

## ClinchRiverESPEISCEm Resource

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**From:** rbrothro@everyactioncustom.com on behalf of Dr.Richard B.Rothrock  
<rbrothro@everyactioncustom.com>  
**Sent:** Saturday, July 14, 2018 1:25 AM  
**To:** ClinchRiverESPEIS  
**Subject:** [External\_Sender] Comments re: TVA Clinch River SMR ESP DEIS - Docket ID NRC-2016-0119

Dear NRC Staff,

As a TVA customer, I am very concerned about TVA's early site permit application for small modular reactors at the Clinch River Site in Tennessee. TVA doesn't need more supply. The NRC should evaluate ALL costs of SMRs As the ANS has already pointed out to you – Here are a few MAJOR CONCERNS that the NRC may have overlooked in their review:

- 1.These reactors are NOT needed
- 2.SMRs are extremely expensive, with no actual approved reactor designs
- 3.SMRs are much more water-intensive than clean energy choices such as wind, solar, and energy efficiency
- 4.SMRs produce LONG-LIVED, HIGHLY RADIOACTIVE NUCLEAR WASTE for which NO safe management and permanent storage exists

Many years ago, I was part of a special team working on the DEW line concept for use of small reactors for power along the Canadian Border. We concluded these were NOT SAFE, REACTORS COULD NOT BE PROTECTED FROM THEFT, OR DESTRUCTION. YET, DESPITE OUR STRONG NEGATIVE AGREEMENT, THE CONCEPT seems to still have life according to your plans.

The Distant Early Warning Line, also known as the DEW Line or Early Warning Line, was a system of radar stations in the far northern Arctic region of Canada, with additional stations along the North Coast and Aleutian Islands of Alaska, in addition to the Faroe Islands, Greenland, and Iceland. It was set up to detect incoming Soviet bombers during the Cold War, and provide early warning of any sea-and-land invasion. The DEW Line, once a proud symbol of North America's defensive readiness, was abandoned. In 1985, as part of the "Shamrock Summit", the US and Canada agreed to transition DEW to a new system known as the North Warning System (NWS). Beginning in 1988, most of the original DEW stations were deactivated, while a small number were upgraded with all-new equipment The official handover from DEW to NWS took place on 15 July 1993.The 63 Arctic radar stations stand silent, screens darkened, dishes immobile. Now they themselves are a threat. Long departed soldiers from two nations left behind an environmental nightmare: rotting vehicles in the lakes, rows of containers full of hazardous materials, dumps leaking arsenic and PCBs. CBC Radio looks at the controversial plan to undo the DEW Line. The DEW Line stations were operated by both Canadian and American armed forces personnel, but as the system was shut down, the Americans withdrew. The United States handed all DEW Line operations over to Canada. A controversy soon erupted over which nation should pay for the cleanup of the hazardous wastes produced by the DEW Line stations. The Americans had funded the construction of the bases, but were not obligated to clean them up. Canada approached the Americans to foot the cleanup bill, but the Americans wanted to avoid setting a costly precedent that could see them cleaning up former military bases around the world.

Small Modular Reactors (SMR)

- Emphasis placed on transportable reactor core modules & autonomous / UNATTENDED operation
- North Warning System (NWS) application
- (US/Canada agreement signed at 1985 'Shamrock Summit')
- Replacement for aging NORAD DEW line to detect cruise missiles
- 13 minimally attended Long Range Radar & 39 unattended Short Range Radar (15 kWe) sites across 7000 km at ~70°N latitude
- Extraordinary reliability requirement >99.99% (<1 hr/a ) for 20 years
- Helicopter transport (<12 Mg); hazardous 'whiteout' conditions

<http://www.computare.org/Support%20documents/Guests/Computare%202012%20PDF%20WFS/Presentations/Reactors/3-Ken%20Kozier%20Presentation.pdf>

Sincerely,  
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