



## URANIUM PRODUCERS OF AMERICA

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Sophia Angelini, Esq.  
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Office of the General Counsel for Civilian  
Nuclear Programs GC-52  
U.S. Department of Energy  
1000 Independence Avenue, S.W.  
Washington, D.C. 20585  
(E-mailed to Section 934Rulemaking@Hg.DOE.gov)

Re: Comments to Section 934 Rulemaking

Dear Ms. Angelini:

Enclosed please find an original and three copies of the Uranium Producers of America's ("UPA") comments to assist in the Department's development of regulations pertaining to section 934 of the Energy Independence and Security Act of 2007. The UPA appreciates the opportunity to provide these comments.

Very truly yours,

Jon J. Indall

JJI/cat  
cc: Paul Goranson  
Enclosure

**COMMENTS OF THE URANIUM PRODUCERS OF AMERICA  
IN RESPONSE TO THE DEPARTMENT OF ENERGY NOTICE OF  
INTENT REGARDING SECTION 934 REGULATIONS TO BE  
PROMULGATED PURSUANT TO THE ENERGY INDEPENDENCE  
AND SECURITY ACT OF 2007**

**I. INTRODUCTION**

The Department of Energy (“DOE”) issued a Notice of Inquiry (“NOI”) requesting comments to facilitate its rulemaking to implement regulations pertaining to Section 934 of the Energy Independence and Security Act of 2007 (“EISA”) on July 27, 2010. EISA was enacted to establish how the United States will satisfy its obligations under the Convention on Supplementary Compensation for Nuclear Damage (“CSC”) which provides for a system to ensure adequate compensation for liability associated with certain nuclear incidents at foreign installations. A critical component to the regulation of Section 934 is the definition of nuclear supplier.

The Uranium Producers of America (“UPA”) is a group of domestic uranium producers and the sole domestic uranium converter who work together to promote the viability of the domestic uranium and conversion industries. UPA members include Uranium Resources, Inc., Cameco Resources, Uranium One Americas Inc., Denison Mines (USA) Corp., Strathmore Resources US Ltd., Laramide Resources Ltd., Mestena Uranium LLC, Powertech (USA) Inc., UR-Energy USA, Inc., Uranerz, ConverDyn, Neutron Energy, Inc. and Rio Grande Resources Corporation. UPA appreciates the opportunity to provide comments on the issues raised by DOE. UPA supports the DOE’s efforts to finalize regulations to implement the retrospective risk pooling program. As set forth herein, UPA members believe that the definition of nuclear supplier should clearly exclude uranium mining companies and conversion entities.

## II. Discussion

### 1. The Definition of Nuclear Supplier.

EISA defines the term “nuclear supplier” as follows: “The term ‘nuclear supplier’ means a covered person (or a successor in interest of a covered person) that (A) supplies facilities, equipment, fuel, services, or technology pertaining to the design construction, operation, or decommissioning of a covered installation; or (B) transports nuclear materials that could result in a covered incident.” As DOE points out in its NOI, that term is potentially very broad in scope, complex, and subject to interpretation. UPA agrees with DOE’s assessment of this definition. UPA believes the lack of definiteness in the definition creates potential ambiguity that could lead to uncertainty with respect to potential liability under the statute.

Uranium mining companies produce natural uranium, a raw material that cannot be used in a nuclear reactor. The miner’s product, uranium concentrate or yellowcake, by itself is not especially risky or dangerous to human health or the environment.<sup>1</sup> It is defined as “source material” under the Atomic Energy Act as opposed to “special nuclear material” which is the enriched material fabricated for reactor fuel. (See 42 U.S.C. §§ 2014(Z) and (aa). While natural uranium is a raw component of nuclear fuel, numerous intervening steps are required in order to transform it into a fuel that can be used in a nuclear reactor or installation. The same argument can be made for conversion. Conversion is a chemical process that converts natural uranium into a different form, UF<sub>6</sub>, but cannot be used to directly fuel or power a reactor. Like uranium concentrates,

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<sup>1</sup> Uranium has not been classified as a human carcinogen in large part because it is not very radioactive (it decays very slowly), and its chemical properties are often such that any inhaled or ingested uranium is excreted rather quickly from the body. See John D. Boice, Jr., “Cancer Incidence and Mortality in Populations Living Near Uranium Milling and Mining Operations in Grants, New Mexico, 1950-2004.” *Radiation Research*, 174, 624-636 (2010).

the conversion product must be enriched and only then can the enriched uranium be fabricated in order to fuel a reactor. Both uranium mining and conversion are too isolated from the fuel supplier process to be deemed a risk or causal factor creating a nuclear incident. Note also that uranium and conversion is never directly supplied to a covered installation; hence the definition of a nuclear supplier should only include direct suppliers to a covered installation.

Uranium mining and conversion are raw materials, not unlike the concrete and steel that are used to build reactor containment vessels. These fuel components simply create no exposure to any risk of liability until enhanced by other entities further down the front end of the nuclear fuel cycle.

The defined term “nuclear supplier” is intended to include the suppliers that contribute to the risk at a covered installation, and therefore, benefit from the CSC risk pooling program. As DOE has noted, only suppliers that provide goods or services specifically intended for use in structures, systems and components (“SSCs”) that are important to the safety at a nuclear installation should be included in the risk pooling program. The concept of SSCs important to safety is a critical factor utilized in NRC licensing of nuclear installations as a means to evaluate items based on their relative risk and importance to the safe operation of the nuclear installation. Because natural uranium concentrates and conversion services are not used in SSCs important to safety without significant transformation by third parties, uranium miners and converters should not be included in the definition of “nuclear suppliers.” The uranium concentrates and conversion service that UPA members provide do not contribute to the risk at a covered installation, and therefore, are not within the definition of nuclear supplier.

Sales and transfers of natural uranium concentrates and conversion services are generally completed by “book transfer” at a processing facility. Under this accounting system, uranium concentrates and conversion services are treated as fungible commodities. Physical uranium is not typically processed in specific batches, but rather, is used as feed in a processing stream. DOE’s definition of “fuel supplier” should recognize that the fungible nature of uranium concentrates and UF<sub>6</sub> means that identifiable batches of uranium concentrates or UF<sub>6</sub> are not assigned to specific customers. Again, because the uranium miners’ and converters’ products are fungible nuclear material, these entities should not be included within the definition of “fuel supplier.”

**2. The Definition of Nuclear Supplier Should Not Include Persons that Only Provide Material to U.S. Facilities.**

UPA strongly suggests that the definition of “nuclear supplier” should further specifically cover only United States persons that supply goods or services to covered installations outside the United States. Many domestic producers of uranium will sell only to United States customers to fuel our nation’s growing reactor fleet. Domestic reactors currently import approximate 90% of the uranium concentrates needed to power their reactors. A stated purpose of UPA members is to produce domestic uranium to reduce the nation’s over reliance on natural uranium concentrates from foreign suppliers, some of which may not be stable sources of supply. Increased domestic production will enhance our country’s energy independence and national security. It is critical that DOE’s definition of “nuclear supplier” expressly specify that United States persons whose supply of materials and services are solely to NRC-licensed reactors and other

nuclear installations in the United States are not included in the definition of “nuclear supplier.”

**3. In the Event Domestic Uranium and Converter Entities Are Considered Nuclear Suppliers, They Should Be Specifically Excluded From the Retrospective Risk Pooling Program.**

Should DOE determine that domestic uranium producers and converters are included in the definition of nuclear supplier, miners and converters should be excluded from the risk pooling program. The statute provides factors that are to be used to exclude certain nuclear suppliers. (Section 934(e)(2)(C)(ii).) The cost allocation formula may exclude (a) goods and services with negligible risk; (b) classes of goods and services not intended specifically for use in a nuclear installation; (c) a nuclear supplier with a *de minimus* share of the contingent cost; and (d) a nuclear supplier no longer in existence for which there is no identifiable successor. This provision recognizes that those entities that have minimum involvement or are least likely to be a proximate cause of a nuclear incident should be excluded from the parties participating in the risk pooling program. This view is further supported by the fact that Price Anderson, Paris and Vienna liability conventions all recognize the low risk presented by natural uranium. Also the CSC definition of nuclear material specifically excludes natural uranium. Any incident involving natural uranium will be comparable with any other industrial incident involving hazardous materials and as such does not warrant inclusion in CSC.

As set forth in UPA’s prior comments, neither natural uranium nor conversion services contribute to the risk at a covered nuclear facility. Uranium concentrates and conversion services are simply raw materials enhanced by third parties for use in nuclear installations. Due to their negligible risk, uranium concentrates and conversion services

are goods and services that fall within the provision that excludes negligible risks. Uranium producers and converters, like other producers of raw materials, fit within the provision that excludes a supplier with a *de minimus* share of the contingent cost. The uranium producers and converters do not control the manufacture and fabrication of their raw materials into the fuel placed into nuclear installations. Their products are significantly modified and nothing under their control or direction could result in a nuclear incident. For this reason, the uranium production and conversion industries should be excluded from any cost allocation formula.

#### **4. Transport.**

We note that transport in the context of CSC is restricted to transport directly to or from a covered installation and excludes transports that may transit a CSC country. Packages containing natural uranium which are transported in accordance with the requirements of IAEA's TSR-1 regulations and relevant national legislation are designed to present minimal harm by virtue of the limited quantity requirements, even in the event that the package integrity is lost. Hence transport of natural uranium should be excluded when shipped as LSA, SCO or Type A package in accordance with the requirements of the TSR-1 related legislation.

### **III. CONCLUSION**

The UPA urges DOE to clarify the definition of nuclear supplier to not include uranium production or conversion services as a covered person under EISA. In the alternative, uranium producers and converters should be excluded under the regulations from any cost allocation formula because neither of these entities would contribute to the

proximate causation of a covered nuclear incident. UPA appreciates the opportunity to submit its comments.

Very truly yours,

A handwritten signature in black ink, appearing to read "Jon J. Indall". The signature is fluid and cursive, with a large initial "J" and "I".

Jon J. Indall  
General Counsel