

#### **Via Electronic Submission**

April 6, 2015

Mr. David Henderson
U.S. Department of Energy
Office of Nuclear Energy
Mailstop NE-52
19901 Germantown Road
Germantown, Maryland 20874-1290

Re: Excess Uranium Management: Effects of DOE Transfers of Excess Uranium on Domestic Uranium Mining, Conversion and Enrichment Industries: Request for Public Comment

Dear Mr. Henderson:

Fluor-B&W Portsmouth LLC (FBP) is currently the contractor at the Portsmouth Ohio site who receives transfers of Departement of Energy (DOE) owned natural UF6 as barter transfers as set forth in our Prime contract (Contract DE-AC30-010CC4017). Since June 2011 DOE has transferred 7,305 MTU through December 31, 2014. In turn, FBP has granted DOE \$824 million in credits towards FBP Decontamination & Decommissioning (D&D) services carried out at the Portsmouth Ohio site for DOE.

This material has been sold by FBP to Traxys North America under commercial contract terms that are confidential. Objectives of the FBP-Traxys UF6 Sales Agreement were designed to structure a Predictable and Reliable Source of Supply that efficiently monetizes the UF6 into the U.S. and international nuclear fuel markets. To minimize the impact upon the near-term spot market Supply-Demand-Price balance, Traxys has placed over 50% of the DOE-to-FBP-to-Traxys UF6 into long-term, multi-year contracts. In their response to the RFI in January Traxys has increased the quantity of material placed in forward-delivery contracts to approximately 90% of the material contracted from FBP to Traxys through early 2016. The 2009-2010 barters conducted by FBP's predecessor resulted in 100% entering the spot market. FBP has voluntarily followed advice from the domestic industry to devise a supply chain model to minimize the amount of DOE bartered UF6 entering the spot market and time shift it to forward deliveries, if possible. The FBP-to-Traxys model has moved from 100%-to-50%-to-10% of DOE bartered material being sold into the 0-12 months spot market.

In light of this introductory background FBP offers its comments within the structure set forth in the DOE's Federal Register request for comments about RFI submitted information, DOE's analytical Approach (including Factors for Consideration), the 2015 ERI report referenced within and The Summary of Information Under Consideration. FBP has utilized the services, data and input from NAC International (NAC) to supplement FBP's insights and comments contained herein.

NAC International (NAC) provides energy consulting, information services and spent fuel management technologies to utilities, government agencies, producers, fuel vendors and financial institutions worldwide. Founded in 1968 as a nuclear services company NAC's offices span the globe—Atlanta Corporate Headquarters; London; Moscow.



FBP believes that DOE has too narrowly defined the "Domestic Uranium Mining, Conversion and Enrichment Industries" since the positive effects upon FBP's 1,345 site employees and subcontractors should also be included in the industry analyses of the impact of uranium transfers (The number would be 1,824 if FBP subcontractors are included). Every industry trade association in the world includes not only primary suppliers, but also secondary suppliers and supply chain companies in their "Industry" populations. For example, even though there is only one active U.S. enrichment primary producer (URENCO-LES in Eunice NM) there are active nuclear services participants performing important roles within of the domestic enrichment industry. Remediation, reclaimation, decontamination, decommissioning and waste management are all services that are a part of the total nuclear life-cycle and supply chain (i.e. Industy).

Domestic Industries	Domestic Location(s)	Source of Reference	No. of Employees/ Subcontractors
Uranium	See Detailed List in EIA Reference (CO, NE, TX, UT, WY, etc.)	EIA Annual Report	1,100
Conversion	Honeywell Metropolis IL	ERI-2142.17-1401/April 2014 – Public Record 53-2	<b>300</b> (Est.)
Conversion*	FBP Portsmouth – Piketon OH	FBP NIPC Response – FJ Hahne Letter	UF6 Transfer Ops staff No. included below
Enrichment	URENCO-LES Eunice NM	Public Information	<b>400</b> (FT Estimated) <b>1,000</b> (Est. Construction)
Enrichment	Portsmouth – Piketon OH Includes: FBP, BWCS, Centrus, Subs	FBP NIPC Response – FJ Hahne Letter	2,518
Enrichment	FGG - Paducah KY	FBP NIPC Response – FJ Hahne Letter	1,472
Enrichment**	B&W-Nuclear Fuel Services – Erwin TN	Public Information	<b>1,000</b> (HEU-to-LEU = <b>130</b> )
Enrichment	GLE - Wilmington NC	Not Available	Not Available
Enrichment	UCOR - Oak Ridge TN	2014 Annual Review -UCOR	1,400

<sup>\*</sup> As an additional part of FBP's commitment to the U.S. DOE to perform D&D services in a safe and cost-effective manner for the benefit of U.S. taxpayers we also include reclaimation and recovery of materials that have potential commercial value—such as 30 year old natural uranium hexafluoride (UF6). FBP recovers, processes and then DOE barters the Excess Uranium Transfers to the commercial nuclear fuel supply chain through FBP. This reclaimed bartered resource has provided over 50% of the payroll in recent years to conduct D&D operations at the Portsmouth OH site.

Legislation requires DOE to assess whether there is an adverse material impact on the domestic **industry**—not just the production portion of the industry. Industry includes more than just the primary producers. The industry also includes consumers, processors, traders, brokers, users and other service providers such as companies that provide drilling, transportation, decontamination and decommissioning (D&D) services. It is not possible to have sales without consumers and brokers and traders also play a role in sales. Production cannot occur without the services providers. A production facility must set aside funds to cover D&D and convince NRC

<sup>\*\*</sup> As an integral part of the U.S. National Non-prolifieration mission NFS is the only active commercial plant that can downblend HEU into LEU (4.95%) for the U.S. Government. It requires a Category 1 U.S. NRC license to carry out such an elevated enrichment mission.



that these funds are adequate to cover the costs. These entities have a significant stake in the industry and their interests should also be considered.

The consumers have a particularly large interest in the outcome of the Secretarial determination. Not only may DOE's actions affect the prices they pay but they could also have another impact. Currently DOE funds the D&D of the former enrichment sites from two sources: the barter of excess uranium and the D&D fund created from utility and government contributions. DOE has determined that these funds are inadequate and has proposed collecting additional funds from the users of the enriched uranium produced. If DOE is successful the funds not provided by the barters would come from the consumers, mostly U.S. electricity providers. Even if the barters are only delayed due to a reduction in funding, D&D costs would rise substantially and require significant additional funds.

# Analytical Approach & Summary of Information under Consideration Factors of Consideration

After consideration of the comments received DOE has preliminarily determined that the factors that should be considered in assessing adverse material impact are:

- Market prices
- Realized prices
- Production at existing facilities
- Employment levels in the industry
- Changes in capital improvement plans and development of future facilities
- Long-term viability and health of the industry

In general the factors chosen by DOE are reasonable and indicative of the types of impacts that DOE Transfers of Excess Uranium could have on the domestic industries. In addition to macro-industry analyses DOE can also apply these factors to individual entities within the industries and, if appropriate, exercise Secretarial discretion to reach the appropriate conclusion.

# **Market Prices**

# **General Comments on Methodology**

The Energy Resources International report, *Analysis of the Potential Effects on the Domestic Uranium Mining, Conversion and Enrichment Industries of the Introduction of DOE Excess Uranium Inventory During CY 2015 Through 2024*, overstates the impact of DOE inventory due to their application of Total Cost of Production rather than Incremental Cost of Production values.

Classic economic theory is that the clearing price in a competitive market is equal to *incremental cost* of the submarginal supplier required to provide sufficient supply to meet demand. The idea being that the market will provide sufficient prices to allow the lowest cost producers to sequentially enter the market and the last supplier needed to meet demand (marginal supplier) can push its price to the incremental cost of the next highest cost supplier's (sub-marginal supplier's) incremental cost. If the marginal supplier pushes price above the incremental cost of the sub-marginal supplier, the higher cost supplier will compete and price will eventually fall until it reaches the sub-marginal supplier's incremental cost.

In section 4.1.1 ERI states that its market clearing price is the "total cost of production for the last increment of supply that is required to meet demand during that year" (emphasis added). In figure 2.4 ERI shows that



uranium supply from secondary sources, currently operating, expanding or under development mines exceed market demand until 2023. Since incremental costs exclude sunk costs and all of the supply required until 2023 will have experienced sunk costs, total costs will be higher than incremental costs and will tend to magnify the differences in the calculated clearing price for the two scenarios, exaggerating the effect of the DOE inventory on market prices.

To highlight this difference in application ERI states that production from the mines under development category in figure 2.4 is "dominated by two large projects- Cigar Lake in Canada and Husab in Namibia". Cigar Lake has been under development for a long period and has required very large capital investment that is largely sunk. Therefore NAC's estimate of its full cost (including a return on investment) is a little over \$52 per pound, while its incremental or forward cost (including a return) is about \$26 per pound. Although other properties may have smaller differences, all have total costs that are higher than their forward costs. Thus this approach will result in an over estimation of the impact of DOE inventory sales due to the improper analytical approach used by ERI. NAC estimates that using forward costs instead of total costs would decrease ERI's calculated impact by about 60%.

Another area where NAC believes ERI results overstate the impact of DOE's transfers is the determination of clearing prices based on total supply and total demand. As FBP discussed in its January 2015 submission, NAC believes the proper approach is to assess the market clearing prices based on uncommitted supply and demand taking into account purchases for inventory. Previously contracted demand is no longer part of the competitive market and using it tends to result in higher market clearing prices. This is because some higher cost producers decided to lock in the higher prices available in prior markets. Consequently some supply that would not be economically viable in today's market is able to produce. This pushes lower incremental cost producers out of the market and suppresses prices. Thus the uncommitted approach will more closely model current market conditions and more accurately estimate the impact of DOE sales. It will also deal with the effect closed markets have on the analysis since these markets are considered to be committed. NAC estimates that this approach will further reduce the ERI calculated impact by another 20% or more.

Although ERI does not specifically state how it derived the market clearing prices for conversion and enrichment, it appears the methodologies are identical and NAC believes the Total Cost and Total supply/demand issues would also cause ERI to overstate the impact of DOE inventory.

# **Uranium Market Prices**

As reiterated in prior comments, the uranium price has fallen from its abnormal peak in 2007 due to overly optimistic expectations of miners resulting in too much expansion, particularly in Kazakhstan, and the loss of demand due to Fukushima. This inelasticity of supply is the reason (partially offset by the ending of HEU deliveries), not DOE inventory sales that caused an adverse position for those suppliers that did not lock in prices through long-term contracts during the high-price cycle. In 2014 world production fell modestly for the first time since 2006 (see figure 1) and consequently prices rose somewhat. However most of this reduction was due to production problems not voluntary cutbacks to adjust supply. As shown in figure 1, production tends to increase rapidly in response to higher prices but it takes a long time for decreases in production to occur when prices fall. Note that prices increased rapidly from a little over \$21 in 2005 to a peak of \$135 in 2007, only to fall back to \$59 by mid-2008 and about \$28 in mid-2014. Yet production continued to grow through 2013. For those unhedged producers to be able to recover, production must fall farther and/or demand must increase. In the short term the only significant increase in demand must come from the restart of operations for Japanese



reactors, which is outside producer control and taking longer than expected. Yet despite the need to rationalize primary production, expansions continue:

- Kazatomprom announced that production in 2015 will again increase, adding 1.6 million pounds.
- Cameco stated in its February 9, 2015 Management discussion that its planned production for 2015 is expected to be 2.5 million to 3.7 million pounds higher than in 2014.
- Information from this same document indicates the other owners of the Cigar Lake project are planning to produce an additional 2.6 to 3.9 million pounds from Cigar Lake. (*Total 2015 Project outlook is 6-8 million pounds—on an overall plan to reach 18 million pounds per year by 2018*)
- Husab plans to begin mining by mid-year and processing ore by the end of the year or early next year.

These increases exceed the DOE planned sales. The point is that primary uranium production continues to expand even in the currently depressed market. Some of this expansion comes from companies also mining in the United States that continue to blame depressed prices on DOE inventory sales.

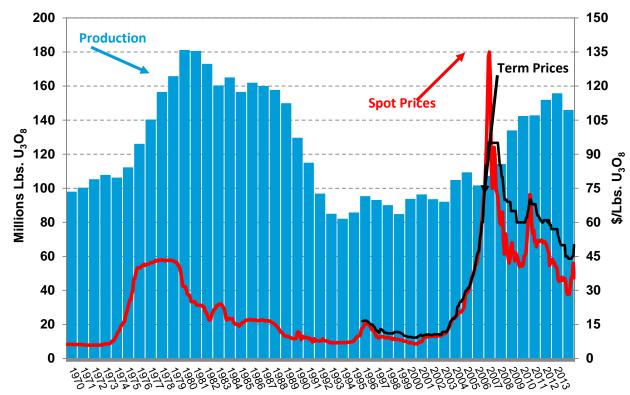


Figure 1 Price Impact on World  $U_3O_8$  Production

# **Realized Prices**

The U.S. uranium mining industry is realizing much higher than spot prices for its sales. ERI's figure 4.13-Realized Uranium Prices of Companies with U.S. Production needs to be updated. The figure shows the average price received by UR Energy for its Lost Creek sales at around \$47 when the company publicly reports a price of \$51.22 per pound for 2014. ERI does not show the sales price for Uranerz which publicly reported a 2014 sales price of \$57.00 per pound. Uranium One just released its information for 2014. With these changes all of the U.S. producers, except the two producers that decided not to lock in high prices in earlier markets, are realizing prices well above current spot prices. Based on reported 2014 production, it appears that less than 15% of U.S. production is effectively unhedged, even lower than the 30% cited by ERI.



#### The 2014 data is shown below:

	Company	Property	2014 Production (lbs. U <sub>3</sub> O <sub>8</sub> )	Average 2014 Sales Price \$/lb U <sub>3</sub> O <sub>8</sub>
Now Owned by ARMZ	Uranium One (U1)	Willow Creek	563,100	32.50
U.S. Subsidiary of	Cameco	Crow Butte	600,000	47.53
Cameco	Cameco	Smith Ranch	2,100,000	47.53
Balance of UPA	Uranium Energy	Hobson	35,083	NA
Member		(Palangana)		
Companies/Production	Energy Fuels	White Mesa	942,632	57.19
Centers	Mestena	Alta Mesa	0	NA
	UR Energy	Lost Creek	547,992	51.22
	Uranerz	Nichols Ranch	199,000	57.00
		Total	4,987,810	

Note: The total production in the table is slightly higher than reported by EIA (4,905,909 preliminary 2014 data), probably due to the lower precision reported for the Crow Butte and Smith Ranch production.

# Long-Term Viability & Health

#### **Uranium**

UPA argues that the 2013 EIA data on uranium expenditures shows "the average cost to mine uranium in the United States is \$67.10 per pound (includes expenses for land, exploration, drilling, production, and reclamation) far above the spot market price of \$36.50 (as of January 19, 2015). Even when excluding expenses for land, exploration, and reclamation, the average direct production cost of \$47.41 per pound still exceeds current market prices." If U.S. producers have average costs as high as asserted by the UPA (even at \$47.41), eliminating all DOE sales would not allow U.S. production to compete or achieve profitability until the next decade. In other words, other producers with lower costs could provide sufficient production to meet the demand without any U.S. production. If average U.S. production costs are as high as claimed by the UPA, no reduction in DOE sales is sufficient to allow them to succeed. This analysis was conducted using NAC's standard approach (as described in the attachment to the FBP submittal of January 22, 2015) but replacing NAC's estimated forward costs with \$47.41 for all U.S. producers.

U.S. uranium producers publish information which is useful in determining the potential impact of the DOE inventory sales on U.S. uranium producers in 2014. The following table provides a summary of this information.

Owner	Property	Production (lbs U <sub>3</sub> O <sub>8</sub> )	Cash Costs (\$/lb U <sub>3</sub> O <sub>8</sub> )	Total Costs (\$/lb U <sub>3</sub> O <sub>8</sub> )	Realized Price (\$/lb U <sub>3</sub> O <sub>8</sub> )	Sales (lbs U <sub>3</sub> O <sub>8</sub> )	Revenue (\$ millions)
Uranium One	Willow Creek	563,100	29.00	60.38 <sup>a</sup>	32.50 <sup>b</sup>	535,800	18.30
Cameco	Crow Butte	600,000	36.83 <sup>c</sup>		47.53 <sup>e</sup>	600,000	28.52 <sup>d</sup>
Cameco	Smith Ranch	2,100,000	28.14 <sup>c</sup>		47.53 <sup>e</sup>	2,100,000	99.81 <sup>d</sup>
Energy Fuels	White Mesa	942,632		37.45 <sup>g</sup>	57.19	808,700 <sup>h</sup>	46.25
UR Energy	Lost Creel	547,992	19.73	34.49	51.22	517,800	26.52
Uranerz	Nichols Ranch	199,000		35.50	57.00	175,000	9.98
Uranium Energy	Hobson	35,000 <sup>f</sup>				0	0
Mestena <sup>d</sup>	Alta Mesa	0 <sup>f</sup>				0	0
Total		4,987,810				4,737,300	229.4

a) Total of reported operating and depreciation costs divided by the production



- b) Reported revenue divide by production
- c) Total reported for payroll, purchases, taxes, royalties, etc. divided by reported production
- d) All production is assumed to have sold at the average price
- e) Average reported sales price for all Cameco sales, prices for individual properties are not reported
- f) Estimated but must be very small based on the reported values from other companies and the total reported by DOE
- g) Calculated by dividing cost of sales by sales volume
- h) Calculated by dividing revenue by the reported average price

Uranium One has a strategy of selling largely at the spot price and the revenue per pound shown in the above table shows an average 2014 price very close to the average monthly spot price (\$33.15).

Cameco reports that its portfolio includes a mix of fixed-price and market-related contracts, which is targeted to have a 40:60 ratio. According to Cameco this is a balanced and flexible approach that allows them to adapt to market conditions and put a floor on realized price, reduce volatility of future earnings and cash flow, and deliver the best value to shareholders over the long term. In its February 2014 Management discussion and analysis, Cameco states that for 2014 each \$5 per pound change in the Ux spot and long-term indicator would change revenue by \$67 million. Projected sales volume was reported as 31 to 33 million pounds. Assuming the middle of the range, Cameco was expecting to experience a \$2.09 per pound change in price for each \$5 per pound change in both the spot and term indicators.

Uranium Energy Corporation also has a strategy of selling at the prevailing spot price. According to a company presentation, they are highly leveraged to the price of uranium. The last year UEC published any usable cost information was in its fiscal year 2013 (ending July 31, 2013). The reported cost of sales was \$38.37 per pound U3O8. In September 2013 UEC announced that it would align its operations to market conditions. One of the actions taken was to slow the pace of mining at Palangana. The spot price at the end of September 2013 was \$35 per pound. This indicates a price likely above the market price even with no DOE sales.

The remainder of the U.S. production appears to be based on defined prices with little or no tie to spot prices.

Although NAC believes the ERI derived impact of DOE inventory sales on market prices of \$2.80 per pound was too high, even assuming the ERI value, the spot price in 2014 would have averaged only \$35.95 per pound (\$33.15 + \$2.80). Any unhedged producer with costs above this value was not viable even if DOE sales totally disappeared. Thus those producers could have only been impacted by the DOE inventory sales to the extent they continued to produce and sell, even when their production was noncompetitive. Uranium Energy had costs higher than \$35.95 and did not make any sales; therefore they could not have been impacted by DOE sales. Uranium One had costs higher than \$35.95 but continued to produce and sell. Therefore it had a theoretical impact of \$1.5 million (535,800 pounds sold x \$2.80 per pound impact) due to DOE sales. Cameco did sell forward but a portion of the price it receives is tied to the spot and term market indicators. The breakdown of the impact of each price change is not disclosed nor is the exact sales. Assuming all production was sold and that both spot and term prices were reduced by \$2.80 per pound, the impact on Cameco would be \$1.17 per pound ((2.8/5) x 2.09) for the 2.7 million pounds sold. This would equate to \$3.2 million.

Several companies produced more uranium than they sold in 2014. If one assumed all of this (250,500 pounds) would have been sold, if the spot price were \$2.80 per pound higher, instead of being held for future deliveries, then the result would be an additional impact of \$0.7 million. Theoretically one of the economic properties could have expanded beyond the level of its 2014 production adding an additional impact. However the three



possibly competitive properties all expanded significantly and there is no indication a slight increase in price would have encouraged additional production. The total 2014 revenue for the U.S. production industry is about \$229 million; therefore using the most impactful assumptions results in a total impact of \$5.4 million or 2.4%. This is certainly not an adverse material impact.

#### Conversion

ERI overstates the impact of DOE inventory sales on the Metropolis Works production costs because of erroneous assumptions as to the portion of costs that are fixed and variable. Very little support for these assumptions is provided. ERI assumes a unit cost to produce 8.9 million kgU of \$15 per kgU and that fixed costs are either 100% or 80% of total costs. Even assuming all labor costs are fixed this is substantially high and this is largely the cause of the over estimation of the impact of DOE sales on production costs. Based on the estimated loss in volume, ERI then calculates the effect of lower volume on production costs and concludes that cost of production increases by \$1.10 per kgU due to a change in production from 8.9 to 8.3 million kgU. NAC has performed an analysis that estimates costs for labor, electricity, other energy, utilities, external charges, raw materials and consumables, taxes and fees, depreciation and general and administrative expenses. Based on this analysis the effect of dropping production from 8.9 to 8.3 million kgU per year would be only \$0.73 per kgU or a little less than 5%. The impact of going from 8.9 to 8.4 million kgU per of production would be \$0.60 per kgU or 4% (compared to ERI's estimate of \$0.90).

# Production at Existing Facilities & Employment Levels

# **Uranium**

There are several issues related to production and employment to which FBP wishes to comment. First, ERI discusses the impact of market prices on U.S. uranium production but does not address the impact of the DOE inventory sales on US producer sales volume. ERI states U.S. production has risen since the start of the DOE uranium inventory barters but despite this increase in production since 2009, the decline in market prices has affected the actual and planned production of some U.S. operations. ERI does not indicate the applicable period for which this statement applies. Therefore, NAC calculates...

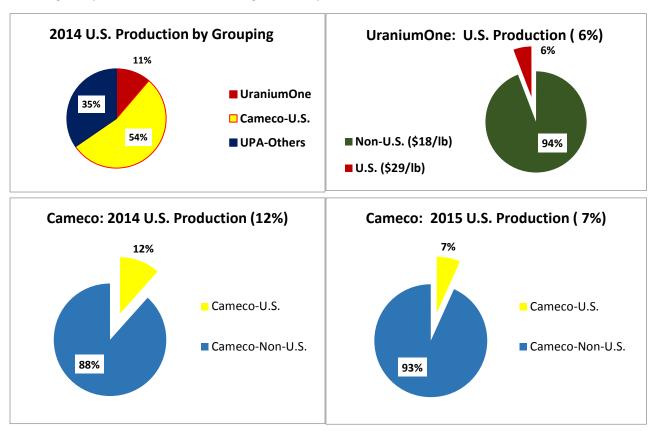
U.S. production has averaged about 3% of world production over the past 11 years. Thus if U.S. producers maintain the same market share for any increased production due to a total elimination of DOE inventory sales, U.S. production would increase by only 220,000 pounds or 4.5%. This is certainly not an adverse material impact today nor will it be in the future.

Second, the UPA states that "UPA encourages the Department to work with uranium producers to facilitate the entry of the material into the market, as was done under the Megatons to Megawatts Agreement. Uranium producers can feed the material into long-term contracts, which will ease some of the pressure in the short-term when the market is oversupplied and there is little near-term demand from utilities." This implies that the sales are acceptable if they are sold through uranium producers but unacceptable if sold through a non-producer. The logic appears to imply 1) that uranium producers are the only entities that can or will deliver this uranium through pre-existing contracts and 2) that somehow this will reduce the near-term market supply (as this is the only way in which there would be an easing of pressure).

As to the first point, this is absolutely untrue. Traxys stated in its response to DOE's RFI on Excess Uranium Management that "approximately 90% of the quantities contracted to be purchased by Traxys has now already been committed to be sold to utility customers under forward delivery contracts and NOT in the spot market". As to the second point, a U.S. producer that has existing contracts either 1) has the required uranium in



inventory to meet its delivery requirements; 2) plans to obtain the material from existing production; or 3) plans to purchase the uranium on the market. If the producer is unwilling to add to its current inventory or reduce its non-U.S. production, there would be no benefit to U.S. producers other than obtaining some profit from the DOE inventory sales. If the purchase results in an offset of U.S. production, U.S. production would be reduced. If the purchase replaces a purchase that otherwise would have been made from the market there is a loss in demand. Thus the only way DOE/FBP selling to a U.S. producer could benefit the market (for U.S. producers) would be if the purchaser has non-U.S. production and is willing to reduce that production by the quantity purchased. The producers that have international production have demonstrated a tendency for the opposite-lowering U.S. production while increasing non-USA production.



FBP observes that 2/3 of the 2014 U.S. production came from 2 international companies that have business models that will continue to expand non-U.S. production over U.S. production. In the case of Uranium One, now owned by Rosatom, their \$18/lb. cash cost to produce in Kazakhstan is only 60% of the \$29/lb. cost to produce in the U.S. Cameco U.S.'s share is also under pressure to continue to decline because Cigar Lake, the #1 corporate priority is to ramp up production to 18 million pounds per year (Cameco share = 50%) from 5M-6M/yr rate in 2015. Therefore, any additional near-term market share resulting from decreased DOE transfers will not directly increase those U.S. project's production.

Furthermore, FBP selected Traxys based on competitive offers received from a broad cross section of industry participants, including producers. **The Traxys selection allowed FBP to provide the resulting "best value" to the government, and thereby the U.S. Taxpayer.** Additionally, it diversified the uranium supply and avoided exacerbating the Concentration of Supply trend that domestic uranium buyers for nuclear power plants faced.



Third, the UPA also suggests that DOE "prohibit barter contracts that commence before or extend after the time period covered by a Secretarial determination". The UPA states that since Traxys has sold substantially all of the DOE material for the next two years (2015-2016) under forward delivery contracts, this "practice is very damaging to our industry". The UPA position is very difficult to understand. In previous statements (Brief of Amici Curiae, Uranium Producers of America and National Mining Association, page 3, "The Ux Consulting study observed that the Department could readily mitigate the impact to domestic fuel suppliers from its proposed inventory sales if (1) it made long-term sales;....") the UPA has encouraged DOE to sell its excess uranium inventory on the term market not the spot market. Furthermore in this same document, the UPA says DOE should reform how this material enters the market by selling to uranium producers so they can feed the material into their term contracts. They do not elaborate on why selling the uranium to fulfill uranium producer versus Traxys term contracts is very damaging to the industry.

Lastly, DOE is required by law to make a Secretarial determination every two years and DOE is not allowed to sell any uranium unless that Secretarial determination concludes there is no material adverse impact on the domestic industries. Thus the legal framework precludes DOE from selling under long-term contracts. Therefore any buyer that wants to sell this material under a term contract must be willing to accept the price and supply risk that replacement material may need to be obtained on short notice. This is a substantial risk that Traxys has been willing to absorb and which has mitigated the market impact. It should be noted that Traxys is not guaranteed that any barter material will be available. Instead based upon Traxys' response to the RFI they entered into purchase contracts, over and above the DOE-FBP-Traxys purchase quantities, to provide the assurance buyers required to assure supply under long-term contracts—something that DOE and/or FBP cannot provide.

Therefore, **FBP does not believe** it is conceivable that transactions to bridge the gap from near to long-term could be financially justifiable at this time. Specifically that is, whether the markets could support the payment to FBP/DOE for the provision of D&D services to be bartered to DOE in the near term to then be compensated by uranium available only in the long term—just based upon the forecasted increases in the price of uranium concentrates.

FBP is pleased to submit our comments on the summary of information DOE published in the Federal Register March 18, 2015.

Respectfully submitted,

# Frank Hahne

Frank J Hahne Fluor-B&W Portsmouth Uranium Barter Manager (770) 330-2386 – Mobile fjhahne@babcock.com

CC: Dennis Carr, FBP