

**Recommendation 316**  
SRNL Future Planning

**Background**

The CAB recognizes that the Savannah River National Laboratory (SRNL) has played a vital and extremely important role in the development of SRS from the earliest days as a nuclear materials production site for national defense to the present SRS posture as an “environmental cleanup site.” The development of technology for the national defense program includes some of the most innovative scientific work ever accomplished by the DOE or its predecessor organizations. The scientific work now underway is equally impressive with the nuclear waste processing and environmental cleanup technology now being developed and employed. As SRS clean-up reaches an advanced state it seems it would be wise to perhaps consider expanding the present scope of activities for such a technically capable organization.

**Discussion**

The SRS is now in what the CAB considers to be an advanced state of cleanup. Much of the Site land and facilities may soon become available for other missions and many of the facilities used in the cleanup may be “excessed.” If the Site and its supporting technical arm (SRNL) are to realize growth it will quite likely necessarily involve other DOE program areas and the nuclear industry at large. Also, as CAB members reflecting local citizens interests we have ourselves increasingly become more interested in maintaining jobs and programs at SRS.

In the view of the CAB the linchpin of an expanded SRS is the technical program and capabilities of the Laboratory. We are aware that the SRNL has explored many avenues and sources of programs and funding and we support their aggressive actions. While we have only the view of an outsider it seems that it may be prudent to further these actions by:

- Making the Site nuclear cleanup capabilities more well-known to the nuclear industry (and private industry in general) and the general chemical industry.  
For example -
  - Are there schemes for handling tritium releases from a Pressurized Water Reactor (PWR) that SRNL could assist in?
  - Assessing the potential for use of Defense Waste Processing Facility (DWPF) glass technology for selective non-nuclear wastes.
  - Publicizing the capability of the High Level Waste Tank surveillance activities.
- Assessing where SRNL capability needs to be upgraded to make the Lab more competitive.
  - For example - Nuclear chemistry capabilities.
- Working with private industry and DOE HQ to assess a role for dealing with private nuclear power plant issues such as:
  - Extended spent nuclear fuel interim storage.
  - Potential recycle concepts and schemes.

- Publicizing and making known the SRNL capability as an applied science laboratory where ideas can be transformed into a real world device that meets a need in such areas as:
  - Separations technology
  - Hydrogen storage/transportation
  - Medical and industrial isotope production and application
  - Use of natural gas as a transportation fuel
  - Design of transportation packages for nuclear fuel and materials
  - robotics
- In general, thinking in the most expanded sense for potential SRNL opportunities or growth areas.

The list of SRNL accomplishments and technology is impressive and the CAB supports the expansion of the SRNL mission in any manner that is consistent with its capabilities. Not only does the CAB support the SRNL we encourage it. We are supportive of ideas and concepts that stretch the thinking relative to the development of new missions for the Site.

The CAB would like to point out that the state of Idaho has taken aggressive measures to support the mission and programs at the Idaho National Laboratory. This work is documented and known as the LINE (Leadership in Nuclear Energy Commission) Program. An executive summary of their plans and activities is on-line at [www.line.idaho.gov](http://www.line.idaho.gov). A review of their activities may be helpful in further developing the SRNL programs.

**Recommendation:**

The CAB recommends that the SRNL

1. Develop a “Plan of Conceptual Ideas (“thinking outside the box”)” for areas that expand the role of the Lab and describe how some of these ideas and plans could be further developed.
2. Review some of the other National Laboratories (INL, LLNL, LANL) future planning for ideas and concepts that may be useful in further defining an enhanced SRNL role.
3. Present such a plan to HQ Environmental Management and other program offices such Nuclear Energy and Science for guidance and feasibility.
4. Advise the CAB of your present plans for increased funding and new missions.
5. Start a public outreach initiative, to include educational institutions (elementary through university level), to publicize their historical achievements, patents, national research & development awards, and accomplishments to reduce the current and future costs of Environmental Management operations at SRS.