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January 21, 2015

David Henderson
U.S. Department of Energy
Office of Nuclear Energy
Mail Stop NE-52
19901 Germantown Rd.
Germantown, MD 20874-1290

Re: UPA Response to DOE RFI; Excess Uranium Management: Effects of DOE Transfers of Excess Uranium on Domestic Uranium Mining, Conversion, and Enrichment Industries

Dear Mr. Henderson:

On behalf of the Uranium Producers of America (UPA) and our member companies, we appreciate the opportunity to provide input regarding the Department's management of the federal excess uranium inventory. As an industry that is directly impacted by federal uranium transfers, UPA has consistently urged the Department to make the Secretarial Determination process more transparent. While the Request for Information (RFI) is a step in the right direction, additional steps are needed to ensure the Department lives up to its congressional mandate to certify uranium transfers "will not have an adverse material impact on the domestic uranium mining, conversion, or enrichment industry."[1]

UPA maintains the Department's recent actions, including the May 2014 Secretarial Determination, fail to meet its legal obligation to protect the domestic uranium industry and violate the USEC Privatization Act. Despite extensive data provided by UPA and our member companies documenting the fragile state of our industry, the Department has dramatically increased the amount of uranium entering the market. As described in greater detail below, these transfers come at a time when the market is already oversupplied with uranium. In addition, the amount of material the Department plans to transfer accounts for more than 100 percent of the global uncommitted utility demand for 2015, meaning there is no room for domestic producers to compete.

While UPA objects to the Department's recent actions and are not waiving any of the positions taken in our amicus brief in *ConverDyn v. Moniz*, we recognize the federal excess uranium inventory is a taxpayer asset that can be leveraged to fund the cleanup of legacy federal nuclear sites, including the Portsmouth Gaseous Diffusion Plant.

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[1] USEC Privatization Act (P.L. 104-134).

However, the disposition of the uranium inventory should be predictable, transparent, and done in a way that minimizes the impact on our industry. In summary, UPA encourages the Department to reinstate a cap on annual transfers in line with market conditions and production costs; ensure future Secretarial Determinations look at the effect of transfers on the domestic industry – not the relative impact compared to other market factors; reform how the material enters the market; and take additional steps to ensure the Secretarial Determination process is transparent and open for public input.

In order to provide the Department with a detailed assessment of the impact of uranium transfers on the domestic industry, UPA commissioned Trade Tech, a leading uranium market analyst, to conduct a study. While we have cited some of the highlights below, UPA is submitting the full study as part of our formal response to the RFI.

**UPA's Response to RFI Questions**

**(1) What factors should DOE consider in assessing whether transfers will have adverse material impacts?**

DOE should consider current market conditions and trends, including cumulative impacts from prior DOE transfers. UPA specifically recommends the Department consider:

- **Average total production costs relative to current spot market prices –** The Department should look at the average production costs for domestic uranium producers, as reported by the U.S. Energy Information Administration (EIA), relative to market prices. According to EIA's 2013 Domestic Uranium Production Report, 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 current 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.

- **Employment trends –** Since the May 2012 Secretarial Determination, our industry has lost half its workforce. While we recognize the Department's actions are not fully responsible for the adverse market we face, the Department's transfers are a contributing factor and the lack of transparency and predictability have made it hard for our members to raise the necessary capital to sustain their operations.

- **Uncommitted utility demand –** At times when utilities are substantially covered by contracted supply, transfers by the Department will have a disproportionately negative impact on the market. For example, the transfers planned in the May 2014 determination encompass more than 100 percent of global uncommitted utility demand in calendar year 2015, leaving no room for domestic producers to compete. In 2016, DOE planned transfers exceed 100 percent of the U.S.

uncommitted utility demand and almost 60 percent of the global uncommitted demand.[2]

- **Forward looking exploration and development data –** According to the DOE's own data, exploration drilling decreased 76 percent from 2012 to 2013. Total drilling, exploration, and development was down 53 percent in 2013 compared to 2012, and we expect the numbers to be even lower for 2014.[3] These are all important bellwether indicators of the future trends and health of the domestic uranium industry.

- **Current market conditions** – The Department needs to consider real-time market conditions. Looking at employment from 2010 to 2012, as DOE did in the recent determination, does not give an accurate picture of the state of the industry. The internal analysis DOE produced to support the Department's May 2014 Secretarial Determination made no mention of the fact the uranium industry has lost half its workforce since May 2012.

- **Overall financial health of industry –** The Department needs to consider the overall financial health of the domestic industry, including the cumulative effect of prior transfers. The Department should also look at whether domestic producers are operating at or below capacity. Over the last few years, the uncertainty about the amount of DOE material entering the market has made it difficult for producers to raise the capital necessary to sustain their operations.

**(2) With respect to transfers from DOE's excess uranium inventory in calendar years 2012, 2013, and 2014, what have been the effects of transfers in uranium markets and the consequences for the domestic uranium mining, conversion, and enrichment industries relative to other market factors?**

While UPA is pleased to provide data to illustrate the effects of prior transfers on our industry, we are concerned the premise of this question shows the Department continues to misinterpret its mandate from Congress. The Department is charged with ensuring its transfers do not have an adverse material impact on the domestic uranium industry. The USEC Privatization Act does not permit DOE the discretion to justify its transfers on the basis that the Department's transfers have less of an impact relative to other market factors.

As District Court Judge Reggie Walton noted in his opinion on the request for a preliminary injunction in *ConverDyn v. Moniz,* DOE examined the wrong question:

> *"Rather than assessing the evidence to determine whether the planned transfers would have an adverse material impact on the domestic uranium production,*

[2] UxC Uranium Market Outlook, Q3 and Q4 2014

[3] U.S. Energy Information Administration, 2013 Domestic Uranium Production Report, May 2014.

*conversion, or enrichment industries as directed by Section 2297h-10(d), the Department instead reviewed the evidence to determine whether the planned transfers are the primary cause of the current depressed state of the uranium market or whether altering the amount of the transfers would alleviate negative market conditions. And whether the Department's transfers are "the driver" of market conditions is not the inquiry set forth in Section 2297h-10(d). The Department's transfers may have an adverse material impact on ConverDyn even if the transfers are not the primary cause of ConverDyn's total losses."*[4]

The USEC Privatization Act requires the Secretary to certify that any proposed sale or transfer will not have an "adverse material impact" on the domestic uranium production, conversion, and enrichment industries. Yet, DOE's internal analysis in support of the May 2014 Secretarial Determination justifies the transfers by noting "DOE's actions are not the driver of the current negative states of the domestic uranium production, conversion, or enrichment industries."[5] The memorandum also states that DOE's Office of Nuclear Energy "believes that the markets will adjust to the major drivers of the depressed markets over time."[6] Again, these are not the factors DOE should be considering. DOE should solely examine the impact of its transfers on the domestic uranium industry.

The effects of DOE uranium transfers in 2012, 2013 and 2014 have been damaging to the U.S. uranium and conversion market. The historical records of spot market activity show DOE transferred more uranium into the market from 2012-2014 than the total amount of uranium U.S. utilities bought during the same period.[7] Further, DOE sales in those three years account for about half the total amount of material bought by both U.S. and non-U.S. utilities during that timeframe.

DOE transfers in 2012-2014 resulted in direct financial losses in our industry, production cut backs, employment losses, and significant share price reductions. In addition, the lack of predictability has made it difficult for U.S. producers to raise capital to sustain their operations.

**Trade Tech study findings:**

- Trade Tech estimates that from January 2012 through December 2014, the uranium spot price was reduced as a result of DOE transfers by an average of \$3.55 per pound $U_3O_8$. The maximum impact was \$5.86 per pound. These findings are consistent with a similar study conducted by Ux Consulting on behalf

[4] *ConverDyn v. Moniz*, Civil Action No. 14-1012 (D.D.C. 2014).

[5] U.S. DEPARTMENT OF ENERGY, Memorandum from Peter Lyons, Assistant Secretary for Nuclear Energy to Daniel Poneman, Deputy Secretary, May 12, 2014.

[6] *Id*.

[7] UxC Uranium Market Outlook, Q3 and Q4 2014.

of Cameco (a UPA member), which found the average impact was $4.50 per pound over the 2012-2014 period. When looking at the cumulative impact of DOE transfers, Ux Consulting estimated the decline in the uranium spot price averaged $7.11 per pound – 58 percent higher than the estimate derived using the incremental approach.

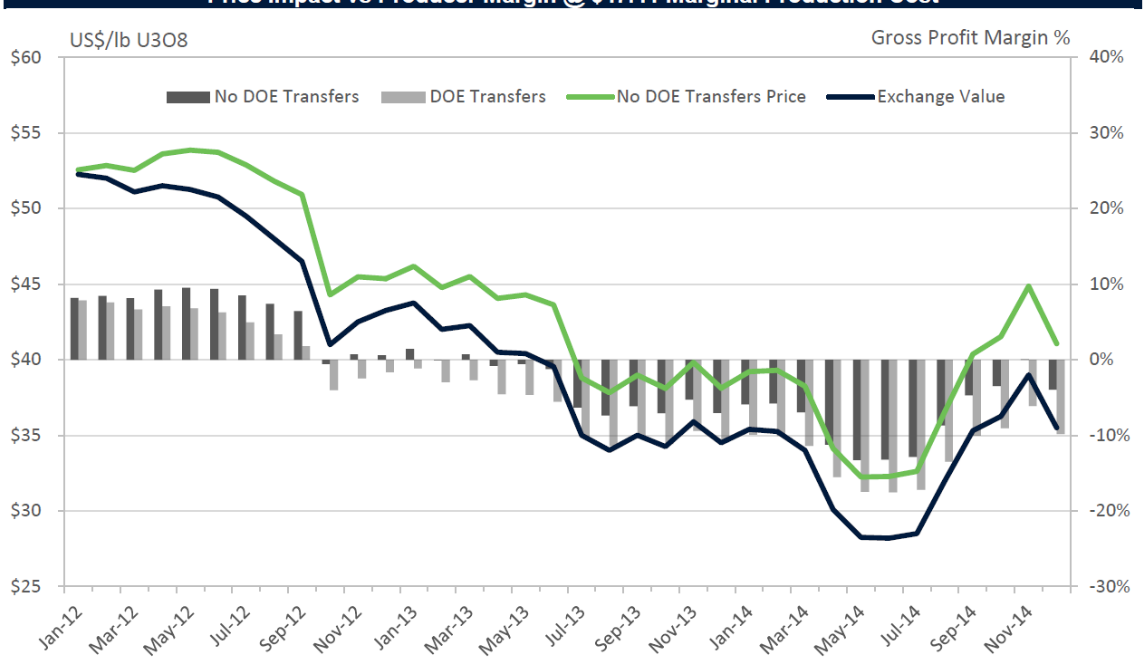
- Trade Tech estimates from January 2012 through December 2014, the conversion price was reduced an average of $2.13 per kgU as $UF_6$ due to the DOE transfers. The maximum impact was $4.36 per kgU as $UF_6$.

- Trade Tech found transfers of DOE material outweigh oversupply due to Fukushima in the short-term.

- Trade Tech found DOE transfers could have been a deciding factor in a uranium producer's viability over the period 2012-2014.

- Trade Tech concluded that absent DOE transfers producers would have been able to maintain a higher gross profit margin over the three previous years (assumes EIA average production and drilling costs). However, as shown in the below chart, DOE transfers have resulted in significant losses for domestic producers.

**Figure 11**
**Price Impact vs Producer Margin @ $47.41 Marginal Production Cost**




**(3) What market effects and industry consequences could DOE expect from continued transfers at annual rates comparable to the transfers described in the 2014 Secretarial Determination?**

If DOE does not reverse course, we expect further job losses and production cutbacks. Even if the market starts to recover, DOE transfers in the amounts outlined in the May 2014 Secretarial Determination will absorb ALL of the global uncommitted utility demand in 2015, leaving no room for U.S. producers to compete.

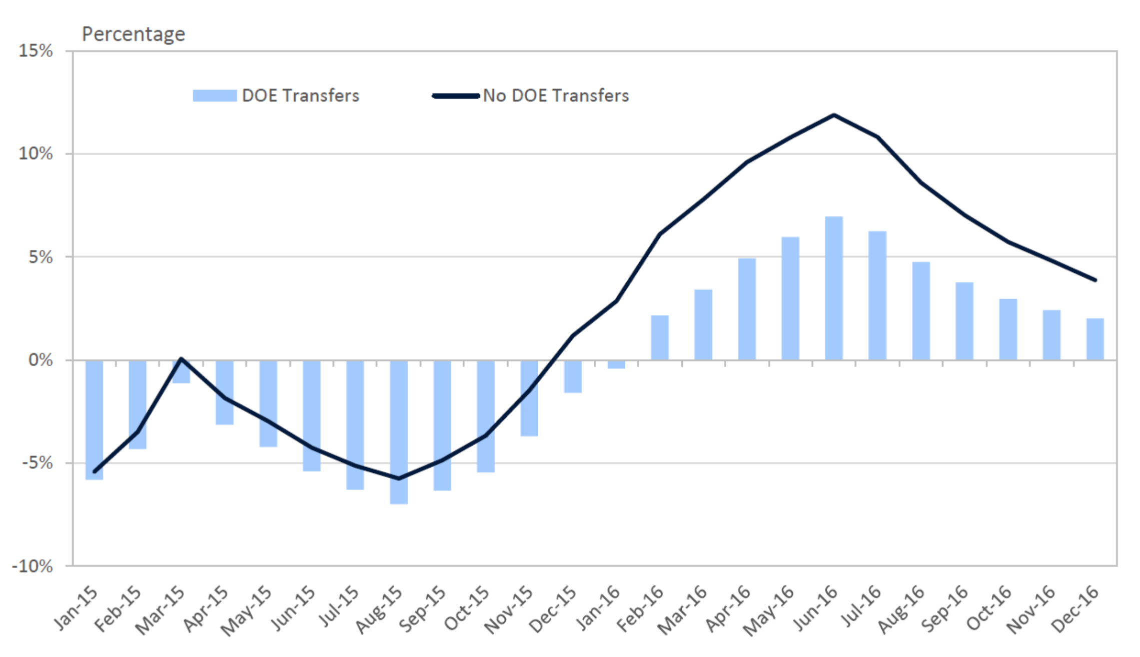
**Trade Tech study findings:**

- DOE uranium transfers will continue to have a negative impact on the uranium spot price by as much as \$4.67 per pound $U_3O_8$ (8.3 percent) over the next 24 months.

- DOE uranium transfers will continue to have a negative impact on the North American conversion spot price by as much as \$1.45 per kgU as $UF_6$ (13.6 percent).

- As shown in the following chart, DOE transfers could influence the fate of a uranium producer, both existing and in development, through its impact on prevailing prices and producer margins.

**Figure 15**
**Producer Margin @ \$47.41 Marginal Production Cost**




**(4) Would transfers at a lower annual rate significantly change these effects, and if so, how?**

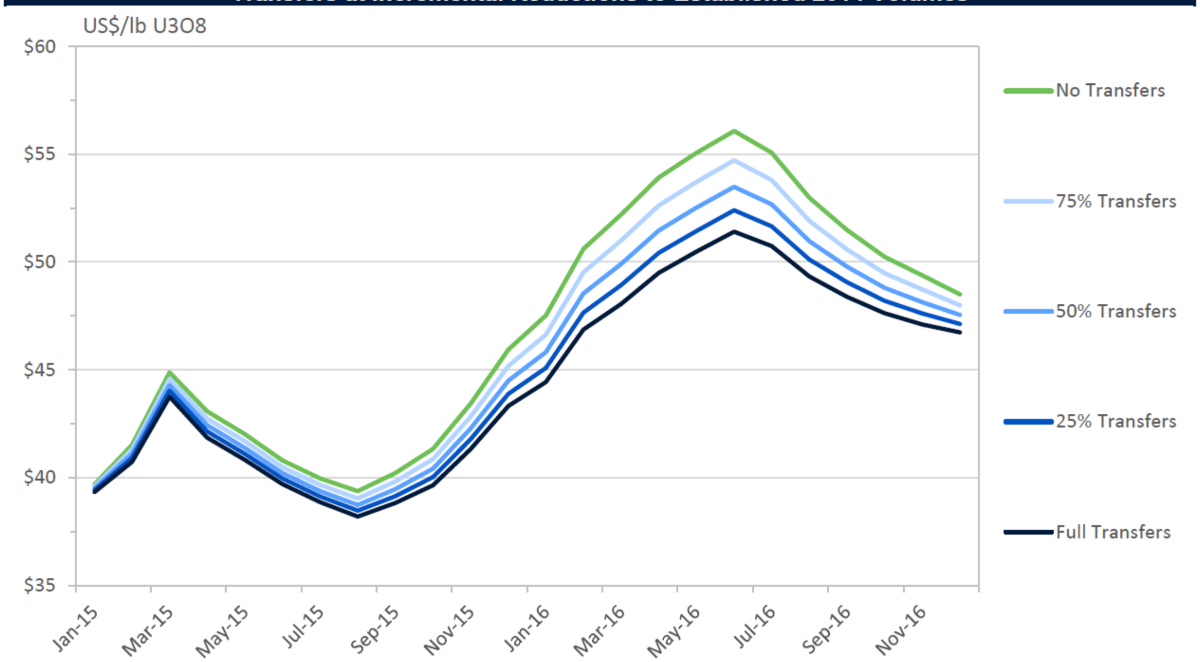
A significantly lower rate of transfers would make room for domestic producers to compete. Transfers at a lower rate would also benefit the taxpayer. DOE is currently not getting full value for this taxpayer asset. By scaling back transfers, the price will rise and taxpayers will receive better value when the material eventually enters the market.

**Trade Tech study findings:**

- Uranium transfers at reduced rates would still have a negative impact on the uranium spot price and North American conversion spot price, although the effect would be less at diminished rates of transfers.

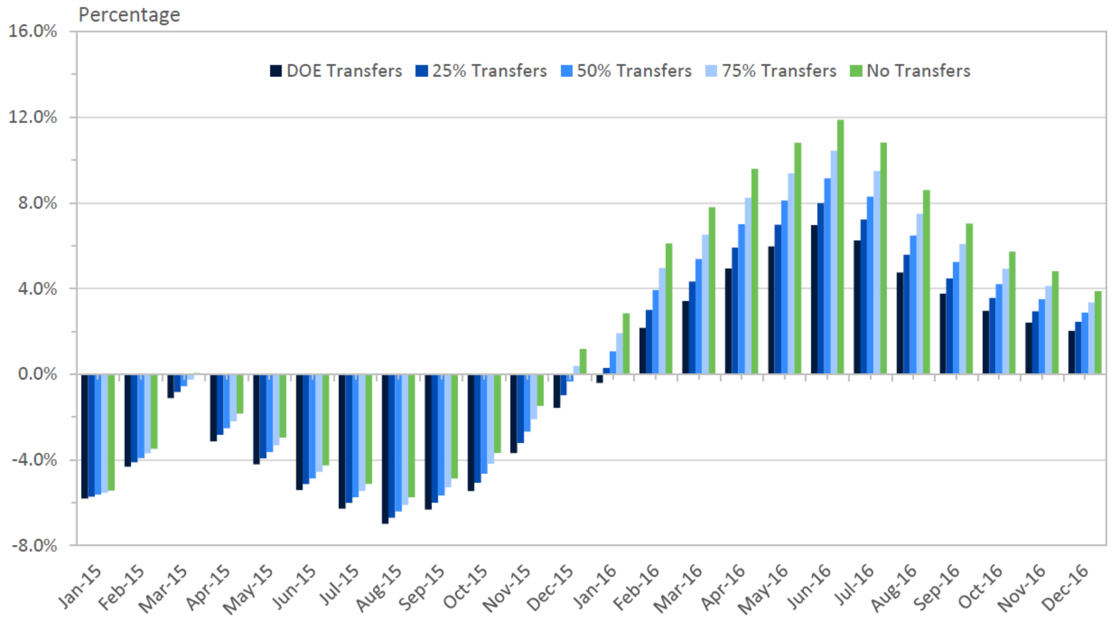
- Producers' viability could remain at the mercy of DOE's price-insensitive material. The following chart shows the price impact of reducing the DOE transfers compared to the established 2014 volumes.

**Figure 20**
**Transfers at Incremental Reductions to Established 2014 Volumes**



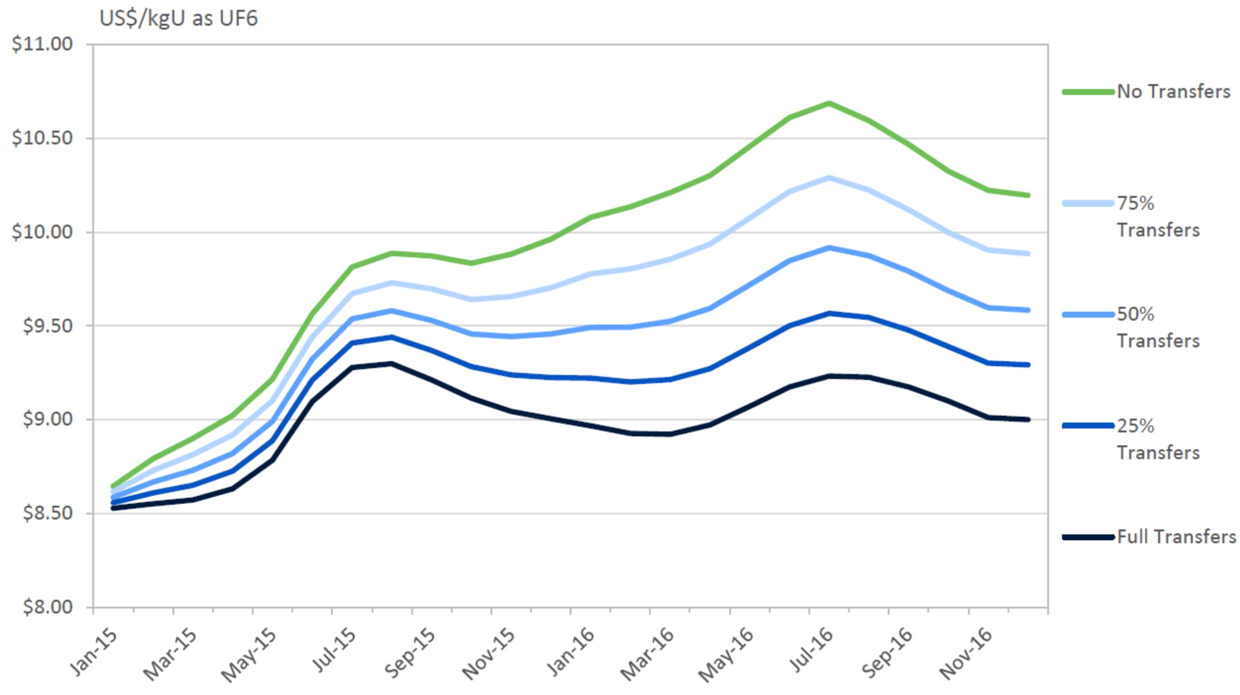

The effect on price is an important factor, but the key is to look at how transfers affect the viability of domestic producers. The chart below shows the impact of reduced DOE transfer volumes on the average margins of domestic producers and clearly illustrates the transfers are a key factor in the viability of the industry.

**Figure 21**
**Margin Percentages at Varying Transfer Rates**




As shown in the chart below, the volume of DOE transfers also significantly impacts the North American conversion spot price.

**Figure 25**
**Transfers at Incremental Reductions to Established 2014 Volumes**



**(5) Are there actions DOE could take other than altering the annual rate of transfers that would mitigate any negative effects on these industries?**

While reducing the amount of material entering the market is critical to ensuring the viability of the domestic uranium industry, UPA is willing to discuss methods by which the impacts of DOE transfers could be mitigated. In the spirit of cooperation, we are offering a few ideas to initiate this dialogue.

- **Reinstate an annual cap on transfers –** In 2008, the uranium industry, utilities, and the Department reached consensus on a plan to limit annual transfers to 10 percent of domestic utility requirements – about 5 million pounds per year. Unfortunately, the Department quickly abandoned the 10 percent cap and has dramatically increased the amount of material entering the market. UPA recommends reinstating a cap of 5 million pounds per year that includes all categories of DOE material and would be phased-in over five years. The phase-in period will give time for the market to recover and will prevent the Department from consuming all of the uncommitted demand in the short-term. Even with a cap, all transfers would still be subject to a Secretarial Determination to ensure transfers would not have an adverse material impact on the domestic industry.

  While UPA would still be concerned about the impact of 5 million pounds per year entering the market, establishing a cap would provide predictability and allow our industry to manage around the transfers. Having a cap on annual transfers is also critical to ensuring our members can raise capital to maintain and expand their operations. As it stands today, the uncertainty about the Department's plans for the inventory has sidelined many investors in our industry.

- **Reform how material enters the market –** The manner in which DOE moves the material into the market (primarily through the spot market or very short-term contracts) is nearly as damaging to our industry as the amount of material being transferred. 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.

- **Subject future Secretarial Determination to full notice and comment, consistent with Sec. 5 U.S.C. § 553 –**The management of the federal excess uranium inventory should be transparent and based on information that is made available to the public for review and comment. The current process lacks transparency. For example, it is unclear what evidence the Department used to justify its May 2014 Secretarial Determination. The Department acknowledges it lacks the internal expertise to conduct a market analysis and instead relied on a report from Energy Resources International (ERI).[8] Yet, unlike its last three reports, ERI's 2014 report did not issue a conclusion regarding whether the Department's proposed transfers would have an adverse impact on the uranium industry. If the Department lacks the internal expertise and ERI did not issue a conclusion, it is unclear what evidence DOE relied on to support its decision. Based on the public record, we are concerned the Department's justification for its May 2014 Secretarial Determination relied heavily on outdated market data submitted by Fluor-B&W Portsmouth LLC (FBP), one of the few entities that directly benefits from the Department's barter program.[9]

By subjecting the Secretarial Determination to public review and comment before it is finalized, the process will be more transparent and our industry can have more confidence that our voice is being heard in the process.

- **Prohibit barter contracts that commence before or extend after the time period covered by a Secretarial Determination –** Under DOE's barter program the material is transferred from DOE to FBP, then to Traxys for disposition. Traxys has stated they have sold substantially all of the DOE material for the next two years (2015-2016) under forward delivery contracts.[10] This practice is very damaging to our industry and is further evidence the 2014 Secretarial Determination was a foregone conclusion.

- **Request full funding for the cleanup of the Portsmouth Gaseous Diffusion Plant site in the Administration's budget submission –** If the cleanup work is a priority for the Department, the Administration should request full funding for the project through the appropriations process. By only requesting partial funding, the Administration puts itself in a bind and must rely on uranium barters to maintain the pace of cleanup, regardless of the impact of the transfers on the domestic uranium industry.

- **Subject any DOE-sponsored market analysis to peer review –** The Department never subjected the ERI report to peer review. According to the Government Accountability Office (GAO):

  > "*Without taking quality assurance steps, DOE cannot be assured of the reliability and quality of the analyses conducted. Moreover, DOE cannot be certain of the studies' conclusions, which the department used as the basis for the Secretary's determination that DOE's uranium transfers did*

[8] U.S. GOVERNMENT ACCOUNTABILITY OFFICE. (2014, May). *Enhanced Transparency Could Clarify Costs, Market Impact, Risk, and Legal Authority to Conduct Future Uranium Transactions*. (GAO 14-291 at 46).

[9] Declaration of David Henderson, Acting Director, Office of Uranium Management and Policy, Office of Nuclear Energy, U.S. Department of Energy, *ConverDyn v. Moniz.*

[10] Declaration of Kevin Smith, Managing Director for Uranium Marketing and Trading, Traxys North America, *ConverDyn v. Moniz.*

> *not have an adverse material market impact and to meet its legal requirements under the USEC Privatization Act."*[11]

Future ERI reports and any internal DOE analysis used to justify Secretarial Determinations should be subject to peer review.

**(6) Are there actions DOE could take with respect to the transfers that would have positive effects on these industries?**

Until market conditions improve, any transfers will have a negative impact on the domestic uranium mining, conversion, and enrichment industries. However, UPA recognizes the federal excess uranium inventory is a taxpayer asset that can be leveraged to advance the cleanup at Portsmouth. The steps outlined in our response to question number five are critical to minimizing the impact of the transfers on domestic producers.

**(7) Are there any anticipated changes in these markets that may significantly change how DOE transfers affect the domestic uranium industries?**

While we have a positive long-term outlook for our industry based on continued expansion of nuclear power worldwide, we face more difficult years ahead as the industry continues to recover from the impact of Fukushima and DOE transfers. The uranium market can be characterized as "thin" where the price can move with volatility on very low volumes. Although we are confident our members can handle normal resource industry risks, we struggle to manage the introduction of unknown amounts of DOE's price insensitive inventory.

**<u>Summary of UPA's Key Recommendations:</u>**

While UPA objects to the Department's recent actions, including the May 2014 Secretarial Determination, we do not fundamentally oppose DOE's efforts to leverage this taxpayer asset as long as the following steps are taken to minimize the impact on our industry:

- **Reinstate an annual cap on transfers set at 5 million pounds per year that includes all categories of DOE material and would be phased in over five years.**

- **Reform how the material enters the market by utilizing the expertise of the uranium industry to feed the material into long-term contracts.**

- **Subject future Secretarial Determination to full notice and comment, consistent with Sec. 5 U.S.C. § 553.**

[11] GAO 14-291 at 46.

- **Prohibit barter contracts that commence before or extend after the time period covered by a Secretarial Determination.**

- **Request full funding for the cleanup of the Portsmouth Gaseous Diffusion Plant in the Administration's annual budget request.**

- **Subject any DOE-sponsored market analysis to peer review.**

Thank you again for seeking input regarding the Department's management of the federal excess uranium inventory. We hope this is the starting point of a more productive dialogue between our industry and the Department as you go forward.

Sincerely,

Scott Melbye
President
Uranium Producers of America