

LLRW Facility WACs Summary

CATEGORY	SOUTH CAROLINA—BARNWELL	WASHINGTON—HANFORD	UTAH—CLIVE	TEXAS—WCS
DOT	<p>Failure to provide emergency contact information (Form 540)</p> <p>Improper shipping description (Form 540) <i>This discrepancy usually results in additional infractions</i></p>	Shipping papers (manifest, NRC Forms) are correct, accurate and complete. Material is properly classed and described when offered.	Shipping papers (manifest, bill of lading, EPA8700, NRC Forms) are correct, accurate and complete. Material is properly classed and described when offered.	<p>Exemptions have been granted to where in the process of receiving the waste that the truck is weighed.</p> <p>Exemptions have been granted for the WAC requirements that the surface contamination levels be decontaminated as much as possible if the contamination levels are below the DOT regulatory limits</p>
State forms	<p>Incomplete South Carolina Certification Statement (SC Form 802)</p> <p>Incorrect disposal container identification number or wrong package (Form 541) <i>This discrepancy usually results in multiple infractions both Radiological and Non-Radiological</i></p> <p>Incorrect weight listed (Form 541) <i>Primarily HICs also known as "weighing a package with a pencil"</i></p>	Need complete state form, RHF-31	Shippers are registered state Generator Site Access Program (GSAP)	Shippers must be registered with the radioactive material licensing program of the Department of State Health Services
Contamination	Incorrect anticipated contamination levels on the exterior surface of the disposal container (Form 541) <i>This discrepancy is a result of spilled resin during loading or a contaminated transport cask</i>	Incorrect anticipated contamination levels on the exterior surface of the disposal container (Form 541)		
Radiation levels		<p>Excess radiation readings on packages- does not correlate with manifest, inaccurate manifest: <i>(1) Radioactive waste shall be packaged in such a manner that waste containers received at the facility do not show: An increase in the external radiation levels as recorded on the manifest, within instrument tolerances. (2) For waste consigned to a disposal facility, the maximum radiation level on the surface of each disposal container. Radioactive waste shall be packaged in such a manner that waste containers received at the facility do not show: (3) An increase in the external radiation levels as recorded on the manifest, within instrument tolerances. (4) The shipper of the radioactive waste shall provide the following information on the uniform manifest regarding the waste and each disposal container of waste in the shipment: (v) For waste consigned to a disposal facility, the maximum radiation level at the surface of each disposal container.</i></p> <p>The manifest for each package of waste received for disposal shall list all radionuclides greater than 3,700 kBq (100 microcuries).</p>	Higher dose rate waste	

LLRW Facility WACs Summary

CATEGORY	SOUTH CAROLINA—BARNWELL	WASHINGTON—HANFORD	UTAH—CLIVE	TEXAS—WCS
Waste classification		Disposal packages are properly classified and labeled.	If the NRC goes to WACs only and the classification tables go away, the State would require the tables be incorporated into the EnergySolutions WAC in order to be in compliance with the State prohibition on waste greater than Class A.	
Communications	<p>Failure to placard</p> <p>Defective placards</p> <p>Illegible labeling</p> <p>Improper/incorrect labeling</p> <p>Non-spec labeling or placards</p>	Packages are marked and labeled. Conveyances placarded appropriately.	Packages are marked and labeled. Conveyances placarded appropriately.	
Waste packaging/containers	<p>Failure to provide proper lifting devices</p> <p>Failure to provide appropriate lifting cables to grapple bails on liners within casks</p> <p>Improperly secured drum lids</p> <p>Distended or ruptured metal boxes or drums</p> <p>Excessive surface contamination</p> <p>Waste outside the package</p>	<p>Liners received in casks must have appropriate lifting cables easily accessible to disposal site handlers.</p> <p>Packaging must be intact without holes or creases allowing access to waste.</p> <p>Packaging can not contain excessive liquids (e.g., > 0.5 volume percent)</p>	<p>Package surveys and direct frisks are within acceptable limits</p> <p>Package is compatible and approved for the material being shipped (e.g., soft-sided packaging)</p>	
Waste form	Inadequate solidification Usually failure to allow solidification media (concrete) adequate time to cure	Wet sludges and slurries , such as evaporator bottoms, shall be non-corrosive and shall be treated by stabilization or solidification.		
Liquids	Liquids in excess of allowable limits This is why it is important for the generator to actually weigh liners to assure adequate dewatering has been achieved	<p>“Incidental and unintentional liquids entrained in solid material may be received, provided that:</p> <p>A. (1) The dry material contains less than 0.1 volume percent of liquid within the package, or</p> <p>(2) If a process control program (PCP) is used to verify the amount of liquids, the dry material must contain less than 0.5 volume percent of liquids within the package.</p> <p>Class A ion exchange and filter media which are classified as unstable shall contain no more liquid than 0.5% by volume of the waste.</p> <p>Except as allowed under this license, untreated liquids and wet sludges are not allowed for disposal</p> <p>Waste or packaging shall not contain any liquid except as authorized by this license.</p>	Liquids >1% Free liquids is a concern due to the fact that when they leak, they can cause contamination incidents over the rail and roadways out in the public.	Any package that has undergone de-watering to meet free liquid requirements will be considered acceptable for disposal as long as documented de-watering was performed within 180 days or less prior to shipment. Exemptions have been granted on a case-by-case basis if de-watering has been performed more than 180 days if Licensee can guarantee that the waste still meets the free liquid requirement.

LLRW Facility WACs Summary

CATEGORY	SOUTH CAROLINA—BARNWELL	WASHINGTON—HANFORD	UTAH—CLIVE	TEXAS—WCS
Resins		Ion exchange media shall not be treated by sorption.	Resins	
Pyrophoric material	Failure to properly stabilize pyrophoric material <i>An "Oldie" but the only event we had at the BDF with improperly stabilized pyrophoric material was a bad one. No injuries but could have been much worse without the excellent response of disposal site workers.</i>	Pyrophoric waste prohibited	Pyrophoric & water-reactive waste prohibition	Pyrophoric waste prohibited
Non-rad component	Lead <i>Not a discrepancy, however, there is a large volume of lead disposed of at the BDF. Our Agency over the last several years has made a concerted effort to reduce the use of heavy metals in packaging. Make sure that generators explore all options for dose reduction before allowing the use of and heavy metal (DU or Lead) for shielding.</i>	Excessive void spaces within the radioactive waste and between the waste and its package shall be reduced to the maximum extent practicable. Unless specifically approved by the department, void spaces within all waste packages shall be less than 15 percent of the total volume of the disposal package, provided the disposal package is not a high integrity container nor contains activated metals that are too large to put into high integrity containers. Incinerator ash and incinerator ash-like material which is classified as Class A waste according to License shall be solidified, granular, or treated in such a manner as to be rendered nondispersible in air, exclusive of packaging. Liquids treated by solidification shall be processed in accordance with a process control program using an approved solidification. The resulting waste form shall contain no detectable free-standing liquid. "No detectable free-standing liquid" is defined to be as little liquid as is reasonably achievable, but in no case shall it exceed more than 0.5 percent (by volume) of liquid per container.	Hazardous Waste (undisclosed RCRA material, PCB's, solvents, etc., which were not characterized in the waste) Sealed sources prohibited Waste does not match profile provided. Limits on mobile isotopes (e.g., Tc-99) in waste SNM Concentration restrictions	Lead is only allowed if it is used as shielding (usually for sealed sources)
Compact issues		LLRW only allowed from the Northwest Interstate Compact. NARM allowed from outside Compact with site use permit.		Shipments from states not in the Texas LLRW Compact must get an import permit from the Compact Commission for a specific activity and volume. If waste shipment exceeds, then the import permit needs to be modified
Encapsulation		Waste (e.g., sources) encapsulated per state of Washington instructions, when required.		Encapsulation media shall be a solidified grout/concrete mix. However, an exemption may be granted on a case-by-case basis if another inert media is used that meets the encapsulation media requirements. If an encapsulation criteria cannot be met without cutting open the sealed source, an exemption may be granted on a case-by-case