

3. the impacts of transportation of plutonium and
4. the effects of Sabotage, terrorism or theft against plutonium in the fuel cycle
6. The analysis performed by the Staff and contained in the Draft FES Supplement and which will appear in the Final FES Supplement will account for differences in the model LMFBR fuel cycle and the CRBR fuel cycle.
7. The Applicants' Environmental Report also contains a CRBR-specific fuel cycle analysis.
8. Based on the above I believe that Intervenors' concern that the fuel cycle analysis for CRBR be CRBR-specific rather than being based on the general LMFBR fuel cycle alone, has been fully addressed by the ER and by the Draft FES Supplement and will be fully addressed in the Final FES Supplement.

Homer Lowenberg
Homer Lowenberg

Subscribed and sworn to before me
this 29th day of September, 1982.

Virginia Lee Shape
Notary Public

My Commission expires: July 1, 1986.

Educational and Professional Qualifications

Homer Lowenberg
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission

My name is Homer Lowenberg. I am the Chief Engineer of the Office of Nuclear Material Safety and Safeguards. I am responsible for refinements of the technological base for improving and updating the licensing process and for the performance of generic and special studies in support of national and international policies and developments in the non-reactor areas of NRC's responsibilities. I am currently responsible for NRC's environmental review of the CRBR fuel cycle. In addition, I handle activities related to the fuel cycle aspects of the GESMO proceeding and LMFBR research; also, I participate in waste management aspects of the TMI-2 clean-up and in technical review of high and low level waste management programs.

I received the degree of Mechanical Engineer from Stevens Institute of Technology with distinction in Chemical Engineering and attended the Executive Development Program of Cornell University Graduate School of Business and Public Administration.

My professional career was initiated with 5 years of plant development and start-up activities for the Hercules Powder Company in smokeless powder, rocket propellants and high explosive operations.

Then I spent 20 years in the architect-engineering field with the Kellex Corporation which subsequently became Vitro Engineering Co. I was project manager for numerous nuclear facilities including AEC's Purex, Redox and Waste Metal Recovery reprocessing plants at Richland, Washington; the Italian and Swedish Reprocessing facilities; Consolidated Edison's Indian Point Nuclear Power Plant; the Indian Plutonium Laboratory; and a wide variety of nuclear and nonnuclear projects. When Vitro Engineering was sold to Ralph Parsons Co., I was manager of its New York operations.

I was Manager of Central Engineering for Atlantic Richfield Co.'s commercial nuclear activities for 5 years including planning, design and construction of all facilities for fuel material production, fuel assembly and manufacturing, fuel reprocessing and related functions.

I joined the Atomic Energy Commission in 1971 as an assistant director in the regulatory fuels and materials licensing area and continued with NRC upon its creation in 1974. As an assistant director I was responsible for initiating the Reactor-Fuel Cycle Rule (now 10 CFR 51, Tables S-3 and S-4).

I was the program manager and chief commission witness for the GESMO proceeding on widescale mixed oxide use in LWRs; a member of the U.S. delegation to the International Fuel Cycle Evaluation Working Group 4 on Pu reprocessing and recycle and on the TMI-2 Waste Management Task Force.

I am a professional engineer in the states of New York and Pennsylvania.

I was one of the editors of the Reactor Handbook, Volume II published by the AEC on Fuel Reprocessing and have been the program leader on numerous AEC and NRC projects that have been the subject of agency reports.