

International Nuclear Atlantic Conference - XI ENAN -

Round Table 4

World Approach to Low and Intermediate Level Radwaste Disposal

November, 2013

R. Esteves

RBMN Project - Low and Intermediate Level Radwaste Repository

(National radwaste repository)

Main characteristics

- A near surface repository (low and intermediate level).
- 60,000 m³ capacity repository.
- **Comply** with the Brazilian needs of this century.
- It foresees the waste from operation and decommissioning of **seven NPP's**, and
- The waste from other radioactive activities.

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Main Buildings to be erected

- Administration building, information center and support center;
- R&D and environmental monitoring;
- Waste processing shed;
- Disposal facilities: disposal modules (LIL) and trench (VLL).

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Main project tasks done or being carried out currently

- National radioactive waste inventory, present and future;
- Public acceptance approach;
- Preliminary Conceptual Design;
- Eia/Rima – environmental license (**reference term**);
- Basic engineering (**reference term**);
- Technical assistance services support (**negotiation**).

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National radioactive waste inventory, present and future

Whole data collection already carried out; (2013)

Estimated values concluded; (2013)

Estimated capacity for this century needs: 60.000 m³. (2013)

Public acceptance approach

Areas selected according to the technical criteria; (2012-13)

Guidelines given by the Government; 2012-13)

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Preliminary Conceptual Design

Technical specifications of secondary buildings; (2013)

Detailed specifications of the processing building; (2013)

Detailed specifications of the deposition areas. (2013)

Eia/Rima – environmental license

Application for environmental licensing; (2013-14)

Proposal of term of reference to regulator; (2013)

Budget arrangement for EIA/Rima. (2014)

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Basic engineering (2014-15)

- Consolidation of the conceptual design (Reference repository);
- Term of reference for basic engineering (2014);
- Bidding for basic engineering. (2014-15)

Technical assistance services support.

- Technical support arrangements; (2013-14)
- Compatibility evaluation with the repository of reference; (2014)
- Technical support in the project implementation; (2014 onwards).

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Public acceptance approach

Public acceptance shall be a key point.

The ones who really cares are the ones close to the site.

Therefore, focus shall be on the local **STAKEHOLDERS.**

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HOW DO WE DEFINE STAKEHOLDERS?

A group or individual with an **interest** in or a **role** to play in a project, or a decision making process.

WHY?

- They may be **potentially affected** by a decision you will make.
- Decisions always result in a **trade off** of positive and negative issues.
- They may be a **local leadership**.

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Stakeholder Categories

- **Political and economic**
 - Government, politicians, customers, **local community**.
- **Environmental**
 - Environmental regulators, **local community**, NGO's.
- **Social**
 - Workforce, local suppliers, **local community**.
- **Technical**
 - Nuclear regulator, R&D institutions, universities.

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Stakeholders and their motivation

- Government authorities – spend funds reasonably
- Regulators – ensure legal requirements are met
- Neighbouring municipalities – prevent impacts on them
- Local politicians – ensure benefits for the local community
- Local communities – accrue benefits while minimising negative impacts
- Local leaders - satisfy the public they represent
- General public – health, sustainable development
- Universities – plan and deliver education
- R&D organisations – innovate and secure long term projects (funding)
- Tourist industry – establish and promote attractions
- Media – gather and disseminate information to “sell papers”

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Evolution in Stakeholder Dialogue

Different approaches

- Decide – Announce - Defend
 - Use technical and political criteria to make a decision.
- Stakeholder communication (previous)
 - Essentially a **one way** process.
- Stakeholder engagement (invitation)
 - **Two way** process.
- Active participation
 - Stakeholders may assist in the **decision making process** via attendance at **workshops**.

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Why undertake stakeholder engagement?

Do not assume you know what people care
or worry about. Asking them is the key to
opening up opportunities for partnerships
and dialogue.'

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Thank you
Obrigado

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Evolution in Stakeholder Dialogue Engagement mechanisms

- Direct actions
- Involvement – merely **keeping people informed**.
- Consultation – **two way** process.
- **Participation** – stakeholders take an active role in the decision making process.
- Side mechanisms
- Newsletters.
- Project Information Centres.
- Opinion Surveys.
- Look for focus Groups.
- Public Meetings policy.

REPOSITÓRIOS UTILIZADOS COMO EXEMPLO

1) L'Aube e Morvilliers, França



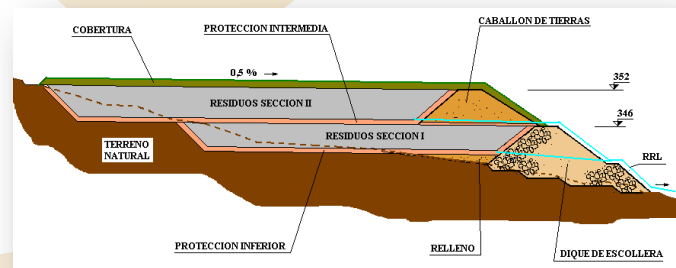
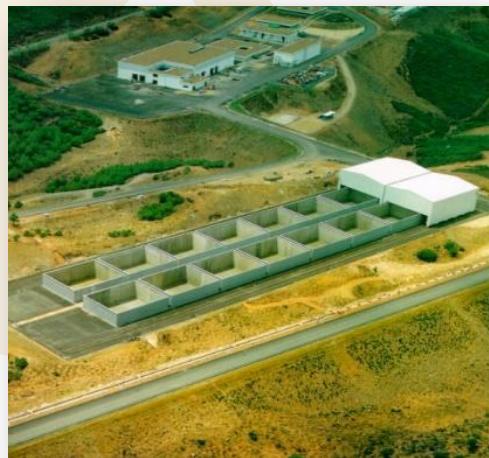
Repositório de L'Aube



Alvéolo de armazenamento no repositório de Morvilliers de muito baixo nível

2) El Cabril, Espanha

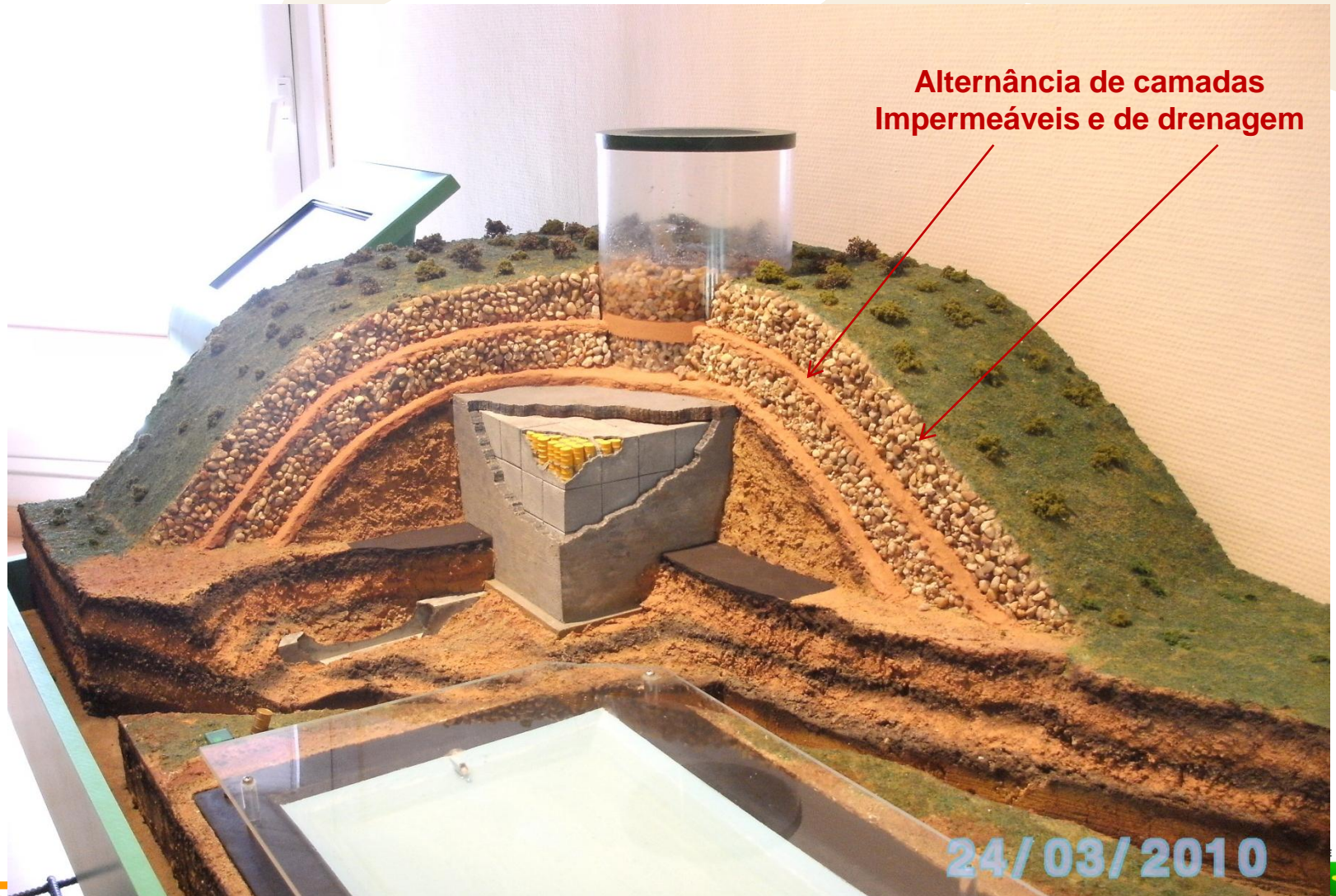
Células para rejeitos de baixo nível de radiação



Plataforma para rejeitos de muito baixo nível

REPOSITÓRIO

MAQUETE DO CONCEITO DE MULTIBARREIRAS



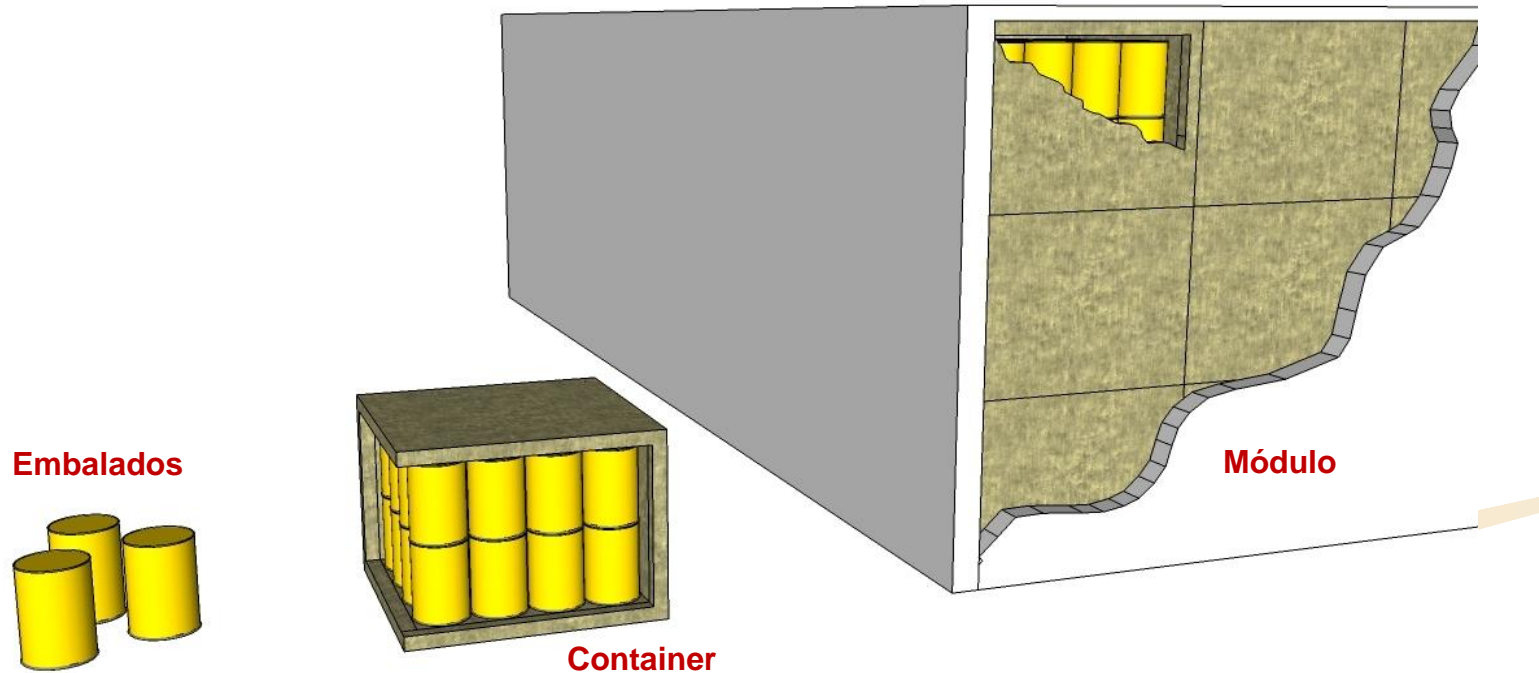
CNEN - Experiência Nacional em Disposição Final de Rejeitos

Sequência da operação de acondicionamento – Acidente do CS137



Projeto RBMN

Conceito de Armazenamento
Rejeitos de Média e Baixa



Projeto Abadia de Goiás

Depósito de 6.000m³

Depósito da CNEN em Abadia de Goiás
Dois módulos de armazenagem

