

Contents

OVERVIEW	1
Chapter 1 — GENERAL DEVELOPMENTS	3
Policy decisions in the Member States	3
Initiatives of the EU Commission in the nuclear field	4
Safety of nuclear installations	4
Radioactive waste	5
Trade in nuclear materials with the Russian Federation	5
Memorandum of understanding (MOU) between the Commission and France	5
Security of supply	5
Debate on the European Commission's Green Paper	6
International relations	7
Bilateral nuclear cooperation agreements	7
Enlargement of the EU	8
Legal developments	8
USEC antidumping and countervailing duty proceedings against Eurodif and Urenco	8
Claim against the US-DOE for SWU overcharging	9
Other developments	9
Storage of spent nuclear fuel in Russia	9
New nuclear generation and power plant projects outside the EU	9
International thermonuclear experimental research (ITER)	10
Climate change	10
Emissions trading	10
The EU sustainable development strategy and the Johannesburg summit	11
Convention on the future of Europe	12
Chapter 2 — NUCLEAR FUEL, POLICIES AND MARKETS	13
Nuclear electricity generation and fuel requirements	13
Nuclear fuel cycle	13
Natural uranium	13
Conversion	14
Enrichment	15
Fabrication	16
Reprocessing	16
Security of supply	16
The policy of diversification of sources of supply	17
Supplies derived from disarmament of nuclear weapons	18
Research reactors fuel cycle	19
Chapter 3 — EU SUPPLY AND DEMAND in 2002	20
Fuel loaded into reactors	20
Reactor needs / net requirements	20
Natural uranium	21
Conclusion of contracts	21
Volume of deliveries	21
Average prices of deliveries	22
Price history	23
Origins	23
Physical imports of NIS origin material	25
Special fissile materials	26
Conclusion of contracts	26
Deliveries of low enriched uranium (LEU)	27
Enriched uranium for research reactors	28
Plutonium and mixed-oxide fuel	28
Commission authorisations for export	29

Annex 2. NIS supplies	59
Annex 3. EU reactor needs and net requirements	60
Annex 4. Fuel loaded into EU reactors and deliveries of fresh fuel under purchasing contracts.....	61
Annex 5. Supply Agency average prices for natural uranium	62

OVERVIEW

In 2002, about 34 % of the electricity of the EU was produced from nuclear fuel. Supply of nuclear fuels to the EU utilities remained stable. The situation of the market was similar to that observed in 2001. Supply of natural uranium and services throughout the fuel cycle satisfied the demand. However, with rationalisation and concentration of production in a small number of suppliers as well as buyers, following mergers and acquisitions over the last few years, the nuclear fuels market tended towards a delicate balance.

Worldwide primary production of natural uranium dropped slightly relative to 2001. As has been the case for several years now, it amounts to just over half of the world requirements. Secondary sources, essentially stockpiles of uranium, re-enrichment of tails and, to a lesser extent, recycling of uranium and plutonium have made up the difference between requirements and production. Although shortage of uranium is not anticipated in the medium term, this fact continues to give cause for concern.

In the long term supply of uranium will have to come from primary production. Present levels will not be increased, however, until producers see an adequate price and return on their investment. That does not appear to be the case at the moment. Known world reserves of uranium are more than enough to cover the requirements of existing reactors and are likely to continue to increase as exploration progresses, but, as it takes many years from exploration to actual production, it cannot be excluded that there will be periods of instability with shortages of uranium and sudden price increases.

Further to USEC's action against Eurodif and Urenco, enriched uranium originating from these companies became subject to dumping and/or countervailing duties upon import into the United States. The cases went to appeal in the Court of International Trade in New York. The application of duties and the uncertainty surrounding the cases continued to create a distortion in the enrichment market and an increase in the enrichment prices particularly in the United States.

The European Commission adopted its final report on the Green Paper 'Towards a European strategy for security of energy supply', which was published at the end of 2000. It reiterated the need to guide and steer energy consumption, the need for a Europe-wide security of supply concept, the role of nuclear energy in avoiding emission of greenhouse gases and that nuclear energy remains an option to those EU Member States which decide in its favour.

The European Commission proposed also a package of measures on safety of nuclear installations, management of radioactive waste and security of supply. It includes two proposals for directives on nuclear safety and waste management, respectively, and a proposal for a decision on a nuclear trade agreement between Euratom and the Russian Federation.

The Supply Agency participated in the work of the Commission's services in the negotiations on the enlargement of the EU. The accession of new Member States will lead to an increase in the Agency's capital and in the number of members of its Advisory Committee. Enlargement of the Community will have an impact on the supply and demand for nuclear fuels which will have to be taken into account.

Decisions were taken on the closure of two of the older nuclear plants in the United Kingdom and on one in Spain, and about a nuclear phase out of plants in Belgium once they have operated for 40 years. In contrast the Finnish parliament ratified the decision on TVO's application to build a new nuclear plant to start operation by the end of the present decade. Outside the EU in many countries decisions were taken to restart power plants that were not in operation or to recommence construction that had been halted, while also in several countries there were decisions to construct or to start the planning of new power plants.

