particle physics.

PROFESSIONAL ORGANIZATIONS:

Health Physics Society

SPECIAL SPEAKING ENGAGEMENTS:

- 1967 Invited Speaker, w/ O.W. Greenberg, Meeting of the American Physical Society, Washington, D.C., "Symmetric Quark Model of Baryon Resonances," Conf-670414—6.
- 1976 Invited Speaker, Meeting of the American Nuclear Society, Toronto, Canada, "Comparison of risk assessments of Pu released during transport."
- 1976 Statement before the Subcommittee on Energy and the Environment of the Interior Committee, House of Representatives, on recycling of plutonium.
- 1977 Statement before the Subcommittee on Government Operations, House of Representatives, on Nuclear Power Costs
- 1979 Chaired panel w/Dr. Karl Morgan and Dr. Alice Stewart, Gorleben International Review, on the health effects of radiation, Hanover, Germany.
- 2000 Invited day-long seminar presentation to the California Department of Health on the health effects of radiation
- 2002 Testimony before the Committee on Transportation & Infrastructure, United States House of Representatives, on transportation of nuclear materials.
- 2003 Presentation before the National Academy of Sciences Study Committee on Transportation of Radioactive Waste, Las Vegas, NV, "Baltimore Tunnel Fire: Implications for SNF Transportation Safety."
- 2006 Biglin, K. and Resnikoff, M, Emergency Response to a Nuclear Waste Shipment Accident, Inyo County, June 15, 2006, paper presented at ESRI Annual Conference, August 2006.
- 2008 Invited Speaker, Meeting of the American Nuclear Society, Anaheim, CA,

- “State of Nevada Recommendations for Yucca Mountain Transportation Safety and Security.”
- 2008 Presentation at Waste Management 2008, Phoenix, AZ, “Fugitive Dust Emissions from Uranium Haul Roads.”
- 2008 Presentation at Waste Management 2008, Phoenix, AZ, “State of Nevada Perspective on the US DOE Yucca Mountain Transportation Program.”

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M. Marvin Resnikoff, “The Generation Time Bomb: Radioactive and Chemical Wastes.” Chapter in “Hidden Dangers: Environmental Consequences of Preparing for War,” edited by Anne Ehrlich and John Birks, Sierra Club Books, San Francisco, 1990.

I. Fairlie and M. Resnikoff, “No Dose Too Low,” *The Bulletin of Atomic Scientists*, Nov/Dec 1997.

M. Resnikoff, “Danger Lurks Below,” Alliance for Nuclear Accountability, 2004.

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RWMA, White Paper #2, Low-Level Waste Transportation in Connecticut, prepared on behalf of the Towns of East Windsor, Ellington and South Windsor, October 2, 1991.

RWMA, White Paper #3, Statement by Dr. Marvin Resnikoff on Chem-Nuclear, prepared on behalf of the Towns of East Windsor, Ellington and South Windsor, October 29, 1991.

RWMA, White Paper #4, Leakage From Existing 'Low-Level' Waste Disposal Facilities, prepared on behalf of the Towns of East Windsor, Ellington and South Windsor, January 6, 1992.

Marvin Resnikoff and Anne Vanrenterghem, Preliminary Review of US Ecology Safety Analysis Report, Proposed Boyd County, Nebraska Low-Level Waste Facility, prepared on behalf of the Boyd County Local Monitoring Committee, February 2, 1992.

Marvin Resnikoff, Radon Releases from Uranium Tailings and Projected Health Effects, prepared on behalf of Northwatch Coalition, February 17, 1992.

RWMA, White Paper #5, Storage of Low-Level Radioactive Waste, prepared on behalf of the Towns of East Windsor, Ellington and South Windsor, February 19, 1992.

Marvin Resnikoff, Scope: McArthur River and Cigar Lake Projects, Memo to Inter Church Uranium Council, February 27, 1992.

Richard Leigh, Marvin Resnikoff and Anne Vanrenterghem, Environmental Impacts of Elliot Lake Mill Tailings, prepared on behalf of Northwatch Coalition, March 30, 1992.

Marvin Resnikoff, Canadian High-Level Waste Repository Costs, Memo to David Poch and David Argue, Coalition of Environmental Groups, April 2, 1992.

Minard Hamilton, Low Level Waste Facilities in Canada and the U.S., prepared on behalf of Northwatch Coalition, April 22, 1992.

Marvin Resnikoff, Comment on Midwest Joint Venture EIS, Memo to Inter Church Uranium Council, April 23, 1992.

Benjamin A. Goldman, Review of Environmental Report Social and Economic Impact Assessments: Proposed Low-Level Radioactive Waste Disposal Facility, prepared on behalf of Northwatch Coalition, June 25, 1992.

Lee DiTullio and Marvin Resnikoff, Review of Safety Analysis Report Part 1: Geology, Hydrology Proposed Low-Level Waste Facility Butte, Nebraska, prepared on behalf of the Boyd County Local Monitoring Committee, June 29, 1992.

Marvin Resnikoff, Mythbuster#8, "Low-Level" Radioactive Waste, for Safe Energy Communications Council, Summer 1992.

Marvin Resnikoff, Comments on Final Guidelines for the Preparation of an Environmental Impact Statement on the Nuclear Fuel Waste Management and Disposal Concept, July 22, 1992.

Marvin Resnikoff, NMI's Proposed Hydromet Project, Memo to Judy Scotnicki, Concerned Citizens of Concord, July 29, 1992.

Marvin Resnikoff and Lee DiTullio, Review of Safety Analysis Report Part 2: Risk Assessment Proposed Low-Level Waste Facility Butte, Nebraska, prepared on behalf of the Boyd County Local Monitoring Committee, August 7, 1992.

RWMA, Comments on McClean Lake Project EIS, prepared on behalf of the Inter-Uranium Coalition, June 30, 1992.

Lee DiTullio and Karen Levine, Comments on Cluff Lake EIS, prepared on behalf of the Inter-Church Uranium Coalition, July 20, 1992.

Marvin Resnikoff, Plutonium Ship Akatsuki Maru Consequences of Fire at the Pearl Harbor Naval Shipyard, prepared on behalf of Greenpeace, August 24, 1992.

Marvin Resnikoff, Waste Impacts of the Nuclear Fuel Cycle, prepared on behalf of Coalition of Environmental Groups, November 1992.

Marvin Resnikoff, Declarations on the safety of shipping naval fuel from shipyards to Idaho before the Federal District Court, prepared on behalf of the Idaho Attorney General, March 1993.

Marvin Resnikoff, Declaration on the safety of the VSC-24 storage cask before the Federal District Court on behalf of the Lake Michigan Federation, May 1993.

Marvin Resnikoff, Talk at a Town Meeting in Grand Rapids, Michigan, June 22, regarding the safety of the VSC-24 storage container at the Palisades reactor.

Marvin Resnikoff, Reports to two environmental assessment panels reviewing the environmental impact of proposed mining operations in Northern Saskatchewan, prepared on behalf of the Interchurch Uranium Coalition, May 12 and June 14, 1993.

Marvin Resnikoff, Presentation before the Ohio Governor's Blue Ribbon Committee on siting a low-level waste facility in Ohio for the Midwest Compact, July 1993.

Marvin Resnikoff, Report on the safety of processing and storing radium-contaminated wastes in the Tapscott district of Scarborough, Toronto, prepared on behalf of the Coalition Against Radioactive Tapscott, November 1, 1993.

Marvin Resnikoff, Remarks before the Department of Energy meeting on the Multi-Purpose Canister, Washington, D.C., November 16, 1993.

Marvin Resnikoff, Report on the scoping guidelines for production of an Environmental Impact Statement (EIS) for decommissioning of the Elliot Lake uranium tailings and report on the draft EIS by Rio Algom for the decommissioning of Quirk and Panel tailings, Elliot Lake, prepared on behalf of Algoma-Manitoulin Nuclear Awareness, December 15, 1993.

Resnikoff, M and Haaker, R, "Estimated Radiation Dose received by James E Case, et al, during Pipe De-scaling Operations at Brookhaven, Mississippi," report prepared in the case Case v. Chevron, January 23, 1994.

Radioactive Waste Management Associates, "Soil Separation: What It Means For Wayne," report prepared for the Town of Wayne, New Jersey, May 24, 1994.

Resnikoff, M and Fuchsman, P, "Comments on the Department of Energy's Baseline Risk Assessment for the Wayne Site, Wayne, New Jersey, January 1994," May 31, 1994.

Resnikoff, M, "Radiation Dose Exposures Received by William Davis During Lens Polishing Operation," report prepared for the case Davis v Transelco et al, July 1, 1994.

Leigh, RL and Resnikoff, M, "Estimated Exposure to Radiation and Metals Received by Lincoln Park Residents from Cotter Mill Operations," report prepared for the case J Dodge et al v. Commonwealth Edison, July 1, 1994.

Resnikoff, M, Affidavit prepared on behalf of plaintiffs in the United States District Court for the Eastern District Of Tennessee at Knoxville, Euchee Marina & Campground, Inc. et al, plaintiffs, v Union Carbide Corporation, et al, defendants, July 15, 1994.

Resnikoff, M, Leigh, RL and Fuchsman, P, "Comments on the Department of Energy's Baseline Risk Assessment for the Maywood Site, Maywood, New Jersey, April 1993," July 27, 1994.

Resnikoff, M, "Prefiled Testimony Of Marvin Resnikoff, Ph.D. On Behalf of Lake Michigan Federation, before the Public Service Commission of Wisconsin, in the case of Application of Wisconsin Electric Power Company for Authority to Construct and Place in Operation an Independent Spent Fuel Storage Facility Utilizing Dry Cask Storage Technology at the Point Beach Nuclear Plant Located in the Town of Two Creeks,

Manitowoc County, September 11, 1994. Also Rebuttal Testimony, dated September 27, 1994 and Supplemental Testimony, dated October 3, 1994.

Resnikoff, M, affidavit prepared on behalf of plaintiffs in the United States District Court for the District of Massachusetts, Citizens Awareness Network, Inc., plaintiff, v. United States Nuclear Regulatory Commission, defendant, October 4, 1994.

Resnikoff, M, affidavit in opposition to motion of Westinghouse for summary judgment, prepared on behalf of plaintiffs in the United States District Court for the Western District Of Washington at Yakima, in re Hanford Nuclear Reservation, October 15, 1994.

Resnikoff, M and Knowlton, K, "Preliminary Critique of the Safety Analysis Report, Wake/Chatham Proposed Low-Level Waste Facility," report prepared for the Chatham County Preferred Site Local Advisory Committee, July 19, 1994.

Resnikoff, M. Comments on Proposed Rule Change: Radiation Standards for Low Level Waste Facilities, January 9, 1995.

Resnikoff, M. Unresolved Safety Issues. Paper presented at the conference, "Nuclear Waste Transportation and the Public," Las Vegas, Nevada, February 1, 1995.

Resnikoff, M. Ohio Low Level Legislation, Lobby Day, Ohio Environmental Council, Border Opposes Nuclear Dump, February 22, 1995.

Resnikoff, M., Wayne Health Survey Fact Sheet. Questions and answers about the Wayne Health Survey. April 1995.

Fuchsman, P., Hamilton, H., Knowlton, K., Levine, K., and Resnikoff, M., "A health survey of residents near the former thorium processing facility and in a control group, Wayne, New Jersey." April 1995.

Knowlton, K. and Resnikoff, M. "Decommissioning the Uranium Holding Basin and the Bog at NMI, Concord, Massachusetts," May 1995.

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Attachment C

**Statement of Material Facts Forming the Basis for Material Dispute
with Applicant's "plan" for so-called "low-level" radioactive waste.**

Statement of Material Facts Forming the Basis for Material Dispute with Applicant's "plan" for so-called "low-level" radioactive waste.

1. In every filing on safety and low-level waste that would be generated at Levy County 1 & 2 if a COL were to be granted, the interveners have reflected our members' concerns for health, safety and security, both on the site and off.
2. It was the Commission itself (CLI-10-02 page) that inserted the first reference to 10CFR52.79(a)
 - (a) The application must contain a final safety analysis report that describes the facility, presents the design bases and the limits on its operation, and presents a safety analysis of the structures, systems, and components of the facility as a whole. The final safety analysis report shall include the following information, at a level of information sufficient to enable the Commission to reach a final conclusion on all safety matters that must be resolved by the Commission before issuance of a combined license...
3. In most filings we have referenced concerns about conditions which are specific to Levy County, including the possibility of hurricanes and other severe weather which are not specific to other sites, such as Vogtle.
4. In our filings we have consistently pointed to the persistent, often concentrated, dangerous nature of this material (declarations of Diane D'Arrigo) and in this filing offer the additional Declaration of Dr. Marvin Resnikoff (Attachment B) focusing specifically on the resin portion of the waste stream. This declaration at point 11 states: "From the DCD, it is not clear to me how NRC staff can conclude that workers and the public are protected." This is in reference to extended storage of resins.
5. The DCD in Chapter 11.4.2.1 lays out the minimum time ("more than 1 year") and the likely maximum time ("more than 2 years") that the temporary storage facility for solid

waste will take to fill, however it fails to address the statement made in the opening of Chapter 11.4:

11.4 This system does not handle large, radioactive waste materials such as core components or radioactive process wastes from the plant's secondary cycle.

6. It further fails to take into account the increased probability that “start-up” – the first years of operation will generate waste at the maximum anticipated rate (or more). Known as the “bathtub curve” this phenomenon is described in the report *The Risk of a Lifetime* (Attachment D -- see pages 3 – 6 with the illustration of the curve on page 4). While we are not asserting that Levy Co will suffer a severe event, clearly the report shows the possibility that the start-up period can result in more waste, and PEF could attain, or even exceed the projected “maximum” rate of waste production in the first year. This could mean that additional storage might be needed more suddenly and urgently than the normal 50.59 process and subsequent license amendment process might take. This hypothetical picture is being painted to illustrate that since there is no identified implementation trigger point for the so-called “plan,” it is not at all clear how the need for a “contingency contingency” plan could be avoided. The applicant has not detailed this for us.
7. A contingency contingency plan will not allow the regulator to make the safety finding encompassing the rightful concerns of our members prior to licensing as required by 52.79(a).
8. As stated by Dr. Resnikoff in the current declaration, the materials on which the safety finding must be made are complex. Further the accumulation of extended source term

that may result from waste storage in excess of the anticipated 1 – 2 years must be factored in a spectrum of accident and non-normal conditions analyses.

9. We believe that these factors (and others argued above and in the declarations) combine to form the basis of NRC’s assumption that generated so-called “low-level” radioactive waste should be shipped off-site as rapidly as possible. The applicant repeats this NRC view and the AP1000 DCD has fully embraced this preference and assumption which, however, is not rooted in the reality that there is no off site disposal available. All the reasons that the generator and the regulator do not want this waste at the reactor site, are the same reasons that local communities given the opportunity to live with a so-called “low-level” waste disposal site have said “no thank you.”

10. The Levy site offers unique reasons for consideration of the “means of control” since it is the *only* Greenfield site under consideration for new reactors at this time, and one of only a small handful (including several sites canceled before ever going “hot”) that have never had industrial radioactivity introduced.

Correction! Number 10 is not in dispute; see:

In the list of Pillsbury Law Firm’s accomplishments:

- First new nuclear plant in the U.S. at a greenfield site—Progress Energy’s Levy County project

See:

<http://www.pillsburylaw.com/index.cfm?pageid=12&itemid=1787>