

**Chesapeake Safe Energy Coalition**  
**Missourians for Safe Energy \* Missouri Chapter, Sierra Club**  
**Three Mile Island Alert \* Taxpayers and Ratepayers United**  
**Central New York-Citizens Awareness Network**  
**NYPIRG \* Syracuse Peace Council**  
**Citizens Environmental Coalition \* Peace Action of Central New York**  
**Coalition for a Nuclear-Free Great Lakes \* Don't Waste Michigan**  
**Citizens Resistance at Fermi-Two**

December 2, 2009

Dr. Steven Chu  
Secretary of Energy  
U.S. Department of Energy  
1000 Independence Avenue SW  
Washington, DC 20585

Mr. Jonathan Silver  
Executive Director, Loan Guarantee Program  
U.S. Department of Energy  
1000 Independence Avenue SW  
Washington, DC 20585

Mr. Richard Frantz  
Director, Loan Guarantee Program  
U.S. Department of Energy  
1000 Independence Avenue SW  
Washington, DC 20585

**International Regulators Issue Unprecedented Joint Warning on EPR Safety Systems**  
**DOE Must Halt Issuance of Conditional Loan Guarantees to Utilities Pursuing EPR Design**

Dear Secretary of Energy Chu, Executive Director Silver, and Director Frantz:

On November 4, 2009, the nuclear power regulatory authorities in France, Finland and the United Kingdom issued an unprecedented joint letter to Areva, the manufacturer of the EPR reactor design. This letter cited serious problems with the EPR's fundamental digital Instrumentation and Control systems (I&C).

The letter stated:

*“The issue is primarily around ensuring the adequacy of the safety systems (those used to maintain control of the plant if it goes outside normal conditions), and their independence from the control systems (those used to operate the plant under normal conditions).”*

*Independence is important because, if a safety system provides protection against the failure of a control system, then they should not fail together. The EPR design, as originally proposed by the licensees and the manufacturer, AREVA, doesn't comply with the independence principle, as there is a very high degree of complex interconnectivity between the control and safety systems."*

The full text of the letter is available here:

[http://stuk.fi/stuk/tiedotteet/fi\\_FI/news\\_571/\\_files/82389003978932250/default/ep\\_r\\_stuk\\_asn\\_ja\\_hse\\_englanniksi.pdf](http://stuk.fi/stuk/tiedotteet/fi_FI/news_571/_files/82389003978932250/default/ep_r_stuk_asn_ja_hse_englanniksi.pdf)

This letter identifies a significant, and fundamental, violation of the basic principles of nuclear reactor design, and is a safety issue of the highest significance.

As you may know, Areva's EPR construction project in Finland (Olkiluoto-3) has been plagued by some 3,000 identified construction deficiencies, and--so far--a 75% cost overrun and a near-doubling of projected construction time of four to seven years—which may be lengthened further. Areva and Electricite de France's construction of an EPR at Flamanville, France, though begun much more recently, is experiencing similar problems and will likely be delayed more even if the identified I&C deficiency can be corrected.

In the U.S., cost estimates for construction of an EPR have skyrocketed in recent years. In sworn testimony earlier this year before the Maryland Public Service Commission, Constellation Energy CEO Mayo Shattuck estimated that the proposed Calvert Cliffs-3 EPR would cost about \$10 billion, not including financing and other costs. The Pennsylvania utility PPL has posted an estimate of \$13-15 billion, including financing, for a single EPR identical to Calvert Cliffs-3. This later estimate would work out to about \$8,000-\$9,000 per kilowatt of power generated, about twice as costly as any possible competing generation technology.

Substantial concern has arisen over the unprecedented level of foreign government and corporate involvement in two of the proposed EPR projects in the U.S.: Calvert Cliffs-3 and Nine Mile Point-3 in New York, both of which would be built by UniStar Nuclear, a company jointly owned by Electricite de France and Constellation Energy. Calvert Cliffs-3 has been identified as being on the DOE's "shortlist" for potential taxpayer-backed loan guarantees.

We believe both of these projects violate the plain language of the Atomic Energy Act, which prohibits "foreign ownership, control or domination" of a U.S. nuclear reactor project and intervenors have raised this issue before a Nuclear Regulatory Commission licensing board examining the application for Calvert Cliffs-3. In October, the NRC Commissioners unanimously rejected UniStar Nuclear's attempt to dismiss this issue, and instead ordered a full adjudicatory hearing on the matter. Should intervenors prevail on this issue, as we believe will be the case, Calvert Cliffs-3 could not be licensed by the NRC under its current corporate structure.

All of these factors should provide an atmosphere of severe caution at the DOE regarding issuance of any "conditional" loan guarantees for reactor projects using the EPR design.

At this point, it is not clear the EPR design, with all of its safety deficiencies, can ever be certified by the NRC.

At this point, it is not clear that an EPR reactor can be built at an economic cost that would allow reasonably-priced electricity to consumers—indeed, every sign points to the opposite.

At this point, it is likewise not clear that an EPR reactor could recoup the financial investment necessary to build one, which would place an enormous level of risk on taxpayers placed on the hook for loan guarantees.

Even if an EPR design is certified, it is not clear that the specific reactor said to be on DOE's loan guarantee "shortlist"—Calvert Cliffs-3—can be licensed by the NRC, nor for that matter, is it clear that any EPR reactor can be licensed.

It would, at best, be grossly premature to provide a "conditional" loan guarantee to any project that currently presents extraordinary risks to taxpayers, that currently suffers from serious and identified safety deficiencies, that uses a design that may not be certified, and that may not be eligible to receive a license from the Nuclear Regulatory Commission.

At worst, risking taxpayer dollars on such projects at this time would be evidence of negligence given the preponderance of evidence that the EPR and the specific projects identified face substantial and perhaps insurmountable hurdles to licensing, construction, and operation.

We urge the Department of Energy and Loan Guarantee Program to exercise caution and to publicly suspend all review of EPR projects until the issues raised above have been thoroughly examined and fully addressed by the relevant companies and government agencies. Since no U.S. reactor project will receive even a construction permit within the next two years, such a suspension would not delay any actual issuance of qualified loan guarantees.

Sincerely,

Michael Mariotte  
Executive Director  
Nuclear Information and Resource Service

**For Chesapeake Safe Energy Coalition:**

Beyond Nuclear  
Chesapeake Climate Action Network  
Chesapeake Physicians for Social Responsibility  
Clean Water Action  
Crabshell Alliance  
Green Party (MD)  
Maryland PIRG  
Nuclear Information and Resource Service  
Public Citizen  
Sierra Club (MD)

Mark Haim  
Chair  
Missourians for Safe Energy

Henry Robertson  
Vice Chair and Energy Chair  
Missouri Chapter, Sierra Club

Tim Judson  
President  
Central New York-Citizens Awareness Network

Laura Haight  
Senior Environmental Associate  
NYPIRG  
Albany, NY

Barbara Warren  
Executive Director  
Citizens Environmental Coalition  
Albany, NY

Jessica Maxwell  
Syracuse Peace Council  
Syracuse, NY

Jerry Loiterzo  
Co-Chair  
Peace Action of Central New York

Eric Epstein  
Three Mile Island Alert  
Harrisburg, PA

Gene Stilp  
Taxpayers and Ratepayers United  
Harrisburg, PA

Michael J. Keegan  
Coalition for a Nuclear Free Great Lakes  
Monroe, MI

Alice Hirt  
Don't Waste Michigan

Holland, MI

Keith Gunter  
Citizens' Resistance at Fermi Two  
Monroe, MI

cc:

Maryland Congressional Delegation  
Missouri Congressional Delegation  
New York Congressional Delegation  
Pennsylvania Congressional Delegation