



Recommendation No. 141

July 24, 2001

Consolidated Incineration Facility (CIF) Closure Schedule Alternatives

Background

As the current RCRA permit states, the suspension of CIF operations shall continue until the incinerator is either restarted or closed (Ref. 1). SCDHEC also included in the permit modification a schedule of activities, which SRS must follow. In this schedule, SRS must decide to re-start (operate) CIF or pursue an alternative treatment (for the PUREX waste) by April 1, 2002. If SRS decides to pursue an alternative treatment, then CIF must begin final closure on this same date (April 1, 2002).

Under the current RCRA regulations (R.61-79.264.113), a facility must close within 180 days unless an extension to the closure period is granted by SCDHEC. An extension can be granted if the closure activities will, of necessity, take longer than 180 days to complete (Ref. 2). The extension can also be granted if

1. the facility has the capacity to receive additional hazardous wastes,
2. there is a reasonable likelihood of recommencing operations within one year (assumed to be from date of closure notification),
3. closure of the facility would be incompatible with continued operation of the site, and,
4. precautions are taken to prevent threats to human health and the environment from the unclosed but not operating facility.

Under the current closure plan, the estimated cost to close CIF is \$80 million (Ref 3). Per the RCRA permit schedule, SRS would need the necessary funds during FY 03. At the same time, it is expected that an alternative treatment technology will take tens of millions of dollars before it becomes operational. Under current budget cutbacks, DOE will not be able to perform all three options at the same time (i.e., close CIF, develop an alternative treatment, and treat the PUREX legacy waste).

Some of the technologies being investigated could actually be safer, more efficient and less expensive than operating CIF (Ref 4). However, the SRS CAB does not want to sacrifice a viable, safe and reliable technology (i.e. CIF) before it is proven that another technology is superior by measures of cost, technology, and waste products. Such an alternative technology needs to be operational before CIF is dismantled. While DOE may have several promising technologies identified by April 1, 2002, it is highly unlikely that any will be functional by that date. The overriding interest of the SRS CAB is to see that the PUREX legacy waste is treated.

Comment

CIF has treated 5,330 gallons (the aqueous/water fraction) of the original 42,000 gallons of PUREX legacy waste, a mixed low level waste (MLLW), since start-up of the CIF (approximately 3 years), leaving 36,670 gallons of this PUREX legacy waste. Within the next ten years, an additional 100,000 gallons of PUREX will be generated by shutdown of Canyon's solvent extraction processing capabilities. This waste will also require treatment for disposal (Ref. 5). PUREX is a highly radioactive waste. 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.

Under the current permit modification, SRS will be forced to start CIF because funds will not be available in FY 03 to both close CIF and proceed with alternative technology investigation, design, and construction. This action would certainly meet one intent of the SRS CAB Recommendation #126 (Ref. 6), which was to operate CIF. However, as stated in that recommendation, the SRS CAB was not opposed to an alternative treatment technology as long as it was available (i.e., would work), was more cost effective, could be implemented, and met all regulatory requirements. The SRS CAB wanted CIF to operate until an alternative treatment technology met these conditions. DOE chose not to follow this

recommendation and now finds itself in a funding dilemma unless SCDHEC is flexible and willing to change the proposed schedule in the permit modification.

Although funding is not a concern of SCDHEC, current budget allocations do not provide enough funds to simultaneously close CIF, pursue an alternative treatment technology, and ultimately treat the PUREX legacy waste. There is further concern about the availability of funds to even re-start CIF, which has been reported to cost \$35 million. The SRS CAB's first priority is to have at least one treatment technology available and operational to treat the PUREX legacy waste. A secondary priority is the ultimate closure of CIF.

To meet these objectives, SCDHEC needs to be flexible in its proposed CIF closure schedule. The SRS CAB is aware that Idaho National Engineering and Environmental Laboratory (INEEL) has submitted a closure schedule for WEPF (Waste Experimental Reduction Facility) of 894 days and that the Idaho Division of Environmental Quality (IDEQ) has been receptive to this schedule. The SRS CAB believes SCDHEC could extend the current Suspense of Operations Phase and provide a longer period of closure because CIF meets the conditions for an extension, per R.61-79.264.113, as discussed in the background section. The SRS CAB also understands that a major issue of SCDHEC is the possibility of CIF being used for future treatment if it allows the Suspense of Operations Phase to continue indefinitely.

Recommendation

The SRS Citizens Advisory Board recommends that:

1. DOE-SR develop a plan that allows the CIF to remain a viable option until an alternative treatment technology is demonstrated and all the PUREX legacy waste has been treated. This plan must support a decision date of April 2002. The SRS CAB requests an update by October 22, 2001.
2. DOE-SR provides the SRS CAB with an update of the budgeting plans for the various scenarios proposed for CIF by October 22, 2001.

References

1. Mr. John T. Litton of SCDHEC letter to Mr. J. V. Odum of WSRC, Consolidated Incineration Facility Final Permit Modification Decision, January 2, 2001.
2. Regulatory Status of Consolidated Incineration Facility, presentation to the CIF Focus Group by Crystal Rippey of SCDHEC, February 21, 2001.
3. CIF Funding Strategies, CIF focus Group discussion by Ray Hannah and Jim Buice, January 10, 2001.
4. PUREX Alternative Treatment Option Evaluation, presentation to the CIF Focus Group by Peter Hudson, February 21, 2001.
5. Consolidated Incineration Facility Public Workshop, by Ray Hannah, Peter Hudson, and Helen Belencan, June 5, 2000.
6. Citizens Advisory Board Recommendation No. 126 (adopted July 25, 2000), "Path Forward for Consolidated Incineration Facility".

Agency Responses

[Department of Energy-SR](#)