

**U. S. DEPARTMENT OF ENERGY  
FIELD OFFICE SAVANNAH RIVER**

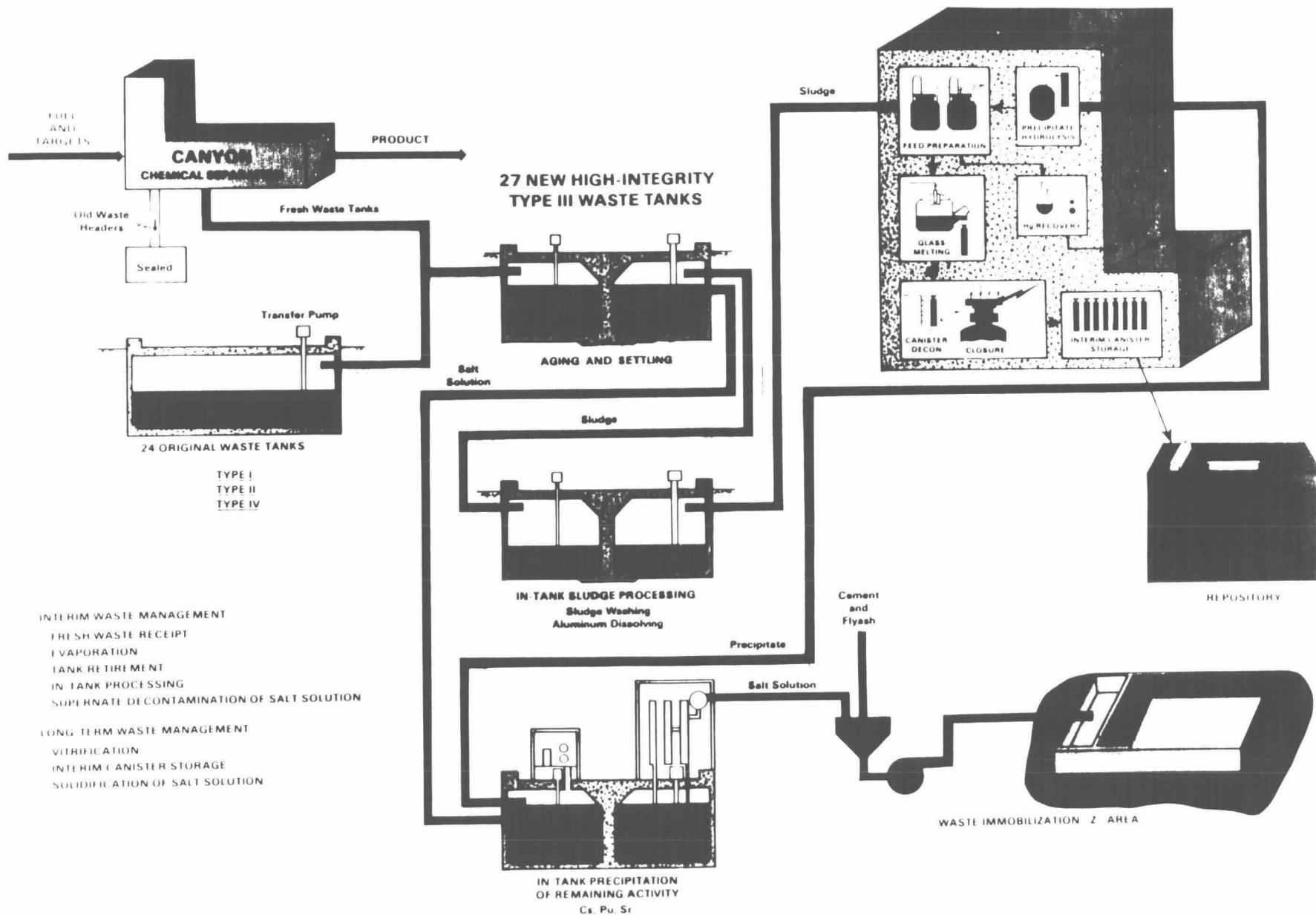
**OVERVIEW OF DEFENSE WASTE PROCESSING FACILITY  
to the  
NUCLEAR WASTE TECHNICAL REVIEW BOARD  
ENGINEERED BARRIER SYSTEMS PANEL**



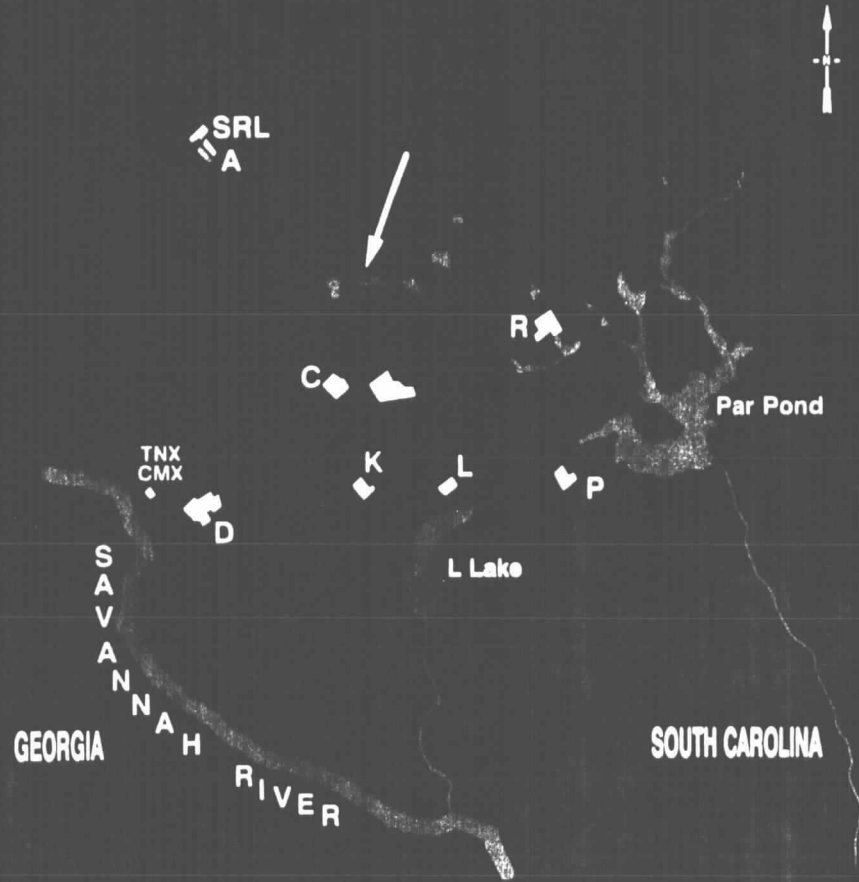
**CLYDE W. TERRELL  
ACTING DIRECTOR, HIGH LEVEL WASTE DIVISION**

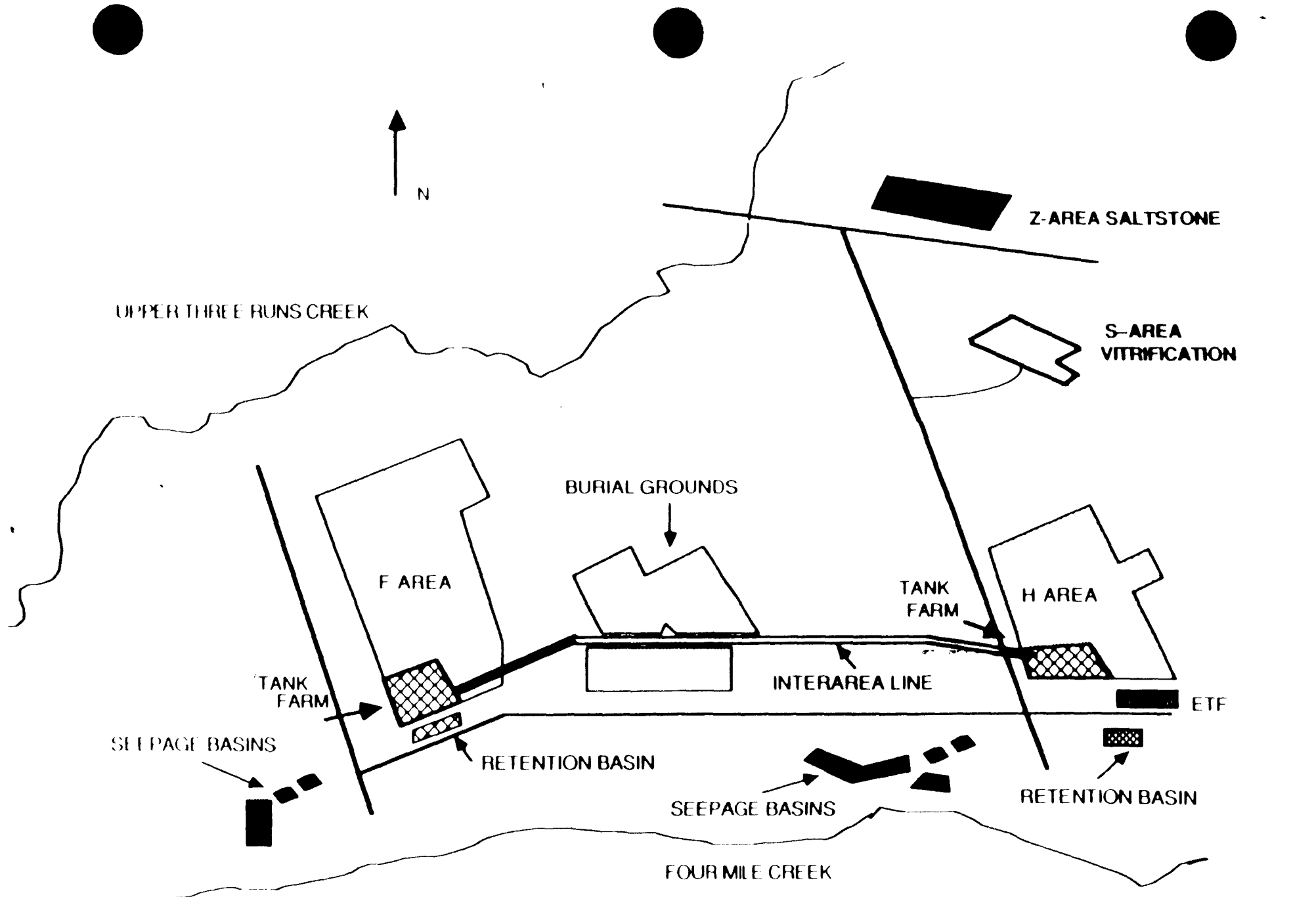
**FEBRUARY 10, 1992**

# HIGH-LEVEL LIQUID WASTE MANAGEMENT SAVANNAH RIVER PLANT



# SRS





UPPER THREE RUNS CREEK



Z-AREA SALTSTONE

S-AREA VITRIFICATION

BURIAL GROUNDS

F AREA

TANK FARM

H AREA

TANK FARM

INTERAREA LINE

ETF

SEEPAGE BASINS

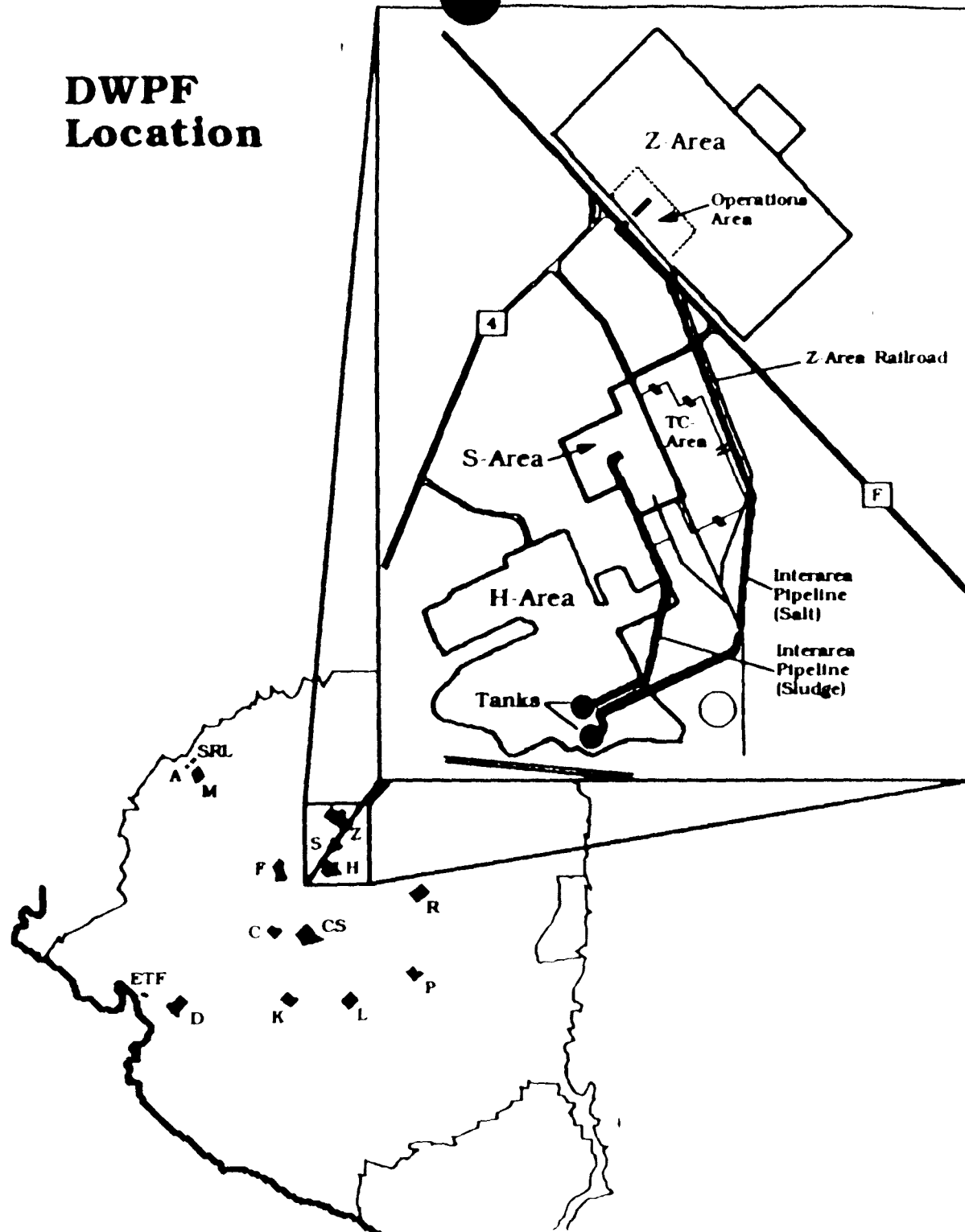
RETENTION BASIN

SEEPAGE BASINS

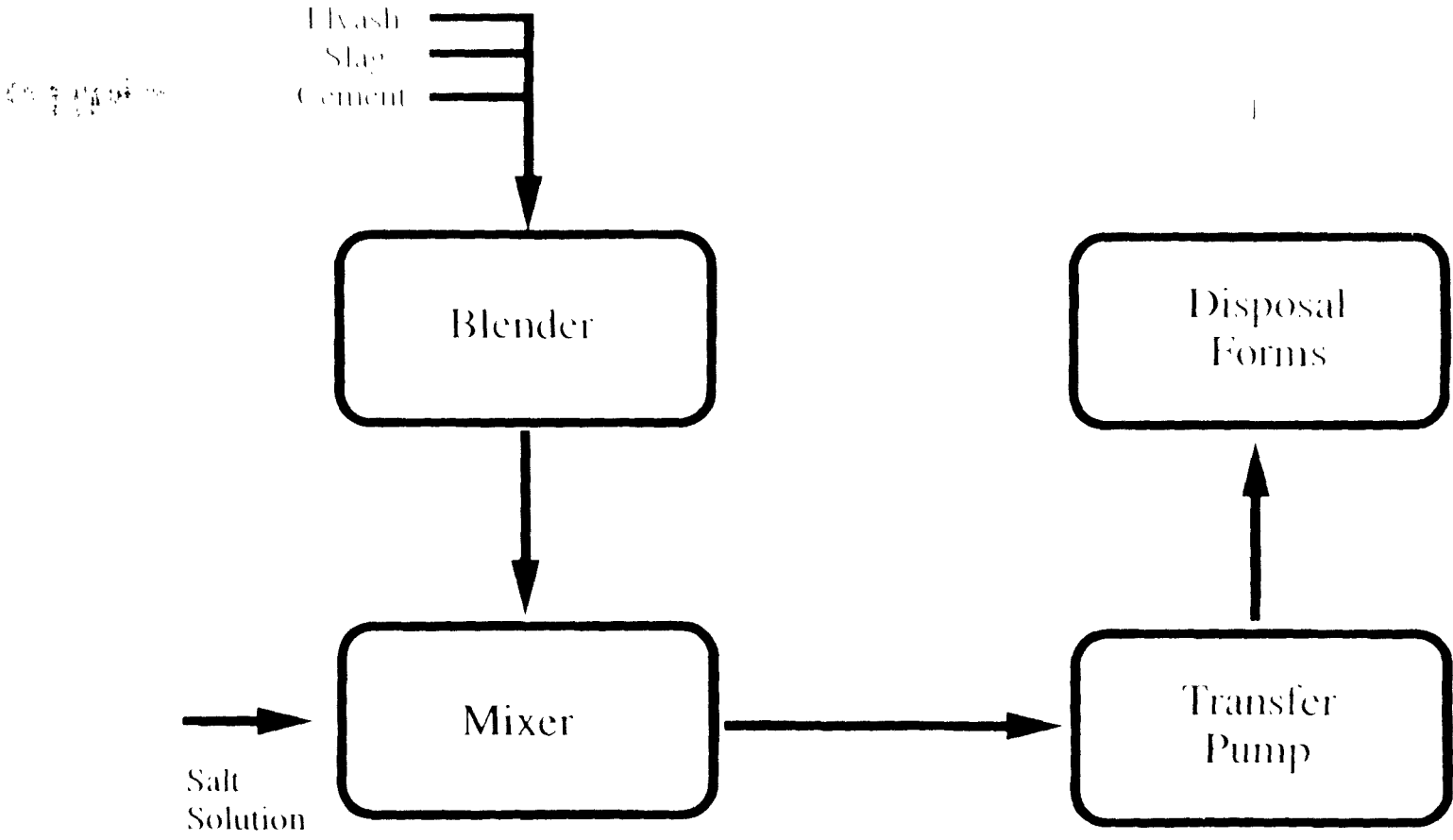
RETENTION BASIN

FOUR MILE CREEK

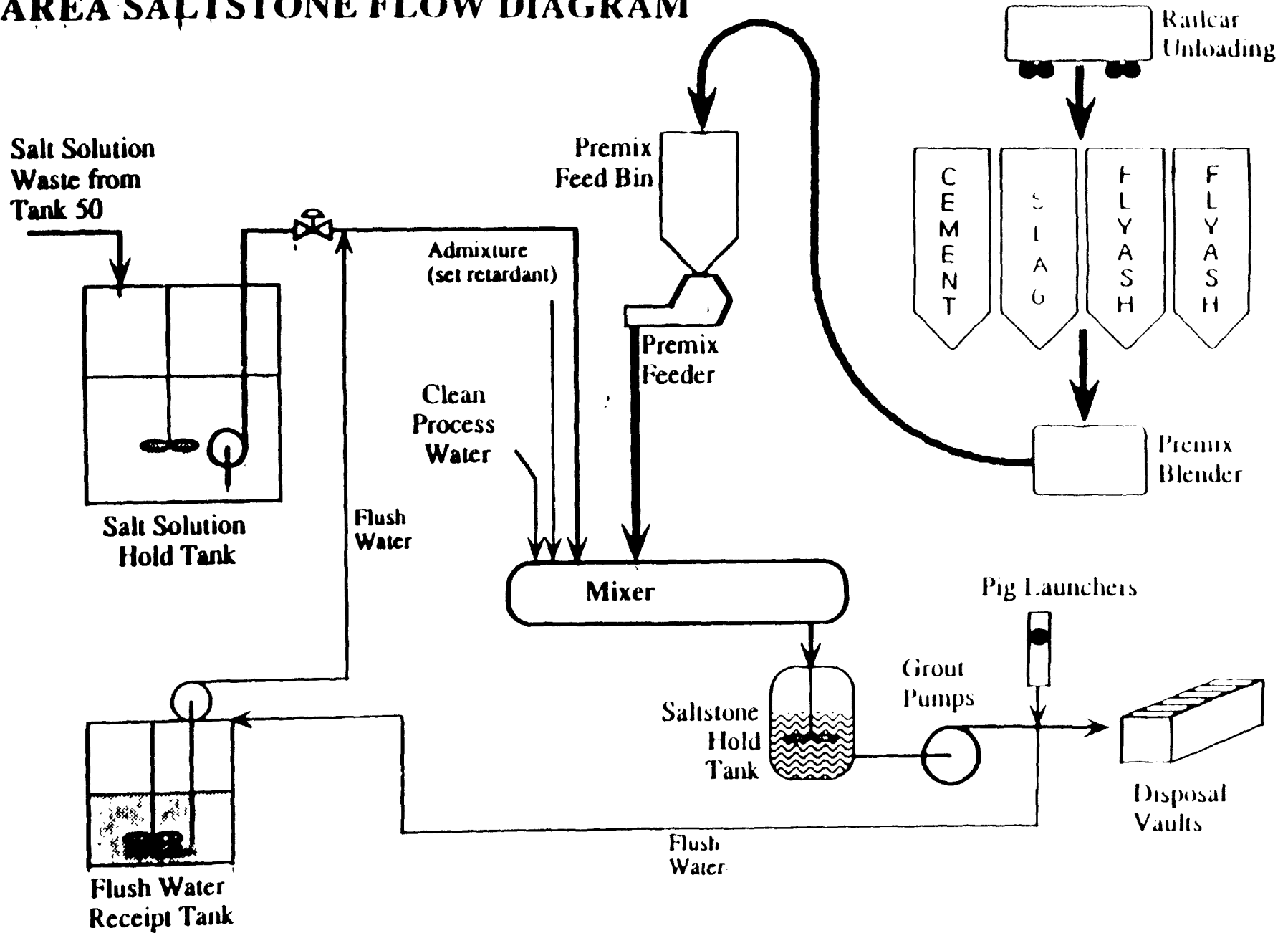
# DWPF Location



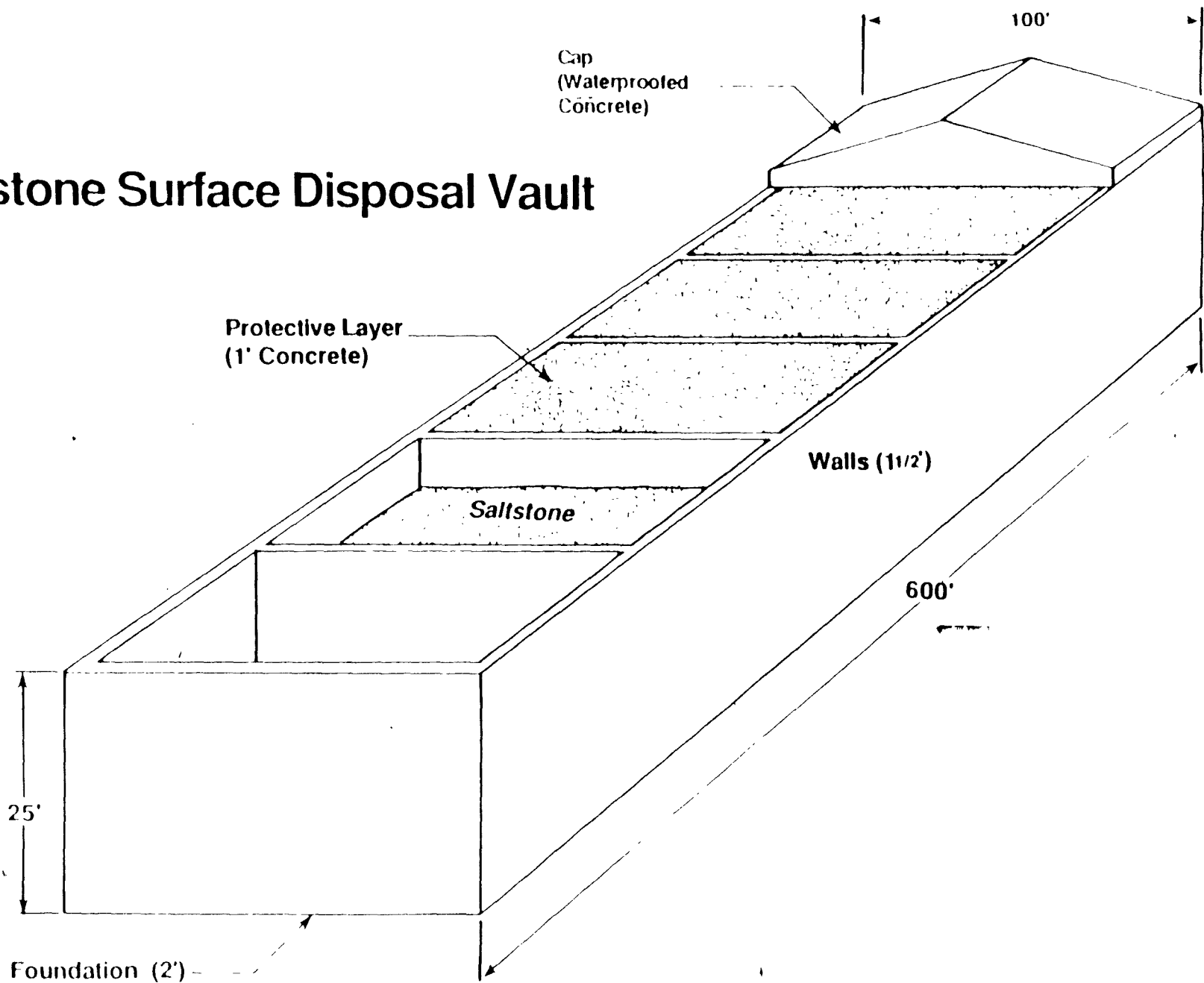
# SALTSTONE



# Z-AREA SALTSTONE FLOW DIAGRAM

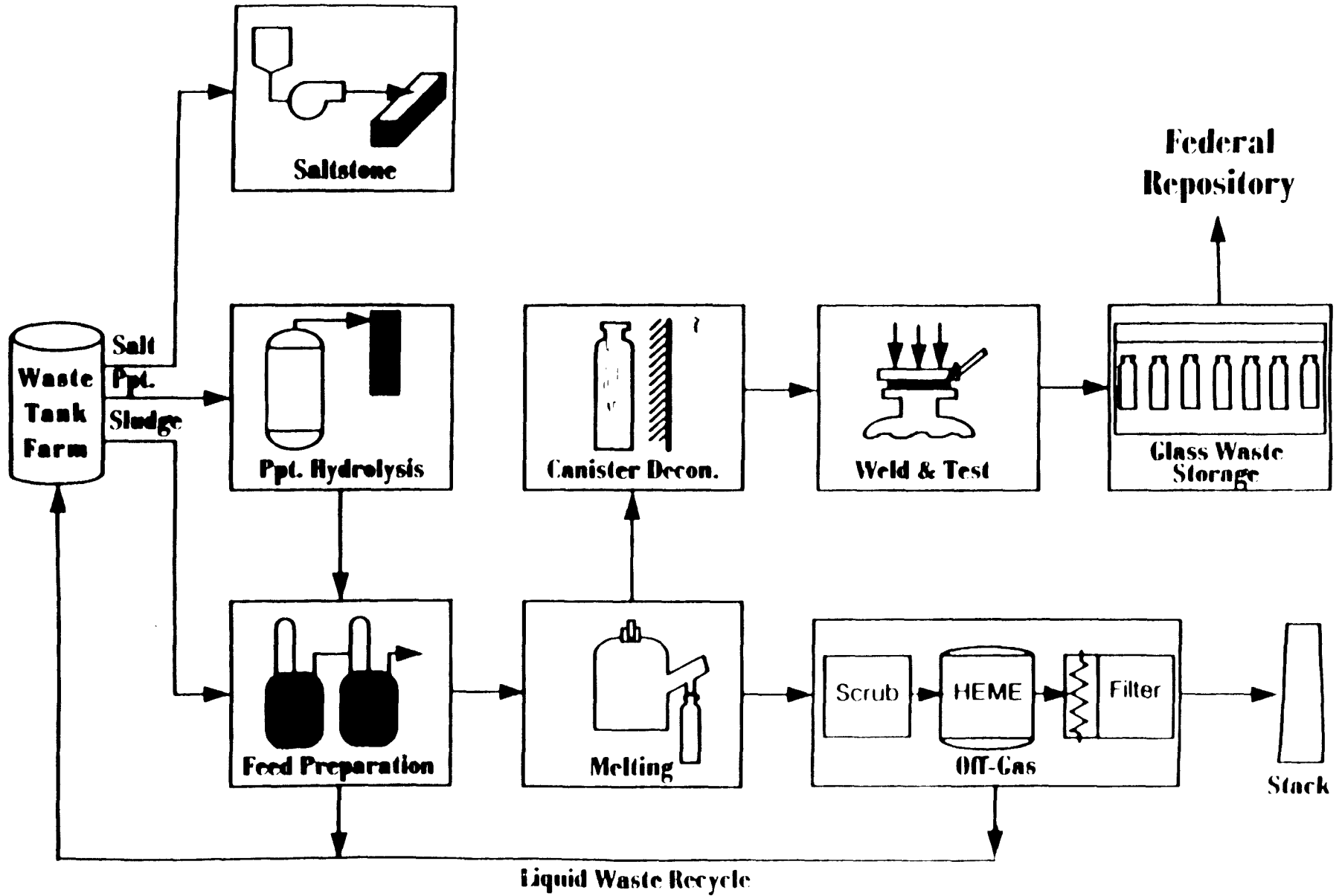


# Saltstone Surface Disposal Vault

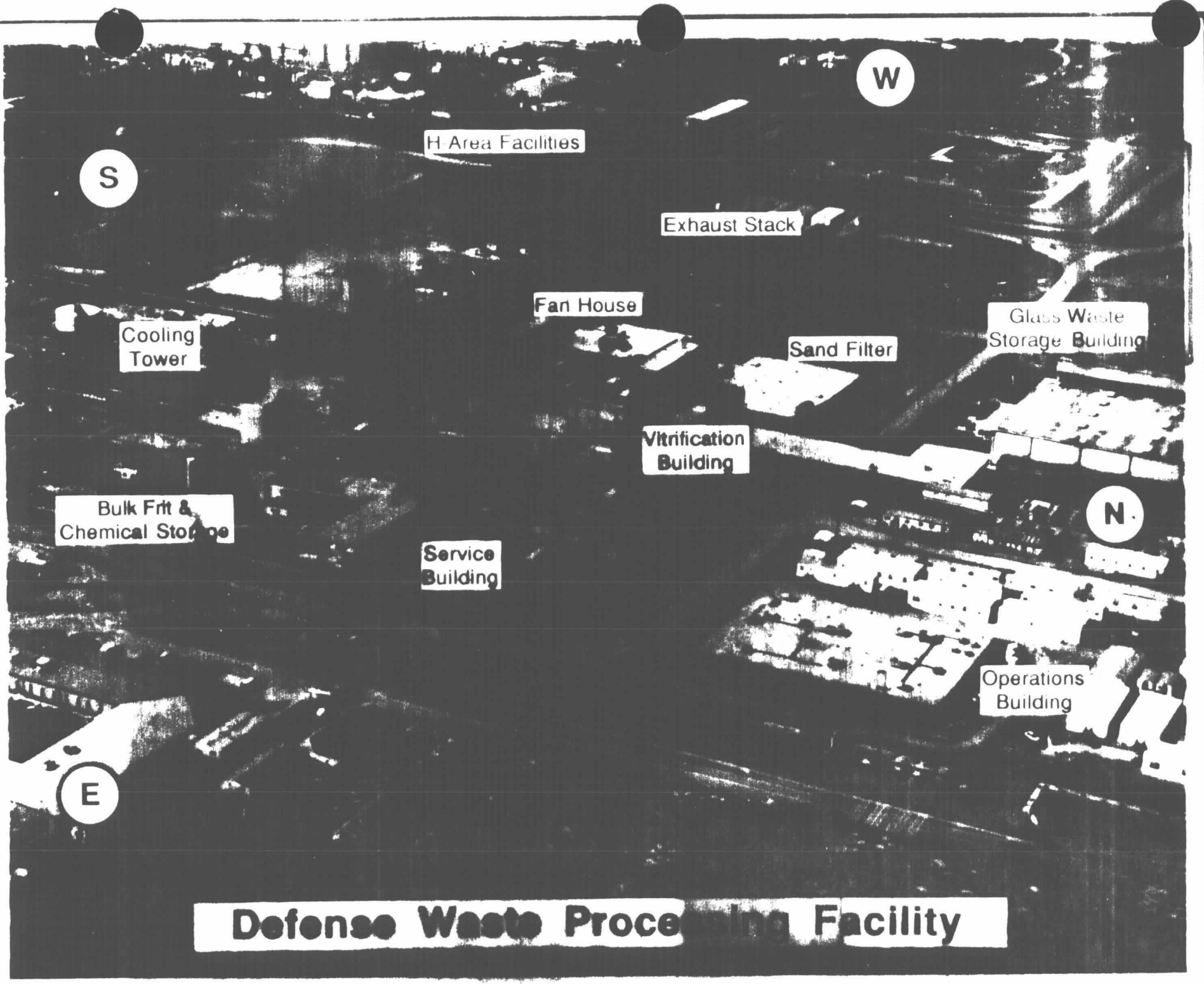




# DWPF PROCESS







W

S

H Area Facilities

Exhaust Stack

Fan House

Glass Waste Storage Building

Cooling Tower

Sand Filter

Vitrification Building

N

Bulk Frt & Chemical Storage

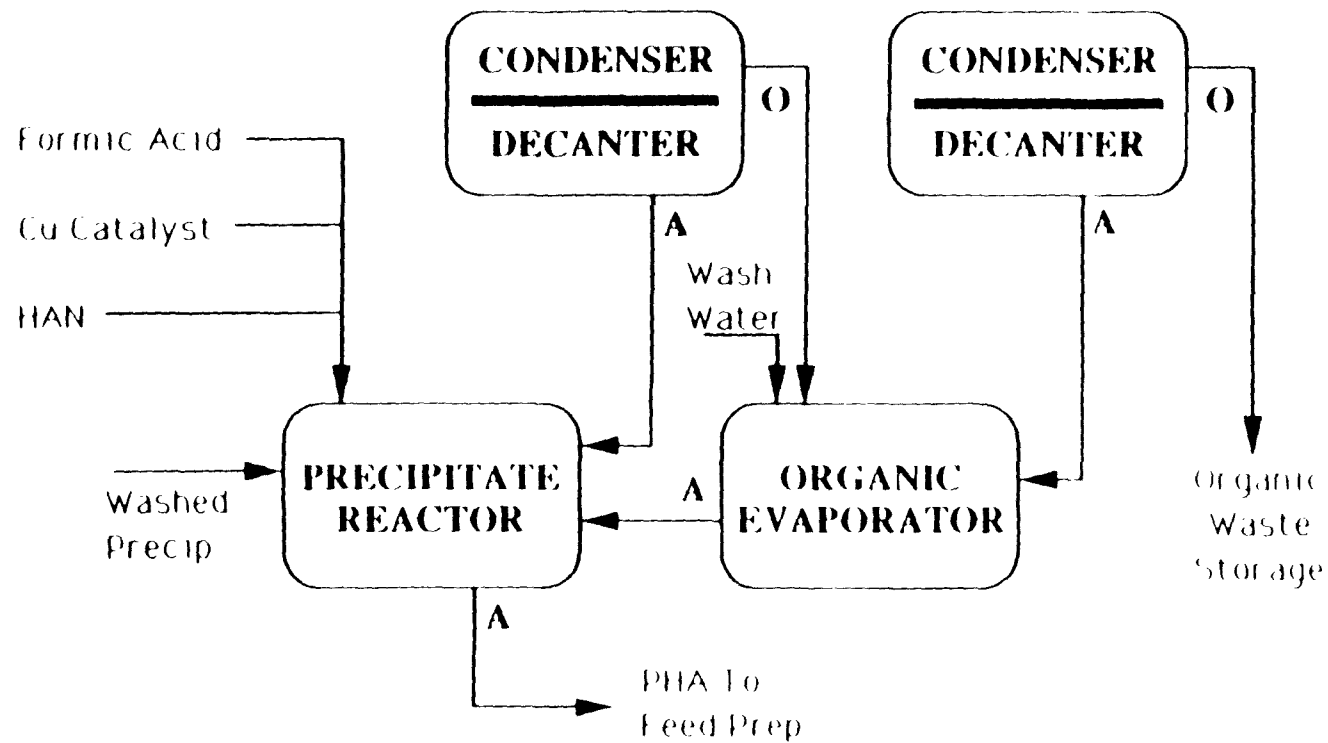
Service Building

Operations Building

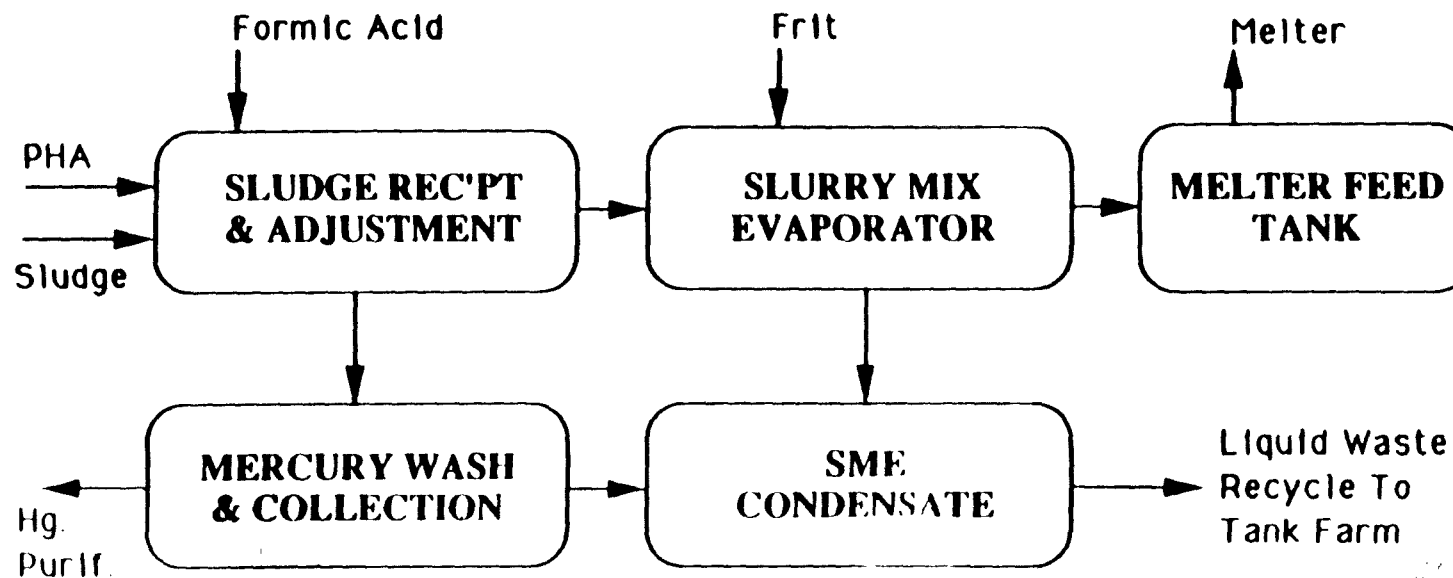
E

**Defense Waste Processing Facility**

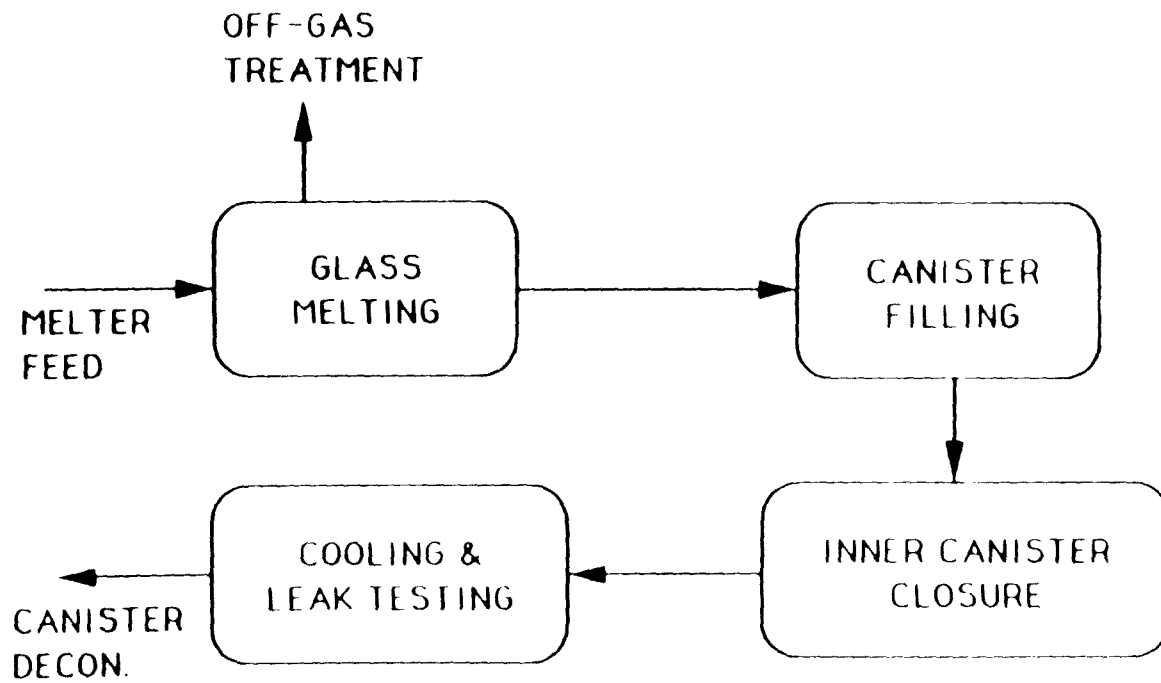
# PRECIPITATE HYDROLYSIS



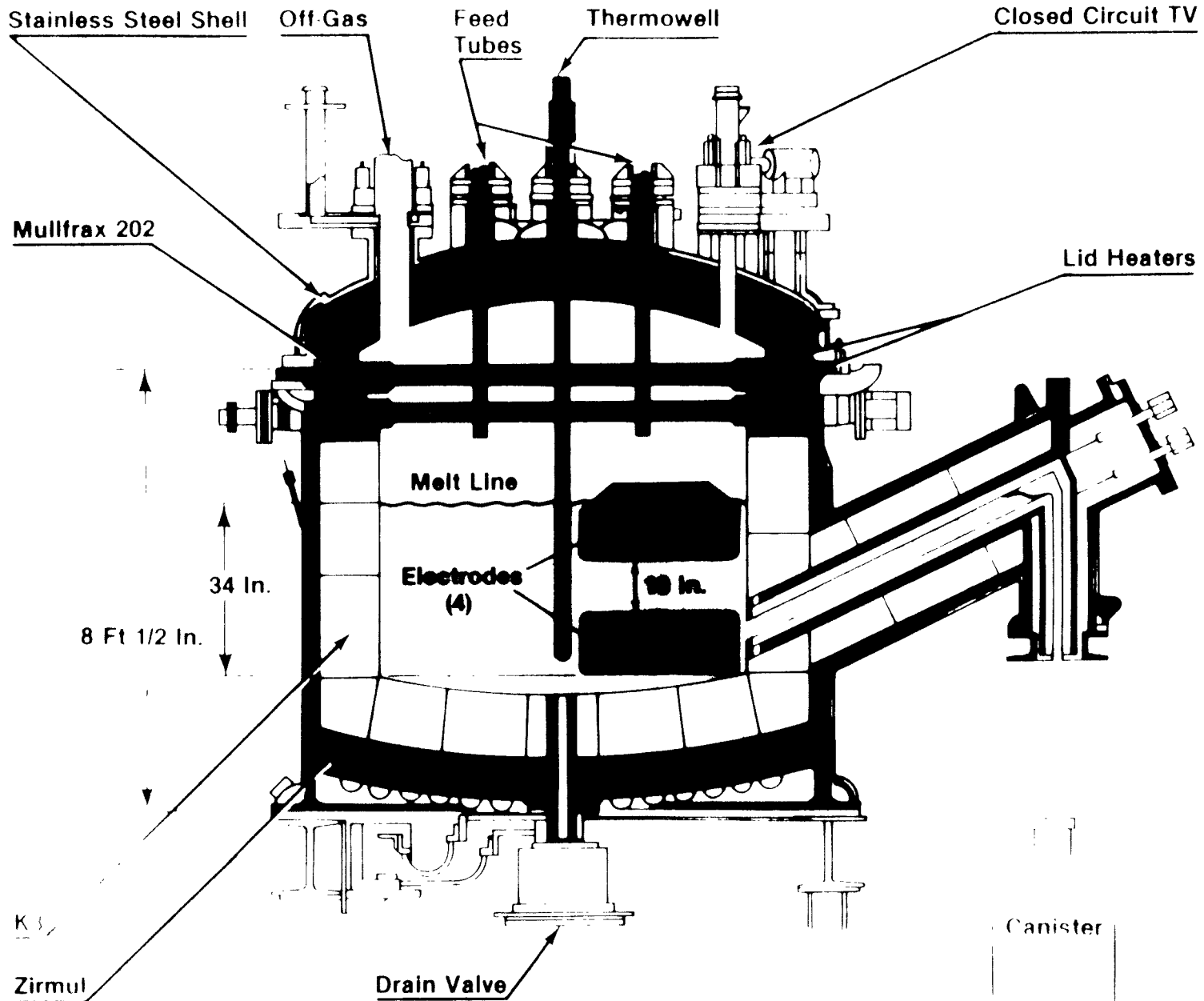
# MELTER FEED PREPARATION



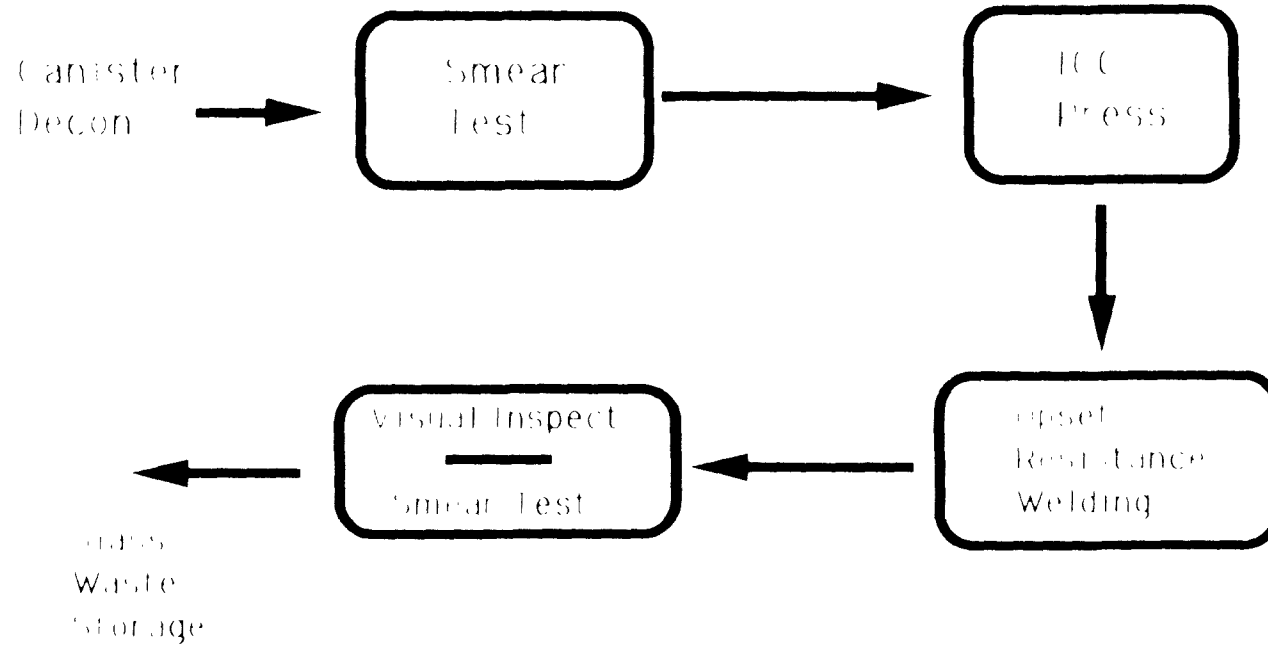
# MELTING



# DWPF Melter

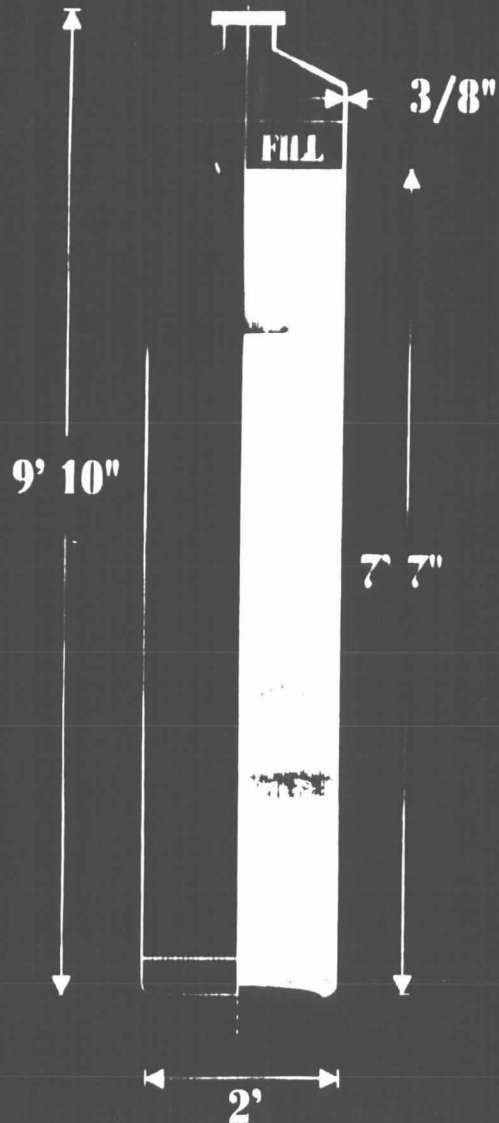


# CANISTER WELDING & TESTING





## DWPF FILLED CANISTER



<b>Material:</b>	<b>304L SS</b>
<b>Empty Weight:</b>	<b>1,100 lb</b>
<b>Net Weight:</b>	<b>3,700 lb</b>
<b>Weight of Radionuclides:</b>	<b>56 lb</b>
<b>Activity:</b>	<b>176,000 Ci</b>
<b>Decay Heat:</b>	<b>470 W</b>
<b>Dose Rate (At Surface):</b>	<b>5,500 rad/hr</b>
<b>Contamination:</b>	<b><math>&lt; 10^{-4}</math> uCi/cm</b>

