

# NuclearFuel

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## Urenco, Areva win EC approval for joint venture, ESA will monitor market

Areva's and Urenco's enrichment businesses would come under closer scrutiny by the Euratom Supply Agency (ESA), potentially leading to increased imports from Russia, as part of an approval last week by the European Commission (EC) of their proposed joint venture in centrifuge enrichment technology.

According to an industry source, the terms of the Commission's approval require both firms to supply more contract information to ESA which, if it found the joint venture threatened

SWU supply problems in Europe, could "open the import gates" for SWU from Russia above the 20% quota imposed by European Union leaders 10 years ago.

In a statement issued Oct. 6, the Commission said it had granted regulatory approval to the joint venture, under which Areva would acquire joint control over Urenco's Enrichment Technology Co. (ETC). Areva wants to use the Urenco centrifuge technology in a new enrichment plant it plans to build by 2007 to replace the aging,

energy-hungry Eurodif gaseous diffusion plant.

Urenco and Areva both welcomed the decision, which leaves political approval by the governments of the Urenco countries, notably Germany, as the last hurdle before the joint venture can be realized.

The Commission announced in late June it was beginning an in-depth investigation into the proposed venture due to fears the partnership could "substantially diminish research and devel-

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## Quick action said to be key for IAEA fuel initiative

Unless it quickly moves from the drawing board to global reality, a proposal to establish multilateral regional fuel cycle centers, launched in August by IAEA Director General Mohamed ElBaradei, cannot succeed, Vienna officials advocating it warned this month.

One IAEA secretariat official involved said that ElBaradei is "fully aware" that regional centers might be most easily set up first in the Americas and Europe. "But these will have to

serve as a template for the Middle East and Asia-Pacific quickly," he said, "or else the whole concept will die."

On Sept. 21, ElBaradei told the 2004 IAEA General Conference that he had "appointed a group of senior experts to look into various options for multilateral control" of the fuel cycle. "The group could focus initially on how to guarantee the supply of technology and fuel for nuclear generated electricity, and

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## DOE to sell up to 17.4 MT of HEU for downblending

DOE's National Nuclear Security Administration (NNSA) says it is planning to sell more high-enriched uranium (HEU) from the government's excess stockpile of 174 metric tons for downblending and use as commercial fuel.

In a notice posted on the federal government's procurement Web site Oct. 5,

<http://www2.eps.gov/spg/DOE/PAM/HQ/DOE%2DSNOTE%2D041005%2D001>

(/Synopsis.html), NNSA said the quantity of material to be sold "will be not less than 15 tonnes and up to 17.4 tonnes." The majority of the HEU—10 to 12.4 MT—is in the form of metal (broken pieces and slugs) with an average enrichment of 75% U-235. NNSA said a small portion of the material may need to be cross-blended or chemically purified in order to meet applicable commercial specifications.

NNSA said the remainder of the

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**Current Uranium Pricing Indicators (US\$/lb U3O8)**

Source (date)	Price	Last Report (date)
<b>TradeTech<sup>1</sup> (Sept. 30)</b>		
Exchange value	20.00	20.00 (Aug. 31)
Long-Term U3O8	23.00	23.00
UF6 value (\$/kgU as UF6)	61.00	61.00
<b>RWE Nukem<sup>2</sup> (Sept. 30)</b>		
Spot Market Price Range		
Uranium (\$/lb U3O8)	19.50-19.75	18.50-19.00 (Aug. 31)
Conversion (\$/kgU as UF6)	8.50-9.25	7.75-9.00
<b>Ux Consulting<sup>3</sup> (Oct. 4)</b>		
Spot price	20.25	19.50 (Sept. 6)
Spot conversion (U.S.) (\$/kgU as UF6) (Sept. 27)	9.00	8.00 (Aug. 31)

1. TradeTech's Nuexco exchange value reflects the company's judgment of the price at which sales of significant quantities of yellowcake could be concluded as of the reporting date.

2. RWE Nukem's price ranges reflect bids and offers in the natural uranium spot market

3. The Ux Consulting's price indicates, subject to the terms listed, the most competitive offer available of which Ux Consulting is aware. Those terms (Oct. 4) are: quantity, 100,000-300,000 lb; delivery, within six months.

**Secondary SWU Market Price Estimate (\$/SWU)**

Source (date)	Price	Last Report (date)
<b>TradeTech (Sept. 30)</b>		
Unrestricted	88	88 (Aug. 31)
Restricted	111	111
<b>RWE Nukem (Sept. 30)</b>		
	89-108	89-108 (Aug. 31)
<b>Ux Consulting (Sept. 27)</b>		
Unrestricted	89	89 (Aug. 31)
Restricted	110	110

material is in the form of alloyed and unalloyed HEU metal with an average enrichment in the range of 60%-75% U-235. Most of this trannie may require cross-blending or chemical purification, NNSA said.

NNSA said that it was developing a list of companies that might be interested in purchasing the material. NNSA wanted responses within two weeks. After then, NNSA would prepare a formal request for proposals, which would be issued by the end of December. Award of a contract would occur sometime before Sept. 30, 2005.

USEC Inc. is expected to be an aggressive bidder for the material. DOE's current transfer of 50 MT of HEU to USEC is expected to be completed in 2005. DOE is also transferring 39 MT of off-specification HEU to the Tennessee Valley Authority for downblending and use as fuel. And DOE is reserving 10 MT of HEU for downblending for LEU fuel for research reactors.

DOE has said that about 151 MT of the 174 MT is

probably useable as commercial fuel. A DOE source said that the remainder of the excess fuel—about 35 MT of HEU—will also eventually be sold.

The sale of the material by NNSA caught some industry analysts by surprise. But given the timing of the sale, it was unlikely to have much of an impact on market prices for uranium or SWU. But one analyst suggested that the NNSA announcement could put a temporary damper on the enthusiasm of some potential uranium investors who might look at the NNSA announcement as the beginning of a new flood of U.S. material on the market.

A DOE source said that was not the case. With excess U.S. HEU, he said, the government has said that it was planning to dispose of as much of the 174 MT as it could over several decades. The 15 to 17.4 MT would be transferred at a rate roughly half the rate of the HEU material that is currently being transferred to USEC, the source said.

But earlier this year, Energy Secretary Spencer Abraham asked for a study about the security impact of downblending an additional 100 MT of HEU that is currently being stored at the Y-12 complex in Oak Ridge, Tenn. to levels below 20% U-235, but apparently not to commercial-grade enrichment levels (NF, 24 May, 2). But such schemes worry producers who believe that it will become harder and harder for the government to resist selling such material in the face of rising budget deficits.

Some in the producing industry are also worried that DOE is planning to give USEC uranium in exchange for the company's continuing to clean up technetium-contaminated uranium. The House Appropriations Committee has blessed this barter deal and DOE is waiting for full congressional approval to proceed.

But producers are not getting much of a sympathetic response in Washington these days, given the rapid run-up in prices. With prices now over \$20/lb U3O8 equivalent, DOE believes that using its uranium in a barter deal makes even more sense and is the fiscally prudent thing to do rather than spend taxpayer dollars.

The U.S. has placed 10 MT of HEU (enrichment about 92%) under IAEA safeguards. Under NNSA's plan announced Oct. 5, that material will come out from under IAEA safeguards and be returned to the national security stockpile. IAEA safeguards, however, will follow the transfer of the 15 to 17.4 MT. NNSA's Oct. 5 notice specifies that the winning bidder must include in its proposal the capability to downblend the HEU subject to an IAEA verification regime on the downblending process (but not on the material while it is in storage.) Additional HEU material—not suitable for national security purposes—will be added to the excess U.S. material.

**In the market . . .**

The spot price of uranium continues to rise with each succeeding deal, but the rise is being moderated by the fact that most deals are being done quietly off-market and

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