# *HUFFMAN V. WESTERN NUCLEAR, INC.*: AN EXAMINATION OF THE DOMESTIC URANIUM INDUSTRY'S RECENT DEFEAT

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## 1. INTRODUCTION

Section 161(v) of the Atomic Energy Act of 1954[1] authorizes the federal government to provide utility companies with "enrichment" services, which constitute one step in the process of transforming uranium[2] into nuclear reactor fuel.[3] However, Section 161(v) also requires the

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[1] Section 161(v) of the Atomic Energy Act of 1954, 42 U.S.C. § 2201(v) (1982 & Supp. III 1983), was enacted as part of the Private Ownership of Special Nuclear Materials Act, Pub. L. No. 88-489, 78 Stat. 602 (1964) (codified as amended in scattered sections of 42 U.S.C.).

[2] Uranium is a silvery-white radioactive metal. Prior to the advent of nuclear weaponry, uranium was used to create steel, copper, and nickel alloys as well as the yellow to brown colors in the production of glass and ceramics. Uranium mining was also used to recover the associated elements of radium and vanadium, which are used, respectively, in medicine and metallurgy. ENERGY INFORMATION ADMIN., URANIUM INDUSTRY ANNUAL 1986 2 (1987) [hereinafter URANIUM ANNUAL 1986].

Today, over 90% of the uranium produced and sold in the United States is used for the generation of electric power. U.S. INT'L TRADE COMM'N, SUMMARY OF TRADE AND TARIFF INFORMATION: URANIUM AND URANIUM COMPOUNDS iv (1981) [hereinafter TRADE SUMMARY]. Although four other natural resources (coal, oil, gas, and water) are also used to fuel the generation of electricity, uranium is arguably more effective. *Id.* at 13. Energy generated by 14,000 pounds of coal, for example, can be generated by only one pound of uranium. URANIUM ANNUAL 1986, at 2.

[3] Enrichment is one of six steps necessary to harness uranium for use as nuclear fuel: (1) *Exploration.* Exploration of the earth's crust for uranium deposits is commonly conducted by drilling, or sometimes by measuring underground radioactivity at prospective uranium sites; (2) *Mining.* Uranium is mined by physically extracting the ore in which uranium is found, either from open pits or from underground mines. Uranium is also mined *in situ*, whereby uranium concentrate, basically uranium oxide ($U_3O_8$), is chemically extracted from the ground without physically extracting the ore; (3) *Milling.* Uranium mined in situ does not undergo the milling process since it is already in the form of uranium concentrate upon extraction. However, uranium ore is milled in order to separate the uranium concentrate from the rock in which it is embedded; (4) *Conversion.* After milling, uranium concentrate is converted to uranium hexafluoride ($UF_6$), a compound that contains fissionable isotopes (isotopes that can be split in order to release energy); (5) *Enrichment.* Uranium hexafluoride then undergoes

government to restrict its enrichment of foreign-source uranium intended for use in U.S. facilities "to the extent necessary to assure the maintenance of a viable domestic uranium industry."[4] In 1974, after restricting enrichment of foreign-source uranium for six years,[5] the government began to phase out its restrictions.[6] When the phase out was completed in 1984, three domestic uranium mining and milling companies brought suit against the Department of Energy (DOE).[7] Several months later, the Secretary of Energy determined that the domestic uranium industry was not viable.[8] However, because the nature of the international uranium market had significantly changed since the enactment of Section 161(v), he stated that the DOE would not reimpose enrichment restrictions on foreign-source uranium.[9] The Secretary asserted that such restrictions were not required as they would not achieve the objective of Section 161(v), restoring viability to the domestic industry.[10]

In *Huffman v. Western Nuclear, Inc.*,[11] the litigants disagreed as to whether Section 161(v) requires mandatory action by the DOE when the domestic uranium industry is not viable. The uranium companies argued that Section 161(v) requires the DOE to restrict its enrichment of foreign-source uranium whenever the domestic industry is not viable.[12] The DOE asserted that Section 161(v) requires it to impose enrichment restrictions only when such restrictions would restore viability to the domestic industry.[13] The Supreme Court ruled in favor

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enrichment, a process that increases the concentration of fissionable isotopes to a level that can sustain a nuclear chain reaction in a nuclear reactor; and (6) *Fabrication.* After the uranium hexafluoride is enriched, it is fabricated into fuel rods. These rods are shipped to nuclear power plants where they are used as nuclear reactor fuel. *See* URANIUM ANNUAL 1986, *supra* note 2, at 3.

[4] 42 U.S.C. § 2201(v) (1982).

[5] *See* Uranium Enrichment Services Notice, 31 Fed. Reg. 16,479 (1966).

[6] *See* Foreign Uranium for Domestic Use-Modifications of Restrictions on Enrichment Notice, 39 Fed. Reg. 38,016 (1974) [hereinafter Modifications of Restrictions Notice].

[7] The case was initially brought in the United States District Court for the District of Colorado and then appealed to the United States Court of Appeals for the Tenth Circuit before being heard by the Supreme Court. Huffman v. Western Nuclear, Inc., 108 S. Ct. 2091 (1988).

[8] ENERGY INFORMATION ADMIN., DOMESTIC URANIUM MINING AND MILLING INDUSTRY: 1986 VIABILITY ASSESSMENT ix (1987) [hereinafter 1986 VIABILITY ASSESSMENT]. *See also* ENERGY INFORMATION ADMIN., U.S. DEPT. OF ENERGY, DOMESTIC URANIUM MINING AND MILLING INDUSTRY: 1984 VIABILITY ASSESSMENT (September 1985) [hereinafter 1984 VIABILITY ASSESSMENT].

[9] *See* Uranium Enrichment Services Criteria, 10 C.F.R. § 762 (1989).

[10] *Id.*

[11] 108 S. Ct. 2087 (1988).

[12] *Id.* at 2092.

[13] *Id.*

of the DOE, requiring it to impose restrictions only when such restrictions would restore the industry's viability.[14]

This article examines *Huffman* in the context of the domestic uranium industry's past and future. Part 2 of the article examines the causes of the litigation and their relationship both to the long term development of the domestic industry as well as to more recent events. Part 3 discusses the arguments made before the Supreme Court by both parties and by amici curiae and recounts the Court's decision. Part 4 concludes by examining potential legislation that may affect the uranium industry in the future.

## 2. FOUNDATION FOR CONFLICT

Although one can point to the government's phase out of enrichment restrictions as one of the main factors leading to *Huffman*, the case can also be attributed to a much deeper cause. This Part examines both the underlying and immediate causes of the *Huffman* dispute. Part 2.1 suggests that the federal government and domestic uranium companies had historically contradictory goals for the uranium industry, thus laying the foundation for conflict between the two forces from the industry's inception. Part 2.2 analyzes the specific recent events which led to the litigation.

### *2.1. Government Interest in the Domestic Uranium Industry: Nuclear Weaponry*

#### *2.1.1. The Atomic Energy Act of 1946*

Government involvement in the uranium industry was spawned by the advent of nuclear weapons. The Manhattan Engineering District (MED), under the direction of the Army Corps of Engineers, headed uranium procurement and research for the development of nuclear weaponry in the early 1940s.[15] The MED was later replaced by the Atomic Energy Commission (AEC), created by the Atomic Energy Act of 1946.[16] The Atomic Energy Act of 1946 vested all right, title, and interest in "fissionable material" with the AEC.[17] The AEC was also

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[14] *Id.* at 2092-93.

[15] URANIUM ANNUAL 1986, *supra* note 2, at 2.

[16] Atomic Energy Act of 1946, Pub. L. No. 585, 60 Stat. 755.

[17] *Id.* § 5(a)(2), 60 Stat. 760. The Act defines "fissionable material" as "plutonium, uranium enriched in the isotope 235, any other material which the Commission determines to be capable of releasing substantial quantities of energy through nuclear chain reaction of the material, or any material artificially enriched by any of the foregoing." *Id.* § 5(a)(1), 60 Stat. 760.

made the exclusive owner of all facilities used in the production of fissionable material.[18]

The government's demand for uranium for military purposes literally created the domestic and foreign uranium-producing industries.[19] Since the mechanisms for large-scale mining and milling of uranium were not yet in place, the AEC instituted price and purchase guarantees to encourage industry growth.[20] The domestic industry boomed in response to the AEC's program, as production of uranium concentrate skyrocketed from approximately five million pounds in 1955 to nearly thirty-five million pounds in 1960.[21]

### *2.1.2. The Atomic Energy Act of 1954 and the Private Ownership of Special Nuclear Materials Act*

Once the military's immediate needs for uranium were satisfied, Congress passed two additional acts to dissolve the government's monopoly over uranium and to foster a private nuclear energy industry.[22] The Atomic Energy Act of 1954 empowered the AEC to license private entities to own and operate nuclear reactors.[23] Nevertheless, the government continued to be the exclusive owner of fissionable material, which it leased to private entities. The Private Ownership of Special Nuclear Materials Act[24] (Private Ownership Act), passed in 1964, finally allowed private entities to own fissionable material. However, since the U.S. government had the only facilities in the world at this time for enriching uranium,[25] the Private Ownership Act also authorized the AEC to enrich privately-owned uranium for a fee.[26]

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[18] *Id.* § 4(c)(1), 60 Stat. 757. Two exceptions are facilities that

> (A) are useful in the conduct of research and development activities in the fields specified in section 3; and (B) do not, in the opinion of the Commission, have a potential production rate adequate to enable the operator of such facilities to produce within a reasonable period of time a sufficient quantity of the fissionable material to produce an atomic bomb or any other atomic weapon.

*Id.*

[19] 1986 VIABILITY ASSESSMENT, *supra* note 8, at 5.

[20] *Id.*

[21] URANIUM ANNUAL 1986, *supra* note 2, at 42.

[22] Although Congress passed the Atomic Energy Act for military purposes, it also recognized that "tapping this new source of energy will cause profound changes in our present way of life." Atomic Energy Act of 1946, § 1(a), 60 Stat. 755.

[23] *See* 42 U.S.C. §§ 2132-34 (1982).

[24] Private Ownership of Special Nuclear Materials Act, Pub. L. No. 88-489, 78 Stat. 602 (1964) (codified as amended in scattered sections of 42 U.S.C.).

[25] *See* Proposed Uranium Enrichment Services Criteria, 51 Fed. Reg. 3,624, 3,625 (1986) (codified at 10 C.F.R. § 762).

[26] Pub. L. No. 88-489, 78 Stat. 602 (1964).

The Private Ownership Act also added Section 161(v) to the Atomic Energy Act of 1954. By requiring the government to restrict enrichment of foreign-source uranium bound for the domestic market "to the extent necessary to assure the maintenance of a viable domestic uranium industry,"[27] the statute was aimed at protecting the fledgling domestic industry from foreign competition. Congress instructed the AEC to develop "criteria" consistent with this mandate to be used in determining when the AEC would and would not enrich foreign-source uranium.[28] In 1966, the AEC issued criteria stating that it would not enrich any foreign-source uranium bound for domestic use.[29] The AEC stated, however, that it would periodically review the condition of the domestic industry to determine whether this restriction should be modified or removed.[30]

As these acts transferred the uranium industry to the private sector, the AEC simultaneously reduced its uranium purchase program.[31] Consequently, the rapidly expanding industry declined, as it was suddenly deprived of its major purchaser at a time when there was not yet a commercial market to absorb its production potential.[32] Production fell from nearly thirty-five million pounds in 1960 to approximately twenty-one million pounds in 1965.[33] However, this trend reversed when a commercial market for uranium took root in the mid-1960s and blossomed in the 1970s.[34] Orders from utility companies increased, the industry's commitment to exploration and production revived[35] and optimistic utilities scheduled start-up dates for new reactors.[36] In addition, the government entered into long term contracts with utilities to supply enrichment services.[37]

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[27] 42 U.S.C. § 2201(v) (1982).

[28] *Id.*

[29] *See* Uranium Enrichment Services Notice, *supra* note 5.

[30] *Id.*

[31] 1986 VIABILITY ASSESSMENT, *supra* note 8, at 5.

[32] *Id.*

[33] URANIUM ANNUAL 1986, *supra* note 2, at 42.

[34] 1986 VIABILITY ASSESSMENT, *supra* note 8, at 5.

[35] *Id.* In 1966, utility companies ordered 16.5 GWe of electricity. (One GWe is equal to a billion watts of electrical power.) In 1967 they ordered 26.5 GWe, and in 1968, 15.9 GWe. Exploration in 1966 nearly doubled that of 1965, and exploration in 1967 and 1968 tripled that of 1966. Although utility orders temporarily dipped to 7.2 GWe in 1969, as exploration fell to 15 million feet in 1971, both rose steadily from 1971 to 1973. Utility companies ordered 21.2 GWe in 1971, 41.4 GWe in 1972, and 47.0 GWe in 1973, while exploration drilling rose to approximately 17 million feet in 1973 and peaked at 48 million feet in 1978. *Id.*

[36] *Id.*

[37] *Id.*

### *2.1.3. Development in Perspective*

An examination of the early development of the domestic uranium industry suggests that the AEC's interests were inherently different from those of the uranium mining and milling companies. While the uranium companies were predominantly concerned with their economic viability, the AEC was occupied with the task of implementing the provisions aimed at furthering the paramount goal of the Atomic Energy Act of 1954—ensuring the common defense and security.

Accordingly, Section 161(v) served different purposes for these parties. For the uranium companies, Section 161(v) was an instrument of protection. In their view, it guaranteed that the domestic industry would not fall prey to foreign competition. For the AEC, however, Section 161(v) was a tool by which it could control the international flow of nuclear materials by enriching foreign uranium. While it also provided for the domestic industry's protection, Section 161(v) was primarily a flexible provision that would not conflict with the ultimate objective of the Atomic Energy Act.[38] The struggle between these approaches to Section 161(v) remained dormant until several specific events brought them into direct and open conflict.

## *2.2. The Specific Events*

### *2.2.1. Phasing Out Restrictions on the Enrichment of Foreign-Source Uranium*

In 1974, the AEC began to phase out its restrictions on enrichment of foreign-source uranium. Although the AEC declared in 1966 that it would not enrich foreign-source uranium bound for the domestic market,[39] it re-evaluated the nature of world wide supply and demand in the early 1970s. The AEC concluded that a gradual relaxation of enrichment restrictions would permit the use of foreign uranium in U.S. power reactors while "maintain[ing] the viability of the domestic uranium industry and permit[ting] its continued growth."[40] Accordingly, the AEC adopted a plan providing for the enrichment of 10% of foreign-source uranium in 1977, 15% in 1978, 20% in 1979, 30% in

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[38] S. REP. NO. 1325, 88th Cong., 2d Sess., *reprinted in* 1964 U.S. CODE CONG. & ADMIN. NEWS 3135 (AEC can make the decision whether "to offer or refuse to offer its enrichment services" based on "its opinion" of what action will assure the domestic industry's viability).

[39] *See* Uranium Enrichment Services Notice, *supra* note 5.

[40] Restrictions on Enrichment of Foreign Uranium for Domestic Use, 38 Fed. Reg. 32,595, 32,595 (Atomic Energy Comm'n 1973).

1980, 40% in 1981, 60% in 1982, 80% in 1983, and 100% thereafter.[41]

### 2.2.2. *Bust Again: The Industry's Dramatic Decline*

The domestic market again declined in the late 1970s. This second decline, from which the industry has not yet recovered, was generally due to three factors. First, in traditional economic terms, the demise of the domestic industry was caused by "a classic oversupply situation."[42] Although the industry had begun expanding in the 1960s, by the late 1970s the projected increase in demand for uranium had not materialized.[43] U.S. consumption of electric power simply failed to conform to its historical growth rate.[44] Second, the rising costs associated with the construction of nuclear power plants led to the delay or cancellation of a considerable number of new nuclear facilities.[45] Finally, in the mid-1970s the AEC faced for the first time foreign competition in providing enrichment services. Two European consortia and the Soviet Union took away approximately sixty percent of the total foreign market for enrichment services.[46]

The result was that the price of uranium dropped dramatically.[47] A 1987 Nuexco report stated that oversupply, decreased demand, and foreign competition forced down the price of uranium in new contracts from approximately $43.70 per pound in 1979 to $14.45 per pound in 1986.[48] A subsequent glut left utilities committed to long-term enrichment contracts they no longer needed.[49] Accordingly, a secondary market developed in which utilities sold their surplus "separative work units"[50] at dramatically discounted prices.[51]

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[41] *See* Modifications of Restrictions Notice, *supra* note 6. The percentages represent fractions "of feed material[s] furnished by any customer during a year under all of the customer's enrichment agreements with the AEC that is feed material of foreign origin. . . ." Uranium Enrichment Services Notice, *supra* note 5.

[42] *Status of the Domestic Uranium Mining and Milling Industry: The Effects of Imports: Hearing Before the Subcomm. on Energy Research and Development of the Comm. on Energy and Natural Resources*, 97th Cong., 1st Sess. 15 (1981) (statement of Shelby Brewer, Assistant Secretary for Nuclear Energy).

[43] 1986 VIABILITY ASSESSMENT, *supra* note 8, at 5.

[44] *Id.*

[45] *Id.*

[46] *See* Proposed Uranium Enrichment Services Criteria, *supra* note 25, at 3,625.

[47] *Id.*

[48] 1986 VIABILITY ASSESSMENT, *supra* note 8, at 8 (citing NUEXCO, MONTHLY REPORT ON THE NUCLEAR FUEL MARKET 29 (1987)).

[49] *See* Proposed Uranium Enrichment Services Criteria, *supra* note 25, at 3,625.

[50] "The capacity of plants used for producing enriched uranium is defined in terms of separative work units. Such units measure the amount of effort expended to separate a given amount of natural uranium into two components—one having a higher concentration of fissionable uranium-235." *Id.* at 3,625 n.1.

[51] *Id.* at 3,625.

### *2.2.3. Congress: Attempting to Stem the Decline*

In 1982, Congress reacted to the industry's decline by adding Section 170B to the Atomic Energy Act of 1954,[52] which calls for heightened scrutiny of the ailing domestic industry. It directs the Secretary of Energy to monitor the industry for ten years, from 1983 to 1992, and to make a formal determination of viability each year.[53] The Secretary is to base this determination on guidelines specified in the Act, as well as those developed by the DOE.[54]

The Energy Information Administration of the DOE formulated four guidelines to be considered in conjunction with those listed by Congress in Section 170B. These guidelines involve the industry's resource capability, supply response capability, financial capability and import commitment dependency.[55] Collectively, the guidelines gauge

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[52] Section 170B was added to the Atomic Energy Act of 1954 by the Nuclear Regulatory Commission Authorization Act, Pub. L. No. 97-415, 96 Stat. 2067 (1982) (codified as amended in scattered sections of 42 U.S.C.) [hereinafter Authorization Act].

[53] Authorization Act § 23(b), 42 U.S.C. § 2210b(a) (1982). It also required the President to conduct a one time comprehensive review of the industry and to present that review to Congress. *Id.* at § 23(a), 42 U.S.C. § 2210b (1982). For the results of that review, see U.S. DEP'T OF ENERGY, UNITED STATES URANIUM MINING AND MILLING INDUSTRY: A COMPREHENSIVE REVIEW (1984).

[54] Authorization Act § 23(b)(1), 42 U.S.C. § 2210b(c) (1982). The guidelines offered by Congress to determine the viability of the industry are as follows:

> (1) an assessment of whether executed contracts or options for source material or special nuclear material will result in greater than 37-½ percent of actual or projected domestic uranium requirements for any two-consecutive-year period being supplied by source material or special nuclear material from foreign sources;
> (2) projections of uranium requirements and inventories of domestic utilities for a 10 year period;
> (3) present and probable future use of the domestic market by foreign imports;
> (4) whether domestic economic reserves can supply all future needs for a future 10 year period;
> (5) present and projected domestic uranium exploration expenditures and plans;
> (6) present and projected employment and capital investment in the uranium industry;
> (7) the level of domestic uranium production capacity sufficient to meet projected domestic nuclear power needs for a 10 year period; and
> (8) a projection of domestic uranium production and uranium price levels which will be in effect under various assumptions with respect to imports.

*Id.*

[55] *See* Criteria to Assess Viability of Domestic Uranium Mining and Milling Industry, 10 C.F.R. § 761 (1989). The guidelines were defined as follows:

> *Resource capability:* Whether domestic economic uranium reserves can supply all domestic needs for ten years;
> *Supply response capability:* The level of domestic uranium production capacity sufficient to meet projected domestic nuclear power needs for ten years;

whether the industry "will be capable, at any particular time, of supplying the needs of the domestic nuclear power industry under a variety of hypothetical conditions."[56]

Once these guidelines were formally adopted in 1984, the Secretary made his first viability determination for the previous year. He determined that the domestic industry had been viable in 1983.[57] In 1985, however, the Secretary determined that the domestic industry had not been viable in 1984.[58] Similarly, in 1986, the Secretary determined that the domestic industry had not been viable in 1985.[59]

### *2.2.4. DOE: Modifying Enrichment Criteria*

In 1986, two years after the 1974 phase-out of all restrictions on enrichment was completed, the DOE modified the criteria under which it provided uranium enrichment services to "continue the existing policy against restrictions on the enrichment of uranium from foreign countries for domestic use."[60] Under the new criteria,

> [the] DOE would negotiate individual enrichment services contracts in accordance with an overall approach intended to maintain the long-term competitive position of the United States in the world market, while obtaining the recovery of the Government's costs for providing enrichment services. The proposed criteria would provide flexibility concerning price, as well as other terms and conditions, in enrichment services contracts.[61]

The DOE adopted these criteria as part of a new program to ful-

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> *Financial capability:* The industry's ability to finance the level of production capability defined under supply response capability; and
> *Import commitment dependency:* Whether executed contracts or options for source material or special nuclear material will result in greater than 37-½ percent of actual or projected domestic uranium requirements for any two-consecutive-year period being supplied by source material or special nuclear material from foreign sources.

*Id.*

[56] *Id.*

[57] 1986 VIABILITY ASSESSMENT, *supra* note 8, at ix. *See also* ENERGY INFORMATION ADMIN., U.S. DEPT. OF ENERGY, DOMESTIC URANIUM MINING AND MILLING INDUSTRY: 1983 VIABILITY ASSESSMENT (1984).

[58] 1986 VIABILITY ASSESSMENT, *supra* note 8, at ix. *See also* 1984 VIABILITY ASSESSMENT, *supra* note 8.

[59] 1986 VIABILITY ASSESSMENT, *supra* note 8, at ix. *See also* ENERGY INFORMATION ADMIN., U.S. DEP'T. OF ENERGY, DOMESTIC URANIUM MINING AND MILLING INDUSTRY: 1985 VIABILITY ASSESSMENT (1986).

[60] Proposed Uranium Enrichment Services Criteria, *supra* note 25, at 3,624.

[61] *Id.*

fill its statutory requirements under the Atomic Energy Act of 1954 in light of changing market conditions.[62] These responsibilities included making the United States a more competitive member of the world's marketplace as well as controlling, more effectively, the development and utilization of atomic energy for peaceful purposes.[63]

While this action angered domestic uranium companies, the DOE also took several steps to aid the industry. Not only did it offer mining companies a free variable tails option,[64] it also had the United States Trade Representative (USTR) study the condition of the industry. The USTR independently determined that restriction under Section 161(v) would not aid the industry in the long run.[65] In addition, the DOE postponed for one year plans to feed stockpiled uranium into its enrichment plants.[66]

### 3. The Conflict Resolved

After the DOE phased out its enrichment restrictions, but before it formally revised its enrichment criteria, several uranium companies filed suit against the DOE, claiming it had violated Section 161(v). That section provides as follows:

> *And provided further,* That the Commission, to the extent necessary to assure the maintenance of a viable domestic uranium industry, shall not offer such [enrichment] services for source or special nuclear materials of foreign origin intended for use in a utilization facility within or under the jurisdiction of the United States.[67]

#### *3.1. Arguments Made before the Supreme Court*

Following litigation in the trial and appellate courts in 1984 and

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[62] *Id.*

[63] *Id.*

[64] The offering of a free variable tails option removes penalties connected with a company's choice of uranium refinement processes. Utility companies have a choice in how they want their uranium to be refined. The prices differ depending on the specific process, and sometimes penalties are assigned depending on the option desired.

[65] *See* 1986 Viability Assessment, *supra* note 8, at ix. The USTR determined that "any remedy granted under existing law which might provide the extent of relief requested by the industry would only be short term, while at the same time having an adverse impact on trade and other relations with important trading partners without resolving the long-term problems of the industry." Proposed Uranium Enrichment Services Criteria, *supra* note 25, at 3,628.

[66] *Id.*

[67] 42 U.S.C. § 2201(v) (1982).

1987, respectively,[68] the Supreme Court heard *Huffman*[69] in April 1988. The narrow issue examined by the Court was

> [w]hether, regardless of the effects restrictions would have on the viability of the domestic industry, DOE must impose restrictions on the enrichment of foreign-source uranium whenever the domestic industry is determined not to be viable.[70]

### *3.1.1. Uranium Companies (Western)*

Western argued that the DOE was indeed required to impose enrichment restrictions on foreign-source uranium during periods of domestic nonviability. It asserted that in enacting Section 161(v), Congress determined that restrictions on the enrichment of foreign-source uranium are instrumental in assuring the domestic industry's viability and, therefore, must be imposed when the industry's viability is threatened.[71] This argument was premised on five points.

First, Western asserted that it is apparent from the plain language of Section 161(v) that the DOE has no discretion in deciding whether to apply enrichment restrictions.[72] Rather, Section 161(v) states that the DOE "shall not offer" enrichment services for foreign-source ura-

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[68] Three domestic uranium mining and milling companies, Western Nuclear, Inc., Energy Fuels Nuclear, Inc., and Uranium Resources, Inc., brought suit against the DOE on December 7, 1984, in the United States District Court for the District of Colorado. Western Nuclear, Inc. v. Huffman, No. 84-C-2315, slip op. (D. Colo. Sept. 19, 1985). The district court granted the companies' motion for summary judgment, holding that Section 161(v) does not allow the DOE to remove restrictions if the domestic industry is not viable. *See* Appendix to Petition for Certiorari at 22a, Western Nuclear Inc. v. Huffman, No. 84-C-2315, slip op. (D. Colo. Sept. 19, 1985). The court ordered the DOE to cease the enrichment of foreign source uranium and called for a rule to resolve the issue of whether "criteria less restrictive than those imposed by this order would assure the maintenance of a viable domestic uranium industry." *Id.*

The lower court's ruling was affirmed in relevant part on appeal. Western Nuclear, Inc. v. Huffman, 825 F.2d 1430 (10th Cir. 1987). The court of appeals first found that the phrase "shall not offer such [enrichment] services" is "mandatory language." *Id.* at 1438. It then found that the phrase "to the extent necessary to assure the maintenance of a viable domestic uranium industry" allows the DOE the discretion to determine the amount of restriction required but "does not provide a scenario in which the DOE is [altogether] excused from restricting foreign enrichment." *Id.* The court emphasized that even if Section 161(v) is a bad provision, criticisms of the statute "should be made to Congress and not to the courts. We can only apply this statute as Congress passed it." *Id.* at 1,439.

[69] *Huffman*, 108 S. Ct. at 2087 (1988).

[70] 108 S. Ct. at 2091.

[71] Brief for Respondents at 17, Huffman v. Western Nuclear, Inc., 108 S. Ct. 2087 (1988) (No. 87-645).

[72] *Id.*

nium.[73] The phrase "to the extent necessary to assure the maintenance of a viable domestic industry" does not provide an exception to this mandate, but rather describes the degree of restriction required.[74] Accordingly, Western argued that "[u]nder the plain reading of the statute . . . [the] DOE must restrict the enrichment of foreign-source uranium unless and until the viability of the domestic industry is assured."[75]

Second, Western argued that the legislative history of Section 161(v) indicates that Congress intended to require mandatory enrichment restrictions by the AEC whenever the industry is not viable.[76] While the Private Ownership Act was under consideration, Western asserted, representatives of the domestic uranium industry feared that competition posed by low-cost foreign producers would make it impossible for the industry to remain viable.[77] Western argued that this concern prompted the Vice Chairman of the Joint Committee on Atomic Energy to request an industry spokesman to propose legislation that would protect the domestic industry.[78] This legislation ultimately became Section 161(v).[79] Supporters of the provision believed that its "restriction on the enrichment of foreign uranium . . . [would] protect our industry against ruinous competition from cheap foreign uranium."[80]

Third, Western argued that Congress believed that the imposition of enrichment restrictions pursuant to Section 161(v) would in fact assure the viability of the domestic industry.[81] The clear thrust of the Private Ownership Act, Western asserted, was to promote U.S. defense by sustaining a viable domestic industry. Congress chose to accomplish this objective by restricting the harmful flow of foreign uranium into this country through enrichment, as well as import, restrictions.[82] As an AEC representative testified before the Joint Committee, "[t]he com-

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[73] *Id.*
[74] *Id.* at 18.
[75] *Id.* at 19.
[76] *Id.* at 21.
[77] *Id.* at 22.
[78] *Id.* at 23.
[79] *Id.* The proposed legislation read in part:

> That the Commission shall establish criteria in writing setting forth the terms and conditions of making such production or enrichment services available and, in this regard, shall not extend its services to source or special nuclear materials of foreign origin intended for domestic use to the extent necessary to assure the development of a viable domestic uranium mining and milling industry.

*Id.* at 23 n.33 (citing *Private Ownership of Special Nuclear Materials: Hearings Before the Subcomm. on Legislation of the Joint Comm. on Atomic Energy*, 88th Cong., 2nd Sess. 198 (1964) [hereinafter *1964 Private Ownership Hearings*]).
[80] *Id.* at 24 (citing 110 CONG. REC. 20,145 (1964) (statement of Rep. Morris)).
[81] *Id.* at 26.
[82] *Id.* at 27.

mon defense and security . . . is dependent to a degree on the viability of our domestic mining and milling industry to provide feed material. That was the basis in the first instance for section 161v [sic]."[83]

Fourth, Western further argued that Congress added section 170B to the Atomic Energy Act—the provision requiring the DOE to determine annually if the domestic uranium industry is viable—to prevent the DOE from avoiding its responsibility to implement enrichment restrictions.[84] Mining companies urged Congress to take such action because the DOE was phasing out enrichment restrictions while at the same time making no effort to monitor the industry's viability.[85] With Section 170B, Congress intended the DOE to monitor the industry so that the DOE could not simply fail to fulfill its responsibilities under Section 161(v).

Finally, Western argued that the DOE could not avoid its obligation under Section 161(v) by claiming that the Court must respect the DOE's interpretation of the statute.[86] Unlike agencies that can choose from a variety of methods to implement a statute, the DOE was faced with only one method with which to implement Section 161(v).[87] This method was to restrict the enrichment of foreign-source uranium. In declining to do so, the DOE did not merely choose a different method of implementing Section 161(v), but declined to implement it altogether.[88] Since the DOE abandoned its duties under Section 161(v) in order to further its profitable position as an international supplier of enrichment services,[89] its position was clearly not supported by the statute.

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[83] *Id.* at 28 (citing *Proposed Modification of Restrictions on Enrichment of Foreign Uranium for Domestic Use: Hearings Before the Joint Comm. on Atomic Energy*, 93rd Cong., 2d Sess. 8 (1974) (statement of Mr. Mercer)).

[84] *Id.* at 30.

[85] *Id.* As Representative Lujan stated:

> Congress has consistently recognized the importance of maintaining a viable domestic uranium industry . . . . We adopted Section 161(v) of the Atomic Energy Act directing the Atomic Energy Commission, now the Department of Energy, to take such actions in the provision of enrichment services as were necessary to maintain a viable domestic industry. The Department, to my sorrow, has failed to implement that provision.

*Id.* (citing 128 CONG. REC. 28,538 (1982)).

[86] *Id.* at 33.

[87] *Id.* at 34.

[88] *Id.*

[89] *Id.* at 35. Western asserted that the "DOE's refusal to take any action to assure the viability of the domestic uranium industry [was] driven by DOE's concern that, if enrichment restrictions [were] imposed, it [might] lose some enrichment business to foreign competitors." *Id.*

### *3.1.2. The Department of Energy*

The DOE argued that the court of appeals had erred in interpreting Section 161(v) as requiring the government to restrict its enrichment of foreign uranium whenever the domestic industry was not viable.[90] It asserted that the court should have taken into consideration the effect restrictions would have upon the industry's viability.[91] The DOE made three main arguments.

First, the DOE argued that it was required to impose restrictions only "to the extent necessary to assure the maintenance of a viable domestic uranium industry."[92] This mandate logically does not require the DOE to impose restrictions in situations where *no* amount of restriction would assure viability: if viability cannot be achieved by imposing restrictions, then no measure of those restrictions need be applied.[93] The DOE asserted, therefore, that it did not violate Section 161(v) by declining to impose restrictions that would do nothing to revive the industry. It stated this is "the intuitive, natural reading of the language; it rests on a purpose that is plain on the face of the provision."[94]

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[90] Brief for Petitioners at 22, Huffman v. Western Nuclear, Inc., 108 S. Ct. 2087 (1988) (No. 87-645).

[91] *Id.*

[92] *Id.*

[93] *Id.* Consider the DOE's explanations given in the notice of proposed rulemaking to amend existing enrichment criteria:

> Import restriction on foreign uranium would not assure the viability of the domestic mining and milling industry. The difficulties currently facing the domestic mining and milling industry appear to stem from various factors, including the disparity between the production cost of domestic and foreign uranium, shrinkage in the demand for nuclear power, excess uranium inventories, excess production capacity, and cancellation of powerplants due to cost overrun and licensing delays.
>
> Import restrictions would have no long term positive effect on the consumption of domestic uranium. As long as DOE's enrichment services costs are competitive with foreign services, customers will procure either domestic or foreign uranium for feed material based solely on economic considerations . . . . In the short-term, an import ban might increase consumption of domestic uranium temporarily . . . [but] [t]his effect would be temporary and could not assure the long-term viability of the domestic industry.

Proposed Uranium Enrichment Services Criteria, *supra* note 25, at 3,627 (footnote omitted).

[94] Brief for Petitioners at 23. The DOE relied on Young v. Community Nutrition Institute, 476 U.S. 974 (1986), in concluding that the Court should defer to its reading of the statute. The DOE recounted that in *Young*, the FDA had decided not to promulgate regulations to implement a statute although the statute stated that the Administrator "shall promulgate regulations . . . to such extent as he finds necessary for the protection of public health." The FDA argued "that the phrase 'to such extent as he

Second, the DOE argued that the legislative history of Section 161(v) demonstrates that Congress did not intend to make restrictions mandatory whenever the domestic industry is not viable.[95] Although Section 161(v) was enacted to protect the domestic industry as it was being transferred to the private sector, the AEC stated, as early as 1964, that restrictions would be removed by 1975, when "civilian requirements are expected to be sufficiently high that the viability of the domestic industry would no longer be at stake."[96] The Kerr-McGee Company, a major player in the uranium industry, had recommended that the imposition or lifting of restrictions be based on an ongoing evaluation of the industry rather than on an evaluation arbitrarily set for a particular year. This aspect of the Kerr-McGee proposal was accepted by the Joint Committee.[97] Furthermore, Congress did not intend this provision to be unreviewable. Rather, the Joint Committee echoed the language of the Atomic Energy Act of 1964 when it stated, "It is recognized that many unforeseeable developments may arise in this field requiring changes in the legislation from time to time."[98] Indeed, in enacting Section 170B in 1982 to solve a problem not foreseen in 1964, Congress demonstrated such flexibility. It rejected mandatory uranium import restrictions in favor of an annual viability review, an action that allows the DOE to respond appropriately to a particular problem "as [it] sees fit."[99]

Finally, the DOE argued that the court of appeals' decision was founded on factual findings that were clearly incorrect.[100] For example, the court required the DOE to impose and increase restrictions on a continuous basis during periods of nonviability until the domestic industry became viable. This ruling was based on the assumption that restrictions would in fact lead to viability.[101] However, the district court made no such factual finding.[102] Since the Secretary made unrebutted statements that restrictions would not lead to viability, the court of appeals was required to accept his assertions as true on the respondents'

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finds necessary for the protection of public health' . . . modified the word 'shall'." 476 U.S. at 980. The Supreme Court held that this interpretation was "sufficiently rational to preclude a court from substituting its judgment for that of the FDA." Brief for Petitioners at 24 (citing *Young*, 476 U.S. at 980-81).

[95] *Id.* at 30.

[96] *Id.* at 31 (citing *1964 Private Ownership Hearings*, *supra* note 79, at 5).

[97] *Id.* at 32.

[98] *Id.* at 35 (citing S. REP. NO. 1325, 88th Cong., 2d Sess. 19 (1964)).

[99] *Id.* at 37 (citing 128 CONG. REC. H10,463 (daily ed. Dec. 20, 1982) (remarks of Rep. Frenzel)).

[100] *Id.* at 38.

[101] *Id.*

[102] *Id.*

motion for summary judgment.[103]

### *3.1.3. Amici Curiae*

Several amici curiae made arguments in support of either the DOE or Western. The Government of Australia supported the DOE by arguing in part that the lower court's interpretation of Section 161(v) violated the General Agreement on Tariffs and Trade (GATT),[104] which is U.S. law. Article III(4) of the GATT has been construed to require that "imported goods will be accorded the same treatment as goods of local origin with respect to matters under government control, such as taxation and regulation."[105] The court of appeals' decision, however, denied Australian uranium such treatment.[106] In addition, the DOE's implementation of the lower court's interpretation of Section 161(v) would violate Article XI(1) of the GATT, which prohibits U.S. imposition of restrictions "other than duties, taxes or other charges, whether made effective through quotas, import or export licenses or other *measures* . . . on the importation of any product of the territory of any other contracting party . . . ."[107]

The states of Arizona, Colorado, New Mexico, Nevada, Utah, and Wyoming all supported Western, arguing that the plain language and legislative history of Section 161(v) illustrate that Congress intended the DOE to preserve and maintain a viable domestic industry through mandatory restrictions.[108] They asserted that the DOE's different interpretation of the statute was based on "its self-serving conclusion" that

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[103] *Id.* at 39 (citing Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 587-88 (1986); United States v. Diebold, Inc., 369 U.S. 654, 655 (1962)). The court of appeals could also have remanded the case for further proceedings to determine this factual issue. However, it failed to do this as well. *Id.*

[104] General Agreement on Tariffs and Trade, Oct. 30, 1947, T.I.A.S. No. 1700, 55 U.N.T.S. 194 [hereinafter GATT].

[105] Brief for the Government of Australia at 7-8, Huffman v. Western Nuclear, Inc., 108 S. Ct. 2087 (1988) (No. 87-645) (citing J. JACKSON, WORLD TRADE AND THE LAW OF GATT 273 (1969)).

[106] *Id.* at 4, 7. Article III(2) states in part as follows:

> The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution, or use.

GATT, art. III, ¶ 2, T.I.A.S. No. 1700 at 14, 55 U.N.T.S. at 206.

[107] Brief for the Government of Australia at 8-9 (emphasis added). The Government of Canada made a similar argument in support of the DOE. *See* Brief for the Government of Canada at 9-14, Huffman v. Western Nuclear, Inc., 108 S. Ct. 2087 (1988) (No. 87-645).

[108] Brief of Amici Curiae States at 14, Huffman v. Western Nuclear, Inc., 108 S. Ct. 2087 (1988) (No. 87-645).

restrictions would not help the industry.[109] The DOE, however, had no legal authority to implement the statute differently from the manner that Congress dictated.[110]

### *3.2. The Decision*

The Supreme Court reversed the court of appeals, concluding that Section 161(v) did not require the DOE to restrict the enrichment of foreign-source uranium irrespective of whether restrictions would make the domestic industry viable. The Court first found Section 161(v) ambiguous, recognizing that the language of the statute did not state clearly whether restrictions must always be applied, even when they would not assure viability.[111] Consequently, the Court focused on the purpose of the statute, namely, "to assure the maintenance of a viable domestic uranium industry." The Court concluded:

> [I]t seems strained to assert that, even if DOE properly determined that no amount of restriction would assure the viability of the domestic industry, Congress nevertheless intended DOE to impose restrictions that were somehow calculated to serve that unattainable goal.[112]

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[109] *Id.* at 13.

[110] Other amici curiae for the DOE were Eldorado Nuclear Limited, *et al.*, and the Governments of the Province of Saskatchewan and the Province of Ontario. These parties asserted that Section 161(v) did not automatically require the DOE to restrict enrichment of foreign uranium if the domestic industry were nonviable. Rather, the DOE must do so only if such restrictions would assure viability, not when, as the Secretary had determined, they would have been counterproductive. In addition, the lower court's decision, if it were upheld, would have adversely affected critical U.S.-Canadian trade relations.

Amici curiae for Western were U.S. Senators Bingaman, Domenici, *et al.* The group of senators asserted that the DOE could not disregard an act of Congress merely because it believed the statute no longer served its purpose. Such judgments should be left to Congress. In addition, the DOE could not gauge its decision to refuse to implement the statute on its own judgment that this would damage its enrichment program.

The National Taxpayers Union (NTU) was neutral. The NTU advised the Court of the economic ramifications of Section 161(v). It stated that "[i]f [the] DOE fail[ed] to recover the costs of its civilian enrichment program as provided in . . . § 161v[sic], the burden of providing enrichment services . . . [would] fall on U.S. taxpayers." Brief for Amicus Curiae National Taxpayers Union at 2, Huffman v. Western Nuclear, Inc., 108 S. Ct. 2087 (1988) (No. 87-645). This potential burden existed, NTU contended, since the DOE had claimed the authority to "write off" its losses. "NTU oppose[d] [such] write-offs as unlawful under § 161v[sic] and as an unwarranted taxpayer subsidy contrary to the literal intent of § 161v[sic]." *Id.* at 3.

[111] *Huffman*, 108 S. Ct. at 2092. On this issue, the Court remarked as follows: "Indeed, we well might infer from the language that the particular issue presented by this case was not the focus of Congress' concern at the time the relevant provision was enacted." *Id.* at 2092.

[112] *Id.* at 2092-93 (footnote omitted).

The Court bolstered its conclusion by pointing out that the statute did not explain how much restriction was necessary beyond the phrase "to assure the viability of the domestic industry."[113] The Court believed that requiring the restriction of all foreign enrichment "rest[ed] on the assumption that the greater the restrictions, the more assured . . . the domestic industry's viability;"[114] however, it believed that this assumption was not grounded in the statutory language.[115] Accordingly, the Court reversed.

### 4. Looking Forward

In the wake of *Huffman*, Congress has passed or considered several measures affecting the domestic uranium industry. The Uranium Revitalization bill, for example, sought in part,

> to provide for a viable domestic uranium industry [and] . . . to establish a wholly-owned Government corporation to manage the Nation's uranium enrichment enterprise, operating as a continuing, commercial enterprise on a profitable and efficient basis . . . .[116]

Although it was referred to several committees, the Uranium Revitalization bill and several similar bills died at the close of the 100th session of Congress.

The most notable legislation to become law that may injure the domestic industry is the Free Trade Agreement (FTA) between the United States and Canada.[117] The FTA creates the largest free trade area in the world and will affect approximately 125 billion dollars worth of trade.[118] The effects of the FTA on the domestic uranium industry remain to be seen.

In the present session of Congress, the Senate has passed the Uranium Enrichment, Uranium Security and Tailings Reclamation Act of 1989.[119] The Act seeks

> to establish the United States Enrichment Corporation to op-

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[113] *Id.* at 2093.

[114] *Id.*

[115] *Id.*

[116] H.R. 4934, 100th Cong., 2d. Sess., 134 Cong. Rec. H4833 (1988) (proposed Uranium Revitalization, Tailings Reclamation and Enrichment Act of 1988).

[117] *See* United States-Canada Free Trade Agreement Implementation Act of 1988, Pub. L. No. 100-449, 102 Stat. 1851 (to be codified at 19 U.S.C. § 2112). The FTA was signed into law on September 28, 1988.

[118] United States-Canada Free-Trade Agreement, *done* Dec. 22, 1987-Jan. 2, 1988, 27 I.L.M. 281.

[119] S. 83, 101st Cong., 1st Sess., 135 Cong. Rec. D818 (1989).

> erate the Federal uranium enrichment program on a profitable and efficient basis . . . , to provide assistance to the domestic uranium industry and to provide a Federal contribution for the reclamation of mill tailings generated pursuant to Federal defense contracts at active uranium and thorium processing sites.[120]

Considering *Huffman* and the types of trade measures passed or considered this term, what does the future hold for the domestic uranium industry? It is difficult to offer a definitive answer to this query. As the history of the uranium industry suggests, the industry's viability is dependent on many variables. In the future, these variables may range from the price of foreign uranium to the efficiency and safety of domestic nuclear power plants. Although the DOE prevailed in *Huffman* and although proposed legislation such as the Uranium Revitalization bill was rejected, interest in assuring the well-being of the domestic industry continues. Perhaps the only prediction that can be made with any degree of certainty is that this country's strong but contradictory philosophies of free trade and protectionism assure that the uranium industry will be the topic of conflicting legislative proposals well into the future.

[120] *Id.*