



GOBIERNO
DE ESPAÑA

MINISTERIO
DE AGRICULTURA, ALIMENTACIÓN
Y MEDIO AMBIENTE

SPANISH TECHNOLOGICAL DEVELOPMENTS FOR AN ENVIRONMENTALLY SOUND MANAGEMENT OF MERCURY. BACKGROUND

Ana García González (aggonzalez@magrama.es)

**Spanish Ministry of Agriculture, Food and Environmental
Affairs**

Almadén (Ciudad Real), December 2012

Index

1. Almadén, historic background
2. Establishment of the CTNDM
 - Goals and objectives
 - Activity lines
3. Global Mercury Partnership

Almaden Mines Background

- Third century BC: Beginning of Mercury mining operations
- XVIth century: Development of Almadén as industrial centre
- 1982: Mayasa (Minas de Almadén y Arrayanes SA) State Operator of the Almaden Mercury Mines

Almaden Mines Background

- **2001: End of mercury mining activities**
 - **2003: End of metallurgical activities**
 - **2011: End of commercial activity (Reg. 1102/2008/CE)**
1. **Deepest knowledge on mercury management**
 2. **Socio-economic impacts at local and regional levels**
 3. **Spanish commitment with the global mercury negotiations**



National Technological Centre for the Mercury Decontamination. (CTNDM)

Initiative
Funding



Created in 2009 following agreement signed among:

- Spanish Ministry of Agriculture, Food and Environmental Affairs
- Regional Government of Castilla la Mancha
- MAYASA (State operator of the Almadén Mercury Mine)

National Technological Centre for the Mercury Decontamination. Main Goal

**Developing technologies for a
comprehensive, safe and
environmentally sound
management of mercury**

National Technological Centre for the Mercury Decontamination. Objectives

- **Promoting research and developments on:**
 - Technologies for environmentally sound handling, transport, management and storage of mercury and mercury containing wastes
 - Technologies for remediation of mercury contaminated sites
- **Developing activities with other countries:**
 - Experts training and awareness raising
 - Technical assistance and technology transfer

Initial works: MERSADE Project

MERSADE: MErcury **SA**fe **D**eposit: 2006-2009

Co-funded by EU Commission through
the EU LIFE+ Program and MAYASA



Developed in collaboration with **National Centre of Metallurgical Research (CENIM)**, integrated in the **Spanish National Research Council (CSIC)**



Activity line: container for temporary storage



Almadén, December 2012

Activity line: stabilization/micro-encapsulation

physical and chemical transformation of metallic mercury and mercury containing wastes into a much safer final product



Activity line: recovery of contaminated sites



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UNEP Global Mercury Partnership

- **September 2011: Spain joined the UNEP Global Mercury Partnership (GMP).**

Represented by the Ministry and the CTNDM

- **November 2011, GMP's meeting: Spain and Uruguay designated as co-leads of the Supply and Storage Partnership Area**

UNEP Global Mercury Partnership

Supply and Storage Partnership Area

- Goal: Minimization/elimination of Hg supply
- Activities developed:
 - ✓ **Phase out of primary mercury mining activities**
 - ✓ **Mercury storage projects**
 - ✓ **Workshops on mercury management (Brasilia, May 2012, and Almadén, December 2012)**

**THANK YOU
FOR YOUR ATTENTION**



aggonzalez@magrama.es