



**ACRS: THE LATEST CHAPTER**  
**The Role of the ACRS:**  
**A Public Interest View**

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**The Value of ACRS to the Public**

- The ACRS makes a huge contribution to nuclear safety through
  - Its own analyses and recommendations
  - The public record that is created through subjecting NRC staff, applicants and licensees to often tough questioning
  - The forum it provides for meaningful public input
- The ACRS provides an independent view on safety issues that is unencumbered by the NRC's political and bureaucratic constraints, and seeks clarity where it is offered tortured logic

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**The Value of the Public to ACRS**

- NRC would find it easier to ignore ACRS criticisms and recommendations if they were not expressed in public

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### A Little History (according to Teller)

- Not everyone has always appreciated this rather expansive advisory role
- Edward Teller, Chairman of the predecessor of the ACRS, the Atomic Energy Commission Reactor Safeguard Committee (RSC), was criticized by the AEC as exaggerating the safety risks of nuclear power; some began to call the RSC the "Committee for Reactor Prevention"
- The RSC recommended against
  - a proposed high-flux reactor at Argonne National Laboratory unless its power were reduced by a factor of 30
  - an AEC proposal to simultaneously increase the power of the Hanford production reactors and decrease the exclusion zone
- The RSC recommended that
  - A remote test site for remote reactor development be established
  - Reactors have containment buildings

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### 1948 AEC Memo

- "The Safeguard Committee, as I understand it, would feel responsibility only for giving a competent technical judgment on a difficult and oftentimes fuzzy technical problem, and would not be expected to carry any of the responsibility that goes with the giving of advice ... On the other hand, the record is getting cluttered up with such words as 'advice,' 'recommendations,' 'approvals,' 'limitations,' and 'criteria' ... I suspect that the thinking is similarly cluttered up and that we stand to gain by reaffirming the original concept that the Committee will estimate some of the consequences for us but will not be asked to either recommend or to decide."
  - Ralph Johnson, acting AEC director of research

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### ACRS and the Fermi-1 Breeder

- The lack of authority of the early ACRS became a concern after the AEC approved a construction permit for the Fermi-1 breeder reactor despite an "at best noncommittal" ACRS recommendation with regard to core disassembly accidents
- Led to Atomic Energy Act amendment of 1957 giving the ACRS statutory authority to review every license application and make public its reports
- 1966 Fermi-1 fuel melt validated ACRS concerns
- But the ACRS remains in an advisory role and the Commission is free to ignore it (at its own peril)

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### **Useful ACRS Recommendations**

- State-of-the-Art Reactor Consequences Program (SOARCA)
- Containment Overpressure Credit
- High-Alpha Waste Storage Safety at the MOX Fuel Fabrication Plant
- GSI-189 (hydrogen igniter backup power) rulemaking
- Low-power and shutdown risk

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