

Annexed Table 3 Test Items, Methods, and Standards of Homogeneous Solidified Low level Waste

S/N	Test Item	Test Method	Standards
1	Free standing water	ANSI/ANS 55.1	<p>1.The content of free standing water shall be less than 0.5% of the volume of the solidified waste.</p> <p>2.The pH of free standing waster shall between 4 and 11, for cement-solidified waste which shall be larger than 9.</p>
2	Fire resistance	<p>1.Cement or glass solidified waste may be exempted from this test.</p> <p>2.ASTM-D92 method for bituminous waste.</p> <p>3.ASTM-D2863 method for plastic solidified waste</p>	<p>1.The fire point of bituminous waste shall be greater than 250 °C.</p> <p>2.The Oxygen Index of plastic solidified waste shall be greater than</p>

			28.
3	Mechanical strength	<p>1.Common solidified waste except bituminous waste shall employ the ASTM-C39 or CNS 1232 test.</p> <p>2.The ASTM-D5 test shall be used to test the penetration of bituminous waste.</p>	<p>1.The compression strength of common solidified waste except bituminous shall be larger than 15kg/cm².</p> <p>2.The penetration of bituminous waste shall be less than 100. The weight percentage of asphalt in the bituminous waste shall not less than 50%.</p>
4	Leaching rate	<p>ANS 16.1 (cement-solidified waste may be tested for five days)</p>	<p>The leaching index of all kinds of nuclides in the solidified waste shall be greater than 6.</p>
5	Water resistance	<p>Immerse the solidified waste in water for 90 days, and then test the mechanical strength (under normal</p>	<p>The test result shall meet the standard of Item 3.</p>

		temperature)	
6	Weather resistance	Circularly change the temperature and humidity, and then test the mechanical strength.	The test result shall meet the standard of Item 3.
7	Radiation resistance	Irradiating the solidified waste by Co-60 Gamma radiation, and then test the mechanical strength after the absorbed dosage reaches 1,000,000 Gy.	1.The test result of compression strength shall meet the standard of Item 3.
8	Bacteria resistance	Perform the ASTM G21, and then test the mechanical strength.	The test result shall meet the standard of Item 3.