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Mr. David L. Meyer, Chief
Rules Review and Directives Branch
Division of Freedom of Information
and Publication Services
U. S. Nuclear Regulatory Commission
Washington, DC 20555

SUBJECT: Comments on NRC's Draft NUREG-5884, "Revised Analyses of Decommissioning for the Reference Pressurized Water Reactor Power Station"

Dear Mr. Meyer:

Florida Power Corporation would like to offer the following comments on the draft NUREG-5884.

1. Site Specific Cost Estimates We recommend that the NRC establish regulations which require that licensees perform (and update) site specific decommissioning cost estimates (instead of using generic NRC methodology). The NRC should verify the adequacy of the cost estimate methodology and verify subsequent contributions to funding programs. In other words, the NRC should not prescribe the cost estimating methodology, but instead should prescribe that a verifiable site specific method be used and then monitor adequacy and compliance.

If the NRC does require use of the generic cost estimating methodology, there should be a provision (exemption) for licensees to use, if available, a site specific funding value in lieu of values derived using NRC methodology.

2. Draft Site Cleanup Standards The new NRC draft site cleanup standards are dose based standards, which essentially require ALARA cost/benefit analyses which decide the appropriate cleanup level somewhere between the 15 mrem/y limit and the 3 mrem/y goal. One of the important pieces of information upon which to make this determination will be the dose estimates for occupational workers; therefore, the dose estimating methodology associated with decommissioning cost estimates should be improved so that this data is available. Improvements that should be made are use of site specific radionuclide spectrums instead of basing everything on Co-60.

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3. Cost Effective Assumptions Table ES.1 should present the expected decommissioning costs using reduced or more realistic security and insurance costs; i.e., the table should include the \$88 million dollars "cost effective" assumptions for entombment (see page 5.13).
4. Acceptability of Entombment NRC regulation 10 CFR 50.75 should be further explained via a Regulatory Guide interpretation regarding the acceptability of entombment as a decommissioning alternative. Note: The GEIS for decommissioning of nuclear facilities (NUREG-0586) does include evaluation of the entombment option. However, we note that with the proper preparation for entombment with off-site licensed disposal of high level waste and decontamination waste, there would not be large amounts of radioactivity available for escape, as hypothesized in Section 4.4 of NUREG-0586. Therefore, there would not be a significant environmental impact from a breached structure.

The Congressional Office of Technology Assessment prepared a report on "Aging Nuclear Power Plants: Managing Plant Life and Decommissioning". In the verbal brief to the Commission on November 10, 1993, Dr. Roy states (page 27) that in the 1988 rule, the NRC "considered dropping entomb as an option for decommissioning, but instead decided to develop more specific guidelines on how entomb could be applied and how useful it would be". On page 28, Dr. Roy states: "Entomb option may be a realistic approach for safety and economic reasons, and receive -- it depends on the site and you'd have to find this out, do some more examinations -- might receive a favorable state and public acceptance in some cases."

5. Cost of Disposal Even though NUREG-0558 is developed for the referenced PWR, Table ES.1 should present the values for disposal at the new Regional compacts, as both Hanford and Barnwell will cease operation by the time most facilities are decommissioned.

In addition, the disposal values for both Hanford and Barnwell should be provided, since this document will be used generically for PWRs and the cost differences are very significant.

Alternatively, the costs should be shown for Barnwell "only", which is more representative of costs expected at future LLW compacts; and also, since Hanford is inaccessible to most utilities. If the higher costs of disposal at Barnwell are not "shown", the reader develops a false impression of the relative costs of the decommissioning alternatives.

6. Present \$ Value vs. Constant \$ We believe that NUREG-5884 should provide decommissioning cost alternatives which provide both constant and present value cost estimates, because cost comparisons between decommissioning alternatives must be made. A "present \$ value" calculation provides a much better basis for "current time" comparison of funds necessary to meet future costs than do "constant dollars", in spite of the uncertainties. Note: Constant dollars expended in the future are projected with similar uncertainties as back calculation of present value dollars.
7. SNF Cooling Periods Title 10 CFR 961 Appendix E requires five year SNF cooling for delivery to DOE for shipment as "Standard Fuel". There is no time requirement which specifies cooling in reactor pools. Interim SNF placement in dry cask storage cells is limited by the heat removal capability of the cask design.
8. Specific Comments

pg. xxi

The costs of transport and disposal associated with disposal of long-lived activity for the decommissioning alternative of entombment should also be listed.

pg.xxii, 2nd full paragraph

The statement that "one can be assured that disposal costs are unlikely to decrease over time" may be pessimistic. In looking for cost effective solutions to enhance the nuclear option, we propose that the NRC and EPA be encouraged to develop regulations which allow use of Very Low Level Waste Disposal sites. These regulations would essentially replace the 20.302 (now 20.2002) exemption process. If this were achieved, then the cost of waste disposal may be dramatically reduced since many of the materials may be only slightly contaminated, especially after aggressive chemical decon.

pg xxv, 2nd full paragraph

The cost estimating computer code (CECP) should be developed to allow sensitivity analyses, including variable security and insurance costs for SAFSTOR and ENTOMB options, instead of relying on data from the old NUREG/CR-1755 analyses. In addition, future site cleanup standards and decommissioning regulations should allow/require this type of evaluation.

pg. 1.4

The on-site costs of dry spent fuel storage are being considered operations costs. Actually these should be included in decommissioning costs, since the cost of operation is no longer supported by generation at the plant and the funds allocated to DOE are for disposal.

pg. 2.2, last 2 paragraphs

The scheduling constraint on operation of the spent fuel pools following plant shutdown is directly related to the heat removal capability of the cask design. Some designs employ passive cooling techniques to increase the heat removal capability and reduce the time required for cooling in the spent fuel pools.

pg. 2.5, 6th bullet

The radiation dose rate should be calculated using an effective dose factor for an assumed mix of radionuclides, instead of determined based on the short, half-lived Co-60.

pg. 5.1, 1st paragraph, last sentence

The NUREG interpretation is incorrect that the "only" reason for allowing consideration of delaying decommissioning beyond the 60 year limit is the "unavailability of waste disposal capacity". This is "only" an example and not a conclusive list of the possible considerations "necessary to protect the public health and safety". The NRC should be open to alternatives suggested in decommissioning plans which provide alternate methods of decommissioning, as long as they "protect the public health and safety". (Refer to comment No. 1).

pg. 5.2, 3rd paragraph

The statement "that entombment is not a particularly viable decommissioning alternative" should be deleted, as the conclusions on page 5.13 show that entombment is probably the most cost effective decommissioning alternative.

pg. 5.7, 3rd full paragraph

The spent fuel racks can be cut up underwater and then placed in the containment building at a lower cost, instead of being disposed in a licensed facility. Note: Many utilities have already re-racked to high density spent fuel racks and, therefore, have experience in underwater cutting.

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pg. 5.8, first full paragraph

For the entomb option, it may not be necessary to decontaminate the polar crane since it will have mainly low-level, short-lived contamination.

pg. 5.10 "Activities during and following ENTOMB"

It appears that the values are in the columns for ENTOMB1 and ENTOMB2 where, in fact, these values are for ENTOMB1 and ENTOMB3.

pg. 5.11, first partial paragraph

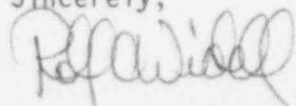
The values are discussed in constant dollars and would be more meaningful if discussed in terms of present value dollars.

pg. 5.13, first partial paragraph

The first complete sentence comes to the wrong conclusion. The statement should read "the funding should be required in present value" instead of in constant dollars (which provide an unnecessary and misleading cost estimate and funding requirements).

If you have any questions, or wish to discuss any of these comments, please contact Steven M. Garry, Corporate Health Physicist, at 904/563-4777.

Sincerely,



Rolf C. Widell, Director
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SMG:mag

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