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**Docket:** NRC-2016-0119  
Tennessee Valley Authority; Clinch River Nuclear Site

**Comment On:** NRC-2016-0119-0004  
Tennessee Valley Authority; Clinch River Nuclear Site; Early Site Permit Application; Intent to Prepare Environmental Impact Statement and Conduct Scoping Process

**Document:** NRC-2016-0119-DRAFT-0020  
Comment on FR Doc # 2017-07501

## Submitter Information

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**Organization:** Cherokee Group of TN Sierra Club

4/13/2017  
82 FR 17885  
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## General Comment

TVA is proposing to build Small Modular [nuclear] Reactors (SMR's) at the currently abandoned Clinch River site. I am writing to urge as strongly as I can that this should not be done.

It is basically making all of us citizens of the region guinea pigs for testing an un-tried new technology. Claims are being made for their safety, but claims are also being made for their low cost and these claims are rather mutually exclusive. To make them cost effective, the assumption is made that the Nuclear Regulatory Commission (NRC) can be convinced to grant SMRs regulatory relief in safety and security areas. Thus, what-ever intrinsic safety advantages are unique to SMRs could be lost if the NRC allows safety margins to be reduced in other respects. The risks are higher because this has never been done before, because they are proposed to be located within 50 miles of a major city (Knoxville), and because proposals for the future is that these can be located in dense urban centers.

They are not cost effective. They may cost less per reactor, but the cost per kilowatt-hour of the electricity produced by a small reactor will be higher than that of a large reactor. Perhaps eventually costs per kwh will be reduced as SMR's are mass produced, but we are decades away from that. Wind, solar and other clean renewable sources are continually reducing in price. And that is even before external costs are included. All

*SONSI Review Complete  
Template = ADM-013*

*E-RIS = ADM-03  
Add = P. Vokun (PSVA) T. Dozier (TSD2)*

fossil fuel energy sources are heavily subsidized in that society bears much of the actual cost of environmental destruction through mining, pollution of air and water, and impacts of global warming.

Nuclear is not clean energy. Uranium mining is extremely destructive. It is often open pit. There tends to be one part uranium per 1000 parts pitchblende ore or less. The remaining 999 parts are left behind as mine tailings, which still contain low level radioactive and are in the form of dust, which readily becomes airborne and spreads through the air. And the nuclear reactor process leaves behind spent nuclear fuel which is also radioactive and needs safe storage for centuries, which still have not figured out how to do.

SMR's are extremely water-intensive, especially when compared to clean energy choices such as wind, solar and energy efficiency and conservation. In these global warming times of drought, squandering water in this way is the last thing we should be doing.

AND they are not needed. We are not facing any energy shortage and if we continue to make progress in conservation and clean, renewable energy, there is no reason to expect that we will be.

This is a dangerous, expensive, wasteful boondoggle, using tax payer money to profit the companies that manufacture these reactors and allowing them to test an experimental product at our expense and risk.

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## Attachments

Comment to TVA on SMR

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It is basically making all of us citizens of the region guinea pigs for testing an un-tried new technology. Claims are being made for their safety, but claims are also being made for their low cost and these claims are rather mutually exclusive. To make them cost effective, the assumption is made that the Nuclear Regulatory Commission (NRC) can be convinced to grant SMRs regulatory relief in safety and security areas. Thus, what-ever intrinsic safety advantages are unique to SMRs could be lost if the NRC allows safety margins to be reduced in other respects. The risks are higher because this has never been done before, because they are proposed to be located within 50 miles of a major city (Knoxville), and because proposals for the future is that these can be located in dense urban centers.

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Nuclear is not clean energy. Uranium mining is extremely destructive. It is often open pit. There tends to be one part uranium per 1000 parts pitchblende ore or less. The remaining 999 parts are left behind as mine tailings, which still contain low level radioactive and are in the form of dust, which readily becomes airborne and spreads through the air. And the nuclear reactor process leaves behind spent nuclear fuel which is also radioactive and needs safe storage for centuries, which still have not figured out how to do.

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