SRS Citizen's Advisory Board

Recommendation No. 126

July 25, 2000

Path Forward for Consolidated Incineration Facility

Background

The Citizens Advisory Board hosted a public workshop on the Consolidated Incineration Facility (CIF) on June 5, 2000. The CAB found the information presented by DOE at that workshop to be insufficient for the CAB to support shutting down CIF.

Members of the public attending the workshop were informed that CIF had treated 5,330 gallons of the original 42,000 gallons of PUREX, a mixed low level waste (MLLW), since start-up of the CIF (approximately 3 years), leaving 36,670 gallons of this legacy waste. Within the next ten years, an additional 100,000 gallons of PUREX will become available and require treatment for disposal. PUREX is a highly radioactive waste and the SRS CAB is concerned about storage capacity for spent PUREX and the potential need for additional storage tanks when the larger volumes of PUREX are made available by shutdown of the Canyons and no treatment option for PUREX is available. In addition to the Board's concern about the disposition of PUREX, it also has concerns about the impact the suspension of CIF operations may have on the selection of salt processing treatment alternatives, on the potential need to treat salt processing waste streams in CIF, and the overall disposition of MLLW and LLW at SRS.

DOE-HQ sponsored a number of investigations into treatment options of mixed low-level waste (MLLW) between 1993 and 1997 (Ref. 2). An internal Review Panel looked at both thermal treatment systems and non-thermal treatment systems. This panel concluded that:

1. They were not able to identify any potential advantages of emerging technologies that would out-weigh the disadvantage of a significant time delay in treatment of MLLW while these emerging technologies were being developed;
2. They agreed that incineration technology is safe and effective for treating MLLW;
3. They believe there may be critical flaws with non-thermal treatment systems due to the incomplete treatment of organics to insure long-term safe disposal; and
4. They thought the potential for larger quantities of incomplete reaction are more likely to result from low temperature reactions than from higher temperature reactions (i.e. incineration).

If CIF were to continue to operate at the current burn rate of 5,000 gallons per year, all of the legacy waste would be treated in less than seven years. This would still leave approximately three years before the additional PUREX waste would become available. This ten-year period would provide time to find a more cost effective alternative treatment, and avoids unnecessary shutdown and startup of the CIF Facility.

Comment

The public believes it is time for DOE to stop spending millions of dollars to develop a facility and then not use it because they can not operate it in a cost-effective manner. Since the PUREX solvent is the primary waste requiring incineration and the incineration rate establishes the amount of waste to be treated, SRS should be placing more emphasis on lowering the dilution factor. This would in turn reduce the cost of incineration on a per unit basis as reported in the Inspector General's audit report (Ref. 3).

The SRS CAB has consistently supported getting on with waste disposal using existing technologies and views CIF as one of the facilities at SRS that actually reduces the amount of legacy waste. In addition, the public supports CIF because it is a currently permitted, regulated, and operating facility. The SRS CAB does not consider it a good use of tax dollars to develop alternative technologies to replace good, existing and proven technologies that are already being used for waste disposal. The SRS CAB has not been given any concrete assurances that a new treatment alternative will be more cost effective than operating CIF.

The SRS CAB has supported and will continue to support decisions, which save the taxpayer money and eliminate non-efficient and non-essential operations at SRS. However, the SRS CAB has been supplied information by DOE in the very recent past which led us to believe that CIF was not one of these situations. Being informed by DOE that CIF funding should be used for higher priority projects is unsatisfactory for two reasons: first the SRS CAB would like to see CIF continue to operate to reduce the volume of legacy waste currently stored at SRS; and second, the SRS CAB does not wish to be informed of DOE decisions after the fact, but wants and has requested to participate in the decisions being made by DOE when decisions like CIF, affect stakeholders.

Recommendation

The SRS Citizens Advisory Board strongly recommends that DOE reverse its decision to suspend CIF operations and re-institute the necessary funds to continue operation of CIF until it can fully justify its decision and until such time that an alternative treatment option is available (for Purex and non-Purex waste), is cost effective, can be implemented, and meets all regulatory requirements. In addition, the SRS Citizens Advisory Board respectfully requests a DOE response to this recommendation by August 15, 2000.

References

1. Consolidated Incineration Facility Public Workshop, by Ray Hannah, Peter Hudson, and Helen Belencan, June 5, 2000.
2. *Integrated Process Analysis of Treatment Systems for Mixed Low Level Waste*; Cooley, C. R., et. al., Technology Journal of The Franklin Institute, Vol. 334A, pp. 303-325. 1997.
3. Waste Incineration at the Savannah River Site, Audit Report, U. S. Department of Energy, Office of Inspector General, October 1999.

Agency Responses

Department of Energy-SR