



LOW LEVEL WASTE REPOSITORY IP-2 ISO CONTAINER DIRECT POUR ENCAPSULATION GUIDANCE DOCUMENT

Summary

This Guidance Note should be read in conjunction with the LLW Repository Ltd IP-2 ISO Container Operational Documentation. The Guidance Note is intended only to support the Container Design Operational Documentation by explaining the basis of the condition requirements and providing additional information. Nothing in this Guidance Note shall be legally binding upon the Operator of the LLW Repository Ltd and all Terms and Conditions between such Operator and the Customer. In the event of any conflict between the provisions of the Guidance Note and any LLW Repository Ltd IP-2 ISO Container Design Approval Conditions. The Container Design Approval Conditions shall prevail in all respects.

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INDEX

Introduction.....3

PART A – Encapsulation Authorisation.....3

PART B – Direct Pour Requirements.....3



Introduction

This document has been prepared to provide guidance on the direct pouring of Encapsulated waste into IP-2 ISO containers, designs TC01, TC03 and TC09 prior to transport.

Direct Pour Encapsulation is defined as a waste that has undergone conditioning to ensure the final product is in a suitable solid matrix, rendered inert and insoluble in water. This in turn is poured as a Hydrostatic fluid from the processing plant directly into the disposal container.

Direct pouring of encapsulated waste may be utilised to give volume reduction and enhanced packing efficiencies for waste that cannot be readily treated/disposed by other means.

Liquid components must be fixed in a suitable solid matrix prior to consigning waste to the LLW Repository in accordance with the Waste Acceptance Criteria (Reference: WSC-WAC-LOW).

Note: It is not acceptable to encapsulate containers for the sole purpose of dilution or shielding to comply with requirements of the Waste Acceptance Criteria or the carriage of dangerous goods regulations.

PART A – Encapsulation Authorisation

- A1 Prior to Direct pouring of Encapsulated waste in any container, approval from LLW Repository Ltd must be obtained using the Waste Consignment Variation Form (Reference: WSC-FOR-WCV).
- A2 All Waste Consignments must satisfy the criteria detailed in the Waste Acceptance criteria (Reference: WSC-WAC-LOW) and must be in accordance with LLW Repository Ltd's Waste Acceptance Procedure.

Note:- In all cases, approval is required prior to the waste being prepared or conditioned for loading into the container.

PART B – Direct Pour Requirements

- B1 Prior to direct pouring of the Encapsulated waste, the container must be positioned on a firm and level surface. This ensures even distribution of the encapsulant and safeguards the structural integrity of the container.
- B2 Prior to direct pouring of encapsulated waste, ensure a seal protection system is in place. This safeguards seal integrity and ensures cleanliness of the seal.

Note:- If the seal becomes contaminated with encapsulant, the seal must be replaced, due to the corrosive nature of encapsulant.

- B3 Fill the container with encapsulant to the required fill level



B3.1 **Maximum fill level** – the container can be filled with encapsulant up to the bottom of the vent port. The maximum height that encapsulant can be filled up to is detailed in table 1. Requests for filling encapsulant higher than the bottom of the vent port **MUST** be submitted to LLW Repository Ltd prior to filling the container

Container	Maximum fill level from grid lattice base (internal) (mm)	Maximum fill level from level ground (external) (mm)	Approximate Volume of Encapsulant (m ³)
TC01/TC09	921	1063	14.9
TC03	473	618	8.5

Table 1 Fill levels

Note:- The container maximum gross weight must not be exceeded

B3.2 **Minimum fill level-** a minimum of 2.5 cubic metres of encapsulant must be placed in the container, ensuring that the encapsulant covers the grid lattice structure of the container base. Care must be taken to ensure that the encapsulant is evenly distributed across the container base structure

Note:- The container base structure void is divided by the fork pockets to form three separate voids – all three voids must be equally filled.

B4 On completion of filling with encapsulant it must be left to set/cure for a period of seven days prior to transportation. Records must be retained to demonstrate compliance with this document.

For any queries please contact the LLW Repository Ltd Transport and Logistics Team www.transportandlogistics@llwrsite.com.