## Arizona State University

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Peter Erickson
US Nuclear Regulatory Commission
Washington, D.C.

Dear Mr. Erickson:

I write to ask you to consider joining me and resource economist Duane Chapman in preparing a book on nuclear power plant decommissioning economics.

It seems to me that the public at large will come soon to discuss decommissioning in terms of two considerations, waste and economics. Economics will probably be the more noticed of the two because of the emergence of decommissioning in rate cases and general interest in the topic.

Ours would not only be the first book on the topic, but it should raise and discuss issues and perspectives which will and should attract more attention. Although the book would aim to introduce a lay reader to the fundamentals of decommissioning economics, it would also attempt to identify important issues which may not yet have received much consideration.

## Working Outline

- I. Introduction
  - The Decommissioning Era
  - The Need for Decommissioning Funds
- II. Fundamentals of Decommissioning Economics
  - Comparisons of Estimated Decommissioning Costs (including the influence of location, timing, methods)
  - Estimating Decommissioning Costs
  - Methods of Fund Accumulation
  - Regulatory Influences on Decommissioning Economics (e.g. requirements of types of fund accumulation, insurance)
  - Discount rates (e.g. the higher the rate, the longer the period of safe storage desired and the more the costs are spread out over time; the equity/ethics of ascribing costs to future generations and/or to people who do not receive the electricity)
- III. Influences on Decommissioning Options
  - The influence of costs and funds on options (e.g. accuracy of original estimates, insurance programs)
  - Costs and waste (e.g. will fund accumulation pay for

all waste disposal, or will these costs influence the ultimate decommissioning options?)

- Land values and decommissioning decisions (e.g. what is the impact of land values on which decommissioning mode is used?)

- Clustering effects on the availability of decommissioning expertise, costs, and options

IV. Influences of Decommissioning on the Economoy

- Decommissioning fund accumulation and investments (e.g. Are they allowed? Would they be secure? What are the risks?)

- The decommissioning industry (e.g. What does decommissioning mean to the economy? How will it affect nuclear support

industries? Which firms will get into it?)

- The effect of life extension on estimates and costs (e.g. will life extension actually be economic? Will it add to decommissioning cost? Would its unfulfilled promise affect fund accumulation?)

V. Conclusions

## Possible Contributors

Steve Bernow, ESRG, Boston

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Dale Bridenbaugh, James Harding, MHB Technical Associates, San Jose, CA

Robin Cantor, Cak Ridge National Laboratory

Duane Chapman, Cornell University

Peter Erickson, Nuclear Regulatory Commission

Gene Heinze Fry, Office of Energy Resources, Augusta, Maine

James Hewlett, EIA, Washington

Thomas LaGuardia, TLG Engineering

J. Robert Malko, Associate Professor of Finance, Utah State University

Mike Pasqualetti, Arizona State University

The contents and their organization are quite tentative. I would value your suggestions regarding additions or deletions, balance, content. I would also welcome suggested additional contributors. Although I have my own ideas of where I think you would be able

to contribute, I wish to leave that to you.

As I have a publisher who is very interested in this book, I look forward to receiving your impressions as soon as possible.

Sincerely yours,

M.J. Pasqualetti Associate Professor