Program | Sept. 12, 2021 version

DEM 2021

International Conference on Decommissioning Challenges: Industrial Reality, Lessons Learned and Prospects

September 13 to 15, 2021 • Palais des Papes, Avignon, France

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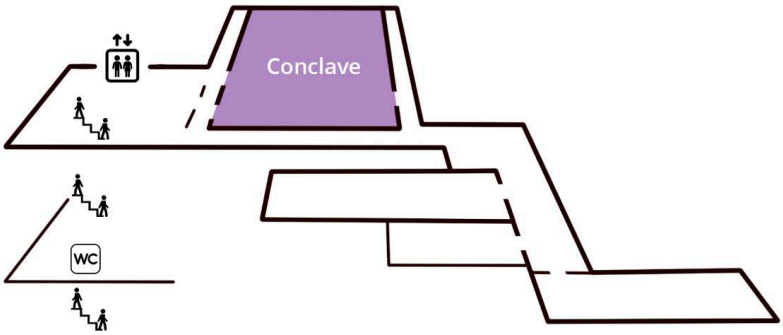
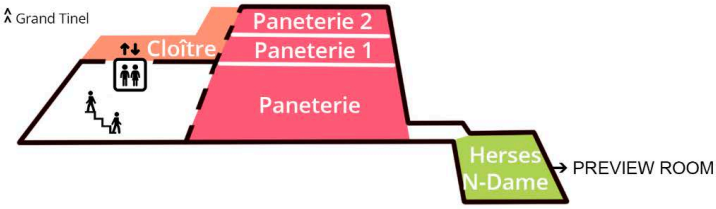
Exhibitors

Come and meet the exibitors in Grande Audience
from Monday 12:00 am to Wednesday 02:00 pm.

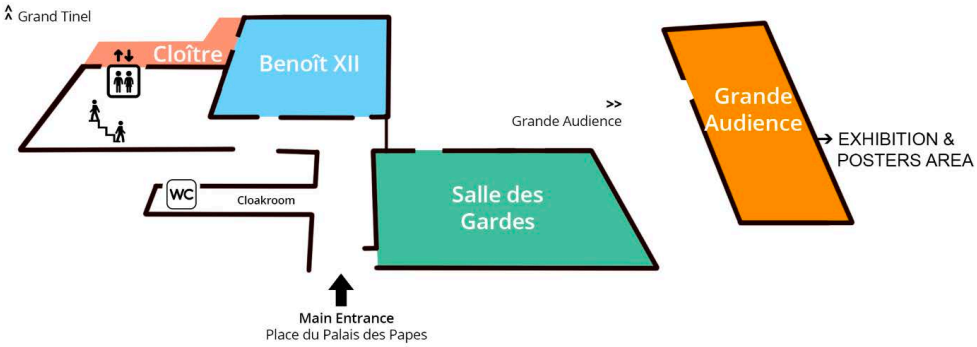
LEVEL 3



LEVEL 2



LEVEL 1



OVERVIEW

MONDAY 13

- 8:30 | Congress Center Opening
- 9:30 Welcome Address & Opening speeches
- 10:30 Technical session T01
- 12:00 | Exhibition & Posters area opening
- 12:00 | Lunch
- 2:00 Technical session T01
- 3:40 | Coffee break
- 4:00 Technical session T11
- Posters session

- 6:00 | Welcome cocktail

TUESDAY 14

- 8:30 | Congress Center Opening
- 9:00 Panel international organizations
- 10:00 | Transition
- 10:15 Technical sessions in // T03 | T05 | T06 | T07
- 12:15 | Lunch
- 2:00 Technical sessions in // T01 | T03 | T05 | T09
- 3:40 | Coffee break
- 4:20 Technical sessions in // T01 | T03 | T05 | T08

- 7:00 | Conference reception

WEDNESDAY 15

- 8:00 | Congress Center Opening
- 8:30 Technical sessions in // T03 | T04 | T06 | T10
- 10:30 | Coffee break
- 11:00 Technical sessions en // T03 | T04 | T06 | T10
- 12:40 | Lunch
- 2:00 | Exhibition & Posters area closing
- 2:00 Technical sessions in // T04 | T06 | T10 | T11
- 3:40 ---- End of the conference

TOPICS

T01 · Dismantling Strategy & Program Development
T03 · Development of New D&Ds' Technologies
T04 · Initial Radiological State Characterization
T05 · Project Feedback Experience
T06 · Material & Radioactive Waste Management
T07 · Buildings & Sites Rehabilitation
T08 · Economic & Financial Aspects of Dismantling Ope.
T09 · Stakeholders Involvements & Public Acceptance
T10 · Digital Contribution to Dismantling Operations
T11 · Decommissioning of Damaged Nuclear Facilities

MONDAY 13

08:30	CONGRESS CENTER OPENING • "Palais des Papes" Congress Centre Main Entrance		
		Conclave	
09:30			**Welcome Address** • V. Faudon • Sfen **Opening speeches** • V. Gorgues • CEA, O. Mykolaichuk • IAEA, J.-M. Romary • Orano, R. Tadesse • NEA
10:30	T01 • Dismantling Strategy & Program Development		125 • Global Status of Decommissioning • P.-J. O'Sullivan • IAEA
			218 • Technical Capability Development for Decommissioning Sellafield • E. Matthews • Sellafield • GBR
			137 • GRAPHITE REACTOR DECOMMISSIONING DEMONSTRATOR a Collaborative center hosting Inno4graph H2020 Project • P. Lefevre • EDF • FRA
			077 • Safety Stakes in the Decommissioning Strategy • D. Racimor • IRSN • FRA
11:50			DEM 2021: General & Useful Information • L. Piketty • DEM 2021 Chair
12:00	EXHIBITION & POSTERS AREA OPENING • Grande Audience		
12:00	LUNCH • Grande Audience | Sponsored by CEA		
02:00	T01 • Dismantling Strategy & Program Development		129 • Developments in UK Waste Management Practice and their influence on nuclear decommissioning in the UK • E. Chardon • Cyclife • GBR
			092 • TECHNOCENTRE PROJECT, a recycling & recovery plant for low-level radioactive metals after treatment • J. L. Bufanio • EDF • FRA
			152 • IL LL waste management - ICEDA, the global solution is commissioned • T. Le Courtois • EDF • FRA
			204 • Overview of the Dismantling Activities of the Bohunice V1 Reactor Coolant System • J. Boucau • Westinghouse • BEL
			206 • Optimization of Reactor Pressure Vessel Internals Segmentation Process in Korea • B. S. Lee • Dankook University • KOR
03:40	COFFEE BREAK • Grande Audience		
04:00	T11 • Decommissioning of Damaged Nuclear Facilities		015 • The Decommissioning of Three Mile Island Unit 2 • J. Byrne • Byrne & Assoc., LLC • US
			225 • Current situation of Fukushima Daiichi NPS (1F) • N. Yagi • Fukushima Daiichi NPP • JPN
			101 • Nuclear Fuel Cycle operator and dismantling experience to serve Fukushima Daiichi Fuel Debris Retrieval program • D. Ogawa • ORANO • JPN & D. Roulet • Onet Technologies • FRA
			105 • Mitigation of Chernobyl NPP accident and Implementation plan of Shelter object transformation into environmentally safe system. Lessons Learned and Prospects • V. Kuchynskyi • Chernobyl NPP • UKR
			Posters session • Grande Audience

06:00	WELCOME COCKTAIL • Grande Audience | Sponsored by Westinghouse

TUESDAY 14

08:30 — CONGRESS CENTER OPENING • "Palais des Papes" Congress Centre Main Entrance

09:00 — Conclave: **Panel international organizations**
P. Kockerols • European Commission, R. Tadesse • NEA, O. Mykolaichuk • IAEA

10:00 — TRANSITION

10:15

Conclave	Cellier Benoît XII	Paneterie 1	Paneterie 2
T07 • Buildings & Sites Rehabilitation	T03 • Development of New D&Ds' Technologies ➔ Decontamination	T05 • Project Feedback Experience ➔ Reactor	T06 • Material & Radioactive Waste Management ➔ Mesure & Characterization
138 • Multicriteria Analysis as an effective decision-making tool in remediation strategy • P. Derycke • Orano • FRA	085 • Chemical decontamination of the 600TT Alloy tube bundle of a Removed Steam Generator for the Sherlock project • S. Hollner • EDF • FRA	178 • First decommissioning experiences in Finland. VTT's FiR 1 TRIGA reactor and OK3 radioactive materials research laboratory • M. Airila • VTT • FIN	047 • Design of a mobile linac-based system for characterization of nuclear waste packages by photofission • I. Meleshenkovskii • CEA • FRA
202 • Ecological valorization of an historical polluted pond: The case of the Regulation Basin of Malvezy nuclear site • C. Mercat • Orano • FRA	082 • Decontamination of HL liquid wastes for the decommissioning of sodium fast reactor RAPSODIE • Y. Barré • CEA • FRA	120 • Refurbishment of handling equipment in the Phénix fuel element dismantling hot cells • F. Dominjon • CEA • FRA	055 • Assessment of the performances of a CdZnTe detector for gamma spectrometry for nuclear waste drum characterization • V. Spielmann • Innowtech • FRA
216 • Contaminated Land Remediation on decommissioned facilities: an optimized approach • S. Maurau • EDF • FRA	063 • Development of a new machine for the decontamination of corners and inner edges on concrete surfaces • A. Heneka • KIT • DEU	035 • Management of embedded piping during decommissioning operations at BR3 • K. Van Den Dungen • SCK CEN • BEL	164 • The Euratom project MICADO and its innovative characterization process of the Nuclear Waste Packages • E. Fanchini • CAEN S.p.A • ITA
079 • Contribution to the generalization of equipment for the operational monitoring of the remediation of nuclear buildings • P. Girones • IMT Mines d'Alès • FRA	190 • Pulsed for underwater decontamination - Impact for maintenance and waste management • G. Augé • Onet • FRA	028 • Treatment of residual sodium of Superphenix Fast Breeder Reac-tor by carbonation • D. Villani • Framatome • FRA	174 • Characterization via the RadHand device integrated into the REACh system for a low-cost in-situ waste characterization of nuclear waste • E. Fanchini • CAEN S.p.A • ITA
140 • Practical Experience from Bilateral Regulatory Cooperation in Decommissioning, Legacy & Radioactive WM • M. Sneve • DSA • NOR	153 • Application of a Full System Decontamination with CORD UV process at Fessenheim nuclear power plant before decommissioning • Y. Kaoudj • EDF • FRA	053 • Decommissioning of the BR3 biological shield: How a proper data analysis facilitates the D&D process • W. Broeckx • SCK CEN • BEL	183 • Development of a destructive characterization process for legacy radwaste packages • S. Perrin • CEA • FRA
	081 • DEROSA : Robot trajectory generation tool in real time from an environment scan • J.-F. Thro • Orano • FRA	014 • Full System Decontamination (FSD) - Experience and Benefits for Source Term Reduction prior to Decommissioning • I. Mertens • Framatome • DEU	114 • Chance project - Characterization of conditioned nuclear waste for its safe disposal in europe • D. Ricard • ANDRA • FRA

12:15 — LUNCH • Grande Audience

02:00

Conclave	Cellier Benoît XII	Paneterie 1	Paneterie 2
T09 • Stakeholders Involvements & Public Acceptance	T03 • Development of New D&Ds' Technologies ➔ Scenario	T05 • Project Feedback Experience ➔ Fuel Facilities	T01 • Dismantling Strategy & Program Development ➔ R&D / Robotic
088 • Strategies to enhance public acceptance to D&D projects: feedbacks from a review of field's projects • M. Michaut • Orano • FRA	131 • Segregation and Disposition of High-Dose Debris in support of K West Basin Deactivation and Demolition at Hanford, WA, USA • X. Verdeil • Orano • FRA	050 • Managing Complex International Projects during a Pandemic • N. Bergh • Westinghouse • SWE	093 • Mock-Up for RPV Dismantling • J. Bauer • NUKEM • DEU
199 • Involving Stakeholder Relationships in Decommissioning Projects Management • C. Martineu • EDF • FRA	037 • Assessment of nuclear decommissioning technologies using GAP Analysis • M.-J. Chaudhry • KIT • DEU	148 • Hydraulic jacking system to optimize tank dismantling • L. Bru • EDF • FRA	099 • International cooperation to promote robotic systems in nuclear decommissioning and waste management • M. Brandauer • NEA • FRA
208 • Local and industrial communication in radioactive waste management • A. Brodu • ANDRA • FRA	064 • Reclamation of an Underground Storage of Radioactive Waste – Irreversible PIT 7.1 • F. Pancotti • Sogin • ITA	070 • Hot cell dismantling • S. Kervoem • Getinge La Calhène • FRA	201 • European Project "SHARE": Stakeholders-based Analysis towards More Collaborative Projects of Research for Decommissioning • R. Winkler • CEA • FRA
106 • A dedicated human network for the Orano waste management • V. Planchon • Orano • FRA	058 • Graphite mangement for decommissioning of Latina NPP reactor • G. Migliore • Sogin • ITA	116 • A post-mortem examination of an evaporator in Orano La Hague • A. Richard • Orano • FRA	217 • Needs and innovation opportunities for decommissioning using digitalisation and robotics technologies • I. Szőke • IFE • NOR
222 • ODYSSELEC, a new strategy for stenghtening relevance of industriel tourism • S. Calvarin • EDF • FRA			182 • Decommissioning Activities to Support Materials Research • J. Smith • EPRI • USA

03:40 — COFFEE BREAK • Grande Audience

04:20

Conclave	Cellier Benoît XII	Paneterie 1	Paneterie 2
T08 • Economic and Financial Aspects of Dismantling Operations	T03 • Development of New D&Ds' Technologies ➔ Radiological Investigations	T05 • Project Feedback Experience ➔ Best Practices	T01 • Dismantling Strategy & Program Development ➔ Methodology / Industrial Organization
008 • International activities relating to costing of decommissioning and legacy management – a status report from NEA and IAEA • N. Bergh • Westinghouse • SWE	188 • Modern Methods of Remote Dosimetry: Gamma-Ray Imaging, Gamma-Scanning and Their Application • O. Ivanov • NRC Kurchatov Institute • RUS	089 • Delivering D&D • S. Laurier • Orano • FRA	145 • Model Based System Engineering, a new area of Engineering for Nuclear by Assystem • O. Vincent • Assystem • FRA
176 • Slovak legal system for ensuring feasible nuclear back-end system implementation • M. Macasek • Centrum • SVK	123 • Nondestructive Nuclear Measurements for Hold-Up Characterization in Historic Facilities & Improvements through Online Monitoring of New Equipment • L. Loubet • CEA • FRA	090 • International projects and lessons learned in the Decommissioning of Nuclear Power Plants • L. Care • Orano • FRA	200 • System engineering approach and value analysis methodology applied to decommissioning process of ITER Facility • R. Castagné • AXONE • FRA
212 • Improving the predictability of project outcomes • P. Derycke • Orano • FRA	098 • Measurement of Carbon-14 using Scintillation detectors and Post-It notes • J. Jiselmark • Vattenfall • SWE	029 • Avoiding retroactive effects caused by the demolishing by blasting of the cooling towers of Philippsburg power plant – analysis & results of the verification process • B. Walendy • SMP GmbH • DEU	109 • ITER Decommissioning Optimization • D. Torcy • Iter • FRA
181 • Factors that determine the commercial viability for a nuclear power-plant ship decommissioning • A. Sobreiro • IPEN • BRA	067 • 1D OSL/FO remote dosimetry for radiological investigations in hard-to-access zones : the INSPECT Project • S. Magne • CEA • FRA		214 • Competence and Knowledge Management for Nuclear Decommissioning in the EU • P. Kockerols • European Commission • BEL

05:40

07:00 — CONFERENCE RECEPTION • Jeanne Laurent | Sponsored by Orano

WEDNESDAY 15

		Conclave		Cellier Benoît XII		Paneterie 1		Paneterie 2
08:00	CONGRESS CENTER OPENING • "Palais des Papes" Congress Centre Main Entrance							
08:30	T06 • Material & Radioactive Waste Management	017 • Unconditional and Conditional Clearance of Radioactive Waste – The Belgian Case • D. Maloir • Tractebel • BEL	T03 • Development of New D&Ds' Technologies ➔ Radiological / Inventory / Scenario	052 • MAUD Project: alpha & beta surface contamination mapping system • K.Colas • CEA • FRA	T04 • Initial Radiological State Characterization ➔ Data statistical processing & modeling	033 • Initial nuclear state characterization in view of decommissioning: Guideline and web tool using a statistical approach • S. Boden • SCK CEN • BEL	T10 • Digital Contribution to Dismantling Operations ➔ Data	038 • Development and Implementation of a Knowledge Management System for Decommissioning based on a Semantic Wiki • S. Schneider • GRS GmbH • DEU
		126 • Sustainable Management of Contaminated Metals • A. Larsson • Cyclife • SWE		019 • MIRoS: a Mobile & Innovative Robot with sensors for radiological characterization • A. Etile • Innowtech • FRA		024 • Robustness of statistical and geostatistical approaches for the radiological characterization of soils beneath a building • Y. Desnoyers • Geovariances • FRA		215 • An international approach to a decommissioning ontology • F. Bormann • IUS GmbH • DEU
		161 • Use of recycled concrete materials from decommissioning for inte-grated nuclear waste management: challenges and opportunities • H. Kinoshita • Sheffield • JPN		211 • Sparse views 3D tomography of a nuclear waste drum using a Compton camera: Possible implication for nuclear dismantling • H. Mohamed-Zied • Damavan Imaging • FRA		149 • Small data and statistical approach for graphite radiological characterization in gas-graphite reactor • N. Perot • CEA • FRA		159 • Valuation of operating data • S. Pillon • EDF • FRA
		075 • Lessons learned from gamma spectrometry measurements during the decommissioning of a fuel assembly manufacturing plant • S. Nijst • Tractebel • BEL		220 • Gamma-Ray Imaging with CORIS360 • M. Guenette • ANSTO • AUS		054 • The OSCAR code: a simulation tool to assess the PWR contamination for decommissioning • F. Dacquait • CEA • FRA		173 • Activation computation and measurement in MINERVE cleanup and dismantling • G. Ritter • CEA • FRA
		097 • Qualification program for recycling of Uranium contaminated steel scraps • H. C. Turbatte • Orano • FRA				122 • Bayesian Kibble Dirichlet for Decommissioning Study with Gamma-Ray Spectrometry • F.Carrel • CEA • FRA		044 • Split exponential track length estimator for Monte-Carlo simulations in reactor dismantling operations • C. Le Loirec • CEA • FRA
						094 • New neutron activation calculation sequence based on Machine Learning for finer and accurate activity inventories • L. Sgandurra • Framatome • FRA		132 • Vircore, Digital Project Management Software for Nuclear Power Plants Decommissioning supported by BIM Methodology • J. de Paz • INGECID • ESP
10:30	COFFEE BREAK • Grande Audience							
11:00	T06 • Material & Radioactive Waste Management	041 • Development of a mobile, automated, optical inspection system for radioactive barrels • T. Barretto • KIT • DEU	T03 • Development of New D&Ds' Technologies ➔ Cutting / Scenario / Wastes	078 • Underwater laser cutting for dismantling of power nuclear reactor components • I. Doyen • CEA • FRA	T04 • Initial Radiological State Characterization ➔ In-situ measurement	115 • Nanopix, a smart and highly miniaturized gamma camera for robotic radiological characterization • V. Schoepff • CEA • FRA	T10 • Digital Contribution to Dismantling Operations ➔ Calcul Algorithme	172 • 3D Laser Scanning in Underwater Nuclear Environment for Robotic Dismantling of Nuclear Facilities • S. Joo • KAERI • KOR
		060 • Development of a Cask for Interim Storage & Final Geological Disposal in Switzerland – Approach, Challenges & Realisation • E. Neukaeter • BKW Energie Ag • CHE		026 • DEM&MELT: A Modular and Compact In-Can Melting Technology Dedicated to D&D and Remediation Waste • R. Didierlaurent • Orano • FRA		210 • Development of large area radioactive surface sources tailored for decommissioning • D. Tuzun • Université Paris-Saclay • FRA		036 • A Digital Twin for Optimized Defueling Strategies • V. Léger • Orano • FRA
		051 • Disposal of hazardous waste: specific "Mortar cell" method for ORANO Malvési • M. Adadji • Orano • FRA		048 • Assessment of the ultrasonic cutting technology for the nuclear dismantling projects • R. Garnier • CEA • FRA		086 • INSIDER in-situ intercomparison campaigns • M. Herranz Soler • UPV/EHU • ESP		154 • Building Information modeling in dismantling activities • P. Suchet • Assystem • FRA
				213 • LD-SAFE project: Laser Dismantling Environmental and Safety Assessment • D. Roulet • Onet Technologies • FRA		207 • Performance evaluation of nanocrystal based plastic scintillator for in-situ measurement of decommissioning sites • S. Min • KAERI • KOR		135 • PLEIADES, the Smarter Plant Decommissioning • M-B. Jacques • CEA • FRA
				061 • Separation System for the Treatment of Secondary Waste from the Waterjet-Abrasive-Suspension-Cutting • C.-O. Krauss • KIT • DEU		010 • Fessenheim PWR core internal characterisation • C. Andrieu • EDF • FRA		068 • Digital Solution for Nuclear Facilities Decommissioning Design and Execution: Case Studies and Lessons Learned • A. Bundin • Rosatom • RUS
12:40	LUNCH • Grande Audience							
02:00	EXHIBITION & POSTERS AREA CLOSING • Grande Audience							
02:00	T06 • Material & Radioactive Waste Management	073 • Glass formulation approach for mixed nuclear waste treatment using PIVIC incineration-vitrification In Can process • D. Perret • CEA • FRA	T11 • Decommissioning of Damaged Nuclear Facilities	072 • Extraction and transfer of samples from the core of Fukushima reactor using the PADIRAC and DPTE® technology • G. Guyot • The Getinge Calhène • FRA	T04 • Initial Radiological State Characterization ➔ Laboratory analysis methods	134 • Quantification of plutonium by X-ray fluorescence spectroscopy on solid deposit samples from UP1 plant in CEA Marcoule • S. Jan • CEA • FRA	T10 • Digital Contribution to Dismantling Operations ➔ Numerical modelling / Digital simulation	158 • PLM: a tool-supported approach to ensure project performance and project regulatory compliance • E. Le Gouëz • Assystem • FRA
		136 • Solidification of radioactive unspecified solvents with NOCHAR Polymer • G. Liozon • Onet Technologies • FRA		100 • Particle Generation Test Using Simulated Uranium Containing Debris: The URASOL project in the framework of Fukushima Daiichi dismantling • E. Porcheron • IRSN • FRA		039 • Solid characterizations of high activity waste resulting from dismantling of UP1 plant in CEA Marcoule • G. Jouan • CEA • FRA		163 • Management of nuclear facility decommissioning processes based on digital modeling • D. Ilyasov • IBRAE • RUS
		169 • Current status of STRAD project for liquid waste management • S. Watanabe • JAEA • JPN		108 • Fukushima Dai-ichi fuel debris retrieval: CFD calculations of aerosol dispersion & mitigation by spray systems in representative conditions of the 1F2 reactor pedestal • T. Gelain • IRSN • FRA		121 • Optimization of Sr-90 precipitation in nitric acid using Design of experiment for radioactive waste characterization method • E. Baudat • CEA • FRA		160 • Dismantling Information Model • C. Legarez • EDF • FRA
		179 • The treatment of asbestos waste by Cyclife France at the service of Nuclear Decommissioning • R. Fourny • Cyclife • FRA				203 • Determination of Cl-36 in various radioactive waste • C. Gautier • CEA • FRA		056 • Coupling digital mockup and real robotics operations: benefit for D&D operations • J. Favrichon • CEA • FRA
		142 • Solidification of Intermediate-Level LRW from Conversion Production into a Magnesium Potassium Phosphate Ceramic Matrix • S. Indyk • Tvel • RUS						062 • 3D Digital Simulation of complex D&D projects Use case: Chinon A2 dismantling project • P. Ontiveros • Cyclife • FRA
03:40								

POSTERS

T01	**Dismantling Strategy and Program Development**
	042 • Academic research project on decommissioning and dismantling: the DEMAIN project • L. Mathieu • CNRS • FRA
	118 • Proposal of aging system abolition sequence diagram • K. Tanaka • Kyoto University • JPN

T03	**Development of New D&Ds' Technologies**
	046 • Development of a novel universally inside pipe separator for dismantling contaminated pipelines • M. Bachmann • KIT • DEU
	049 • Development of an automatic contamination array for the decommissioning process • A. Wernke • KIT • DEU
	065 • Drying damp textile waste by centrifugation • A. Sanchez • Orano • FRA
	112 • Wastes drying results of the In-drum drying • C. Gobaut • Orano • FRA
	197 • CRACKS IN CONCRETE the solution to decontaminate them • P. Grandchamp • Blastrac • FRA
	226 • Development of a new internal exposure risk evaluation method to optimize the use of Personal Protective Equipment during nuclear dismantling • P. Agullo • CEA • FRA

T04	**Initial Radiological State Characterization**
	045 • A virtual source model for Monte Carlo simulation of dismantling dose rates • C. Le Loirec • CEA • FRA
	209 • The GHOST calculation tool: automated and homogenized determination of nuclide vectors • Y. Zanella • CEA • FRA

T05	**Project Feedback Experience**
	043 • Superphenix Fast Breeder Reactor bulk sodium processing • P. Rossat-Mignod • EDF • FRA

T06	**Material and Radioactive Waste Management**
	030 • French Innovative Thermal Treatment Processes for The Management of Radioactive Organic Liquid Waste • H. Nonnet • CEA • FRA
	151 • Mobile Equipment Inventory in the field of Decontamination, Waste Conditioning and Decommissioning with Operational Feedback • C. Boulet • Framatome • FRA
	170 • Neural network approach to identify gamma spectra for quick characterization of decommissioning waste • I. Hahm • KAERI • KOR
	227 • Vapour release and speciation of mercury from broken fluorescent tube lamps before waste conditioning • O. Dugne • CEA • FRA

T10	**Digital Contribution to Dismantling Operations**
	165 • 3D Digital Simulation of a complex dismantling scenario: Exchangers of Chinon A2 graphite gas reactor • P. Nouveau • EDF • FRA

T11	**Decommissioning of Damaged Nuclear Facilities**
	013 • Modeling the uranium solubility in aluminosilicate glass melts • O. Podda • CEA • FRA
	022 • In-Can Vitrification of Fukushima Effluent Treatment Waste using DEM&MELT technology • M. Fournier • CEA • FRA
	066 • In-Can Vitrification of ALPS Slurries from Fukushima Effluent Treatment Waste using DEM&MELT technology • C. Michel • CEA • FRA
	102 • Innovative solution for openings in Fukushima Daiichi Reactor Building • D. Ogawa • Orano • JPN