Decommissioning Challenges: An Industrial Reality?

From September 28 To October 2, 2008
Palais des Papes
Avignon, France

Sponsored by
ANS • ENS
IAEA • OECD/NEA
Organized by SFEN

Official Programme
# Official Programme

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Decommissioning presents a lot of specific issues (progressive mechanical, electrical and safety systems, construction and operation of new facilities, complex operations which often take place for the first time and do not have the benefit of extensive feedback,...) which require special attention, a thorough and careful approach, in-depth risk analysis, specific training and appropriate supervision of the work or operating activities.

These specific issues are obviously what create the interest in this exciting and demanding work of decommissioning nuclear facilities, the success of which contributes to demonstrate that nuclear power, right in worldwide relaunching, has a place of its own in sustainable development.

Five years after the previous conference on this item, decommissioning certainly still presents challenges and also becomes an industrial reality.

Bernard Salha
President of the conference

Welcome in the prestigious Palace of the Popes listed among the world patrimony by the UNESCO in this historical city of Avignon!

This well-known International Decommissioning Conference, organized every five years, is hosted by the French Nuclear Energy Society (SFEN) and sponsored by many national and international organizations. Numerous delegates - regulatory bodies and safety authorities, project managers, academics, scientists, engineers, private and public stakeholders and politicians - coming from the five continents will participate in the discussions.

In a context of strong renewal of interest and renaissance for nuclear energy due to growing scarcity of fossil materials, huge climbing oil prices and risks associated with climate change, the SFEN hopes to facilitate exchanges of information and sharing of solutions for the mutual benefit of all stakeholders in this decommissioning and dismantling area.

Avignon, such a nice location for meeting at the end of summer, is close to the two main nuclear research centers of Cadarache and Marcoule and we hope you will have time to enjoy some technical visits organized at the end of this Conference. Wishing you a pleasant and fruitful meeting,

Noël Camarcat
General Chair of the Conference
Cleaning and dismantling work for shutdown facilities is now recognized as an essential activity to close the life cycle of nuclear facilities, while taking into account sustainable development objectives, as well as economical and industrial commitments. Numerous reports, seminars and meetings have been performed under the umbrella of national and international bodies such as the EC, the OECD/NEA and the IAEA. The importance of this joint activity is due to a number of reasons, among them the number of facilities arriving at the end of their lifetime, the diversity of projects and solutions, and the necessity to provide stakeholders with technically validated information.

All these themes will be developed along these three days, which will provide a unique opportunity to share worldwide experience concerning technical, environmental, regulatory, financial and industrial aspects of this activity, so to improve our future practices and efficiency.

I would like to thank the organizers, their support and the sponsoring of ANS, IAEA and OECD/NEA for organizing this fourth international conference in Avignon, and I am quite confident that your active participation will allow this conference to meet its objectives in terms of scientific, technical and communication aspects.

Catherine Lecomte
President of the Conference

I would like, in the name of the International Programme Committee, to warmly thank all speakers, exhibitors, participants for their involvements in this fourth edition of the Avignon International Decommissioning conference.

This international conference is one of the forums for the discussion of the regulatory, scientific, technical and social aspects of decontamination, decommissioning, waste management and reutilization.

We wish you a rewarding and fruitful conference which will include commercial, government and international projects updates as well as present technology, regulatory developments, project management in the areas of decommissioning, waste management, site and legacy management and will give you answers on:

What we are doing,
How we are doing it,
What happen next.

We do hope that this meeting will contribute to build a comprehensive network between all decommissioning stakeholders and wish you a lovely stay in Avignon a city full of history in the sunny south of France.

Jean-Guy Nokhamzon
Technical Programme Chair of the conference
Presidents of the conference

Catherine Lecomte, CEA (France) - Bernard Salha, EDF (France)

General Chairs

Noël Camarcat, Bernard Jolly, Bertrand Vieillard-Baron, SFEN (France)

Technical Programme Chair

Jean-Guy Nokhamzon, CEA (France)

International Programme Committee

Michel Dutzer, ANDRA (France)  Axel Bäker, EWN GmbH (Germany)
Dorothée Conte, ASN (France)  Jean-Marie Potier, IAEA
Guy Decobert, AREVA (France)  Tom Laguardia, LA GUARDIA (USA)
Robert Walthery, BELGOPROCESS (Belgium)  Sue Aggarwal, NMNT International (USA)
Steve Morgan, BNG (UK)  Guy Collard, SCK-CEN (Belgium)
Marc Butez, CEA (France)  Janet Wilson, NDA (UK)
Jean-Louis Garcia, CEA (France)  Hans Riotte, OECD/NEA
Jean-Pierre Rozain, CEA (France)  Joseph E. Carignan, PROJECT SERVICES GROUP (USA)
Paloma Diaz Arocas, CIEMAT (Spain)  Jan Carlsson, SKB (Sweden)
Régis Dalmas, EDF (France)  Gustofson Lennart, STUDSVIK (Sweden)
Alexandro Rodriguez, ENRESA (Spain)  Colin Bayliss, UKAEA (UK)

French Technical Section of SFEN «Decommissioning and Waste Management» Members

Stéphane Bargues, Jean-Luc Fournie, Guy Decobert, Hervé Masson, Bernard Robin, AREVA  •  Michel Dutzer, ANDRA  •  Bernard Wiesenfeld, BWM CONSULTANTS  •  Guy Brunel, Annick Pitiot, Jean-Guy Nokhamzon, CEA  •  Régis Dalmas, Jacques Roux, EDF CIDEN  •  Pierre Moszkowicz, INSALYON  •  Jean-Jacques Doublecourt, NUVIA  •  Dominique Declercq, SPIE NUCLEAIRE  •  Jean-Pierre Pérotin (retired)  •
With manufacturing facilities in 43 countries and a sales network in more than 100, AREVA offers customers reliable technological solutions for CO₂-free power generation and electricity transmission and distribution. We are the world leader in nuclear power and the only company to cover all industrial activities in this field.

Our 65,000 employees are committed to continuous improvement on a daily basis, making sustainable development the focal point of the group’s industrial strategy.

AREVA’s businesses help meet the 21st century’s greatest challenges: making energy available to all, protecting the planet, and acting responsibly towards future generations.

**Visit the Exhibition Area: A Meeting Space for Everyone!**

- Open from Monday, September 29 to Wednesday, October 1, 2008
- Posters are displayed around booths and welcome areas as well as Internet and coffee break zones.

In 2008, DAHER grouped together all French activities of service in the nuclear sector within a new structure: DAHER NCS.

The site of Pierrelatte (Drôme), situated in Valley of the Rhône, coordinate all the activities of DAHER NCS.

Taking place on the whole life cycle of the fuel, DAHER NCS proposes a wide range of services for the nuclear installations:

- Engineering of services
- Transport of nuclear waste and contaminated tooling
- Sale and maintenance of containers for the transport of Low level waste (TFA) and moderate level waste (FA & MA).
- Logistics of waste and preservation in operational conditions of transport containers dedicated to the nuclear industry, managed by the logistic plant of Epothémont (Aube) Decommissioning yards Forwarding of transport and transport of materials nuclear powers, customs engineering for NCS (Germany).

**Stand no. 3**

**DAHER NCS**

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Patrizio GOBBO
Nuclear Operation Manager
22 rue du Pont Noir - F-26700 PIERRELATTE
Tel : 33 (0)4 75 98 06 13
Fax : 33 (0)4 75 98 06 44
p.gobbo@daher.com
The Posters Session (P) and the Welcome Reception are held in the Exhibition Area on Monday 29, September, 2008 - 18:00 p.m. to 20:00 p.m.

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STÄUBLI are the specialist manufacturer of high quality quick release couplings for the connection of energies, which are perfectly adapted to the nuclear applications:

- Compressed air.
- « Breathing quality air » (supply to masks, half suits, ventilated suits; quick connection of breathing air lines...).
- Remote handling operations with master slave manipulators in contaminated cells.
- Radioactive fluids clean and non-spill sampling.
- Filling, airing out and rinsing on the liquids waste tanks.
- Hydraulic supply of specialised tools and robots.
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- Connection of glove boxes extinction circuits.

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**Tel.**: +33(0)4.50.65.60.60  
**Fax.**: +33(0)4.50.65.60.69

**E-mail**: connectors.sales@staubli.com
“Wine and Cheese” Party

Tuesday, September 30, 2008
12:30 P.M. to 14:00 P.M. - Palais des Papes, Exhibition Area

Offered by

Eiffage TP - Nukem Technologies - Onet Technologies

Posters Session and Welcome Reception

Monday, September 29, 2008
18:00 P.M. to 20:00 P.M. - Palais des Papes, Exhibition Area

Cocktail offered by Westinghouse Electric Company
Monday, September 29, 2008

8:30 A.M. - 9:00 A.M. - OPENING SESSION

- Noël Camarcat / Bernard Jolly, SFEN, France
- Serge Klaeyle, EDF, France
- Catherine Lecomte, CEA, France

9:00 A.M. - 13:15 P.M.

1.1 9:00 A.M. - 11:00 A.M.

Chairs: Regis Dalmas, EDF, France
Ute Blohm-Hieber, European Commission

- IAEA decommissioning initiatives: strategy and programme, P. Dinner, M. Laruai, J.M. Potier, IAEA
- The work and perspective of the OECD/NEA in decommissioning, P. O’Sullivan, C. Pescatore, OECD Nuclear Energy Agency
- French decommissioning strategy and programme:
  - EDF experience gained from the implementation of the decommissioning programme, S. Klaeyle, R. Dalmas, M. Davoust, EDF CIDEN, France
  - French Atomic Energy Commission decommissioning feedback experience and lessons learned, Catherine Lecomte, Diane De Prunelle, Michele Taliec, Jean-pierre Rozain, Jean-guy Nokhamzon, French Atomic Energy Commission, France
  - AREVA decommissioning strategy and programme, A. Gay, AREVA NC, France

10:40 a.m.
Decommissioning waste disposal in France - The issues, M.C. Dupuis, ANDRA, France

11:00 A.M. - 11:30 A.M.
Coffee Break

1.2 11:30 A.M. - 13:15 P.M.

Chairs: Gerard Ouzounian, ANDRA, France
Serge Klaeyle, EDF, France

- Decommissioning projects at Sellafield, H. Moore, E. Hutton, P. Mort, Sellafield Ltd, UK
- Update of the Spanish decommissioning programme, A. Rodriguez, Enresa, Spain
- The decommissioning, redevelopment and reuse of Nescsa site, E. Fourie, A. Visagie, Nescsa, South Africa
- Involvement of ANDRAD in decommissioning of nuclear facilities in Romania, M. Dinca, Andrad, Romania
- Decommissioning in the EU: the European Commission’s view point, U. Blohm-Hieber, T. Kirchner, European Commission

13:15 P.M. - 14:15 P.M.

Lunch Period Break

14:15 P.M. - 20:00 P.M.

1.3 14:15 P.M. - 16:00 P.M.

Chairs: Catherine Lecomte, CEA, France
Paul Dinner, IAEA

- Planning for Armenian NPP decommissioning, K. Ghazaryan, V. Atovyan, K. Pyuskyulyan, Armenian NPP, Armenia
- Decommissioning of nuclear facilities in the Nuclear Research Institute Rez plc, J. Podlaha, Nuclear Research Institute Rez plc, Czech Republic
- Roadmap for implementing light water reactor decommissioning in Japan, Y. Horikawa, the Kansai Electric Power Co. Inc, K. Ishigure, Japan Radiosotope Association, T. Ishikura, Nupec, Japan
- US DOE EM Progress and challenges in environmental remediation and decommissioning, T. LaGuardia, Laguardia & Associates, USA

16:00 P.M. - 16:30 P.M.
Coffee Break

16:30 P.M. - 18:00 P.M.

Chairs: Dorothee Conte, ASN, France
Juan Luis Revilla, CSN, Spain

- Decommissioning safety assessment - from methodology to use of results in decision making, B. Batandjieva, IAEA - K. Percival, UK - P. Manson, Sellafield Ltd, UK - A. Joubert, NNR, South Africa - J. Kaulard, GRS, Germany - R. Ferc, Canada - S. Thierfeldt, Brenk, Germany
- Regulatory challenges arising from the transition from operation to decommissioning, P. O’ Sullivan, C. Pescatore, OECD Nuclear Energy Agency
- Decommissioning of nuclear facilities: last regulatory evolutions in France, D. Conte, O. Lareyne, ASN, France

18:00 P.M. - 20:00 P.M.

Poster Session & Welcome Reception
“COCKTAIL” offered by WESTINGHOUSE ELECTRIC COMPANY

Exhibition Area
Decommissioning Challenges: An Industrial Reality?

Westinghouse Electric Company provides comprehensive integrated services and solutions to the DnD and Waste Management industry. We have acquired extensive experience in the dismantling of nuclear installations from uranium mill plants to nuclear power plants. Westinghouse also provides state-of-the-art solutions for the treatment and handling of radioactive waste. Westinghouse offers proven solutions for the storage of low, intermediate and high level waste.

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Come and visit us on our booth for a demonstration
Tuesday, September 30, 2008

**Plenary Sessions 3.1 - 3.2 - 3.3 - 3.4 Conclave Room - A**

### 8:30 A.M. - 12:30 P.M.

**3.1**

**08:30 A.M. - 10:30 A.M.**  
*Chairs: Arnaud Gay, AREVA NC, France*

- **8:30 a.m.** (ref 004)  
  Windscale Piles - Decommissioning update, A.H. Milburn, I.E. AMI Chem., Sellafield Ltd, UK

- **8:50 a.m.** (ref 014)  
  The dismantling of the Tokai 1 steam raising using remotely controlled techniques, J. Blight, Cybernetix, France - T. Satho, Japan Power Corporation, Japan - M. Sawamoto, Sojitz, Japan

- **9:10 a.m.** (ref 038)  
  PWR internals segmentation and packaging experience in the U.S., P.J. Kreitman, Westinghouse Electric Company, USA

- **9:30 a.m.** (ref 045)  
  The dismantling of the RAPSODIE fast reactor: In-vessel operations and residual sodium treatments, X. Berson, J. Godlewsky, J.M. Goubot, J. Verdelli, CEA, France

### 14:00 P.M. - 18:30 P.M.

**3.3**

**14:00 P.M. - 16:00 P.M.**  
*Chairs: Claudio Pescatore, OECD/NEA Paul Mort, Sellafieldsite Ltd, UK*

- **14:00 p.m.** (ref 006)  
  Progress and experiences from the decommissioning of the eurehocom production plant, R. Gillis, P. Lewandowski, B. Ooms, N Reusen, W. Van Laer, R. Walthery, Belgoprocess, Belgium

- **14:20 p.m.** (ref 015)  
  Decommissioning scenario and waste management, M. Asou, D. Fulleringer, CEA, France

- **14:40 p.m.** (ref 039)  
  Enriched uranium workshops towards decommissioning Cadarache Nuclear Research Centre, P. Lisbonne, D. Seisson, CEA, France

### 3.2

**11:00 A.M. - 12:30 P.M.**  
*Chairs: Regis Dalmas, EDF, France Guy Collard, SCK-CEN, Belgium*

- **11:00 a.m.** (ref 038)  
  PWR internals segmentation and packaging experience in the U.S., P.J. Kreitman, Westinghouse Electric Company, USA

- **11:20 a.m.** (ref 046)  
  The Swedish concept for decommissioning of nuclear power plants and management of decommissioning waste, J. Carlsson, SKB, Sweden

- **11:40 a.m.** (ref 078)  
  Project WAGR: The UK demonstration project for power reactor decommissioning - a review of the tools used to dismantle the reactor core, T. Benest, UKAEA, UK

- **12:00 a.m.** (ref 085)  
  Dismantling of Bugey UNGG reactor, Ph. Lefevre, F. Tardy, EDF CIDEN, France - A. Willis, BNG PS, UK

### 3.4

**14:00 P.M. - 16:00 P.M.**  
*Chairs: Hakan Stermer, EWN, Germany Juan Luis Santiago, ENRESA, Spain*

- **16:30 p.m.** (ref 040)  
  Delicensing of HARMONIE Reactor Cadarache Nuclear Research Centre, E. Gouhier, CEA, France

### 15:00 p.m. - 18:30 p.m.

**Coffee Break Exhibition Area**

**16:00 P.M. - 18:30 P.M.**  
*Chairs: Hakan Stermer, EWN, Germany Juan Luis Santiago, ENRESA, Spain*

- **16:30 p.m.** (ref 040)  
  Delicensing of HARMONIE Reactor Cadarache Nuclear Research Centre, E. Gouhier, CEA, France

- **16:50 p.m.** (ref 043)  
  Waste management studies in view of nuclear reactor decommissioning: feedback from research reactor at University of Strasbourg, E. Binet, V. Bildeanu, G. Cordero, L. Coudouneau, F. Damoy, J.M. Dumas, D. Ridikas, A. Van Lauwe, CEA, France - J.C. Sens, University of Strasbourg, France

### 17:00 p.m. - 19:00 p.m.

**Coffee Break Exhibition Area**

- **17:10 p.m.** (ref 052)  

- **17:30 p.m.** (ref 072)  
  Decommissioning experience at UKAEA Winfrith, K. Miller, Nuvia Ltd, UK

### 19:00 P.M. - 23:00 P.M.

**Conference Dinner**  
“Grand Tinel” Room of the Pope’s Palace

- **20:00 P.M. - 23:00 P.M.**  
  “Grand Tinel” Room of the Pope’s Palace

### 19:00 p.m. - 23:00 p.m.

- **20:00 p.m.** (ref 094)  
  The development and application of a prioritisation methodology for the decommissioning of the Iraq former nuclear complex, A. Jarjies, MoST, Iraq - M. Abbas, Consultant to MoST, Iraq - H.M. Fernandes, R. Coates, IAEA

- **18:10 p.m.** (ref 010)  
  Dismantling of nuclear submarines, M. Queau, DCN, France
### Parallel Sessions / 4.1 Room A - 4.2 Room B - 4.3 Room C

#### 8:30 A.M. - 10:30 A.M.

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<td><strong>Techniques &amp; Process Improvements (Radiological Characterization)</strong></td>
<td><strong>Techniques &amp; Process Improvements (Decontamination)</strong></td>
<td><strong>Techniques &amp; Process Improvements (Cutting, Remote Handling, Simulation...)</strong></td>
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<td><strong>Chair:</strong> Lucien Pillette-Cousin, AREVA TA, France</td>
<td><strong>Chair:</strong> Viktor Volkov, RRC Kurchatov Institute, Russian Federation</td>
<td><strong>Chair:</strong> Manuel Rodriguez, Enresa, Spain</td>
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<td><strong>8:30 a.m.</strong> (ref 073)</td>
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<td>Geostatistical sampling optimization of contaminated premises, N. Jeannée, Geovariances, France - F. Lamadie, B. Iooss, CEA, France</td>
<td>New decontamination processes for liquid effluents and solid materials, S. Faure, CEA, France</td>
<td>Decommissioning and cutting methods in the nuclear field, E. Bensoussan, Protem SAS, France</td>
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<td><strong>8:50 a.m.</strong> (ref 027)</td>
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<td>Vandello 1 NPP partial site release after level 2 decommissioning using marssim, G. Mednilla, M. Peinador, M. Sanchez, INITEC Westinghouse, Spain - M.T. Lopez, Enresa, Spain</td>
<td>Chemical decontamination for decommissioning -The Jose’ Cabrera NPP, F. Madrid, Enresa, Spain - A. Holgado, Westinghouse INITEC Nuclear, Spain - C. Pomar, UFG - T. Gammon, Westinghouse Electric Company, USA - D. Bradbury, BradTec Technologies Ltd.</td>
<td>Remotely controlled cutting techniques in the field of nuclear decommissioning - overview of effectively applied thermal and non-thermal cutting methods, H. Bienia, B. Klotz, Nukem Technologies GmbH, Germany</td>
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<td><strong>9:30 a.m.</strong> (ref 036)</td>
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<td>Incorporating design for decommissioning into the layout of nuclear facilities, B. Collum, A. Druart, VT Nuclear Services, UK</td>
<td>Alternative strategies to reduce cost and waste volume in HEPA filtration using metallic filter media, C. Chadwick, Microfiltex, UK</td>
<td>A virtual reality simulation environment to optimize intervention scenario in nuclear facilities, T. Ferey, J.B. Thevenon, Eurware, France - C. Chabal, L. Chodorge, Ph. Desbat, CEA, France</td>
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<td><strong>9:50 a.m.</strong> (ref 003)</td>
<td><strong>9:50 a.m.</strong> (ref 036)</td>
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<td>An evolutionary approach for the decommissioning of the glove boxes in the Belgonucleaire Dessel Plant, J.M. Cuchet, A. Vanderheynst, Belgonucleaire, Belgium</td>
<td>MAESTRO: A telerobotic system for decommissioning of nuclear plants, Ph. Desbats, J.M. Idasiak, CEA, France</td>
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<td><strong>10:10 a.m.</strong> (ref 016)</td>
<td><strong>10:10 a.m.</strong> (ref 016)</td>
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<td>Special hazard evaluation issues for decommissioning and waste treatment, M.G. Plys, S.J. Lee, Fauske &amp; Associates, USA</td>
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MEETING PROGRAMME
Parallel Sessions / 5.1-6.1 Room A / 5.2 - 6.2 Room B / 7 - 6.3 Room C

Wednesday, October 1, 2008

11:00 A.M. - 12:30 P.M.

5.1 Conclave Room - A
Economic and Financial Aspects
Chair: Claudio Pescatore, OECD/NEA
11:00 a.m. (ref 009)
Introduction to the French legislation dealing with decommissioning cost evaluation and funding, C. Maocce, DGEMEP, France - M. Olivier, ASN, France
11:20 a.m. (ref 028)
Estimating end of life liabilities for plant licensing and financial planning for similarly configured stations, G. Griffiths, TLG Services (Entergy Nuclear), USA - J. Kennard, Ontario Power Generation, Canada
11:40 a.m. (ref 050)
Regulation evolution in Sweden with emphasis on financial aspects of decommissioning, S. Lindskog, Statens Kärnkapinspektion, Sweden - R. Sjöblom, Tekedo AB, Sweden
12:00 p.m. (ref 097)
ETE-EVAL, a methodology to estimate D&D cost, G. Decobert, AREVA NC, France - S. Robic, V. Vanel, CEA, France

5.2 Tresorier Room - B
Project Optimization
Chair: Jan Carlsson, SKB, Sweden
11:00 a.m. (ref 061)
Cost effective and sustainable development benefits of intensive cleaning in AREVA NC Cadarache plant dismantling operations, A. Cordoba, N. De Sainte Marie, S. Dussolliet-Berthod, A. Roubaud, AREVA NC, France
11:20 a.m. (ref 067)
Remediation of Gremlika coastal maintenance base - status of the project, L. Pillette-cousin AREVA TA, France - B.S. Stepenov, Kurchatov Institute, Russian Federation - A. Gorbatevch, CEA, France

7 Benoit XII Room - C
Stakeholders Involvements
Chair: Michele Larala, IAEA
11:00 a.m. (ref 092)
Lessons learned on stakeholders issues in decommissioning, C. Pescatore, P. O'Sullivan, OECD Nuclear Energy Agency
11:20 a.m. (ref 090)
INSTN contribution to education and training, M-H. Henge-Napoli, P. Queille, M. Tachon, J. Safieh, INSTN, France
11:40 a.m. (ref 094)
Comparing nuclear decommissioning in the UK and France, J. Wales, Durham University, UK - R. Garcier, University of Sheffield, UK
12:00 a.m. (ref 062)
Human and organizational factors to consider on the dismantling sites of AREVA NC, Cadarache, A. Cordoba, N. De Sainte Marie, R. Fanton, B. Garcia, D. Peccqauis, AREVA NC, France

12:30 P.M. - 13:45 P.M.
Lunch Period Break

13:45 P.M. - 15:30 P.M.

6.1 Conclave Room - A
Material Management, Recycling, Reuse & Site release (General)
Chair: Dorothee Conte, ASN, France
13:45 p.m. (ref 066)
Release of materials and buildings, J.L. Santiago, Enresa, Spain - P. O'Sullivan, OECD Nuclear Energy Agency
14:05 p.m. (ref 083)
Decommissioning waste in the French national inventory, C. Trentaux, ANDRA, France
14:25 p.m. (ref 021)
Fundamental of materials management in the Spanish decommissioning projects, M. Rodriguez, Enresa, Spain
14:45 p.m. (ref 079)
Consignment of very low level waste (VLLW) from the Winfrith Dragon Reactor containment building, K. Shuler, CH2M Hill international services, UK - M. Skelland, United Kingdom Atomic Energy Authority, UK

6.2 Tresorier Room - B
Material Management, Recycling, Reuse & Site release (Legacy)
Chair: Jean-François Rives, Socodei, France
13:45 p.m. (ref 002)
Legal and ecological aspects of decommissioning of nuclear heritage objects (by the example of Tetch cascade of reservois of the «Mayak» plant), S.V. Kazakov, S. Utkin, Nuclear Safety Institute, Russian Federation
14:05 p.m. (ref 032)
Waste retrieval overview at the historical nuclear waste storage facility #56 of the Cadarache Nuclear Research Centre, M. Baillie, J.L. Saletes, C. Santucci, CEA, France
14:25 p.m. (ref 004)
Design of the waste retrieval machine for the Harwell ILW tube stores, P. Highton, Assystem, UK - R. Manning, UKAEA, UK
14:45 p.m. (ref 063)
Conception of a new conditioning process, of strongly plutonium contaminated waste canisters, into confined containers, inside Pegasus nuclear facility, at the Cadarache Nuclear Research Centre, D. Pouyat, CEA, France

6.3 Benoit XII Room - C
Material Management, Recycling, Reuse & Site release (Packaging)
Chair: Robert Walthery, Belgoprocess, Belgium
13:45 p.m. (ref 019)
Solidification of radioactive liquid wastes, a comparison of treatment options for spent resins and concentrates, M. Ebata, Toshiba Corporation, Japan - A. Roth, S. Wendt, Hansa Projekt Anlagentechnik GmbH, Germany - F. Willmann, Westinghouse Electric Company GmbH, Germany
14:05 p.m. (ref 020)
Volume reduction of large components - minimising waste volumes by maximising recycling, L. Bergström, G. Krause, A. Lindström, B. Wreneld, Studsvik, Sweden
14:25 p.m. (ref 047)
Sustainable development: characterisation and recycling of nuclear waste, Ph. Robinet Socodei, France
14:45 p.m. (ref 107)
German experience in recycling of ferrous metallic residues from nuclear decommissioning by melting, T. Kluth, U. Quade, Siempelkamp Nutzentechnik GmbH, Germany
15:05 p.m. (ref 084)
Decommissioning waste conditioning. The point of view of the disposal facility operator, M. Dutzer, P. Lecq, ANDRA, France
MEETING PROGRAMME

Round Table & Closing Session / Conclave Room - A

15:30 P.M.
16:00 P.M.
Coffee Break
Exhibition Area

16:00 P.M. - 16:30 P.M.
Conclave Room - A

CLOSING SESSION

with

Regis DALMAS, EDF
Michel DUTZER, ANDRA
Catherine LECOMTE, CEA
Jean-Guy NOKHAMZON, CEA
Bernard JOLLY, SFEN

End of the Conference & Exhibition

Post-technical visits on Thursday Oct. 2, 2008

The visit schedule is available at the Registration Desk.
SFEN organize post-conference technical visits on Thursday 2 October 2008 to the Marcoule plant - CEA Nuclear Research Center (optional fee). For the interest of each visit, groups are limited to 15 persons.
However, in all cases, the visits of the following facilities will be proposed to participants with the opportunity to have a look at VISIATOME, a permanent exhibition dedicated to waste management.
Participation is only for attendants having registered earlier.
On-the-spot registrations will not be possible.
We remind that all participants have to bring their

VISIATOME: the CEA now has a knowledge centre to inform the public and answer its questions linked to the management of radioactive waste and nuclear activities in general.

UP1: Plutonium Extraction Plant, originally built for military purposes under production from 1957 to 1994. Used also for EDF spent fuel reprocessing. This processing plant was shutdown in 1997, and since then, dismantling is under works.

PHENIX: Fast Breeder Reactor with an output of 250MWe, was commissioned in 1973 for electricity production. Phenix is now performing tests for the waste transmutation programme. His final shutdown is scheduled for 2009.

APM: Pilot processing plant for spent fast breeder and mixed oxide fuels. Starts operation in the 70’s this facility was definitively shutdown mid 90’s and is since this time under post operational operations and dismantling.

CENTRACO: Waste Processing and Conditioning Plant operated by SOCODEI company. This facility deals with low and very low activity wastes. Fusion and incineration units are used according to the type of waste (metallic or not). Reprocessed products are then recycled and reused as shielding protection in waste. Plant starts operation in 1999.
International Conference

Organized by the French Nuclear Energy Society (SFEN) and members of its Technical Section (no. 12)

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