

PROPOSAL FOR THE SOCIOECONOMIC STUDY OF IMPACT OF URANIUM MINING AND MILLING OPERATIONS ON QUALITY OF LIFE AND ECONOMIC WELL-BEING IN CHATHAM, VIRGINIA

For: The Virginia Coal and Energy Commission

By: Center for Social Science Research (CSSR),
George Mason University (GMU)



Presentation today:

Public Opinion Approach Makes CSSR Proposal Distinctive

- Public university unit with established credibility: locally, regionally and nationally.
- *OnQ* survey software tool: giving information not just collecting data
- Community research orientation: community generates questions not just answers.
- Question content also informed by subject matter experts.
- Public opinion in light of a range of perspectives.

We are not experts in uranium mining and milling.

We are experts in developing questions, getting answers and conducting economic and social analyses.

Overall Research Strategy Outlined in Proposal

- I. Range of issues
 - A. Economic development
 - B. Government services and regulation
 - C. Public health and environment
 - D. Social impacts
- II. Emphasis on social and economic impact
- III. Balance of perspectives
- IV. Informed public opinion

Project Study Plan (Proposal Section 6)

Literature, consultation with experts and interviews
(emphasis: issues B and C)

Modeling of economic effects: comparison of baseline
with "what-if" scenarios. (emphasis: issue A)

Surveys building on 6.1 and 6.2 (emphasis: issue D)

to be addressed

- A. Economic development
- B. Government services and regulation
- C. Public health and environment
- D. Social impacts

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Public Opinion Surveys

Surveys informed by review of the literature, consultation with experts, interviews with stakeholders and input-output analyses.

Phone surveys of the general public

- 600 surveys to be conducted in Pittsylvania County and the independent city of Danville and another 400 surveys in the remainder of the State.
- Survey content will focus on knowledge and attitudes regarding:
 1. Costs and benefits of the proposed uranium mining and milling operations
 2. Environmental risks associated with the proposed uranium mining and milling operations
 3. Health risks associated with the proposed uranium mining and milling operations

Web surveys of elected officials

- A modified version of the public opinion survey will be conducted as a web based survey with County Supervisors in Pittsylvania County and the five contiguous counties in Virginia, as well as City Council members in the City of Danville.

Separately the two types of surveys will identify patterns in knowledge and attitudes among the two samples under different scenarios.

Taken together the phone and web surveys will aid in the identification of potential disconnects between the two groups with regard to relevant knowledge, beliefs and concerns.

CSSR Expertise

- We are experts in collection and analysis of economic and social data:
 - **James Witte, Ph.D.**, CSSR Director and Professor of Sociology. From 2002 through 2009 he was Director of the Survey Lab at Clemson University and holds a Ph.D. in sociology from Harvard University and an M.P.A. from the University of Wisconsin-Madison. PI, Co-PI or investigator on over \$3.7 million in Federal Research funding.
 - **Carl Johnston, Ph.D.**, Postdoctoral Fellow at the Interdisciplinary Center for Economic Science. Dr. Johnston received his Ph.D. in economics from George Mason University in 2007. Current work focuses on health care reform and energy markets, in particular a forthcoming study of electricity deregulation for the National Center for Policy Analysis where Dr. Johnston is a Senior Fellow.
 - **Randall Salm, M.B.A., M.S.**, CSSR Researcher. Mr. Salm has a M.S. in Conflict Resolution, a MS in Business Administration, a certificate in Process Management, and is currently working on his Ph.D. in Sociology and is an adjunct faculty in the GMU Institute of Conflict Analysis and Resolution, where he teaches several conflict analysis and resolution courses.

Supported by Range of Subject Matter Experts

- **Dr. Julian Steyn** is the President of the Washington, D.C. consulting firm of Energy Resources International, Inc., which he co-founded in 1989. He received Bachelor of Engineering and M.A. degrees from Dublin University, Ireland, and has M.Sc. and Ph.D. degrees in Applied Nuclear Science from the University of Toronto, Canada. For the past several decades he has provided nuclear fuel and uranium supply consulting services to utilities, industry, and government in the U.S. and around the world, including Europe, Australia, Canada, Mexico, Brazil, Japan and Taiwan.
- **Manuel Pino** is a professor of sociology and Director of American Indian Studies at Scottsdale Community College in Scottsdale, Arizona. Mr. Pino has worked in the area of American Indians and the environment for the past thirty years with an emphasis on uranium mining and nuclear fuel cycle issues impacting Indigenous Peoples throughout North America.
- **Stephanie Cooke** began her reporting career in 1977 at the Associated Press. In 1980 she moved to McGraw-Hill in New York as an associate editor for the industry newsletters *Nucleonics Week*, *NuclearFuel* and *Inside N.R.C.*, later becoming chief editor. Ms Cooke is currently editor of *Uranium Intelligence Weekly*, part of the Energy Intelligence Group and author of *In Mortal Hands: A Cautionary History of the Nuclear Age*

Proposal Assumptions and Qualifications to Acceptance

- A number of assumptions exist for proposed study—many linked to technical mining questions—and are outlined in Section 7 of the proposal.
- Adaptive strategies given these assumptions:
 - Input/output modeling described in Section 6 lends itself to a systematic exploration of key assumptions.
 - Sensitivity analyses will be conducted to determine the extent to which the economic impacts of the proposed mining and milling operations vary with different assumptions.
 - We will develop the survey instruments with an eye to different scenarios based on different sets of assumptions regarding the proposed project.
- Assume clarification of the role of the Commission members and staff in all phases of the research process. Consistent with this role, we also assume active participation of members and staff throughout the research process.
- Acceptance qualified on total project budget of \$200,000.

Contact Information

James C. Witte, Ph.D.
Center for Social Science Research
George Mason University
4400 University Drive
Fairfax, VA 22030
Telephone: 703.993.2993
Email: jwitte@gmu.edu