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Atomic Energy - Uranium Procurement - Legal Aspects of the AEC Domestic Ore Purchase Program

Michael Scott S.Ed.
University of Michigan Law School

Edward M. Heppenstall
University of Michigan Law School

ATOMIC ENERGY—URANIUM PROCUREMENT—LEGAL ASPECTS OF THE AEC DOMESTIC ORE PURCHASE PROGRAM—The federal government's domestic uranium ore procurement program, initially announced following World War II to ensure maximum exploration and development for military purposes, has met with extraordinary success. So improved is this country's military uranium picture that the Atomic Energy Commission was recently able to announce that uranium concentrate purchases would not be further increased.[1] This announcement is viewed as a matter of serious concern by the domestic ore producer, who must continue to look to the federal government as his sole market; a noticeable private market for peaceful uses of atomic energy fuels may not be realized for more than a decade.[2] It becomes apparent

1 Address by Jesse C. Johnson, director of the Atomic Energy Commission raw materials division, before the Atomic Industrial Forum, October 28, 1957.

2 Estimates as to when a serious commercial market for peaceful uses of fissionable materials, for which uranium ore is now the principal source, vary considerably because of the intangibles involved in making such a prediction. A spokesman for the Uranium Institute of America, representing ore producers, recently commented that the uranium ore industry is about twelve years ahead of the commercial market; other experts set the figure at closer to ten. A former AEC official remarked in December 1957 that the total uranium requirement of all atomic power plants in the free world in the next ten years will amount to between 15,000 and 20,000 tons of uranium oxide. This figure compares with 40,000 tons of uranium oxide (30,000 in this country) expected to be produced annually by free world uranium mills before 1959. WALL STREET JOURNAL, December 18, 1957, p. 6:2. See also testimony of Gordon A. Weller, Executive Vice-President, Uranium Institute of America, before Joint Committee on Atomic Energy on Development, Growth, and State of the Atomic Energy Industry, 85th Cong., 2d sess., Feb. 24, 1958, reported in BNA ATOMIC INDUSTRY REP. 4:70 (1958).

that with the government market no longer unlimited, competition among producers and controversies with the AEC can be expected to grow more frequent and intense. Harbingers of such developments are already on the scene. The first judicial decision interpreting language in the government's guaranteed price circulars—*Radium Mines, Inc. v. United States*[3]—was handed down a few months ago. It is anticipated that increasing competition and controversy will mean a correspondingly increased inspection and critical analysis of these price circulars, which at times are confusingly or improperly drafted. This comment is designed to examine the legal and practical problems raised by these guarantees, with the anticipation that these problems may appear with considerably greater frequency in federal courts in the span of lean years before a substantial private market for uranium ore develops.

I. *The Program and the Industry*

Since Congress deliberately chose private enterprise as its medium for broad and rapid expansion of uranium ore exploration and development, the Atomic Energy Act of 1946 (and subsequently the 1954 act) contained an authorization for AEC acquisition of uranium ore by purchase from private producers.[4] This purchase program, which formed the nucleus of the federal incentive system, was implemented by numerous fringe incentives designed to attract the energies of both small and large-scale prospecting and development units. At the exploration stage, for example, the Defense Minerals Exploration Administration was formed to provide financial assistance to persons desiring to explore mining properties for unknown uranium.[5] Government technical data and facilities further encouraged exploration,[6] and federal construction of roads and provision for transportation allowances permitted more economical development of discov-

[3] (Ct. Cl. 1957) 153 F. Supp. 403.

[4] Atomic Energy Act of 1946, §5(b)5, 60 Stat. 762; Atomic Energy Act of 1954, 68 Stat. 933, 42 U.S.C. (Supp. IV, 1957) §2096.

[5] An extensive discussion of the operation of the D.M.E.A. is found in Tippit, "Federal Incentives to Uranium Mining," 27 ROCKY MT. L. REV. 457 at 458 (1957). Since the writing of that article, the D.M.E.A. has reduced its percentage contribution to allowable costs of exploration. See DMEA Order No. 1, 32A C.F.R. (1956) C. XII, as amended 22 Fed. Reg. 8304 (1957).

[6] See generally Hearings before Joint Committee on Atomic Energy on Development, Growth, and State of the Atomic Energy Industry, 84th Cong., 1st sess., p. 26 (1955).

ered deposits.[7] Initial production from mining properties was rewarded with attractive bonuses,[8] and in some locations "development allowances" were paid for ore produced,[9] in addition to the guaranteed price, to encourage further development of mining properties.

But there can be no doubt that the principal incentive for production was provided by the government's schedules of guaranteed minimum prices for uranium ores delivered to government depots. Pursuant to its statutory authority to acquire uranium ore by purchase from private domestic producers, the AEC has issued a continuing series of regulations and releases providing an assured market for uranium ore.[10] The original price schedules took effect in 1948, and while some of the guarantees have expired, government purchases are now guaranteed until 1966. Although certain problems arising with respect to these documents will be examined in some detail in the following sections of this comment, a brief description of their general provisions is perhaps desirable here. In 1948, the AEC issued two regulations offering guaranteed minimum prices for uranium-bearing ores and mechanical concentrates—Circular No. 3 for ores found in the Colorado Plateau, and Circular No. 1 for ores discovered elsewhere.[11] The latter regulation was applicable, however, only to ores containing ten percent or more uranium oxide. Since no

[7] Ibid. Domestic Uranium Circular No. 5a, 10 C.F.R. (Supp. 1958) §60.5a(a)(3)(ii).

[8] The Commission has for several years made a standing offer of a $10,000 bonus for discovery of and production from new high-grade domestic uranium deposits. The minimum grade for which the bonus will be paid is ore assaying 20% uranium oxide. Domestic Uranium Circular No. 2, 10 C.F.R. (1949) §60.2(a). While this appears to be a substantial incentive to initial production, it is not; no one has claimed the bonus. Hidden Splendor Mine, one of the richest ore deposits, checked only 0.4% uranium oxide. Mathis, "Uranium Boom Over," ILLUS. MAGAZINE OF WALL STREET, Oct. 29, 1955, p. 139. A more realistic bonus provision is to be found in Domestic Uranium Program Circular No. 6, 10 C.F.R. (Supp. 1958) §60.6.

[9] Domestic Uranium Circular No. 3A, 10 C.F.R. (1949) §60.3(b)(2)(ii); Domestic Uranium Circular No. 5a, 10 C.F.R. (Supp. 1958) §60.5a(a)(3)(i).

[10] Those regulations and releases offering a guaranteed minimum price for uranium ore are Domestic Uranium Circular No. 1, 10 C.F.R. (1949) §60.1; Domestic Uranium Circular No. 3, 10 C.F.R. (1949) §60.3; Domestic Uranium Circular No. 5, 10 C.F.R. (Supp. 1958) §60.5. UNITED STATES ATOMIC ENERGY COMMISSION RELEASE No. 830, May 24, 1956, establishes for the period 1962-1966 a guaranteed minimum price for concentrate rather than ore.

[11] Domestic Uranium Circular No. 3, 10 C.F.R. (1949) §60.3, established a three-year guaranteed minimum price for roscoelite-type and carnotite-type ores of the Colorado Plateau. This guarantee expired in 1951. Domestic Uranium Circular No. 1, 10 C.F.R. (1949) §60.1, established a guaranteed minimum price for non-Plateau ores and runs until April 11, 1958.

ore of such high grade has yet been discovered,[12] the only applicable provision of this regulation in practice was a statement expressing the Commission's interest "in negotiating reasonable terms" with respect to lesser grade ores.[13] It is significant to note that the minimum grade ore for which the government was willing to offer a guaranteed price in the Colorado Plateau regulation contained but one one-hundredth the percentage of uranium oxide as that for which guarantees were offered outside the Colorado Plateau.

Although there has been no AEC indication of the reason for this disparity, it is perhaps explained in terms of the uranium deposit situation at the time. Reserves outside the Plateau were generally unknown, and the Commission's immediate goal in setting up a guaranteed price for the non-Plateau ores was no doubt to encourage maximum exploration, rather than production. Since it did not know the grade of ore which would be found and since it obviously preferred to negotiate individual contracts where possible, the Commission set a grade standard at a relatively high level. The incentive for exploration was still present, since prospectors were equally ignorant of what they would find, and yet the standard was sufficiently high to assure the AEC that most of the production would be on the basis of individual contracts. On the Plateau, however, reserves were already known to a much greater extent, and the Commission surmised that producers would without doubt require a realistic price scheme as an incentive to maximum production. Thus the AEC set the minimum acceptable grade level at a much lower point, thereby encouraging immediate production on the Plateau.

In 1949 the guarantees for Colorado Plateau ores were extended by the AEC's Domestic Uranium Circular No. 5,[14] and, as amended, this regulation guarantees prices until 1962. Circular No. 5 contains provisions substantially similar to the original regulation, except for slight changes in the price schedule. The guarantees for non-Colorado Plateau high grade ore, on the other hand, expire in 1958, and there has been no indication by the

12 Mathis, "Uranium Boom Over," ILLUS. MAGAZINE OF WALL STREET, Oct. 29, 1955, p. 139.

13 "However, the Commission will be interested in negotiating reasonable terms with respect to deliveries of high-grade ores and refined products in lesser quantities and grades than those specified in this section." Domestic Uranium Circular No. 1, 10 C.F.R. (1949) §60.1(e).

14 Domestic Uranium Circular No. 5, 10 C.F.R. (Supp. 1958) §60.5.

Commission of an intent to renew them. Production in these latter areas has been regulated by individual contracts with the government since no ore discovered has met the rigorous requirements of the guarantee in the original regulation.[15] There is no reason to believe that such a practice will not be continued.

Guarantees for the years following 1962 will take a different form. Instead of providing price schedules for uranium ore, the government will restrict its guarantees to uranium concentrate produced by the sixteen uranium mills[16] which refine uranium ore into concentrate by mechanical or chemical processing.[17] This change in program represents a compromise by the Commission between two very different objectives: (1) supporting the uranium producers, even though immediate government needs for uranium are being satisfied, as a precautionary military measure until private purchasers can provide a market for uranium; (2) preparing ore producers for the eventual replacement of the unrealistic guaranteed market with a private market by providing guarantees only indirectly, rather than directly as at present. These ends are further assured by the reservation that the AEC need accept only 500 tons of uranium oxide per year from "any one mining property or mining operation."[18] Thus, not only will price guarantees be less stable, but the market for high grade ores will no longer be unlimited should the AEC choose to exercise its option not to buy.

The practical effect of these changes will be examined briefly in section II-C below, and it is enough to remark here that pos-

15 Note 12 supra.

16 U.S. ATOMIC ENERGY COMMISSION RELEASE No. A-45, March 7, 1958.

17 See UNITED STATES ATOMIC ENERGY COMMISSION RELEASE No. 830, May 24, 1956. The decision to ease the transition to a commercial market through price guarantees on concentrates was made in preference to a recommendation of the McKinney Panel on the Impact of the Peaceful Uses of Atomic Energy, that tonnage guarantees should be given to producers instead of price guarantees. REPORT, PANEL ON THE IMPACT OF PEACEFUL USES OF ATOMIC ENERGY (January 1956), p. 143. The Commission rejected the McKinney Panel suggestion on the ground that the plan would not provide the individual producer with assurance that he would be able to market all or any part of his production. If such a program were adopted, it would require some kind of "allocation" system so that all producers would have an opportunity to sell at least part of their production. A.E.C. Comment to Recommendation 5, McKinney Panel. See Hearings of Joint Committee on Atomic Energy on Development, Growth, and State of the Atomic Energy Industry, 84th Cong., 2d sess., p. 397, (1956). AEC feeling was strong that in the future the primary commodity in the commercial market would be concentrate rather than ore, and it therefore would be more realistic to put the former on a guaranteed basis than to continue supporting the latter. See address by Jesse C. Johnson, director of the AEC raw materials division, before the Atomic Industrial Forum, June 25, 1956.

18 UNITED STATES ATOMIC ENERGY COMMISSION RELEASE No. 830, May 24, 1956.

sible slow-downs will no doubt be an unsettling experience for the domestic producers of uranium ore. The boom fostered by the government program since 1948, while losing its public glamor two or three years ago, is only now beginning to fade for the major ore-producing companies. Indeed the industry fostered by this program is a considerable tribute to the incentive system. As compared with 1948, when the United States could boast practically no production of uranium ore and proven and potential reserves approximated two million tons,[19] recent AEC figures show annual ore delivery at the rate of 3.5 million tons, with ore reserves set at more than 78 million tons.[20] Annual production is expected to increase to five million tons by 1959;[21] sixteen uranium mills (fifteen of them privately owned) are in operation; and more than 8,000 persons are employed in either domestic mining or milling operations.[22] Adequate production and reserves for military purposes are realities. An industry which has prospered in response to federal incentives is now forced to bide its time, so to speak, until the predicted private market develops.

II. *Problems Raised by the Regulations*

A. *Administrative Procedure*

While Circular No. 5 offers guaranteed prices for domestically produced uranium ore, it has been pointed out that these guarantees today extend to only a small percentage of the ores actually extracted in this country—the roscoelite-type and carnotite-type ores of the Colorado Plateau.[23] For the balance of the ore produced AEC policy has been to negotiate contracts pursuant to a note appended to Circular 5a[24] upon terms often

19 Hearings before the Joint Committee on Atomic Energy on Development, Growth, and State of the Atomic Energy Industry, 84th Cong., 1st sess., p. 26 (1955).

20 U.S. ATOMIC ENERGY COMMISSION RELEASE No. A-45, March 7, 1958.

21 Hearings before Joint Committee on Atomic Energy on Development, Growth, and State of the Atomic Energy Industry, 85th Cong., 1st sess., p 85 (1957).

22 U.S. ATOMIC ENERGY COMMISSION RELEASE No. 1133, August 22, 1957; U.S. ATOMIC ENERGY COMMISSION RELEASE No. A-45, March 7, 1958.

23 See discussion in section I supra.

24 At the end of Domestic Uranium Circular No. 5a, 10 C.F.R. (Supp. 1958) §60.5a, appears this note: "The Commission will be interested in discussing arrangements for delivery to it of types of uranium-bearing materials other than those for which guaranteed prices have been established, such as tailings, mill products, and ores of types not acceptable under §§60.5 and 60.5a." Presumably, the Commission is also basing its negotiated contract policy upon a similar note in Circular No. 1. See note 13 supra. This latter provision expires in April 1958.

reportedly less attractive than those of the Circular and in areas not covered by the Circular. It has been contended[25] that this practice violates section 3(a) of the Federal Administrative Procedure Act providing that "No person shall in any manner be required to resort to organization or procedure not . . . published" in the *Federal Register*.[26] The contention is apparently based upon the theory that the note in the circular fails to give the required notice of the practice of negotiating contracts outside the Colorado Plateau on terms other than those published in the circular.

It is submitted that the Commission's practice does not violate section 3(a) of the act. That section was enacted to protect "the public from being required to pursue remedies which are not generally known."[27] Although the circular in general applies only to the Colorado Plateau, the terms of the appended note do not purport to be limited to that area, and cover only materials for which guaranteed prices have not been established. Further, judicial construction of section 3(a) indicates that it was intended as a protection against *enforcement* of unpublished procedural and organizational rules, as distinct from the voluntary contracts, arguably of a substantive nature, negotiated by the Commission pursuant to the note.[28]

B. *Contractual Provisions*

Circulars offering guaranteed minimum prices for unlimited amounts of property meeting certain specifications are necessarily

25 A letter from Gordon A. Weller, Executive Vice-President, Uranium Institute of America, to the *Michigan Law Review*, January 21, 1958, states in part: "It . . . has been the policy of the AEC to negotiate individual contracts for the purchase of uranium ore in locations not covered by Circular 5 and 5A. . . . You will note that at the end of Circular 5A a note is included indicating that the Commission will be interested in discussion of arrangements for the delivery of all types of uranium bearing materials other than those for which guaranteed prices have been established. On the basis of this notation, the Commission has contended that it has the authority to negotiate individual purchase contracts with uranium producers. . . . A contention that this procedure may not be in conformance with the Administrative Procedure Act, Section 3(a) is now being studied by the Uranium Institute."

26 60 Stat. 238 (1946), 5 U.S.C. (1952) §1002(a).

27 S. Rep. 752, 79th Cong., 1st sess., p. 12 (1945).

28 United States v. Morton Salt Co., 338 U.S. 632 (1950); Hotch v. United States, (9th Cir. 1954) 212 F. (2d) 280; United States v. Morelock, (D.C. Md. 1954) 124 F. Supp. 932; Service v. Dulles, 354 U.S. 363 (1957). Each of these cases involved the procedural validity of attempted enforcement of agency rules and remedies, unlike the voluntary and substantive nature of the contracts anticipated by the AEC circulars. See Newman, "Government and Ignorance—A Progress Report on Publication of Federal Regulations," 63 HARV. L. REV. 929 at 930, n. 5 (1950).

curious documents in the contractual sense. The rather loose draftsmanship of the regulations in question adds little to their clarity, and one may be certain that considerable judicial introspection will be necessary if these regulations continue to form the nucleus of the domestic procurement program. Specifically, matters of (1) offer and acceptance, (2) revocability, and (3) liquidated damages require clarification.

1. *Offer and Acceptance.* While the provisions of Circular No. 1 expire this year, they are of extreme interest to the industry inasmuch as *Radium Mines, Inc. v. United States* construes them in such a way as to have a far-reaching impact upon persons relying upon later circulars. Circular No. 1 provides that one "who has domestic refined uranium, high-grade uranium bearing ores, or mechanical concentrates of the quantity and grade specified in paragraph (e) . . . *may offer it* for delivery to the Commission . . ." whereupon the latter, upon receipt of this offer and an acceptable sample, "will forward to the *person making the offer* a form of contract . . . ready for his *acceptance.*" (Emphasis supplied.)[29] Although this language is not altogether internally consistent, it strongly indicates government intention to make, by the "guaranteed price" circulars, a mere invitation to the industry to submit offers. In the *Uranium Mines* decision, the government attorney took this precise position, but the court held his interpretation of the circular untenable:

> "The title of Circular No. 1 was 'Ten Year Guaranteed Minimum Price.' Its purpose was to induce persons to find and mine uranium. The Government had imposed such restrictions and prohibitions upon private transactions in uranium that no one could have prudently engaged in its production unless he was assured of a Government market. It could surely not be urged that one who had complied in every respect with the terms of the Circular could have been told by the Government that it would pay only half the 'Guaranteed Minimum Price,' nor could he be told that the Government would not purchase his uranium at all."[30]

While the court's interpretation seems to contravene the expressed intent of the circular, its conclusion that the government cannot escape its obligation to buy from one who has produced in reliance on the circular seems reasonable and just. Once having

[29] Domestic Uranium Circular No. 1, 10 C.F.R. (1949) §§60.1(c) and (d).
[30] Radium Mines, Inc. v. United States, (Ct. Cl. 1957) 153 F. Supp. 403 at 406.

determined this important question, however, the court does not go farther to define clearly the precise contractual setting which it found to have existed. If it is admitted that the government has made an offer, is it one of a unilateral contract, with delivery or tender to be the act of acceptance, or one of a bilateral contract, looking to a return promise to sell?[31] Despite the fact that the specific language of the circular may be said at most to make an offer of a bilateral contract, it might be concluded that the *Uranium Mines* court would find a unilateral contract to have existed. The facts that the circular offered guaranteed prices "for the *delivery* to the Commission . . ." (emphasis supplied),[32] and that the government market was exclusive and its military demand potentially unlimited for the ten-year period, point to the conclusion that the government probably would have looked to an act rather than a promise as the form of acceptance. It had little need of prior assurances of performance, with no other buyer in sight. Having stated exact requirements for acceptable ores or concentrates, the government appeared less interested in a return promise than in the act of delivery. If, on the other hand, the government's circular represented an offer of a bilateral contract, the contract would be binding only in the event that a court reads in a return implied promise to deliver. While this is no doubt possible, the unilateral construction, it is submitted, may be termed more realistic in view of the economic conditions surrounding promulgation of the Circular.

Circular No. 3, as extended by Circular No. 5, contains language sufficiently similar to Circular No. 1 to warrant the inference that the same result would be reached in both instances. Significant in the former is the absence of detailed procedures

31 The familiar difference between the unilateral and bilateral contract, both as to the requisite operative acts of the parties and the legal relations created by those acts, is discussed in 1 CORBIN, CONTRACTS §21 et seq. (1950), where it is pointed out that certain unilateral contracts are not "bargains." It appears clear that in refusing to adhere to the government's "interpretation" of the circular, the Uranium Mines court was not "interpreting" the circular in the generally accepted sense of discovering the meaning of its language and terms, but was rather "construing" it, i.e., determining its legal effect. See 3 CORBIN, CONTRACTS §534 (1950). If an offer be understood as a statement or proposal by one party of his assent to certain definite terms whereby he creates in the other party the power by acceptance to bind the offeror, the court's apparent construction of the circular as an offer seems reasonable. See Carlill v. Carbolic Smoke Ball Co., [1892] 2 Q. B. 484, affd. [1893] 1 Q. B. 256.

32 Domestic Uranium Circular No. 1, 10 C.F.R. (1949) §60.1(a). It is not unreasonable to conclude, the circular having been given the legal effect of an offer, that the Commission, having specified carefully the required conditions of quantity and quality, looked to the act of delivery of acceptable ore as the mode of acceptance.

for offer and acceptance, indicating in general a stronger intention to constitute delivery as acceptance. While there is some language in Circular No. 3 pointing similarly to the formation of a bilateral contract,[33] the policy factors motivating the *Radium Mines* decision would undoubtedly dictate the unilateral construction were the government to refuse acceptance of qualified ore.

2. *Revocability of Offer.* More perplexing, perhaps, than the determination of the nature of the offer involved, is the question of the revocability of the guaranteed price offers found in the circulars. While this question was not in precise issue in the *Radium Mines* decision, it is one which may conceivably become important if government oversupply becomes too great or the government should wish to reduce the price levels now offered.

It is settled beyond doubt that an offer is ordinarily revocable by the offeror any time prior to acceptance, even when the offer is expressly declared to be "irrevocable."[34] A continuing offer is enforceable as a "binding option" only when it is accompanied by an enforceable collateral promise not to revoke, or when the offer, left open for a specified period, becomes binding by virtue of a seal, consideration rendered in exchange, or subsequent action in reliance on it.[35] It appears that if the government, therefore, attempted to revoke the guaranteed price schedule before a particular producer had accepted by tender or delivery, the sole basis upon which he could insist on enforcement of the offer, aside from doubtfully applicable doctrine of part performance in response to an offer of a unilateral contract,[36] would be the

[33] Domestic Uranium Circular No. 3, 10 C.F.R. (1949) §60.3, provides in §(d): "Sellers desiring to deliver in excess of 1,000 short tons (2,000 pounds per ton) of ores during any calendar year will be required to execute a contract with the Commission." But consideration of the next sentence in the circular limiting the obligation of the Commission to purchase to 5,000 short tons per calendar year, along with the other terms of the circular, indicates that §(d) was included rather as a device to insure better administration of the purchase program than as a manifestation of an intent not to be bound until completion of the contract.

[34] Night Commander Lighting Co. v. Brown, 213 Mich. 214, 181 N.W. 979 (1921); Grieve v. Mullaly, 211 Cal. 77, 293 P. 619 (1930). See generally Boston & Maine Railroad v. Bartlett, 3 Cush. (57 Mass.) 224 (1849); Wight v. Linden, 69 Wyo. 67, 237 P. (2d) 475 (1951).

[35] 1 CORBIN, CONTRACTS §42 (1950).

[36] The seller's acts of exploration, mining, and collecting the ore would appear to constitute acts in preparation to render the requested act of performance, tender or delivery, and not strictly part performance. See Stensgaard v. Smith, 43 Minn. 11, 44 N.W. 669 (1890); Curtis v. American C. & R. Co., 38 App. D.C. 115 (1912). See also 1 CONTRACTS RESTATEMENT §45, comment *a* (1932). When, however, it is remembered that as pointed out in section I supra, part at least of the government's motivation in issuing

elusive concept of promissory estoppel.[37] The *Uranium Mines* decision, while not deciding this question directly, contains language indicating a willingness to support such an argument should the proper case arise.[38]

If this is the proper interpretation of the court's language, then it would appear to contradict the reasoning of Judge Learned Hand in the leading case of *James Baird Co. v. Gimbel Bros.*[39] The court held that when an offer is made for a stipulated return "equivalent" from the offeree, either a requested return promise or act, promissory estoppel does not apply when the reliance action is other than the requested return promise or act. Judge Hand's opinion would therefore limit the applicability of promissory estoppel to situations such as in charitable subscriptions in which the offeror requests no specific equivalent as a bargained-for exchange for his promise. Although Judge Hand applied his limitation in the context of an offer of a bilateral contract, the reasoning would appear equally applicable to an offer of a unilateral contract. It may be argued, however, that the limitation of the *Baird* case, while well-adapted to ordinary commercial transactions where an offer looks to a definite time

the guaranteed prices was probably to induce exploration, the part performance argument is considerably strengthened, despite use of the unequivocal phrase "for delivery" actually employed in the circulars. Note also the argument in 1 CORBIN, CONTRACTS §51 (1950), that when the offeree's acts in preparation to render the requested act are foreseeable to the offeror, the offer should be held to be irrevocable. See Abbott v. Stephany Poultry Co., 5 Terry (44 Del.) 513, 62 A. (2d) 243 (1948).

[37] 1 CONTRACTS RESTATEMENT §90 (1932): "A promise which the promisor should reasonably expect to induce action or forbearance of a definite and substantial character on the part of the promisee and which does induce such action or forbearance is binding if injustice can be avoided only by enforcement of the promise."

[38] Radium Mines, Inc. v. United States, (Ct. Cl. 1957) 153 F. Supp. 403 at 406: "It could surely not be urged that one who had complied in every respect with the terms of the Circular could have been told by the government that it would pay only half the 'Guaranteed Minimum Price,' nor could he be told that the government would not purchase his uranium at all." If by compliance "in *every* respect" the court meant to include the act of delivery or tender of ore, the language quoted may not necessarily indicate a willingness to apply promissory estoppel. Counsel for plaintiff argued promissory estoppel, but since the decision for the government was based on another ground, the court nowhere ruled squarely on the applicability of the doctrine. Although finding in favor of plaintiff on the question of the nature of the government's offer, the court ultimately held for defendant on the ground that plaintiff's ore had not met the terms of the Circular.

[39] (2d Cir. 1933) 64 F. (2d) 344. The limitation has been invoked in cases involving sub-contractor's bids and options for renewals of leases. See R. J. Daum Construction Co. v. Child, 122 Utah 194, 247 P. (2d) 817 (1952); American Handkerchief Corp. v. Frannat Realty Co., 17 N.J. 12, 109 A. (2d) 793 (1954). But see Northwestern Engineering Co. v. Ellerman, 69 S.D. 397, 10 N.W. (2d) 879 (1943). Cf. Abbott v. Stephany Poultry Co., 5 Terry (44 Del.) 513, 62 A. (2d) 243 (1948).

and form of acceptance, should not be imposed in cases arising under these guaranteed price offers, since: (1) the duration of the offer is a specified number of years and is not controlled by the offeree's acceptance; (2) timely acceptance by an offeree is not necessary in view of the relative stability of the uranium market; (3) unlike the offer in the *Baird* case, these offers are made generally to a potentially unlimited number of sellers and the government is not concerned primarily with acceptance by a single offeree.

3. *Liquidated Damages.* In contrast to the government indication in Circular No. 1 that it is willing to negotiate contracts for ores below the grade of those for which prices are guaranteed, Circular No. 3 states that any below-grade ores which are delivered to the purchase depot shall become the property of the buyer as liquidated damages for the buyer's expense of weighting, sampling, and assaying. . . ."[40] The validity of this provision is open to serious question, although it must be admitted that it provides an effective means of insuring that ores delivered to the depot will have been tested for grade by the producer beforehand. Nevertheless, the clause appears to violate two well established rules concerning liquidated damages.

The *Restatement of Contracts,* cited by numerous courts[41] with approval, states:

> "An agreement, made in advance of breach, fixing the damages therefor, is not enforceable as a contract and does not affect the damages recoverable for the breach, unless
>
> (a) the amount so fixed is a reasonable forecast of just compensation for the harm that is caused by the breach, and
>
> (b) the harm that is caused by the breach is one that is incapable or very difficult of accurate estimation."[42]

In the clause in question, neither of the conditions necessary to validity, viz., a "reasonable forecast" and damages "very difficult of accurate estimation," is apparent. With respect to the first condition, a forfeiture of all the ore that a producer may mistakenly deliver to the depot cannot logically be termed a reason-

[40] Domestic Uranium Circular No. 3a, 10 C.F.R. (1949) §60.3a(b)(2)(i). A similar provision appears in Circular 5a.

[41] E.g., Priebe & Sons v. United States, 332 U.S. 407 (1947); United States v. Le Roy Dyal Co., (3d Cir. 1950) 186 F. (2d) 460, cert. den. 341 U.S. 926 (1951); Management, Inc. v. Schassberger, 39 Wash. (2d) 321, 235 P. (2d) 293 (1951). No decision has been found in which the facts involved forfeiture of non-conforming goods as liquidated damages for the prospective buyer's expense in handling the goods.

[42] 1 CONTRACTS RESTATEMENT §339 (1932).

able forecast of the harm caused by the breach. While perhaps the expense of weighing the ore may bear a reasonable relation to the *quantity* of ore forfeited, no similar relationship exists to costs of assaying and sampling. Nor do these costs bear a relation to the *quality* of ore delivered; yet conceivably, ore containing 0.09 percent uranium oxide is considerably more valuable than ore containing 0.01 percent. No attempt is made in the clause to reconcile these differences in actual economic effect in the individual case.

Moreover, it does not appear, in accordance with the second *Restatement* condition, that damages are incapable or very difficult of accurate estimation. Man-hours lost in weighing, sampling, and assaying, plus any haulage costs involved in disposing of the unwanted ore, would appear to be highly accurate measures of the harm to the government and relatively easy to ascertain. The amount of damages, of course, must be based upon losses to the damaged party, so the suggested factors should be determinative in a given case.[43]

In the broad sense, too, the clause involves clear inconsistency. On the one hand, the government rejects these ores as worthless to its program, thus rendering them in a closed market worthless for any purpose. On the other hand it accepts the ore as liquidated damages, thereby imputing to the ore a value equivalent to the government's handling expenses. A court test of this pro-

[43] There would appear to be little room for contention by the government that damages are uncertain because of the varying quality of ores forfeited. This factor looks to the uncertainty of the producer's loss because of forfeiture, and would not be a measure of the government's damages. To the contrary, the government has fixed its damages in terms of costs of weighing, sampling, and assaying. Since contract damages are intended only to compensate, no other basis appears justified. See 5 CORBIN, CONTRACTS §1002 (1950). If this is true, then the liquidated damages clause becomes unwarranted—actual damages being a matter of relative certainty. Courts frequently strike down liquidated damages provisions awarding an identical amount to the injured party in the event of *any* breach of the contract, no matter how important or insignificant. See, e.g., Priebe & Sons v. United States, 332 U.S. 407 (1947); Illinois Surety Co. v. United States, (2d Cir. 1916) 229 F. 527. The present provision presents the opposite side of the coin: for an injury which should not appreciably vary from case to case, property is forfeited which may range in value from nothing to a considerable amount, depending upon uranium oxide content. "Punishment of a promisor for breach, without regard to the extent of harm that he has caused, is an unjust and unnecessary remedy." CONTRACTS RESTATEMENT §339, comment *a* (1932). The sole argument that the clause does not impose a punishment is that in fact the government may be doing the producer a *favor* in disposing of unwanted ores, by relieving the latter of the expense connected therewith. This contention appears tenuous in view (1) of the phrasing of the clause as a compensatory scheme and (2) the eventual chance that presently unwanted ores may become valuable with development of better refining processes and/or short supply of uranium.

vision, it is submitted, will almost certainly result in finding the clause invalid.

C. *Practical Considerations*

As already indicated, 1962 will bring a shift in the emphasis of AEC guarantees. A minimum price will be offered by the Commission for concentrate, rather than the ore itself, in the hope that the change will in part prepare the uranium mining industry for ultimate total elimination of an artificial market. A price of eight dollars per pound of contained uranium oxide has been tentatively set by the Commission.[44]

The need for extension of at least a modified form of guarantee was obvious. The much-heralded civilian market for uranium has been slow to develop and may only be said to lie ahead in the indefinite future.[45] Keenly aware of this situation and the fact that ore guarantees under Circular No. 5 would expire in 1962, ore producers geared production to a 1962 target date for exhaustion of their reserves. With Circular No. 5 placing no limitation upon the amount of ore that buying stations would accept annually, producers were literally flooding the mills with more ore than the government wanted or could use. On the other hand, these same motivating factors portended a decline in the exploration phase of the mining operation, the phase ultimately most important to the federal government.[46]

To reverse the unbalancing effect of the approaching 1962

[44] U.S. ATOMIC ENERGY COMMISSION RELEASE No. 830, May 24, 1956. There has been no regulation equivalent to the ore circulars which would put this guaranteed price officially into effect, despite the fact that more than eighteen months have passed since promulgation of the release. See remarks of Patrick J. Hurley, President, Uranium Institute of America, before New Mexico Economic Development Council, December 9, 1957. The resulting uncertainty in the price ultimately to be guaranteed could conceivably result in financing difficulties for the industry. For an example of the potential economic crisis caused by this delay, see the testimony of Governor Milward L. Simpson of Wyoming at Hearings before Joint Committee on Atomic Energy on Development, Growth, and State of the Atomic Energy Industry, 85th Cong., 2d sess., Feb. 24, 1958, reported in BNA ATOMIC INDUSTRY REP. 4:70 (1958).

[45] See note 3 supra. The AEC has traditionally been the source of the most optimistic estimates as to civilian nuclear power needs for uranium. Late in 1957, however, the chief of the Commission's commercial development branch stated that he did not believe that nuclear power would become economically competitive before the late 1960's. See WALL STREET J., Dec. 18, 1957, p. 6:2.

[46] One of the arguments cited by the AEC in favor of concentrate guaranteed prices over the McKinney Panel recommendation, note 17 supra, of tonnage guarantees was the need for continuing assurance to those engaged in exploration and development that there would be an adequate market. Address by Jesse C. Johnson, director of the AEC raw materials division, before the Atomic Industrial Forum, June 25, 1956.

target date, the government extended its program, albeit shifting to indirect guarantees, and reserved the right to place a relatively liberal ceiling upon the amount of uranium ore it would buy annually from "any one mining property or mining operation."[47] Its eight dollar price, while lower than prices now offered for concentrates, will by 1962 probably be only a slight depressant on production—prices offered for concentrates having decreased steadily with the discovery of more efficient milling processes.[48] The comparative silence of the industry with respect to the price is a rather good indication that producers are not unduly concerned.

A regulation placing the new price guarantees into official form has not been promulgated.[49] The AEC release in which the concentrate price program was announced, however, states that concentrate producers who desire to sell "will be required to enter into contracts specifying the period of delivery, the quantity to be delivered, the rate of delivery, the place of delivery, the type of packaging and other standard provisions of commercial type contracts."[50] Even more clearly than in Circulars No. 1 and 5, the government here appears to be looking to negotiated bilateral contracts. If the circular which is published to make the new program official contains similar language, it will be difficult

47 Note 18 supra. In practice, this provision will mean that if the Commission desires, it may limit a single mine or operation to production of about 200,000 tons of average grade Plateau ore per year. Address of Philip Merritt, Senior Geologist, Longyear Company, before Atomic Industrial Forum, June 25, 1956. See also Knabel, "Uranium Mining," ATOMIC INDUSTRIAL FORUM IV, p. 26 (1956). AEC figures for fiscal year 1957 indicate, however, that only six shippers out of a total of 727 produced more than 100,000 tons of ore for the year. Address of Elton A. Youngberg, Assistant Manager for Operations, Grand Junction Operations Office, United States Atomic Energy Commission, before a symposium on the future of uranium at Denver, Colorado, December 16, 1957. Thus while there has been no definition as yet of the phrase "any one mining property or mining operation," any semantically justifiable definition will not appear to work undue hardship.

48 The average price paid for domestically produced concentrate in fiscal year 1956 was $11.60 per pound for uranium oxide; in 1957, it was $10.50. The estimate for the current fiscal year is $9.60 and for 1959, $9.30. WALL STREET J., December 17, 1957, p. 8:2. Commenting upon the extended program, Jesse C. Johnson of the AEC has stated: "As I have indicated, the guaranteed $8. price was based on a study of conditions today. We have no crystal ball to tell what economic conditions will be in 1962 or 1966. . . . If the price is too low, it can be raised, or special premiums established for marginal production." Address before Atomic Industrial Forum, June 25, 1956. See also remarks of Gordon A. Weller, Executive Vice-President, Uranium Institute of America, at Hearings before Joint Committee on Atomic Energy on Development, Growth, and State of the Atomic Energy Industry, 85th Cong., 1st sess., p. 281 (1957).

49 See note 44 supra.

50 U.S. ATOMIC ENERGY COMMISSION RELEASE No. 830, May 24, 1956.

for future courts to ignore, as did the *Uranium Mines* decision, the specific import of the language. Yet those same considerations which motivated the unorthodox construction by the *Uranium Mines* court will be generally present.[51] The question may well become crucial in the coming decade if the government market is not further extended, and a substantial commercial market has not developed.

This potential hiatus between the termination of government guarantees and development of private demand, the recent slowdown in expansion of AEC purchases, and the ever-present threat that the fusion process[52] may make uranium an obsolete fuel, all point toward a disquieting future for the uranium industry. While it is certain that the government has no intention—as a matter of military preparedness—to permit the industry to die altogether, there is also little reason for the government to maintain production at the present high level. Ideally, the AEC would no doubt like the producers to continue extensive explorations so that we may more accurately know our reserves. It need only support the companies to the extent that this limited end is assured.

III. *Conclusion*

The tranquility which has attended the government's domestic uranium procurement program since its inception may be traced directly to the phenomenon of a buyer willing to accept a greater volume of goods than sellers can produce. This market situation is now changing, and as government demand becomes more limited, so also the producers' unquestioning attitude toward arbitrary or confusing provisions of the government guaran-

[51] Still present will be the factors of a controlled, single-purchaser market (until a private market develops), producer reliance upon the guarantees as the basis for operations, and ostensible government willingness to buy up to the amount specified from any one mining property. There is no specification, however, of delivery of the ore as the apparent mode of acceptance in the release, as there has been in the circulars. In view of the non-official nature of the AEC release, an interesting question arises as to the right of the government to set, in its official regulation, a price lower than the eight dollar figure of the release. Perhaps a court might answer the question by asking itself to what extent the industry, in its present production, relies upon the specific announced price as compared to a lower one. Reliance may be based, however, upon the mere fact of extension of guarantees and not the specific price set.

[52] This factor, together with the possibility that breeder-type reactors will eventually diminish the demand for new uranium ore, was pointed out by Dr. Willard F. Libby, member of the AEC, in an address before the National Western Mining Conference, February 8, 1957.

tees will disappear.[53] Those producers fortunate enough to survive the lean years of transition to a civilian market will undoubtedly do so in part by demanding clarifications of their contractual relations with the government and gearing their operations accordingly.*

Michael Scott, S.Ed.
Edward M. Heppenstall

[53] For an indication of the producers' present dissatisfaction with the AEC program and the future that it offers the industry, see the testimony of Gordon A. Weller, Executive Vice-President, Uranium Institute of America, at Hearings before Joint Committee on Atomic Energy on Development, Growth, and State of the Atomic Energy Industry, 85th Cong., 2d sess., Feb. 24, 1958, reported in BNA ATOMIC INDUSTRY REP. 4:70 (1958).

*After this comment was in page proof, the AEC announced that it had taken action which would "expand to a limited extent domestic uranium procurement." This decision reversed the earlier Commission policy, announced in October 1957, to limit further expansion of domestic concentrate production. The Commission now estimates that, as a result of the added planned procurement, annual concentrate production would be expanded by about 2500 tons of uranium oxide. See U.S. ATOMIC ENERGY COMMISSION RELEASE No. A-71, April 2, 1958. Primary motivation for the government action was a detailed report completed by the A.E.C. division of raw materials on March 31, 1958, describing the domestic mining and milling problems growing out of the earlier policy.—*M.S.*