Full-scale pilot fully commissioned in 2020

A ROBUST, SIMPLE, AND VERSATILE IN SITU VITRIFICATION PROCESS FOR D&D AND REMEDIATION WASTE
A ROBUST, SIMPLE AND VERSATILE IN SITU VITRIFICATION PROCESS FOR D&D AND REMEDIATION WASTE

- Compact enough to be implemented in a decommissioned cell or close to the waste to be treated
- Low investment and operation costs
- Canister used as the melter—no pouring device, no corrosion issue
- Heated by a simple and robust resistance furnace
- Optimum homogeneity to the melted mixture
- Efficient temperature control and volatility management
- Highly efficient off gas treatment system
- Suitable for solid or liquid waste, including zeolites and sludge
- Flexible enough to accommodate uncertainties in waste composition
- Designed to produce a small amount of secondary waste

DEMENTELT IN-CAN VITRIFICATION PROCESS
An innovative solution for treating intermediate and high level waste arising from remediation and D&D.

DEMENTELT operates within a compact unit, ensuring:
- SIGNIFICANT VOLUME REDUCTION
- SAFE CONTAINMENT OF RADIONUCLIDES
- WASTE STABILIZATION

DEMENTELT has a modular design, fully adaptable to nuclear operators’ requirements

AN OPTIMIZED WASTE TREATMENT SOLUTION DESIGNED FOR A WIDE RANGE OF WASTE:

- ZEOLITES
- LIQUIDS
- DEPOSITS
- SOLIDS
- SLUDGE

The DEM&MELT project offers a full and integrated solution, ranging from scenario studies and matrix design definition to industrial implementation.
DEM&MELT design benefits from mature and proven technologies, from upstream functions to downstream functions.

Over 40 years of HA operation at La Hague and Marcoule

Most of the functions are already qualified and can be rated TRL9:

- Off-gas treatment system
- Can and final package management functions including handling, supply, evacuation, contamination control, and welding
- Remote-controlled operation and maintenance functions
- Glass formers feeding
- Auxiliary functions
The DEM&MELT project is a partnership between Orano, CEA, ECM technologies and Andra, supported by the French government’s future investment program: Programme d’Investissements d’Avenir.

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