

# SIEMENS

March 1, 1994

U.S. Nuclear Regulatory Commission  
Attn: R. F. Burnett, Director  
Division of Fuel Cycle Safety and Safeguards  
Office of Nuclear Material Safety and Safeguards  
11555 Rockville Pike  
Rockville, MD 20852

Re: Siemens Power Corporation (SPC) Low-Level Radioactive Solid Waste Reduction Plan

Dear Mr. Burnett,

As part of your January 20, 1994 visit to our Richland fuel fabrication facility you were provided a briefing by Syd Koegler, Manager, Waste Management Engineering (WME), regarding SPC's plans to reduce the volume of low-level radioactive solid waste which has accumulated at the Richland facility. At that time you expressed a desire to be notified of any course of action that SPC decides upon to address this issue.

Approach

SPC has completed its evaluation of options, with a priority being given to actions which will provide significant near-term reductions in the current inventory of low-level radioactive waste volume. Waste types most amenable to near-term inventory reduction are those which are clearly low-level radioactive waste only i.e. those wastes that can be eliminated from mixed waste considerations based on process knowledge. Other accumulated waste types, including significant volumes of waste retained over the years for the sake of uranium recovery, are potential or confirmed mixed wastes under current regulations and fall under substantive management requirements of regulatory agencies other than NRC e.g. US EPA, State of Washington Department of Ecology. Chemical characterization of these wastes is typically complex and costly. Initial evaluation by SPC indicates that approximately 30 percent of the accumulated low-level radioactive waste can be designated as not being mixed waste based on process knowledge. Another 15 percent will be able to be similarly released based on sampling and analysis. Up to 45 percent will likely require treatment prior to disposal and up to 10 percent may require permanent on-site storage due to lack of a viable treatment/disposal option.

The basic elements of the selected solid waste reduction plan, which has been presented to and approved by SPC Manufacturing Division management, are as follows:

Siemens Power Corporation

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Nuclear Division - Engineering and Manufacturing Facility

2101 Horn Rapids Road, PO Box 130 Richland, WA 99352-0130 Tel: (509) 375-8100 Fax: (509) 375-8402

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- Finalize and implement upgraded waste segregation, inspection, and packaging procedures to strengthen SPC's program to assure that all low-level radioactive waste shipped for near-surface burial fully meets burial site acceptance criteria.

These procedures and the associated waste QC program have been completed and implemented. They were transmitted to the Washington Department of Health, the licensing agency for the U.S. Ecology-operated Hanford low-level waste burial site, on January 18, 1994.

- Dispose of all currently generated non-combustible waste on a shipment basis via near-surface burial. Similarly dispose of all currently generated combustible waste on a shipment basis until the Solid Waste Uranium Recovery (SWUR) incinerator is restarted.

Implementation of the waste QC program has allowed resumption of shipments of low-level radioactive non-combustible wastes. These shipments had been suspended since April, 1993. Processing of combustible wastes for near-surface burial, as opposed to their normal processing through SWUR, required minor revisions to the waste handling procedures and waste QC program. These revisions have been made and processing of currently generated combustible wastes for near-surface burial is ongoing.

- Dispose (via near-surface burial) of all accumulated low-level radioactive solid wastes that can be readily designated as non-dangerous.

This effort will be applied not only to the accumulated inventory of non-combustible wastes but also to the significant inventory of combustible wastes that has accumulated since the October, 1992 shutdown of SWUR. This will involve the repackaging and inspection of some old waste containers. These repackaging/inspection operations will be conducted in the waste handling facilities at SWUR. Modifications to these facilities to support the initial phase of this effort have been completed.

- Sample, analyze, and designate (versus dangerous waste criteria) accumulated wastes in inventory that cannot be readily designated by process knowledge.

This is a significant effort both from a waste handling and sampling/analytical standpoint. SPC will be pursuing outside contractor assistance for this task.

- Restart SWUR for uranium recovery and volume reduction of combustible waste.

SPC has completed an economic analysis that reaffirms the economic viability of the SWUR operation. SWUR startup is currently projected for early 1995.

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Due to the decision to process both currently-generated and the accumulated inventory of combustible wastes for near-surface burial, delays in SWUR startup will not negatively impact efforts to reduce on-site waste inventory. SWUR startup will however be aggressively pursued due to its demonstrated cost savings relative to uranium recovery and reduced burial costs.

- Develop processes and install facilities to treat stored mixed wastes that cannot currently be released or shipped as low-level radioactive waste to recover uranium and/or render it non-dangerous, if feasible.

Such facilities would typically involve capital construction projects. Planning and scheduling for these projects are addressed in EMF-1577(P), "Siemens Power Corporation - Nuclear Division Waste Management Engineering Plan," a copy of which has been previously provided to you.

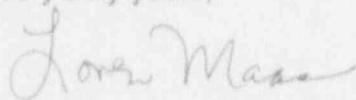
#### Projected Waste Reduction Results

Projected waste reduction milestones for this program are as follows:

<u>Date</u>	<u>Total Containerized Solid Waste Inventory, ft<sup>3</sup> (approx.)</u>
Current (1/31/94)	134 K
Sept. 94	79 K
Sept. 95	62 K
Sept. 97	26 K

SPC is sensitive to NRC's concerns relative to our solid waste inventory and will continue to move ahead aggressively in our waste inventory reduction efforts. Please feel free to contact me on 509-375-8537 if you have additional questions or concerns.

Very truly yours,



L. J. Maas, Manager  
Regulatory Compliance

LJM:pm