



PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA



MINISTRY OF LAND PLANNING, ENVIRONMENT AND THE CITY



## STATE OF PLAY OF MERCURY MINES SITES IN ALGERIA

### Mercury decontamination of the Mercurial Complex of Ismail (ENOF) of Azzaba .Skikda



Regional Activity Centre  
for Cleaner Production



Workshop on Mercury Management and Decontamination  
Almadén, SPAIN, 12th-13th December 2012

## ***Law 01-19 of December 12, 2001 relating to management, the control and the waste disposal***

In application of the *law 01-19 of December 12, 2001 relating to management, the control and the waste disposal* and in particular the provisions of the chapter II which institutes the National Plan of Management of Special Wastes (PNAGDES; revised every ten years) which was elaborate on the basis of national inventory of special wastes.

This plan involves the following elements:

- The inventory of the quantities of special wastes, particularly those presenting a dangerous character, produced annually on the own territory.
- The total volume of wastes in provisional stock and final stock, by classifying them by categories of waste.
- The choice of the options concerning the modes of treatment for the various categories of waste.
- The emplacement of the sites of the existing treatment installations.

Requirements in processing capacity for waste, by taking into account the installed capacities, the priorities adopted for the creation of new installations as well as the economic and financial means necessary to their implementation.



## The National Inventory of Special Wastes (Cadastre National de Déchets Spéciaux: CNDS)

The National Inventory of Special Wastes (Cadastre National de Déchets Spéciaux: CNDS) allow possible to quantify generated, stored, valorized or treated wastes, to identify the generators of special waste, to establish the geographical distribution of special waste by Wilaya and area and to determine the hot spots of which mercury forms part.



The Mercurial Complex of Azzaba, located in North-East of ALGERIA at the Wilaya of Skikda, was an area of very active mining, in particular the deposit of mercury of Ismail (closed since 2005). This site accounts for 1 million tons of mercurial's waste.

# The National Inventory of Special Wastes (Cadastre National de Déchets Spéciaux: CNDS)





## ***Decontamination and treatment of mercury wastes in the site of (ENOF Azzaba.Skikda)***

The Ministry of Land Planning, Environment and the City, launched (during the 1st half-year of 2012) a National and International Restricted Invitation to Tenders about ***“Decontamination and treatment of mercury wastes in the site of (ENOF Azzaba) (treatment and confinement of mercury rounded vases) “.***

The operation of decontamination comprises a phase of already finalized study as well as the 1st phase of work which is in the course of development (*treatment and confinement of mercury rounded vases*).



## Summary of the phase of study

### 1- Components of the phase of study

- Study carrying quantitative and qualitative characterization of the mercury chemical form.
- Appraise production stations, administrative and technical buildings.
- Study of final characterization accompanied with cartographic support (map of vulnerability).
- Identification of waste treatment modes and ways of the polluted sites (according to the chemical form of mercury).



## Summary of the phase of study

### 2 - Study reports:

**Report N°1:** Preliminary investigations carried in the site of Ismail.

**Report N°2:** Identification of the mercury chemical forms.

**Report N°3:** Census of the mercurially pollution of the Mercurial Complex site of Ismail.

**Report N°4:** Identification of the treatment processes of materials, soil, water, installations, buildings and vases.

**Report N°5:** Costing of the decontamination of the Mercurial Complex of Ismail. Selection of the adapted treatment processes.

**Report N°6:** Intervention plan of decontamination of the Mercurial Complex of Ismail.



## Summary of the phase of study

**3-** Study results: the phases of the study allow proceeding to:

- **Identification of the degree of water pollution** the (careers, dams, basins and wades), buildings, installations, vases, soil and materials.
- **The classification of the site in three zones** according to the content and the mercury chemical form starting from the previous identification.
- **Identification of the criteria of selection**, affected of stabilizer coefficients for **the most adapted treatment processes** (thermal desorption, chemical scrubbing and stabilization / solidification).

**4 - Phase of work: (1 million tons mercurial's waste)**

Currently the 1st phase of work of elimination of **2100 vases of mercury is in development.**





**THANK YOU FOR YOUR ATTENTION**



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for Cleaner Production Barcelona**



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