

Nuclear Buzz

Fukushima: Day 33

By *Andrea Jenetta, Publisher*

I don't know about you, dear subscribers, but I'm still riding an emotional rollercoaster. After attending a nuclear industry conference last week I felt somewhat relieved. Experts there believe the long-term supply-demand fundamentals remain out of balance, despite the small dip in projections of nuclear-generation capacity in the future.

But this week, I found myself sinking. Which was rapidly followed by disbelief, impatience, anger and the need to hit someone or something really, really hard.

Was it because Japan's Nuclear Safety Commission decided to raise the accident's severity level from 5 to 7, the worst on the international nuclear event scale, and a rating heretofore only assigned to Chernobyl?

Or the hatchet job by the *New York Times* on the Energy Department's stupid MOX fuel fabrication plant to dispose of excess weapons plutonium? Or the UCS's Ed Lyman, whining about the facility's price tag when the cost of his beloved vitrification option would be just as high?

[**Aside:** The plant is "stupid" not because anyone with a scintilla of experience in the commercial nuclear industry is anti-MOX or anti-civilian plutonium use, but because it's DOE and the federal government once again meddling in the market. **End Aside**]

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Inside

International Isotopes on Track For NRC License in 2012

By *Dan Yurman, Contributing Reporter*

Efforts to secure equity funding to build a \$125 million uranium deconversion plant in Hobbs, New Mexico are gaining momentum even though the company announced on March 17 that it would pull a \$31 million public stock offering. CEO Steve Laflin told *FCW* in an exclusive interview that debt financing would take the company most of the way toward its fundraising goal.

Laflin said the firm has applied for a \$97 million loan from the U.S. Department of Energy, which approved the first of a two-part application last June. The loan comes from the department's renewable-energy technology development program, which counts as a key factor for loan approval whether the technology reduces in greenhouse gas emissions.

"Our patented fluorine extraction process uses seven times less energy than conventional industrial processes for making hydrofluoric acid," Laflin said. "This means we can show reductions of six million pounds of carbon dioxide a year over the life of the plant."

Laflin expects the agency to issue a conditional commitment for the loan that will require that the firm secure an NRC license. The draft Safety Evaluation Report is to be done by late summer, and a final Environmental Impact Statement could be ready by yearend, depending on the outcome of the public comment process. Laflin would not say when he expected action on the second part of the loan-application process.

Making a Useful Product out of DUF6

International Isotopes was poised to enter the equity markets just weeks before the ruinous earthquake and tsunami in Japan. Last year the company raised \$9 million in private offerings.

"Our investment advisors pointed out that uranium prices were going up and there was growing interest in new nuclear reactor projects worldwide."

Yet despite the sudden chill on equity financing in the nuclear world, the future of the uranium deconversion plant is secure, said Laflin. "It simply [see *International Isotopes on page 9*](#)

Fluor-B&W: Not a Bad Guy

[See page 8](#)

Or was it the international regulators' announcement that the global safety regime needs to be "strengthened"—when what the industry really needs are plant operators who strive for continuous improvement and a questioning culture, and take M&O responsibilities seriously?

Or maybe it was the online debate by *The Economist* on its motion that "the world would be better off without nuclear power"? At FCW press time, the vote was 29% for and 71% against the motion. Finally, a victory for the industry!

Then I realized that, no, the spot price will not jump in response to ERA's announcement that plant processing at Ranger will stay in suspension until at least late July, and its purchase of most of the 2,100 t U3O8 it needs to meet 2011 sales commitments at fire sale prices in mid-March (*see related article on page 5*).


And that Hathor's (TSX:HAT) stock price *fell* after Monday's confirmation of a third mineral zone in the Roughrider system.

It's clear that the Japanese government is reacting—overly so, in my opinion—to the ongoing problems and endless radiation releases at Fukushima.

"It's guilt," said one well-respected industry veteran. "They can't believe it happened in Japan. So they fall on their sword and call it a 7, but with 10% of the releases from Chernobyl. Exasperating."

It's clear that the financial community has similarly reacted to the new "7" rating. The punishment dished out to Hathor shows it.

I wonder if even Urenco, which last week posted the usual fine financials for 2010—21% increase in EBITDA, 27% leap in operating cash flow, thank you very much—is running into (temporary) reluctance with investors?

	Uranium Prices Term: May 2011 cob April 13, 2011	
	BID	OFFER
U3O8 (physical)	\$57.50	\$59.00
U3O8 (financial)	\$57.75	\$59.25
UF6 (physical)	\$161.50	\$166.50

Source: Evolution Markets Inc. +1 914.323.0252
www.evomarkets.com [Disclaimer](#)

Or if the government-owned Nuclear Power Corp. of India will be able to follow through with the plans announced Monday to create joint ventures to buy stakes in uranium mines abroad in order to get assured and long-term fuel supplies for its power plants?

"Some people are still reacting with their emotional side," the industry veteran observed. "The logical side hasn't caught up yet."

He continued, "I wouldn't be surprised if it took six months for some of the emotion to subside. Maybe we'll feel better about it in London [in mid-September, when the World Nuclear Association holds its annual conference]. Before then it's anyone's guess."

"It's not always easy to be patient," he concluded.

And patience is certainly a quality our weirdo industry has had, what with its 15-year project timelines and decades-long busts.

I don't know about you, but I don't want to be patient anymore. ●



AFRICAN PROJECTS

Husab: \$1B/Yr Revenue; Deep Yellow Upgrades TRS

By Roger Murray, *Special Correspondent*

Extract Resources Chairman Steve Galloway has provided further upside to the recently published definitive feasibility study report for the Husab uranium project in west-central Namibia (*FCW* #419, April 7).

Galloway has told Reuters that Husab is expected to generate a minimum \$1 billion per year in sales revenue from its currently anticipated commissioning date of the 2014 first quarter.

Based on planned annual output of 15 million pounds (6,804 tonnes) U₃O₈, this would equate to an average sale price of just under \$67 per pound U₃O₈. For comparison, the Rössing mine reported sales revenue of \$493 million in 2010 from production of 8 million pounds (3,600 tonnes) U₃O₈, equal to an average \$61 per pound. As a portion of Rössing's output continues to be sold on older long-term contracts at less favorable prices, this looks to be a realistic forecast.

Galloway added that Extract's main challenge was to raise \$1.7 billion to put the mine into production. Still, he was confident that the firm could secure the required funding, and the company is already consulting with potential partners to determine the optimum funding and development framework to advance the mine to production. Galloway also said that Extract wants "to raise as much as possible from the Namibian market"—including local pension funds and banks.

These could be quite considerable. The government-owned pension fund and private pension schemes manages funds in the \$10-billion range, some of which are required to go into local business opportunities as part of government policy. In addition, the four local commercial banks, which would be involved in project financing, are well-capitalized and profitable, with total assets worth some \$7 billion as at end-2010.

In short, substantial local funding could significantly reduce the amount of debt Extract would need to raise on global financial markets.

CGNPC Bid Still on Track

There have been no fresh developments regarding the £2.90 (\$4.70) per share offer by China Guangdong Nuclear Power Co. (CGNPC) for AIM-listed Kalahari Minerals. Extract has applied to local regulators to extend the offer to the rest of its shareholders on identical terms.

Both Kalahari's shares on AIM and Extract's shares on the ASX have, along with most yellowcake stocks, slumped since the earthquake and tsunami in Japan. In recent weeks also, both firms' share price weakened due to short selling by some hedge funds and institutional investors.

But Kalahari shares have staged a partial recovery this week, standing at £2.53 (\$4.07) by early afternoon on Wednesday, up by just under £0.05 (\$0.081) or 2% on the day. It had recovered to this level at one point last week also, which still represents a £0.37 (\$0.60) or 13% discount on CGNPC's current bid price. Extract's share price remained relatively unchanged at A\$8.35 (\$8.68) on April 13, compared to a pre-earthquake high of A\$9.70 (\$10.09).

Individual Australian investors still anticipate that Rio Tinto could make a counter-bid for either Kalahari or Extract—or both. Given the serious problems at its Ranger mine in Australia (which is anyway due to close down next year), Husab is looking increasingly like a must if the Anglo-Australian resources group is to remain a major uranium producer (*see related article, page 5*).

But analysts now think it unlikely that Rio Tinto will tip its hand until after May 3, when CGNPC must table a formal offer for Kalahari under the scheme agreement.

The April 9 *Week in Mining*, published by London-based stockbrokers and fund managers XCap commented, "Kalahari Minerals has been a favourite of ours for some time. We advised profit taking recently following an extraordinary rise and in the wake of Japan's nuclear fallout. It duly fell to 235p, but last week obliged with an 8% bounce to 253p. Is this a re-entry point?"

"Resource results [at Husab] to date are impressive, the definitive feasibility study has produced some highly attractive numbers and both Extract and Kalahari could be takeover prospects. But what of the uranium market? As we noted last week, this is a long

game, made even longer by Japan's problem. The jury is out on whether the accident has driven a nail in the nuclear coffin or not. The spot price of U3O8 is not necessarily indicative, but it registers. It was \$42/lb in April 2010, saw \$73 earlier this year and is now \$59. Let's pay more when we know more."

Also in Namibia, Australia's **Deep Yellow** announced on April 6 the successful completion of pilot plant testwork to upgrade the Tubas red sand deposit (TRS), an important ore source for the firm's flagship Omahola uranium project ([FCW #410, Feb. 3](#)).

This also includes the higher-grade Inca deposit. Deep Yellow Managing Director Greg Cochran said the testwork showed that the team could use hydrocyclones to beneficiate the low-grade deposit in an economical and chemical-free process, producing a low carbonate, uranium-rich concentrate. This would effectively upgrade the material to suitable feed for the planned Omahola processing plant.

Based on the bulk sample separation results, Deep Yellow is confident that a full-scale commercial separation and dewatering plant, to be designed and fabricated by Germany's Schauenburg MAB, "will likely achieve a similar level of performance, given the same starting material and particle size distribution following the scrubbing process." Actual beneficiation performance of the pilot plant included: 12% mass pull (100 tonnes feed produced 12 tonnes of product); an approximate 86% carbonate reduction; 84% uranium recovery; a uranium upgrade factor of 6.9, which is 322 ppm (0.03%) U3O8 in feed resulted in 2,218 ppm (0.22%) in product.

Cochran added that the testwork success would allow the company to add "significant resources to the TRS deposit, as similar mineralized red sands occur adjacent to and may flank the mineralized Tubas-Tumas palaeochannel system over some 30 kilometres." The technology may have wider application on the other surficial calcrete deposits contained in Deep Yellow's three contiguous license areas between the Husab project and Langer Heinrich's Langer Heinrich mine.

"This would enhance the overall economics and attractiveness of deposits such as the Tubas-Tumas palaeochannel and Aussinanis which together contain a major portion of DYL's current JORC resource base in Namibia," Cochran said.

At a third advanced-stage Namibian project, Australia's **Bannerman Resources** believes there remains "considerable potential for further discoveries" in the vicinity of the existing Etango deposit ([FCW #404, Dec. 9](#)). Exploration is using geological mapping, ground geophysics and reverse-circulation drilling "to advance the definition of any near-project mineralization." In the firm's latest exploration update, Bannerman CEO Len Jubber said "new prospects are now being explored at Cheetah and Ombepo, which lie along strike to the north from Etango towards the Rössing Mine. There is also additional regional exploration potential in the Rössingberg, Ombuga and Gohare prospects."

As well as regional exploration work, RC drilling on mineralized extensions of the Hyena and Ondjamba prospects immediately south of the Etango deposit is also underway.

"It is envisaged that 2011 will be an active year for the exploration team," added Jubber, noting that regional exploration in 2010 had led to the discovery of significant mineralization was at the Hyena and Ondjamba prospects. That enabled the team to define some 44 million pounds U3O8 of inferred resources in satellite deposits.

At the Cheetah prospect, the team collected high-grade surface rock-chip samples with assays up to 1,698ppm (0.17%) U3O8 during an initial mapping and ground geophysics program. An initial 17-hole RC drilling program at Cheetah returned assay intersections of up to 10 meters at 339ppm (0.03%) U3O8 at a depth of 18 meters. Other results included two meters at 864 ppm (0.09%), 50 meters' depth, and 8 meters at 240 ppm (0.02%), 20 meters' depth.

Ranger: Offline Through End-July

By Roger Murray, Special Correspondent

Continued heavy rainfall in Australia's Northern Territory has forced Energy Resources of Australia to extend to late July its suspension of processing operations that the miner began at end-January, the company announced on Tuesday.

Consequently ERA will acquire a substantial volume of yellowcake to meet its customer commitments. But the announcement has had no perceptible impact on the uranium spot price (*see Nuclear Buzz, page 1*).

The suspension had already sunk the uranium output of Rio Tinto, the 68% owner of the mine, according to the group's first quarter results announced on Wednesday. Rio Tinto's total yellowcake production fell 47% to 944 tonnes U3O8 in January-March 2011, down from 1,787 tonnes a year earlier, mainly due to a 58% fall in Ranger's output to 382 tonnes. Production at Rio Tinto's 69%-owned Rössing mine, Namibia fell 36% to 562 tonnes U3O8 due to a combination of lower grades and lower extraction rates.

Rio Tinto First Quarter Uranium Output (Tonnes U3O8)			
U-Mine	2010	2011	% Change
Ranger	903	382	-58
Rössing	884	562	-36
Total	1,787	944	-47

Source: Rio Tinto

In a 2011 production guidance update, Rio Tinto said its share of uranium production from Ranger and Rössing is expected to be 7.5 million pounds (3,402 tonnes) U3O8. Based on its 68.5% combined average shareholding in both operations, this equates to a total 10.9 million pounds (4,965 tonnes) U3O8, a drop of 34% on the 16.6 million pounds (7,535 tonnes) produced in 2010.

In its statement, ERA said that the end-January suspension was "a precautionary measure" to ensure that levels in the tailings storage facility remained below the authorized operating limit during the wet season and was originally expected to last 12 weeks. But since then Northern Territory had continued to record

above average rainfall levels, with the Ranger mine experiencing the third highest wet season on record.

It noted that although the tailings storage facility water level had remained below the authorized limit, Ranger's "total process water inventory" had recently exceeded the operational restart level.

Accordingly, the operational suspension had been extended to late July to allow the water inventory to lower, although ERA warned that even a restart by then was "highly dependent on future rainfall." In addition, the large volume of pond water in the mine itself has brought a halt to mining in the open pit. Only when the water recedes will it resume at the upper bench levels.

ERA also does not expect to gain access to the high-grade ore at the pit bottom until this year, at the soonest. In fact, current plans call for mining at Ranger to cease by the end of 2012.

To address the tails storage facility water level issue, ERA said it was continuing extensive studies on water treatment, including the installation of a brine concentrator to reduce the process water inventory. Construction of a three-meter lift to the facility walls is to be finished by the end of the year. Before that ERA will ask regulators to let them increase the tailing facility's authorized operating level.

2,000 Tonnes to Come on Market

ERA has cut its 2011 production guidance target by over one third, to 2,400 tonnes U3O8, down from the previous target of around 3,790 tonnes, similar to what it produced in 2010. But ERA cautioned that continued high levels of rainfall this year could make it impossible to meet even this lower target.

To fulfill ERA's 2011 sales commitments of some 4,500 tonnes U3O8, the miner will have to buy enough material to cover the shortfall of about 2,100 tonnes. The company said that a "substantial portion of the required purchases have already been finalised." Sales in the 2011 first half would represent about 25% of sales for the year, which are to be mostly satisfied with purchased material.

In addition, ERA anticipates reporting a 2011 first-half net loss of \$30-\$50 million due to the extended operational suspension, compared with a \$23 million net profit in the 2010 first half. It also announced that it is conducting a "comprehensive business review" of ERA's current operations and future projects; the review will assess priorities, processes and future expenditures. ●

The **Nuclear Regulatory Commission** announced on Friday that it would not issue a COL to **UniStar** for a third reactor at **Constellation Energy's Calvert Cliffs** nuclear plant in Maryland. No foreign entity can own a majority share of a U.S. nuclear plant, and ever since Constellation dropped out of the UniStar joint venture, the sole owner of UniStar has been **Electricité de France**, which itself is 85% owned by the French government.

Nevertheless NRC will keep working on its environmental impact statement for the project and review the parts of the license application that are not relevant to the foreign ownership issue. And EDF will continue trying to find a U.S. partner for what it always expected to be a joint venture.

Last week nuclear utilities **RWE, E.On, Vattenfall** and **EnBW** stopped contributing to a fund supporting Germany's renewable electricity generation after the government there shut down the seven plants for a three-month safety review. But **Finance Minister Wolfgang Schaeuble** has insisted that the companies resume their payments, as part of a deal negotiated last year extending the seven plants' life span an average of 12 years.

According to a German newspaper, Environment Minister Norbert Roettgen said that the "unilateral decision" of the utilities to stop their payments "implies a complete abandonment of the nuclear power extension."

Kyushu Electric Power Co. has put the planning process for a third nuclear reactor in the Kagoshima Prefecture on hold for the time being, until the problems at Fukushima are brought under control, according to a Japanese media report. Prime Minister Naoto Kan he was willing to review the country's plan to build at least 14 new reactors by 2030, according to the report.

Pacific Gas & Electric has asked NRC to delay its license renewal application for the **Diablo Canyon** plant in California until it has a chance to perform a comprehensive seismic review.

In 2008 the utility, working with the **U.S. Geological Survey**, discovered a new shoreline fault system, and evaluated the risk to the plant. The study indicated that the Diablo Canyon plant had

adequate safety margin to withstand the maximum force from nearby faults.

But the utility will now conduct high-energy offshore 3-D studies of the fault system's deeper regions as soon as it obtains the necessary permits. It will turn over the results to NRC and to other stakeholders. The plant has two units, which have operated since the mid-1980s.

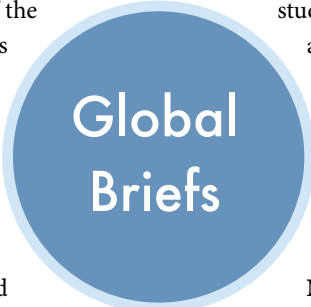
The second-largest gold miner in the world, **Newmont Mining**, has acquired a 6.7% stake in **Paladin Energy** as a result of its \$2.3 billion takeover of **Fronteer Gold**. Fronteer had held the shares as part of a deal last year in which Paladin acquired the company's uranium properties in **Labrador**, which Fronteer spinoff **Aurora Energy** had been exploring.

Fronteer re-absorbed its uranium spinoff after the global recession dropped miners' stock prices. It was by then working on gold projects and was not likely to restart work in Labrador. Prospects for the development of the property had dimmed as a result of a uranium mining moratorium imposed by the region's tribal government.

IBC Advanced Alloys Corp. announced it had signed collaborative research agreements with **Purdue University** and the Texas Engineering Experiment Station of **Texas A&M University** on Tuesday. The research aims to develop a high-thermal conductivity berillium oxide nuclear fuel for current and future reactors, according to the announcement.

Jim Malone, the company's vice president of nuclear fuel, said that the BeO fuel that IBC is developing could have helped in the situation in Japan, because "its high thermal conductivity would have allowed more efficient mechanism for heat dissemination thereby reducing stresses on fuel cladding and providing more response time for reactor operators."

In February the company completed the initial testing, including nuclear engineering simulations and thermal modeling, which highlighted the possible benefits of the fuel for light water reactors. ●



Fluor-B&W in Pow-Wows With Nuke Fuel Industry

By Nancy E. Roth, Managing Editor

The busiest man at the World Nuclear Fuel Cycle 2011 in Chicago last week might have been Babcock & Wilcox Director of Business Development Frank Hahne.

After Fluor-B&W Portsmouth LLC won the Department of Energy contract for the cleanup of USEC's Portsmouth Gaseous Diffusion Plant last August, Hahne joined the contractor's transition team and took on the unusual job of developing a strategy for disposing of the UF6 with which DOE is paying the company for a portion of its services.

An attendee at the conference told *FCW* that a number of organizations in the industry had approached Fluor-B&W about handling the UF6 marketing for them. They might include producers, brokers, traders and investors, and perhaps others. Hahne was apparently willing to see them all.

Cameco Resources President Paul Goranson and other members of the Uranium Producers of America had an informal meeting with Hahne last October during the International Uranium Fuel Seminar in Savannah.

According to Goranson, Hahne at that time had only just started in his role on the transition team, but told the group that Fluor-B&W was aware of the sensitivity of the uranium market to a sudden influx of material. "Fluor doesn't want to be a bad guy in this transaction," said Goranson. Hahne would not comment for this article.

Barter System Forces Contractor's Hand

It seems in fact that Fluor-B&W would want to do everything it could to avoid upsetting the market by selling it into the spot market, which is most likely to react. That would send the spot price spiraling down, and investor interest in uranium mines would collapse as well.

Everyone *FCW* has talked to seemed to agree with that in principle, but no one believed the company had much choice but to sell into the spot market instead of the long-term market, which is large enough to absorb it without coming undone.

Still, if anyone knew for certain what Fluor-B&W's strategy would be, no one was saying.

The language of the DOE contract seems to push the contractor into the spot market. On page 4 of Section G of the 365-page contract, for instance, is a paragraph on how the contractor must submit its cost invoices:

However, upon transfer of the UF6, the contractor shall immediately begin offsetting the credit for the assigned value of the UF6 by the services performed.

The operative word is "immediately" according to Jon Indall, UPA's legal counsel.

"All of those pounds are going into the spot market," he told *FCW*. "If they have to sell them immediately then you have to believe they are going to do that."

Selling the UF6 into long-term contracts would not work for most companies that are not operating in the uranium world, added Indall.

"It doesn't really fulfill the function," he told *FCW*. "For the barter to work the contractor has to get hold of the money immediately. The setup essentially requires that they act on it quickly."

"If I were in their place I would want to cash it out," said another industry observer who asked not to be named. "In the second quarter of 2011, say they are due 100 metric tons worth of work. If the price drops dramatically and they can't get the value [DOE will] give them 200 metric tons."

"They are going to get paid, regardless," said another. "DOE will make it up [if the market price falls]. They are going to get paid in uranium."

Fluor-B&W: Assessing the Options

All took it as a good sign, however, that Hahne was consulting with a wide range of players in forming a strategy.

"They are looking at all their alternatives," said a uranium-marketing expert.

Asked if Cameco, which has an active buying program, might be involved in the discussions, the industry observer said, "Theoretically you'd want the uranium landing in the hands of someone who has a vested interest. Cameco may have a portfolio of contracts and they could put the uranium out in fulfillment of them."

Another school of thought is that Fluor-B&W could enlist the services of a broker like Evolution Markets or ICAP. They would

have it competitively bid via auctions, as compared with USEC, which sold off every uranium transfer within a day of getting it.

Traders would have to take it at the market rate, which would shift the market risk to them. A speculative group that could afford to hold it off the market might just work out, said the observer.

It would probably not attract much interest from the largest global uranium consumers, China and India, the observer added. That would force it into the U.S. market. All the more reason for concern.

DOE: No Reason for About-Face

Last week the Uranium Producers of America received a reply from the Department of Energy to the group's March 21 letter outlining its concerns with the department's latest uranium-barter plan ([FCW #417, March 24](#)).

The plan springs from a Secretarial Determination that DOE published on March 2, indicating that the planned quarterly sales or transfers of up to 450 tonnes of natural uranium (460,000 KgU as UF₆) for accelerated cleanup at the Portsmouth site, or a total of 1,605 tonnes per year, would "not have an adverse material impact on the domestic uranium mining, conversion, or enrichment industries."

In combination with the transfer of downblended weapons-grade uranium from the National Nuclear Security Administration, the injection of taxpayer-owned uranium would come to 2,000 tonnes of natural uranium, which is roughly 2 million KgU as UF₆.

The total annual domestic uranium market is about 50 million pounds U₃O₈, according to the most recent report (2009) of the Energy Information Administration.

That allows DOE to claim that it is complying with the Excess Uranium Inventory Management Plan, which stipulates a total release of no more than 10% of domestic market.

But the plan calls for a ramp-up to an annual release of 5 million pounds U₃O₈ in 2013 and thereafter. In 2011 DOE uranium releases were to reach only 3.3 million pounds U₃O₈ (1,266 tonnes of natural uranium equivalent, or 1.3 million kgU as UF₆).

No Industry Cred

It is therefore not surprising that UPA members have not attached much credibility to DOE's claimed adherence to the management plan. The group's March 21 letter pointed out that total domestic uranium production the EIA reported for 2010 was only 4.2 million pounds U₃O₈, a million pounds less than DOE was

preparing to release. It also noted the discrepancy between the 2011 limits in the plan, and the amount Sec. Steven Chu set in the March 2 determination.

In addition it suggested that the crisis at the Fukushima plants after the March 11 earthquake and tsunami had substantially changed uranium market conditions since the analysis supporting the Secretarial Determination had been performed. The analysis could no longer be valid, and neither could the determination, it argued.

UPA got a reply from DOE Acting Assistant Secretary for Nuclear Energy Peter Lyons on April 5.

"We believe that the trend of uranium hexafluoride prices rising from between \$112 and \$117 per kilogram when the transfers began, to \$153 per kilogram during the month when the last of these Departmental transfers occurred, supports the conclusion that the Department's actions did not have an adverse material impact on the market," Lyons wrote.

Lyons also indicated the department was not yet concerned about the impact of the nuclear crisis in Japan on uranium market conditions.

"It is too early to evaluate the full effects...on the nuclear fuel markets," he said, adding that the department would "monitor these developments closely and assess the evolving uranium market in the aftermath of the disaster."

Goranson has previously pointed out to *FCW* that the USEC Privatization Act of 1996, which Chu cited in the Secretarial Determination, has no formal mechanisms or criteria that force DOE to back off if it can be shown that market conditions have changed, and the analysis is no longer accurate.

The department remains "open to dialogue" with UPA and other industry stakeholders, Lyons concluded.

"We will be following up with DOE, and we will try to show that the market and industry that was considered in the [analysis] has radically changed," Goranson told *FCW* in an email last week. "It is no longer 'business as usual' and as the letter states, the ramifications of the Japanese nuclear incident are far from settled. That is all the more reason why DOE needs to take a pause, just as the rest of the industry is taking." ●

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is more attractive to uranium enrichment plants to get the UF₆ off their sites and be processed by us.”

And to International Isotopes the tails assay is of the depleted uranium matters not at all. Laflin is after the fluorine gas in UF₆, in order to produce high-purity product for customers in the electronics and pharmaceutical industries. The company already has signed an agreement with Louisiana Energy Services in nearby Eunice to deconvert tails from Urenco’s centrifuge enrichment plant, which opened last June.

Another advantage, Laflin says, is that domestic production of hydrofluoric acid will curb U.S. dependence on China for fluorspar, the mineral that contains fluorine. In 2009 the U.S. imported 460,000 tons, having exhausted its strategic stockpile in a 2007 sale, according to the U.S. Geological Survey.

In June 2009 the U.S. Trade Representative filed a complaint with the World Trade Organization alleging that China had withheld exports of critical materials, including fluorspar.

“China’s measures appear to be part of a troubling industrial policy aimed at providing substantial competitive advantages for the Chinese industries using these inputs,” the complaint said.

Viable Regardless of Pace of New Build

If Laflin lands the \$97 million DOE loan at an attractive rate, he will need only \$30 million in equity financing to leverage the completion of the plant. Meanwhile, he has the capital to complete its engineering and licensing activities, he said.

The company’s balance sheet for December 2010 reports \$12.6 million in cash and investments, and \$6.6 million in liabilities.

What would it take for International Isotopes to get back into equity markets? Laflin said the firm cancelled the public offering because of the worldwide effect on nuclear energy markets from the crisis at the Fukushima site.

“Investors are reconsidering putting money into businesses operating within the nuclear fuel cycle,” he noted. But this will be temporary because the events do not reduce the need for his firm’s service, which is to make useful products out of depleted uranium.

“Our business plan does not require a single new reactor to be built in order for us to be successful,” said Laflin. “We expect a modest turnaround in the investment climate by the time we get our NRC license in January 2012.”

He is also open to licensing the patented fluorine extraction technology for use worldwide.

“Japan is a possibility,” he said, despite the devastation at Fukushima. The Japanese will continue to use nuclear technologies to attain its energy independence goals.

That means there is a lot of UF₆ there now, with a lot more to come. ●

International Isotopes And the \$97 Million Loan

By Dan Yurman

Among other things the U.S. Energy Policy Act of 2005 authorizes the Department of Energy to support innovative clean energy technologies that typically cannot attract conventional private financing. The technologies must avoid, reduce or sequester air pollutants or manmade greenhouse gas emissions.

Industrial energy-efficiency projects like fluorine extraction fit the bill, as do biomass, hydrogen, solar, wind, hydropower, nuclear, advanced fossil energy coal and carbon sequestration practices and technologies.

Loan applicants must use a new or significantly improved technology that has not been commercialized and that avoids, reduces or sequesters air pollutants or greenhouse gas emissions.

Supporting the application of International Isotopes are the twin pillars of industrial energy efficiency and reduction of greenhouse gases. Its technology is unique in the U.S.—and the government funding is undersubscribed. The Energy Department is therefore anxious to show progress in this area.

A DOE spokesman declined to comment in response to an inquiry from *FCW* due to confidentiality requirements regarding the release of any information about applicants prior to final award.

OPEN URANIUM DEALS (4/06/2011 – 4/13/2011)

Company Name	Offer Size	Price Per Share	Discount Premium	Security Type	Warrant @ Share	Market Cap	Under-writers	Financing Basis	Open Date, Updated
Forum Uranium Corp. (TSX-V:FDC)	\$1.0m	\$0.15	16.7%	Common	1/2 W@ \$0.25	\$22.1 m	Dundee Securities	Best Efforts	04/07/2011
Forum Uranium Corp. (TSX-V:FDC)	\$4.0m	\$0.18	(-2.8%)	Flow-Through	–	\$22.1 m	Dundee Securities	Best Efforts	04/07/2011

RECENTLY CLOSED URANIUM DEALS (4/06/2011 – 4/13/2011)

Company Name	Offer Size	Price Per Share	Discount Premium	Security Type	Warrant @ Share	Market Cap	Under-writers	Financing Basis	Open Date, Close Date
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NO CLOSED URANIUM DEALS THIS WEEK.

Source: Oreninc.com

Providing weekly data on TSX & TSXV uranium financing activity. All figures in \$CAD.

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