

# Savannah River Operations Office – HLW Federal Technical Capabilities Facility Oversight

**High Level Waste Vital Safety System Matrix**

5/14/2002

<u>DIVISION</u>	<u>FACILITY</u>	<u>CLASS</u>	<u>CLASSIFIED ITEM</u>	<u>VSS Category</u>	<u>Safety System Expert</u>
HLW	DWPF	SC	Zone 1 Ventilation System	Confinement Ventilation	Aleman/ Blake/Temple
HLW	DWPF	SC	Diesel Generator System	Electrical	S. Aleman/J. Guerry
HLW	DWPF	SC	Diesel Fuel Oil System	Electrical	S. Aleman/J. Guerry
HLW	DWPF	SC	Chemical Process Cell Safety Grade Nitrogen Purge System	Gas and Air	Aleman/ Blake/Guerry/Temple
HLW	DWPF	SC	Low Point Pump Pit Safety Grade Purge Systems	Gas and Air	Aleman/ Blake/Guerry/Temple
HLW	DWPF	SC	Melter Off-gas System Instrumentation and Associated Interlocks	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	DWPF	SC	Melter Vapor Space Temp. Instrumentation and Associated Interlocks	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	DWPF	SC	Uninterruptible Power Supplies Y61	Electrical	S. Aleman/J. Guerry
HLW	DWPF	SS	Chemical Process Cell Primary Purge System	Gas and Air	Aleman/ Blake/Guerry/Temple
HLW	DWPF	SS	Gas Chromatographs and Associated Interlocks	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	DWPF	SS	Low Point Pump Pit Primary Purge System	Gas and Air	Aleman/ Blake/Guerry/Temple
HLW	LRWHF	SC	242-25H Evaporator Pot Overpressure Interlock, Steam Isolation Valves, and Pot Pressure Sensing Tubing	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	SC	Process Vessel Vent System HDB-8	Confinement Ventilation	Aleman/ Blake/Guerry/Temple

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HLW	LRWHF	SS	242-25H Evaporator Condenser Vent Temperature Interlock	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	SC	Composite Lower Flammable Limit Monitors (Installed) on Rapid Generation Tanks	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	SC	Conductivity Probes and Control Room Alarms for all Type I, II, and III/ IIIA Waste Tank Annuli	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	SC	Conductivity Probes and Control Room Alarms for Diversion Boxes HDB-1, through HDB-7, FDB-2 and FDB-3	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	SC	Conductivity Probes and Control Room Alarms for Pump Pits HPP-2, HPP-3, HPP-4, HPP-5, HPP-6, FPP-1, FPP-2, FPP-3	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	SC	Conductivity Probes and Control Room Alarms for the 242-16H and 242-16F Evaporator Cells	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	SC	Conductivity Probes and Control Room Alarms for the 242-25H Evaporator Cell	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	SC	Conductivity Probes and Control Room Alarms for Transfer Pump/ Jet Risers Where The Potential For Pluggage Exists	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	SC	Conductivity probes and control room alarms for Valve Boxes	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	SC	Conductivity probes and F-Area control room alarm for the Inter Area Line Flush Pit	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	SC	Conductivity Probes and Local Alarms for the HDB-8 Complex (HDB-8, HPP-7, HPP-8, HPP-9, HPP-10, and the HDB-8 Complex Pipe Chase)	Process Systems (I&C)	S. Aleman/J. Guerry

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HLW	LRWHF	SC	Equipment Needed to Preclude Unintended Waste Transfers, Excluding Waste Transfers to/from the 242-25H Evaporator Pot (e.g. Transfer Source Inlet or Outlet Valves Secured and Position Independently Verified, Pumps De-Energized, Transfer Jet Stream Secured, Jumper Configuration Control).	Other Systems	Aleman/ Blake/Guerry/Temple
HLW	LRWHF	SC	Equipment Needed to Preclude Waste Transfers into FDB-1, FDB-5, FDB-6, HPP-1, Tank 16, the F-Area Catch Tank, 242-F, 242-H, or the F-and H-Area CTSs	Other Systems	Aleman/ Blake/Guerry/Temple
HLW	LRWHF	SC	Equipment Needed to Prevent or Secure and Break the Siphon Flow Path, Excluding the Path to/from the Evaporator Pots (e.g., Siphon Breaks, Valves)	Other Systems	Aleman/ Blake/Guerry/Temple
HLW	LRWHF	SC	Equipment Needed to Stop Transfers (Two Methods), Excluding the Path to the 242-25H Evaporator Pot, that Could Result in a Surface Release Exceeding the Evaluation Guidelines	Other Systems	Aleman/ Blake/Guerry/Temple
HLW	LRWHF	SC	Evaporator 25 psig Pressure Relief Valves PSV-2 (for 242-16F) and PSV-294 (for 242-16H)	Other Systems	Aleman/ Blake/Guerry/Temple
HLW	LRWHF	SC	Evaporator Pressure Relief Valves Upstream of the AIVs for the 242-16F and 242-16H Evaporators	Other Systems	Aleman/ Blake/Guerry/Temple
HLW	LRWHF	SC	Waste Transfer System – Waste Transfer Lines, Valves, Jumpers, Pumps, Jets, and Secondary Containment	Other Systems	Aleman/ Blake/Guerry/Temple
HLW	LRWHF	SC	Evaporator Pot Pressure Sensing Tubing for the 242-16H and 242-16F Evaporators	Other Systems	Aleman/ Blake/Guerry/Temple
HLW	LRWHF	SC	Evaporator Temperature Control Valve (TCV) and Automatic Isolation Valve (AIV) for the 242-16H and 242-16F Evaporators	Other Systems	Aleman/ Blake/Guerry/Temple
HLW	LRWHF	SC	High Liquid Level Conductivity Probe and Control Room Alarm for all Waste Storage Tanks	Process Systems (I&C)	S. Aleman/J. Guerry

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HLW	LRWHF	SC	Leak Detection Box's, Modified Leak Detection Box's, and Leak Probe Sleeves Where Conductivity Probe Operability is Required (excluding Leak Detection Box's, Modified Leak Detection Box's, and Leak Probe Sleeves on Lines To/ From the 242-25H Evaporator Pot)	Other Systems	Aleman/ Blake/Guerry/Temple
HLW	LRWHF	SC	VSD/VFD Overspeed Interlocks	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	SC	Waste Storage Tanks Flow Indication and Tank Vacuum Indication for "Organic" Waste Storage Tanks	Confinement Ventilation	Aleman/ Blake/Guerry/Temple
HLW	LRWHF	SC	Pump Tank FPT-1 Pulse Jet Agitator System	Other Systems	Aleman/ Blake/Guerry/Temple
HLW	LRWHF	SS	Area Radiation Monitors With Control Room Alarm Capability (Excluding Pump Pits and the Diversion Box in HDB-8 Complex and 242-25H Evaporator Cell)	Radiation Monitoring	Aleman/ Blake/Guerry/Temple
HLW	LRWHF	SS	242-25H Evaporator Cell Area Radiation Monitors With Control Room Alarm Capability	Radiation Monitoring	Aleman/ Blake/Guerry/Temple
HLW	LRWHF	SS	Conductivity Probes and Control Room Alarms for Leak Detection Box, Modified Leak Detection Box, and Leak Probe Sleeves (Excluding HDB-8 Complex LDBs, Clean-out Port Probes and Evaporator Gravity-Drain Lines LDBs/ MLDBs, and LDBs on 242-25H Evaporator Feed Line)	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	SS	Conductivity Probes and Control Room Alarms for LDBs on 242-25H Evaporator Feed Lines	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	SS	Dedicated Portable Ventilation System (One Train Per Tank Farm) Consisting of a Portable Generator, Blower, and Ductwork	Confinement Ventilation	Aleman/ Blake/Guerry/Temple
HLW	LRWHF	SS	Evaporator Condenser Vent Temperature Interlock for the 242-16H and 242-16F Evaporators	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	PCO	Tank to annulus delta pressure instrumentation	Process Systems (I&C)	S. Aleman/J. Guerry

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HLW	LRWHF	S Eval, JCO, CH3	Ventilation Systems (tank primary, tank annulus, pump tanks, Evaporator Cells). Includes flow motive force discussion.	Confinement Ventilation	Aleman/Blake/Guerry/Temple
HLW	LRWHF	SS	Ventilation and Instrumentation for Waste Tanks 8 and 19 Bulk Sludge Mixing	Confinement Ventilation	Aleman/Blake/Guerry/Temple
HLW	LRWHF	SAR/CH3	Airborne monitoring of Tank 19 Ventilation System	Confinement Ventilation	Aleman/Blake/Guerry/Temple
HLW	LRWHF	General	CAMS (All Installed Air Monitoring on Air Streams) for Personnel Monitoring (Not Portable Systems)	Radiation Monitoring	Aleman/Blake/Guerry/Temple
HLW	LRWHF	SS	Waste Tank Equipment System - Waste Tank Supernate Temperature Monitoring of Non-Organic Waste Tanks	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	PCO	Steel Wall Temperature Monitoring	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	SAR/TSR	242-25H Evaporator Pot Level System	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	SAR/CH3	Evaporator Pot Low Level Interlock Alarms., Condenser Vent Interlock Alarm, Overpressure Interlock alarm (25H, 16F, 16H)	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	SAR/CH3	Equipment to secure Evaporator Cell Ventilation Following Interlocks	Other Systems	Aleman/Blake/Guerry/Temple
HLW	LRWHF	PCO	Evaporator Level Monitoring Instrumentation (16F/16H)	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	JCO	2H Evaporator House Level Transmitter Flow Indicators (HM-242-016-IA-FIC-2446 and HM-242-016-IA-FIC-2446)	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	SAR/CH3	Storm Water Monitors and Diversion Gates	Radiation Monitoring	Aleman/Blake/Guerry/Temple
HLW	LRWHF	SAR/CH3	Level Monitors in Catch Tank HDB-1	Process Systems (I&C)	S. Aleman/J. Guerry

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HLW	LRWHF	PCO	Equipment Required to Perform Level Monitoring During Transfers for Transfer Events, Structural Integrity Fill Limits, Tank Flammability Fill Limits, Etc. (Reel/Taper, Pneumatic Instrumentation in Pump Tanks, etc.)	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	LRWHF	JCO	Isolation of the Air Supply to Jets	Other Systems	Aleman/ Blake/Guerry/Temple
HLW	LRWHF	CH3	Pump Pit Steam Jet Isolation Devices	Other Systems	Aleman/ Blake/Guerry/Temple
HLW	WPT	SC	Standby Nitrogen System	Gas and Air	Aleman/ Blake/Guerry/Temple
HLW	WPT	SS	Backup Portable Exhauster for Tanks 40, 41, 42, 50, and 51	Confinement Ventilation	Aleman/ Blake/Temple
HLW	WPT	SS	High Liquid-Level Conductivity Probe Tanks 40, 41, 42, 48, 49, 50, and 51	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	WPT	SS	Area Radiation Monitoring System Tanks 40, 41, 42, 48, 49, 50, and 51	Radiation Monitoring	Aleman/ Blake/Guerry/Temple
HLW	WPT	SS	Air-Purged Tank Primary Purge Ventilation System (Tanks 40, 41, 42, 50, and 51)	Confinement Ventilation	Aleman/ Blake/Temple
HLW	WPT	SS	Composite Lower Flammability Limit Monitoring System (Tanks 40, 41, 42, 49, 50, and 51)	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	WPT	SS	Normal Nitrogen System	Gas and Air	Aleman/ Blake/Guerry/Temple
HLW	WPT	SC	Tank 48 and 49 Nitrogen Purge Ventilation System	Confinement Ventilation	Aleman/ Blake/Temple
HLW	WPT	SS	Emergency Purge Ventilation Equipment	Confinement Ventilation	Aleman/ Blake/Temple
HLW	WPT	SS	Oxygen Monitoring System (Tank 48 and 49)	Process Systems (I&C)	S. Aleman/J. Guerry

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HLW	WPT	SS	Annulus Conductivity Probes (Tanks 40, 41, 42, 50, and 51)	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	WPT	PR's	Waste Tank Equipment System - Waste Tank Supernate Temperature Monitoring of Non-Organic Waste Tanks	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	WPT	S. Eval.	Portable Gas Chromatograph in Tank 49	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	WPT	S. Eval.	Tank 48 Gas Chromatograph, Q Time	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	WPT	S. Eval.	Slurry Pumps, Q Time	Other Systems	Aleman/ Blake/Guerry/Temple
HLW	WPT	S. Eval.	Reel Tapes	Process Systems (I&C)	S. Aleman/J. Guerry
HLW	WPT	JCO	Equipment to Terminate Transfers	Other Systems	Aleman/ Blake/Guerry/Temple

# Savannah River Operations Office - HLW Federal Technical Capabilities Facility Oversight

High Level Waste Functional Area SMEs

<b>Functional Area</b>	<b>SME</b>
Fire Protection Systems	G. Morton
Criticality Safety	N. Shepard
Structural Mechanics	M. Dholakia
Electrical Engineering	J. Guerry
Chemical Engineering	P. Suggs
Environmental	L. Ling
Radiation Protection	W. Frazer
Maintenance	S. Aleman
Emergency Management	K. Buchanan/J. Merrick
Industrial Health	G. Morton