IMMOBILIZATION OF LIQUID ORGANIC WASTE USING NEW MATRICES - WMO APPROACH

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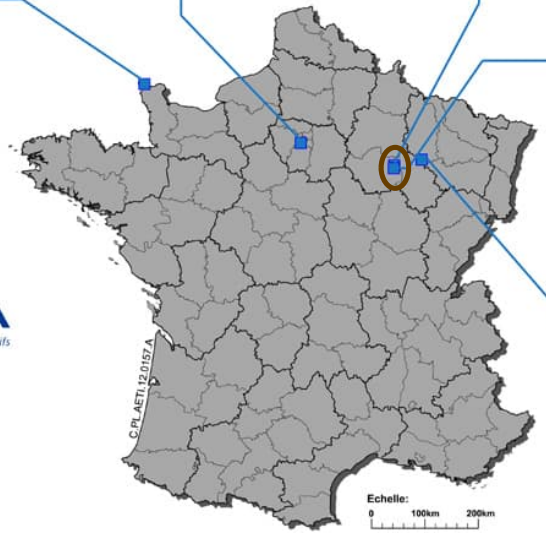
Andra – French Radioactive Waste Management Agency

Head office

CSA
LILW-SL waste repository

CSM
LILW-SL waste repository



VLLW waste repository

Meuse/Haute-Marne site (URL)

ANDRA
La maîtrise des déchets radioactifs

ANDRA

LILW-SL repository – CSA facilities

Surface repository Waste Acceptance Criteria

- Free Organic liquids and oil are not accepted
- No release from the conditioned/encapsulated waste
  - Based on biohazards and environmental impact

Current waste management routes

- Incineration is the common waste management solution
- Depending on the physico-chemical and radiological properties, incineration is not allowed

Alternative to handle this kind of waste

- One concerns the development by waste producers of « new (organic or mineral) matrices » such as geopolymers or polymer materials
  - Knowledge about the properties and behaviour of these materials is less mature
    - Short term behaviour not directly transposable to the long term

R&D needs:

- Understanding of long-term behaviour (physical and chemical behaviour)
  - Prediction over the time

LILW-SL repository – CSA facilities

Perspectives

- In the framework of Eurad II: two WP related to the conditioning and behaviour of new matrices
  - WP6 STREAM– Sustainable treatment and immobilisation of challenging waste
    - Andra participation as End-Users
  - WP7 L'OPERA Long-term performance of waste matrices
    - Andra participation as partner
      - Studies in collaboration with ORANO and PIMM laboratory about Nochar/oil durability and long-term prediction