

# Preparation of the report on *Progress and prospects of research on the management of radioactive wastes*

## PUBLIC HEARINGS OPEN TO THE PRESS *organised by*



*Christian BATAILLE,  
Member of Parliament,  
Rapporteur*



*Claude BIRRAUX,  
Member of Parliament,  
Rapporteur*

Thursday 20 January 2005  
9am – 6pm

Thursday 27 January 2005  
9am – 6pm

Thursday 3 February 2005  
9am – 6pm

*Assemblée nationale - Salle Lamartine  
101 rue de l'Université Paris 7<sup>ème</sup> - France*

RAPPORT  
*Les télécommunications  
à haut débit  
au service du  
système de santé*  
PAR MM. Jean DIONIS DU SÉJOUR,  
Député et  
M. Jean-Claude ETIENNE, Sénateur

OFFICE PARLEMENTAIRE D'ÉVALUATION  
DES CHOIX SCIENTIFIQUES ET TECHNOLOGIQUES  
N° 1686  
ASSEMBLÉE  
NATIONALE  
N° 370  
SÉNAT

RAPPORT  
*Nanosciences et  
progrès médical*  
PAR MM.  
Jean-Louis LORRAIN et  
Daniel RAOUI, Sénateurs

OFFICE PARLEMENTAIRE D'ÉVALUATION  
DES CHOIX SCIENTIFIQUES ET TECHNOLOGIQUES  
N° 1588  
ASSEMBLÉE  
NATIONALE  
N° 293  
SÉNAT

RAPPORT  
*Science et technologie  
au service de la qualité  
et de la sûreté des  
aliments*  
PAR M. Claude SAUNIER,  
Sénateur

OFFICE PARLEMENTAIRE D'ÉVALUATION  
DES CHOIX SCIENTIFIQUES ET TECHNOLOGIQUES  
N° 1543  
ASSEMBLÉE  
NATIONALE  
N° 267  
SÉNAT

RAPPORT  
*L'épidémie de  
légionellose  
de novembre 2003*  
PAR M. Claude BIRRAUX,  
Député

OFFICE PARLEMENTAIRE D'ÉVALUATION  
DES CHOIX SCIENTIFIQUES ET TECHNOLOGIQUES  
N° 1503  
ASSEMBLÉE  
NATIONALE  
N° 243  
SÉNAT

RAPPORT  
*Les conséquences des  
modes d'appropriation  
du vivant*  
PAR M. Alain CLAEIS, Député

OFFICE PARLEMENTAIRE D'ÉVALUATION  
DES CHOIX SCIENTIFIQUES ET TECHNOLOGIQUES  
N° 1487  
ASSEMBLÉE  
NATIONALE  
N° 234  
SÉNAT

# I.- Thursday 20 January 2005 – 9am – 6pm

## Separation and transmutation

### (Strand 1 of the Act of 30 December 1991)

**▪ Opening speeches: (subject to change)**

- Mr Jean-Louis DEBRÉ, President of the National Assembly
- Mr Henri REVOL, Chairman of the Parliamentary Office for Science and Technology Assessment (OPECST)
- Mr Claude BIRRAUX, First Vice-Chairman of OPECST, Rapporteur

**▪ Main debate topics:**

- Research on separation:
  - \* Results in France and in the United States: aqueous separation and pyrometallurgy
  - \* Feasibility: pilot workshop, demonstrator, financial estimates
  - \* The case of MOX
- Research on transmutation:
  - \* Experiments conducted on the Phenix reactor and arrangements for their continuation
  - \* The latest on Generation IV:
    - Progress of international cooperation
    - Expected performances of the 6 types of reactors as regards the reduction of waste
    - Possibilities of existing waste reprocessing
  - \* Accelerator driven systems:
    - Critical points regarding theory and engineering
    - Respective advantages and disadvantages of ADS and rapid neutron reactors
  - \* Feasibility of transmutation:
    - Start-up dates and costs of pilot reactors and of industrial demonstrators
    - Forecasts in terms of the number of dedicated systems with respect to electricity-generating reactors
    - Cost of transmutation
  - \* Separation – transmutation, the only management method of the back end of the cycle or part of a multiple strategy ?

**▪ National introductory speeches:**

- AREVA
- CEA
- CNRS
- Commission nationale d'évaluation (CNE – National Assessment Board)
- DGSNR (Safety Authority)
- EDF

**▪ Foreign introductory speeches: (subject to change)**

- DOE: ANL (Argonne National Laboratory), LANL (Los Alamos National Laboratory), ORNL (Oak Ridge National Laboratory)
- MYRRHA team (CEN-Mol)
- TRAD team (Mr Rubbia - Italy)

**▪ Participants' viewpoints: (subject to change)**

- Parliamentarians—Deputies and Senators—of the concerned regions
- The chairmen of General Councils and of Regional Councils
- Trade Unions
- Environmental protection associations
- Consumer associations

**▪ Speech in conclusions: (subject to change)**



## II.- Thursday 27 January 2005 – 9am – 6pm Reversible or irreversible repository in deep geological formations (Strand 2 of the Act of 30 December 1991)

### ▪ *Opening speeches: (subject to change)*

- Mr Hubert CURIEN, former Minister for Research

### ▪ *Main topics of the scientific and technical debate:*

- Concept of multiple barriers
- Safety horizon: 10,000 years or 100,000 years
- Geological data: seismology and circulation of underground water
- Physico-chemical data: corrosion and dissemination
- Respective roles of underground laboratories and drillings
- Advantages, disadvantages and time limits of reversibility with respect to irreversibility

### ▪ *Foreign projects and achievements: (subject to change)*

- Finnish and Swedish concepts
- The Carlsbad and Yucca Mountain centres
- German achievements: Gorleben and Konrad

### ▪ *National introductory speeches:*

- ANDRA
- BRGM
- CNRS
- Commission nationale d'évaluation (CNE – National Assessment Board)
- DGSNR
- IRSN

### ▪ *Foreign introductory speeches: (subject to change)*

- Posiva (Finland)
- SKI (Sweden)
- DOE (United States)
- LLNL (Lawrence Livermore National Laboratory) – United States
- NRC (safety aims for Carlsbad and Yucca Mountain)

### ▪ *Participants' viewpoints:*

- Parliamentarians—Deputies and Senators— of the concerned regions
- The chairmen of General Councils and of Regional Councils
- The office of the local information and follow-up committee of the underground laboratory of Meuse/Haute Marne
- Trade Unions
- Environmental protection associations
- Consumer associations

### ▪ *Speech in conclusions: (subject to change)*

- Minister Delegate for Industry



### III.- Thursday 3 February 2005 – 9am – 6pm Long-term packaging and storage (Strand 3 of the Act of 30 December 1991)

**▪ Opening speech: (subject to change)**

- Mr André-Claude LACOSTE, Director-General of nuclear safety and radioprotection

**▪ Main topics of the scientific and technical debate:**

- Present packagings and envisaged improvements
- Advantages and disadvantages of storage with respect to a repository development
- The various storage concepts: surface, sub-surface
- Interest of sub-surface
- The multiple use canister
- Life duration of storage facilities
- Storage of fuels non-reprocessed for the time being, and particularly of MOX
- Lessons to be learnt from surface repository facilities for low- or medium-activity wastes

**▪ National introductory speeches:**

- ANDRA
- CEA
- COGEMA (France and United States)
- Commission nationale d'évaluation (CNE – National Assessment Board)
- EDF

**▪ Foreign introductory speeches: (subject to change)**

- SKI (packaging of irradiated fuels, sub-surface storage)
- TVO and Fortum (Finland): sub-surface repository of low- or medium-activity wastes
- Zwilag (Switzerland: long-term storage)
- DOE: anticorrosion systems

**▪ Participants' viewpoints:**

- Parliamentarians—Deputies and Senators— of the concerned regions
- The chairmen of General Councils and of Regional Councils
- Trade unions
- Environmental protection associations
- Consumer associations

**▪ Speech in conclusion: (subject to change)**

- Minister for Ecology and Sustainable Development

**▪ Recapitulative speech:**

- Mr Christian BATAILLE, Rapporteur at the Parliamentary Office for Science and Technology Assessment

