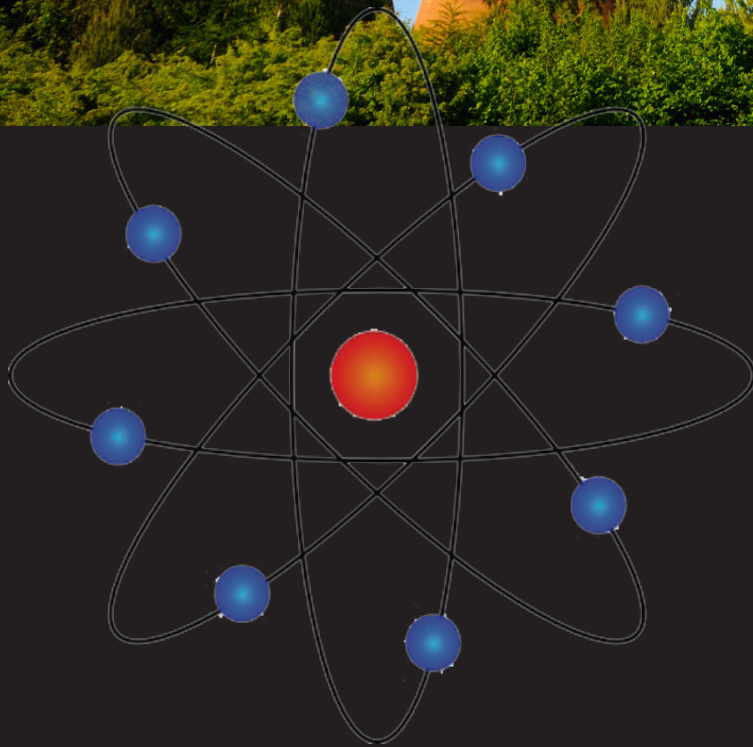


Texas Public Policy Foundation

The Need for Nuclear Regulatory Reform

Mario Loyola
January 2015



Texas Public Policy
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The logo for the Texas Public Policy Foundation, featuring a white five-pointed star with a grey horizontal bar across its center. The text "Texas Public Policy" is written in a serif font above the star, and "FOUNDATION" is written in a sans-serif font below the star, all in white.

January 2015

Texas Public Policy Foundation
by Mario Loyola



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The Need for Nuclear Regulatory Reform

by Mario Loyola, Senior Fellow

Executive Summary

Although the nuclear industry accounts for 19 percent of U.S. electricity needs, the U.S. government has impeded the development of a healthy, competitive nuclear sector. In recent years, it has intervened as both a regulator, and as an industry player seeking financial profit for itself by selling uranium on the open market from its own stocks. The Department of Energy regularly releases such uranium inventory even when the market is in depressed conditions, in violation of federal law, as the Government Accountability Office has concluded, imposing significant losses on private industry.

These interventions have imposed major losses on the industry, creating incentives against investment and capacity expansion in an industry that needs to be able to expand in order to keep providing American families with low-cost, reliable energy. A needlessly stifling regulatory framework has added to the industry's woes.

As a result, the U.S. nuclear energy sector faces extraordinary risks and regulatory burdens compared with its foreign competitors, forcing a potentially internationally competitive sector onto thin ice. This results in reduced nuclear energy capacity (despite the artificially low spot price for natural uranium) which, together with the higher financing costs associated with elevated levels of risk and regulation, combine to result in higher prices for nuclear energy, which are ultimately born by America's working families.

This study provides a survey of the production, regulation, and market in which our domestic uranium industry operates, and makes a number of recommendations for reform. It recommends the following major reforms:

- State and federal government should create as much space for open competition in the nuclear energy sector as possible within reasonable environmental regulations.
- Congress should streamline the nuclear regulatory framework, devolving as many regulatory functions as possible to the states.
- DOE should be required to stick to the letter of the law in conducting transfers of its uranium stocks.
- DOE should be specifically prohibited from funding its activities through sales and transfers of uranium in circumvention of the appropriations process.
- Congress should require DOE to develop a strategic plan to exit the private uranium market on the shortest timetable possible without adverse impact on the domestic market.
- Congress should curtail NRC and EPA's oversight over Agreement State permitting and UIC licensing.
- States should also do their part by streamlining their environmental regulations.

Introduction

All sectors of the American economy depend upon an efficient, competitive, low-cost electricity market. American families are particularly vulnerable to electrical rate spikes. In order to provide reliable, low-cost electricity, electrical utilities must be able to choose at a moment's notice (or "dispatch") from among various sources of electricity—coal, gas, nuclear, and renewables—on the basis of lowest cost. And yet the federal government continues to intervene heavily in energy production, creating grave market distortions that hurt competitive companies, and impose needless costs on America's working families.

According to the Nuclear Energy Institute, nuclear energy is the lowest cost source of electricity generation in the U.S., cheaper per kilowatt-hour than coal.¹ It supplies 19 percent of U.S. electrical power generation,² and that figure is set to increase in the years ahead as federal regulations squeeze coal production and environmental concerns expand the prominence of renewable energy sources. (In France, nuclear energy supplies about 75 percent of electrical generation).³ Apart from national security concerns,* a free and competitive uranium market is vital for the U.S. economy. Yet federal policy has consistently and heavily distorted the market incentives for uranium production, creating a degree of regulatory uncertainty that is prohibitive to low-cost investment, stifles capacity expansion, and imposing significant losses on the uranium mining industry in particular.

Historically, federal nuclear policy has been highly ambivalent about nuclear power, and has often seemed to target nuclear power generation for extinction; uranium production has been particularly hard hit. The U.S. has among the world's highest reserves of natural uranium. In 1980 the U.S. produced nearly 45 million pounds of uranium. Yet now, largely as a result of federal intervention in the uranium market, the U.S. barely produces 5 million pounds and depends on foreign sources for nearly all of its uranium needs—more than 90 percent.⁴

Most industries in America nowadays operate under a heavy blanket of federal and state regulation. But because of its unique origins in the mid-20th century U.S. nuclear weapons program, and the federal government's decades-long monopoly position as sole domestic purchaser, the

U.S. uranium industry is beset by unique regulatory conditions that weaken its international competitiveness.

The U.S. uranium industry was born in the effort to develop nuclear weapons to end World War II. During the early years of the Cold War it continued to serve purely military needs, as the U.S. rapidly expanded its arsenal of nuclear weapons. But with President Dwight Eisenhower's vision of "Atoms for Peace," work began in the 1950s on development of nuclear technology for electric power generation. The first major nuclear power plant was completed in 1957. Today, about 100 commercial power reactors are in operation in the United States, most of them built before 1979.

Despite the development of a strong commercial market for uranium production during the 1970s, the U.S. government has continued to intervene heavily not just as regulator, but as an industry player. The Department of Energy (DOE) possesses enormous uranium stocks of its own, and has negotiated international agreements to dispose of the uranium stocks of other countries, principally Russia. DOE regularly releases such uranium inventory even when the market is in depressed conditions, in violation of federal law, as the Government Accountability Office has concluded, imposing significant losses on private industry. These releases of uranium are now the subject of a federal lawsuit. Moreover, DOE is using the proceeds of these sales to fund its activities, in violation of federal law that requires miscellaneous receipts of federal agencies to be deposited in the Treasury for use as general revenue.

The DOE's behavior in this sector is a particularly invidious kind of political capitalism. Normally, political capitalism serves industry with special benefits at the expense of society, as can be seen in the U.S. sugar program.⁵ But here the DOE is extracting special benefits for its own budget, at the expense of both private enterprise and society as a whole.

These interventions have imposed major losses on the industry, creating incentives against investment and capacity expansion in an industry that needs to be able expand in order to keep providing American families with low-cost, reliable energy. A needlessly stifling regulatory framework has added to the industry's woes.

* Federal law has designated the maintenance of a domestic uranium production capability as a public interest. 42 U.S.C. § 2297h-1 (USEC Privatization Act).

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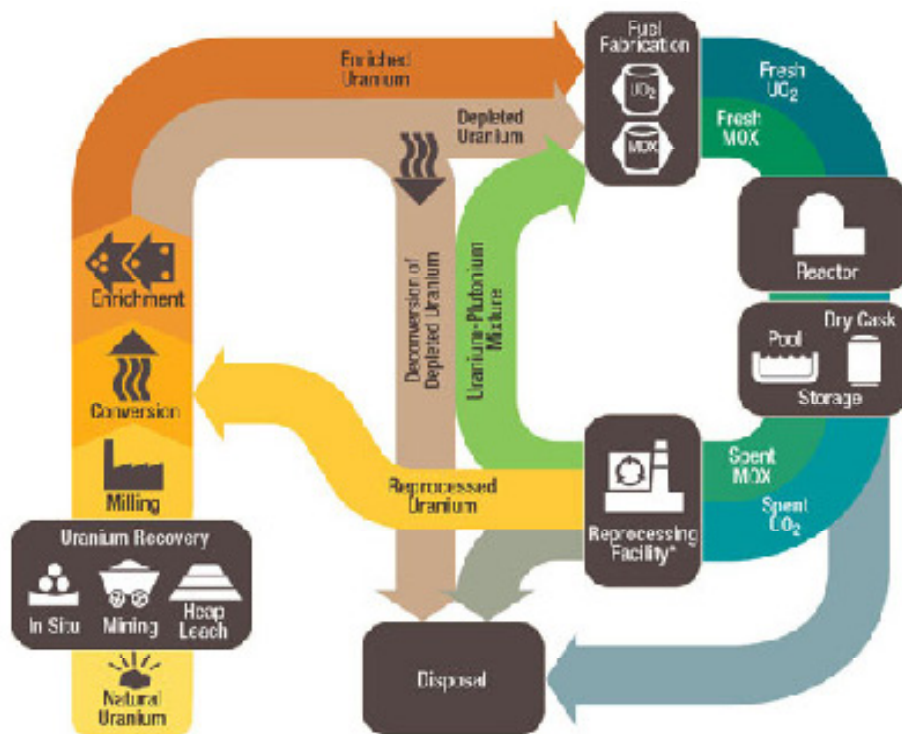
Uranium Production and the Nuclear Fuel Cycle

The production of uranium fuel for nuclear power reactors is a long and complex process. It begins with mining and

milling uranium ore, a common, naturally occurring metal. In its natural form, uranium has radioactive isotopes in varying concentrations with the highly stable U-238 comprising more than 99 percent. The isotope that sustains fission is U-235, which in natural uranium is present in small amounts, about 0.72 percent. Natural uranium must undergo several stages of chemical conversion and "enrichment" to achieve sufficiently high concentrations of U-235 for the typical domestic power reactor, which normally requires a U-235 concentration of between three and five percent. Nuclear warheads, by contrast, typically require uranium enriched to at least 90 percent U-235, which is considered "weapons-grade."

Uranium ore must be found with uranium concentrations high enough to permit economical extraction by mining. There are various kinds of mining methods—the most common in the United States being *in situ recovery* (ISR), in which groundwater that is normally already unfit for drinking (due to the presence of heavy metals

The Nuclear Fuel Cycle



*Reprocessing of spent nuclear fuel including MOX is not practiced in the U.S.

Note: The NRC has no regulatory role in mining uranium.

Source: U.S. Nuclear Regulatory Commission, <http://www.nrc.gov/images/materials/fuel-cycle-fac/nuclear-fuel-cycle-02.jpg>

typically found near uranium deposits) is oxygenated and poured through uranium deposits. The extracted uranium is recovered from the groundwater slurry in a basic water treatment process similar to that of a water softener. Further steps yield a uranium oxide called “yellowcake” for the color it has after undergoing traditional milling methods.

Once uranium oxide has been milled into a treatable form, it is **converted** to uranium dioxide. Uranium dioxide is typically converted to a gaseous form suitable for enrichment, uranium hexafluoride (UF6). Through any one of several different enrichment processes, uranium hexafluoride is usually enriched to at least 3.5 percent U-235 for use in light-water reactors. This low-enriched uranium (LEU) is further processed into tiny ceramic pellets (about 1cm long and wide) and inserted into large fuel rod assemblies for use in a reactor core. One pellet contains as much electrical power potential as a ton of coal. The same enrichment processes can further enrich uranium hexafluoride to levels suitable for naval reactors and further still to weapons grade (HEU).

Once assembled into fuel rods and inserted into the core of a power reactor, the reactor is ready to begin power genera-

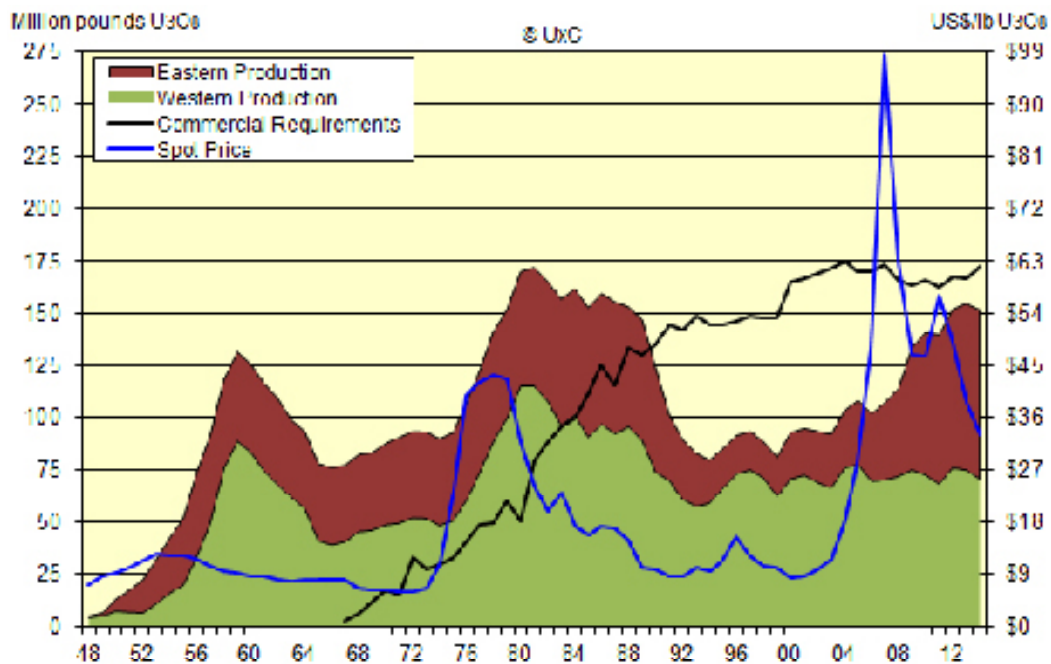
tion. The controlled fission in the reactor core is carefully managed to heat water to produce steam, which then powers steam turbines that generate electricity. Typically a single core can power a reactor for several years, although fresh fuel is periodically introduced to maintain production.

The process both “burns” U-235, and produces it as a byproduct of fission, along with other byproducts, such as plutonium.⁶ Because these byproducts present in spent fuel can be further reprocessed into fissile material for nuclear reactors or (in some cases) nuclear weapons, it is a true “cycle.”

There are about 100 power reactors in the United States, with another 5 under construction. All of them are light-water reactors running on LEU, based on either pressurized water or boiling water designs.⁷ Virtually all of currently operating reactors began construction in the 1970s or earlier.⁸ U.S. nuclear reactors are generally private-owned, though they are often part of public electrical power utilities.

Nuclear reactor operators in the U.S. buy uranium in a variety of forms corresponding to the steps in the nuclear fuel cycle, from natural uranium oxide, to converted uranium

Nuclear Production



Source: Uranium Producers of America.

hexafluoride, to enriched uranium, to fully fabricated fuel assemblies in some cases. The U.S. gets about 84 percent of its uranium from abroad, and the rest from domestic sources, including the DOE's inventory. In recent years, DOE has been releasing twice as much uranium onto the market from its own inventories as the domestic uranium industry produces. This poses major problems for private industry, as discussed below.

In the United States, conversion of uranium oxide to uranium hexafluoride is done at only one plant, owned by Honeywell and operated by ConverDyn, in Metropolis, Illinois. Enrichment within the United States is also done at only one plant, but it is foreign-owned: the National Enrichment Facility in New Mexico, an advanced gas-centrifuge enrichment facility, is owned by a subsidiary of URENCO, a European nuclear consortium.

Development of the U.S. Nuclear Industry

After World War II, the Truman administration transferred the U.S. government's wartime nuclear facilities to a civilian agency, the Atomic Energy Commission (AEC). Mining and milling were generally private sector activities from the start, but conversion, enrichment, and the construction and operation of nuclear reactors remained in government hands. The purpose of creating a domestic atomic energy industry got off to a slow start, as the AEC contracted most uranium for military purposes. As Texas A&M University professor Herbert Lang wrote in 1962:

The great challenge of the uranium industry today remains precisely what it has been since 1948—the challenge of finding a way of bringing the industry into the free enterprise system, while still maintaining enough public control to insure the continued production of ore at a rate consistent with the requirements of national security.⁹

The first commercial scale nuclear power plant came online in 1958 in western Pennsylvania. In the ensuing two decades, many more nuclear power reactors were built. In the early 1960s, the AEC stopped contracting for large new uranium deliveries for defense purposes, and demand for electrical power generation became the main driver in the

After World War II, the Truman administration transferred the U.S. government's wartime nuclear facilities to a civilian agency, the Atomic Energy Commission (AEC).

uranium market. But given the continued presence of a large and largely unpredictable federal government as the major player in the market, the private uranium mining and milling sector remained vulnerable to unstable market conditions, and uranium production capacity declined throughout the 1960s. A strong commercial market for uranium began to develop after 1969, and by the 1970s, capacity finally became generally aligned with demand, though underinvestment in capacity soon led to prices rising much faster than demand.¹⁰

In 1974, the Atomic Energy Commission's regulatory functions were separated from its research and development functions. In 1977, the regulatory functions were spun off into a new independent agency, the Nuclear Regulatory Commission, while the research and development functions were absorbed into DOE.

In the 1970s, ground was broken on many new reactors as the oil fuel shocks of the period led to a renewed push for nuclear energy. This construction program largely came to a halt after the Three Mile Island accident in 1979, which fueled environmentalist opposition despite the fact that safety measures had worked and the environmental consequences of the accident were negligible. All the nuclear reactors still in operation in the U.S. today broke ground before the Three Mile Island accident. After the 1970s, no new nuclear reactors were approved for construction until 2012, when the NRC issues licenses for four new reactors (a fifth reactor currently under construction, TVA's Watts Bar unit 2, was approved in the 1970s).

Despite the halt to new reactor construction, capacity utilization at existing nuclear plants continued to increase, particularly in the 1990s, leading to a significant rise in demand for uranium during that period.

The nuclear industry is regulated at both federal and state levels. The DOE has direct responsibility for certain types of nuclear facilities, regulates international trade in nuclear materials, and disposes of its own significant stocks of uranium pursuant to legislative authorities.

In 1993, following the collapse of the Soviet Union, the Russian Federation and the U.S. signed the “Megatons to Megawatts” agreement, a 20-year deal to dilute or “down-blend” 500 metric tons of Russian highly-enriched uranium (HEU) from nuclear warheads to low-enriched uranium for U.S. nuclear reactors. The program eventually supplied 30 percent of the U.S. nuclear power industry’s uranium conversion and enrichment requirements. Together with other foreign sources of enriched uranium, the Megaton to Megawatts program eventually supplanted most domestic uranium production and enrichment. The program expired in 2013, but in 2011 a new 10-year deal was signed to continue supplying commercial-origin Russian enriched uranium to replace some of the enriched uranium from Russia’s nuclear weapons stocks.¹¹

To implement the Megatons to Megawatts program, the U.S. formed the United States Enrichment Corporation (USEC) as a government-owned corporation to provide uranium enrichment services for the U.S. government and domestic electrical power utilities. USEC took over DOE’s enrichment facilities in the U.S. The USEC was eventually privatized in 1998 under the USEC Privatization Act, with most of DOE’s assets transferred to the new entity. USEC’s financial condition gradually deteriorated due to the abundance of foreign uranium and the more economical and efficient foreign enrichment services being offered domestically and abroad, among other factors.¹²

The repercussions from the 2011 tsunami disaster and subsequent accident at the Fukushima Daichii power plant proved a body blow, as more than 50 nuclear power plants closed in Japan and Germany. This led to a precipitous decline in the market price of uranium.¹³

In March 2014, USEC filed for Chapter 11 reorganization. USEC closed two legacy domestically-owned enrichment facilities, at Piketon, Ohio (in 2001) and at Paducah, Kentucky (in 2013). These facilities used the 60-year old gaseous diffusion method for enrichment, which requires prodigious amounts of energy and are no longer competitive with newer technologies. By one estimate, the Paducah plant required as much electricity to operate for one year as the city of Memphis, Tennessee. (USEC now retains clean-up and remediation obligations for the Paducah plant).¹⁴

USEC planned to replace these with newer centrifugal enrichment technology named the American Centrifuge Plant project at Piketon, Ohio. But after USEC entered bankruptcy, the project was taken over by DOE. With congressional support, DOE apparently plans to maintain the project for national security purposes. DOE has identified two principal national security priorities for the maintenance of such a capability: (1) the need for a relatively small amount of tritium that must be replenished every few years in the U.S. arsenal of nuclear weapons, and (2) the need for highly-enriched uranium to fuel the U.S. Navy’s fast reactors. There appear to be no plans to supply enriched uranium for the U.S. commercial market.

Regulatory Framework

The nuclear industry is regulated at both federal and state levels. The DOE has direct responsibility for certain types of nuclear facilities, regulates international trade in nuclear materials, and disposes of its own significant stocks of uranium pursuant to legislative authorities. The EPA has oversight with respect to groundwater, soil, and air standards. The NRC carries out EPA’s mandates on environmental standards and mandating their own standards relating to radiation. Meanwhile, in combination with state governments, the NRC and EPA regulates virtually every stage in the nuclear fuel cycle for environmental and safety purposes. This regulatory framework entails substantially overlapping regulatory authorities with needless and costly redundancy. In crucial respects, the regulatory framework is incompatible with a properly functioning market for uranium production.

Market Participant: DOE Authorities and Actions

DOE is the key federal agency charged with operating certain critical nuclear facilities (most recently through contracts with USEC) as well as dispositions of government-owned uranium stocks. It also negotiates and implements major agreements with foreign governments and foreign entities regarding transfers of uranium and related enrichment services. Most crucially for purposes of this paper, DOE also possesses large stocks of its own uranium in various forms. This section will discuss DOE's authorities as a market participant, and the negative effect that its recent and planned dispositions of uranium stocks have had on the private uranium production market, in violation of its statutory authority and the USEC Privatization Act.

The U.S. government has entered into a number of international agreements regarding the peaceful use of nuclear energy. These agreements restrict (or "obligate") uranium originating in other countries to peaceful use, prohibiting their use in military programs. As a result, DOE uses only "unobligated" uranium (domestically sourced uranium enriched using domestically owned facilities ("domestic technology" for purposes of international agreements) to meet the government's national security needs, which include (as explained above) the production of tritium for existing nuclear weapons, and the production of highly-enriched uranium for the U.S. Navy's fast reactors. Since USEC closed the Paducah, Kentucky enrichment plant, there is no longer an operating domestic enrichment facility that uses domestic technology. (Since 1988, the U.S. has been procuring tritium by recycling enriched uranium from nuclear weapons dismantled under the START I treaty in a commercial reactor.)¹⁵

Under the USEC Privatization Act, DOE is authorized to sell or transfer uranium in various forms from its own stocks. Under Section 3112 of the Act (42 U.S.C. § 2297h-10) such transfers must meet a number of requirements, including: (1) a presidential determination that the uranium is not needed for national security purposes, (2) a determination by the Secretary of Energy that the transfer will not have an adverse material effect on the domestic uranium market, and (3) the price paid must not be less than the fair market value of the material. In addition, under the miscellaneous receipts statute, 31 U.S.C. § 3302(b), any money received by an agent of the U.S. government must

be deposited in the Treasury; this statute in effect prohibits government agencies from conducting market transactions that generate revenue to the agency outside the normal appropriation process.

In a series of major reports, the Government Accountability Office (GAO) concluded that a number of significant DOE uranium transfers likely violated DOE's statutory authority.

In a 2008 report, GAO concluded that the USEC Privatization Act likely prohibited DOE from selling or transferring depleted uranium (a byproduct of uranium enrichment) and suggested that Congress clarify DOE's statutory authority to do so.¹⁶

In a 2011 report, GAO concluded that DOE sold uranium to USEC, which USEC subsequently sold to a third party to fund DOE environmental cleanup activities at facilities operated under USEC. GAO found that DOE did not barter the uranium in exchange for USEC's cleanup services, as DOE contended (though that also would have circumvented both the appropriations process and the miscellaneous receipts statute), and therefore DOE was required to deposit the net proceeds into the Treasury. GAO concluded that by not doing so, DOE had violated federal fiscal law, specifically the miscellaneous receipts statute.¹⁷

In a 2014 report, GAO concluded that four uranium transactions in 2012 and 2013 raised further legal questions. These transactions were conducted for the purpose of ensuring an adequate supply of tritium and to subsidize USEC's development of the American Centrifuge Plant project. Three of these involved transfers of uranium to USEC, while the fourth involved a transfer to a third party which then transferred the uranium to USEC for enrichment. GAO found that one of the transfers (in March 2013) failed to obtain a presidential determination as required by the USEC Privatization Act. With reference to a May 2012 transfer of depleted uranium, the GAO again concluded that DOE lacks authority to sell depleted uranium. With reference to a March 2012 disposition of enrichment services, GAO concluded that DOE failed to conduct proper assessment of the market impact for one major component of the transaction, as required by the USEC Privatization Act. Finally, with respect to transactions in March 2012 and June 2012, GAO found that DOE had undercharged USEC.¹⁸

The NRC regulates virtually every stage in the nuclear fuel cycle, from “source material” (e.g., uranium mining and milling) to disposition of radioactive waste. It does so through a combination of regulatory requirements, evaluation of operational experience, and regulatory support activities.

The cumulative impact of these transactions has been to dump large quantities of uranium on the market, with significant market impacts depressing the commodity’s spot price. The spot price has dropped by about \$10 dollars with every such disposition, and is now half of what it was in January 2011 before the first of them. Under the program, DOE has been “selling” two to three times the volume of material that is mined domestically, displacing private industry in order to essentially inflate its budget.

Pursuant to congressional mandate, DOE issued a revised *Excess Uranium Inventory Management Plan* in 2013. This plan, which is issued in the form of internal guidance rather than a rulemaking subject to the Administrative Procedure Act, announced that DOE would discontinue its guideline for uranium sales and transfers of generally no more than 10 percent of U.S. requirements for nuclear fuel. That guideline, dating from 2008, was designed to ensure no adverse material impact on domestic uranium industry. DOE stated in that plan that they are “committed to managing excess inventories in a manner that is consistent with and supportive of a strong domestic uranium industry.” But in its 2014 report, GAO concluded that the abandonment of this guidance would impact the transparency of future dispositions and risked adverse impacts on the uranium industry.

Subsequent to the 2014 GAO report, on May 15, 2014, the Secretary of Energy made a new “determination” that a significant new proposed transfer of uranium would not have an adverse impact on the domestic uranium industry. The transfer was proposed to support national security needs as well as cleanup activities at the closed Portsmouth or Paducah enrichment facilities. The determination was strenuously opposed by uranium producers through their trade organi-

zation Uranium Producers of America (UPA).¹⁹ The whole congressional delegation of Wyoming, along with 15 other lawmakers, signed a letter asking DOE to explain its decision to increase uranium supply during a depressed market.²⁰

On June 13, 2014, ConverDyn, a member of the UPA and operator of the sole domestic conversion plant, filed suit against the DOE seeking declaratory and injunctive relief to block the proposed transfer. The company claims, “The transfers would have an immediate and ongoing impact on the market for uranium conversion services, would harm the United States’ domestic conversion industry, and threaten the United States’ energy security and energy dependence.”²¹ ConverDyn challenges the May 15 DOE Determination as arbitrary and capricious, and alleges that it will reduce sales and suppress prices of conversion services, cause higher production costs for conversion services, and drive detrimental changes in customer practices. The suit argues that under the USEC Privatization Act the DOE can only sell natural or low-enriched uranium, and only at fair market value, and the May 15 DOE Determination violates both provisions.²²

“The company will suffer serious and irreparable harm due to irreversible market impacts if DOE completes the transfers starting on July 31.”²³ The company argues that DOE applied the wrong standard in assessing adverse impacts. Rather than assess the harm from authorizing DOE transfers, as directed by the USEC Privatization Act, the DOE turned the statutory requirement upside down and instead assessed whether stopping the transfers would ameliorate the challenges facing the industry. The U.S. District Court for the District of Columbia denied the preliminary injunction and the suit is now proceeding to discovery.

Cooperative State-Federal Environmental Regulation

The NRC regulates virtually every stage in the nuclear fuel cycle, from “source material” (e.g., uranium mining and milling) to disposition of radioactive waste. It does so through a combination of regulatory requirements, licensing, safety oversight (including inspection, assessment of performance, and enforcement), evaluation of operational experience, and regulatory support activities.

Under Section 274 of the Atomic Energy Act of 1954, the NRC is authorized to cede portions of licensing and regulatory functions to state governments. This is accomplished through an agreement signed by the governor of the state and the chairman of the NRC. Participating states are called “Agreement States.” There are 37 Agreement States participating in a variety of ways.

Of the states where uranium is currently mined through *in situ recovery* (ISR) the NRC directly regulates four facilities in Wyoming, New Mexico, and Nebraska. Another eight facilities are regulated under Agreement State programs, in Texas, Colorado, and Utah.²⁴

EPA regulates uranium in the air under the Clean Air Act. In order to be released for public use, a designated contaminated site must meet EPA’s soil and ground water standards. EPA regulates uranium in drinking water under the Safe Drinking Water Act, which establishes Maximum Contaminant Levels, or MCLs, for compounds such as uranium. EPA has also issued special regulations for cleaning up uranium milling sites.

These federal regulations are in addition to extensive land-use, water-use, and other state regulations.

At any time, a uranium mining operation in Texas must maintain a large number of permits issued by the Texas Commission on Environmental Quality under state law or on behalf of the federal Nuclear Regulatory Commission or Environmental Protection Agency under approved delegations of permitting authority. These permitting requirements can be excessive and overlapping.

Policy Recommendations

The regulatory framework for the domestic uranium industry shows the hallmarks of other misconceived regulatory schemes: too much regulation, too much government intervention, and too much centralization in the federal government. An overriding priority of nuclear sector reform should be to create as much space for open competition as possible within reasonable environmental regulations.

In our age of excessive, centralized government, the right public policy approach to regulatory reform is usually to

privatize as much as possible, deregulate what cannot be privatized, and devolve to the states as much regulation as possible.²⁵ In nuclear regulatory policy, reform should ultimately aim to curtail federal intervention, thinning the regulatory framework, and devolving as many regulatory functions as possible to the states, in accordance with the fact that most environmental concerns raised by nuclear operations do not have significant spillover potential across state boundaries.

In keeping with recommendations made in a succession of GAO reports, DOE should be required to stick to the letter of the law, particularly the USEC Privatization Statute and federal fiscal law. To eliminate any ambiguity under existing law, DOE should be specifically prohibited from funding its activities through sales and transfers of uranium in circumvention of the appropriations process.

On July 10, 2014, Congressman Cynthia Lummis (R-WY) offered an amendment to the Energy and Water Development and Related Agencies Appropriations Act of 2015 that reinforces the DOE’s existing legal obligations when it sells or transfers excess uranium. The amendment would reinforce the requirement of no adverse impact on the domestic uranium industry, and would make such sales subject to the notice and comment requirements of the Administrative Procedure Act.

Congress should require DOE to develop a strategic plan to exit the private uranium market on the shortest timetable possible without adverse impact on the domestic market.

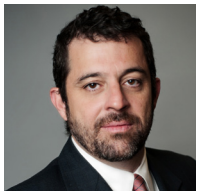
Finally, on the environmental side, Congress should curtail NRC and EPA’s oversight over Agreement State permitting and UIC licensing. Such “cooperative federalism” regulatory programs raise serious constitutional concerns, given their potential for coercion and commandeering of state agencies. In particular, state agencies are capable of handling virtually all environmental matters related to uranium mining and milling, both of which involve negligible radiation hazards.

States should also do their part by streamlining their environmental regulations. ★

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- ²⁵ William Niskanen, "Bringing Power to Knowledge: Choosing Policies to Use Decentralized Knowledge" in *Reflections of a Political Economist: Selected Articles on Government Policies and Political Processes* 207-219 (2008).

About the Author



Mario Loyola is a Senior Fellow at the Texas Public Policy Foundation. Loyola began his career in corporate law. Since 2003, he has focused on public policy, dividing his time between government service and research and writing at prominent policy institutes. He served in the Pentagon as a special assistant to the Under Secretary of Defense for Policy, and on Capitol Hill as counsel for foreign and defense affairs to the U.S. Senate Republican Policy Committee. Loyola is a regular contributor to *National Review* and National Public Radio, and has written extensively for national and international publications, including op-eds in *The Wall Street Journal*. He has appeared on Fox News, CNN, BBC Television, and more. Together with Prof. Richard A. Epstein, Loyola wrote three *amicus* briefs for the U.S. Supreme Court in the Obamacare case, *NFIB v. Sebelius*.

