Land & Water Law Review

Volume 1 | Issue 2 Article 4

January 1966

Domestic Uranium Procurement - History and Problems

Leonard J. Lewis

C. Keith Rooker

LAND AND WATER
LAW REVIEW

VOLUME I 1966 NUMBER 2

Since the inception of the Atomic Energy Commission in 1946, there have been significant changes in the domestic uranium procurement program. The original program and the subsequent changes, however, have produced surprisingly little litigation. The original Act, its history, the changes and the litigation, or rather the lack thereof, are discussed in this article by two Utah lawyers who have an extensive practice in the mineral law field, including litigation.

DOMESTIC URANIUM PROCUREMENT–HISTORY AND PROBLEMS

*Leonard J. Lewis**
*C. Keith Rooker***

HISTORY OF PROGRAM

THE exploration, development and production of domestic uranium deposits has, during its twenty-year life, developed into a major American industry.[1] The growth of this industry has been accompanied by the evolution of rigidly controlled programs administered by the United States Atomic Energy Commission acting pursuant to authority conferred upon it by congressional enactment.[2] The interpretation and application of the Atomic Energy Commission's

* Partner, VanCott, Bagley, Cornwall & McCarthy, Salt Lake City, Utah; B.S. 1947, University of Utah; LL.B. 1950, Stanford University; Member of the Utah State Bar and the American Bar Association.
** Partner, VanCott, Bagley, Cornwall & McCarthy, Salt Lake City, Utah; B.A. 1958, Brigham Young University; J.D. 1961, University of Chicago; Member of the Utah State Bar.
That part of this article dealing with the computation of royalty grew out of the authors' participation in litigation on the subject. Thus, some of the views presented should be regarded as those of an advocate.—Ed.
1. In the calendar year 1964, the domestic uranium industry produced 5.7 million tons of ore from about 600 mines, yielding 11,847 tons of U_3O_8 mill concentrate valued at nearly $190 million. U.S. DEP'T OF INTERIOR, MINERAL YEARBOOK 1119 (1964). Remarks of Jessee C. Johnson, Director, Division of Raw Materials, United States Atomic Energy Commission, before the 4th Annual Conference of the Industrial Forum at New York, New York, October 28, 1957.
2. Atomic Energy Act of 1954, 68 Stat. 921 (1954), 42 U.S.C. §§ 2011-2394

programs governing procurement of domestically produced uranium, and the practical operation of those programs, have, of course, generated much concern in the industry and frequent disputes at all levels. Notwithstanding the sometimes controversial and frequently confusing pattern of the Commission's procurement policies, there has been remarkably little litigation.[3] Moreover, there has been almost no comment on the nature and effect of these policies.[4]

After reviewing the first twelve years' history of the Atomic Energy Commission's domestic uranium procurement program, the editors of the *Michigan Law Review* in 1958 concluded that the tranquility that had attended the program might be traced to the phenomenon of a buyer—the Government—willing to accept a greater volume of goods that sellers could produce. With anticipated changes in the market situation, it was anticipated that demand for clarification of contractual relations would probably ensue.[5] It has now been twenty years since the initial announcement of the domestic uranium procurement program. *Radium Mines, Inc. v. United States*[6] remains the only reported decision interpreting language in the Government's guaranteed price circulars. It might easily be concluded from this that tranquility has in fact reigned in the administration of the program, and that the program has remained unchanged during the intervening years. Such a conclusion, however, would be erroneous, for there have been many significant changes in the procurement program, and although the program has not been the subject of much reported litigation, as many anticipated it would be, serious problems affecting the pro-

(1964) amending Atomic Energy Act of 1946, 60 Stat. 755 (1946).

3. Radium Mines, Inc. v. United States, 139 Ct.Cl. 144, 153 F. Supp. 403 (1957), appears to be the only reported decision passing directly on the nature and effect of the procurement program. Other cases, discussed in this article, evidence a concern with the procurement program.

4. It appears that the only published treatment of the program is: Comment, *Atomic Energy—Uranium Procurement—Legal Aspects of the AEC Domestic Ore Purchase Program*, 56 MICH. L. REV. 786 (1958). The annual reports of the Committee on Atomic Energy of the American Bar Association's Section of Mineral and Natural Resources Law have considered some procurement problems briefly and personnel of the Atomic Energy Commission have from time to time spoken on some of the problems related to procurement. The general dearth of published material on the procurement program is, however, surprising.

5. Comment, *supra* note 4.

6. Radium Mines, Inc. v. United States, *supra* note 3.

gram and the rights and duties of parties affected by the program have become apparent.

Throughout the last twenty years, there have been hundreds of producers and sellers of uranium, but only one significant buyer, the United States Atomic Energy Commission. The marketing scheme is basically the product of the Atomic Energy Act of 1946,[7] as amended in 1954,[8] and the programs promulgated by the Atomic Energy Commission pursuant to these statutes.

The Atomic Energy Act of 1946 established the basic plan for the development and marketing of domestic uranium reserves. It provided that all source material,[9] including uranium and thorium, could be transferred, delivered and possessed only pursuant to license from the Atomic Energy Commission. The Act created the Atomic Energy Commission and gave it exclusive power to issue licenses and acquire source material, and to establish guaranteed prices for source material delivered to it within a specified time. Further, the Commission was given authority to conduct exploratory operations, investigations and inspections to determine the location, extent and occurrence of source material. Section 5(b)(7) of the Act provided that all source materials contained in whatever concentration in public lands were reserved for the use of the United States, subject to valid claims, rights or privileges existing as of August 1, 1947. Thus, the Atomic Energy Act of 1946 imposed, or gave power to the Commission to impose, total control over the exploration, development, production, sale and use of domestic uranium reserves.

In accordance with the mandate of the 1946 Act, the Commission promulgated two important Circulars relating to procurement of uranium ores. Circular No. 1, effective midnight April 11, 1948, established a ten-year guaranteed minimum price for domestic high grade uranium-bearing ores

7. 60 Stat. 755 (1946).
8. Atomic Energy Act of 1954, 68 Stat. 921 (1954), 42 U.S.C. §§ 2011-2394 (1964).
9. "Source material" means any material, except fissionable material, which contains by weight one-twentieth of one per cent (0.05%) or more of (1) uranium, (2) thorium, or (3) any combination thereof. 10 C.F.R. § 40.4(h) (1963).

and mechanical concentrates, other than ores of the Colorado Plateau Area.[10] The guaranteed minimum price was fixed at $3.50 per pound of U_3O_8[11] determined to be recoverable from such uranium-bearing ores and mechanical concentrates, less the cost of refining to acceptable standards of purity, and f.o.b. Commission designated shipping points. The Circular requested offers from interested parties, which offers, if meeting stated criteria, would result in contracts. Although obviously designed to stimulate interest in prospecting, exploration and development of needed reserves, the language of the Circular did not, on its face, rise to the level of a clear offer. In *Radium Mines, Inc. v. United States,*[12] however, the Court of Claims held that the Circular constituted an enforceable offer to buy on the terms and conditions stated therein.

Circular No. 3[13] established a three-year guaranteed minimum price for ores of the Colorado Plateau Area, the three-year period expiring in 1951. Inasmuch as widespread exploration interest had already developed on the Colorado Plateau and substantial known reserves existed, there was apparently a belief that the Circular 3 program need not extend so far into the future as the Circular 1 program.

Circular No. 1 was permitted to expire by its terms in 1958. Circular No. 3 was superseded by Circular No. 5, which became a by-word in the uranium industry. Circular No. 5 guaranteed prices through March 31, 1958, and, as amended, guaranteed prices through March 31, 1962. Circular No. 5, as its predecessor Circular No. 3, related only to uranium-bearing ores of the Colorado Plateau Area. It established base prices based on U_3O_8 content, premiums, development allowances and haulage allowances.

The Atomic Energy Act of 1954 authorized sale to the Commission of concentrate produced from uranium ores and the negotiation of contracts between the Commission and private parties for the construction and operation of uranium mills.

10. Domestic Uranium Circular No. 1, 13 Fed. Reg. 2089 (1948).
11. Uranium Oxide—the naturally-occurring form of uranium.
12. Radium Mines, Inc. v. United States, *supra* note 3.
13. Domestic Uranium Circular No. 3, 13 Fed. Reg. 2090 (1948).

The enactment of the 1954 Act was followed by a public announcement, on May 24, 1956, of a new uranium procurement program for the period from April 1, 1962, through December 31, 1966.[14] The announcement stated:

> The U. S. Atomic Energy Commission today announced establishment of a new domestic uranium procurement program for the period from April 1, 1962, through December 31, 1966, and an extension of the initial production bonus for uranium ore from February 28, 1957, its present expiration date, through March 31, 1960.
>
> The new domestic procurement program provides a guaranteed market for all uranium concentrates produced by domestic mills from domestic ores, subject to a limitation, at the Commission's option, of 500 tons of U_3O_8 per year from any one mining property or mining operation and to compliance with Commission specifications. The price established is $8.00 per pound of U_3O_8 contained in normal mill concentrates or precipitates.
>
> This action was taken in recognition of the need for a continuing Government market in order to maintain a high rate of exploration and development. Although domestic uranium production has shown a remarkable expansion, known ore reserves will be greatly depleted by 1962 unless extended by aggressive development and exploration. A high rate of discovery is essential if substantial production is to be maintained after that date. The new domestic uranium procurement program provides assurance of a government market for an additional period of almost five years beyond March 31, 1962. This assurance will assist uranium mining and milling firms in planning future operations.[15]

The new program was, by its nature, designed to provide for the purchase of concentrates from mills. It afforded no market for the raw ores of individual producers, except to the extent the Commission would direct a particular mill to purchase from individual producers.

The Commission did, in its negotiations with mills, re-

14. U.S. AEC Release No. 830, May 24, 1956.
15. *Ibid.*

quire commitment by such mills to purchase ores from specified producers. There is, however, no Commission circular or announcement that defines what, if any, marketing rights an individual producer has or had after the expiration of Circulars 1, 3 and 5. As a practical matter, there was no market for the low-grade uranium ores of Wyoming and other areas until contracts had been concluded between the Commission and private mills, and arrangements pursuant to such contracts made between producers and mills.

To alleviate this problem, the Commission announced on April 2, 1958, that it had taken action to expand domestic uranium procurement to a limited extent.[16] The announcement stated that the expansion would provide an additional market for ore reserves developed prior to November 1, 1957. The announcement further stated that a study by the Commission had indicated that five uranium areas—Southeast Texas, North Dakota, South Dakota, Wyoming, Colorado Front Range and Nevada (Austin)—had no local market, or an inadequate market, for the output of mines with developed ore reserves. The April 2, 1958, announcement was followed by negotiations with private industry for the construction and operation of mills.

The April 2 announcement, however, was quickly followed by an announcement published November 24, 1958, announcing modification of the Commission's 1962-66 concentrate purchase program.[17] The November 24 announcement confirmed that the Commission would carry out its May 24, 1956, commitment, but limited that commitment to ore reserves developed prior to November 24, 1958, in reliance upon the May 24, 1956, announcement. The Commission withdrew prospectively the concentrate purchase program announced May 24, 1956, and stated that with respect to new reserves developed after November 24, 1958, the Commission would make contracts to purchase concentrate only to the extent that requirements might dictate, and only on such terms and conditions and at such prices as the Commission might from time to time accept.

16. U.S. AEC Release No. 210, April 2, 1958.
17. U.S. AEC Release No. 220, November 24, 1958.

The November 24, 1958, announcement was a disappointment to many prospectors and producers who had acted in reliance upon the May 24, 1956, announcement. However, the November 24, 1958, announcement was couched in language that minimized criticism. One showing reliance upon the May 24, 1956, announcement, and the establishment of reserves prior to November 24, 1958, was theoretically protected. In practice, however, protection did not always exist. Some prospectors and property owners never succeeded in satisfying the requirements of the November 24, 1958, announcement.

Significantly, the November 24, 1958, announcement contained a statement that "protection will be given independent miners by incorporating in all new mill contracts and extensions to existing mill contracts provisions designed to provide independent mine operators a fair share of available mill capacities."[18]

The problem of fixing standards for the determination of ore reserves claimed to have been established as of November 24, 1958, was first articulated by John E. Patterson, Chief of the Ore Resources Section, Grand Junction Operations Office of the Commission, in an address to the Uranium Institute of America on January 27, 1959.[19] This address set forth the criteria for determination of ore reserves.

On May 18, 1959, the Commission announced that data on uranium ore reserves developed as of November 24, 1958, were required to be submitted to the Commission before August 1, 1959, by those who wished to be considered in negotiations for uranium concentrate procurement for the 1962-66 period.[20] The release also stated that several hundred mine operators were being advised by letter of the cutoff date. Formal notice of the cutoff date was published in the Federal Register on May 18, 1959.[21]

On July 15, 1959, the Grand Junction Operations Office of the Commission, by public announcement, directed atten-

18. *Ibid.*
19. Address by John E. Patterson before the Uranium Institute of America, January 27, 1959.
20. U.S. AEC Release No. 235, May 18, 1959.
21. U.S. AEC Announcement, 24 Fed. Reg. 4040 (1959).

tion to the fact that July 31, 1959, was the final date for submission by operators of data on uranium ore reserves developed as of November 24, 1958.[22] The Commission offered its assistance in assembling such data. By announcement dated August 14, 1959, the Commission announced that it would accept for consideration uranium ore reserve data received after July 31, 1959, and before October 1, 1959, if in the opinion of the Commission the producer demonstrated reasonable justification for having failed to submit such data before August 1, 1959.[23]

In most areas the Commission followed a strict practice of establishing allocations[24] for the 1962-66 period by reference to ore reserves established prior to November 24, 1958. The Commission recognized, however, that a large number of mining operations involved irregular deposits that, under normal mining procedures, are not developed far in advance of mining. In these cases, the Commission determined to use a historical production rate rather than developed ore reserves as a basis for establishing the allocations. This practice was described at the hearings on development, growth and state of the atomic energy industry before the Joint Committee on Atomic Energy on Feruary 21, 1961.[25] Most of the properties for which the historical basis was considered as an alternative to developed ore reserves were located in the Uravan Mineral Belt.[26] In these cases, the Commission adopted a practice of establishing an allocation for a mining property on a case by case basis, considering ore production over the period July 1, 1956, to June 30, 1960. This practice resulted in some lack of uniformity in treatment of producers, not only as concerned different areas but also as concerned producers within a particular area.

On June 29, 1962, the Commission announced that it was relaxing production limitations on small domestic mining properties having allocations of less than 20,000 pounds of

22. U.S. AEC Release No. 238, July 15, 1959.
23. U.S. AEC Release No. 243, August 14, 1959.
24. The term "allocation" has come to be used generally in the industry as describing the quotas of concentrate saleable to the Commission based upon the Commission determination of recognized ore reserves.
25. U.S. AEC Release No. 294, February 21, 1961.
26. *Ibid.* The Uravan Mineral Belt is located in the Colorado Plateau Area of Southwestern Colorado.

U_3O_8 in ore per year, and that it would permit mills to purchase, under ore purchase contracts approved by the Commission, up to 10,000 pounds of U_3O_8 in ore from any such small mining property unit in each six-month period before January 1, 1967. An overall limitation of this program to one million pounds per year was imposed.[27]

On November 17, 1962, the Commission announced a procurement program for the period from January 1, 1967, through December 31, 1970.[28] The Commission invited proposals from its contractors to defer delivery of a quantity of concentrate, already contracted for delivery before 1967, for delivery during the calendar years 1967 and 1968, and the purchase by the Commission of an additional quantity in 1969 and 1970 equal to the amount so deferred. This program is known in the industry as the stretchout program. The Commission did not deal directly with ore producers. Without a mill proposal for stretchout, a producer was, for practical purposes, precluded from stretchout. A producer wishing to participate was required to have an ore sale contract with a milling company approved by the Commission under the November 24, 1958, announcement, and was required to have his proposed deferment incorporated in the stretchout proposal submitted by the milling company to the Commission.

Provision was also made in the November 17, 1962, announcement for consolidation of producing mining property units[29] and of milling operations or milling contracts, provided agreement could be reached with the Commission for the proposed consolidation.

By announcement dated July 20, 1963, the Commission has conclusively decreed that no mining claim located or relocated under the mining laws of the United States as to which notice of location or relocation was filed or recorded after July 20, 1963, shall be considered by the Commission as having ore reserves developed prior to the November 24, 1958, announcement in reliance upon the May 24, 1956, an-

---

27. U.S. AEC Release No. 350, June 29, 1962.
28. U.S. AEC Release No. 356, November 17, 1962.
29. *Ibid.*

nouncement.[30] Furthermore, no such mining claim will be considered by the Commission as eligible for an allocation by reason of a history of production of uranium ores. The Commission may, however, recognize relocations accomplished for the purpose of perfecting or continuing possessory rights to mining claims otherwise eligible for an allocation.

The most salient developments that have occurred with respect to the Commission's procurement programs during the past eight years have been, first, the shift from a raw ore acquisition program to a program restricted to the acquisition of concentrate, and second, the shift from the open ended guaranteed price program under Circulars 1, 3 and 5 to procurement now governed exclusively by contracts establishing the maximum purchase obligations of the Commission.

The first development, which has been a natural outgrowth of the authority to acquire concentrate conferred upon the Commission by the Atomic Energy Act of 1954, has given rise to what was for some time a recurring problem between operators and royalty owners. Typically, the pre-1954 agreement between the operator and the owner contemplated payment of a royalty equal to a percentage of "net mill returns," "net smelter returns"[31] or some amount described semantically. Some royalty owners have contended that they are entitled to have their royalty computed on the basis of returns from the sale of concentrate without deduction for the cost of milling the raw ore for the production of concentrate. The milling companies, on the other hand, have argued that the royalties should be predicted either on the market value of the raw ore or on the sale price of the concentrate less reasonable milling charges.

The second development has given rise to a potentially serious problem involving the Commission, the operator controlling properties, and other persons having an interest in such properties. The nature of the allocation approved by

30. U.S. AEC Release No. 378, July 20, 1963.

31. "Net mill returns" and "net smelter returns" are terms, the meanings of which are quite well defined by usage in the hard-rock mining industry. Frequently, however, agreements in the uranium industry have employed less recognized formulations.

the Commission with respect to a particular property unit has never been defined. It may, therefore, be unclear whether the allocation is a property right that inures to the benefit of the owner of the property, and to the operator only so long as he controls the property, or whether the allocation is a personal right belonging to the operator of the property who discovered, developed and reported the reserves upon which it is predicated. Indeed, it is not altogether clear that the allocation is a right at all, since there may be some basis for concluding that it is merely a privilege granted by the Commission, which may be altered or eliminated more or less at will. Thus, the problem is to characterize and define the allocation itself and to arrive at some conclusion as to who is entitled to claim ownership of it and what rights accrue to the owner.

THE NATURE OF THE ALLOCATION

The maximum purchase obligations of the Commission, effective in some cases through 1966 and in other cases through 1970 by reason of stretchout contracts are known as allocations. Allocations are commonly expressed in terms of pounds of U_3O_8 saleable to the Commission under a described contract during a stated period—typically a Commission fiscal year. Allocations were originally fixed by the Commission based upon ore reserve data submitted by the property owners or operators to the Commission, and independent analysis of the property unit by the Commission staff. Once the determination was made with respect to a particular property unit, the allocation was typically established by an "allocation letter" from the Commission to the operator. These letters established allocations effective through December 31, 1966.

It appears that operators were free to determine for themselves what properties should be included in a single unit, and, therefore, accorded a single allocation. Thus, an operator might, for example, having been granted an allocation of 500,000 pounds of U_3O_8 per Commission fiscal year on a single property unit include lands owned in fee simple by the operator, lands held by the operator under a determinable contract of sale, lands held under lease, lands held under a bare operating agreement, unpatented mining claims owned by the operator, such claims held under contract or lease, and such claims held under operating agreement, as well as lands and unpatented claims subject to outstanding royalty interests by reason of many different kinds of agreements. The allocation established with respect to the property unit was gross, without any indication whatever of the extent to which the allocation might have been based upon reserves reported by the operator or recognized by the Commission on different parts of the property unit.

Once the allocation had been established, it was unclear what result would obtain if the operator should lose control of one of the included properties, as, for example, by the involuntary termination of an operating right. If the allocation is regarded as being a personal right of the operator, then it should follow that loss of the property would not adversely affect the allocation. If, on the other hand, the allocation is regarded as being tied to reserves established and recognized on certain specific properties included in the unit, then the loss of such a property might be claimed to be a basis for a reduction of the operator's allocation. If such a reduction were to take place, it has been argued that the allocation tied to the lost property should pass with the property to the persons in control of the property. So far as we are aware, these questions have not been clearly resolved.

Many such owners of underlying interests have been concerned about their claim to a share of the aggregate allocation afforded a property unit. For example, it appears that *Shoni Uranium Corp. v. Vitro Minerals Corp.*[32] was precipitated to a large extent by the plaintiff's claim that the defendant had secured an allocation on a property unit including properties owned by the plaintiff, and held by the defendant under lease, and was using the allocation for the sale of ores derived from other properties in the unit, even though the plaintiff asserted that reserves established on its properties provided a substantial part of the basis for the allocation to the unit. This action was pending at the time the defendant sold and assigned its interest in all of

32. 386 P.2d 938 (Wyo. 1963).

its Wyoming uranium properties and ore sale agreements to Federal-Radorock Gas Hills Partners. After acquisitions of these properties, Federal-Radorock Gas Hills Partners initiated negotiations with the Commission to enter into a stretchout contract covering these and other properties and, as a part of that contract, to consolidate these properties with other properties owned and controlled by the Partnership. Shoni Uranium Corporation again manifested its concern over what it characterized as an effort to use "its" allocation for the mining of other properties, by objecting strenuously to the consolidation proposal. Shoni initiated an action in the United States District Court for the District of Wyoming[33] seeking to enjoin Federal-Radorock Gas Hills Partners and the Commission from entering into the proposed consolidation and stretchout agreement. The action was dismissed without a decision on the merits.

The Commission has now concluded all stretchout contracts based upon proposals made pursuant to its announcement of November 17, 1962. Some of these contracts, as has been noted, include consolidation provisions. All allocations not extended by inclusion in stretchout contracts will, of course, expire on December 31, 1966. Therefore, future questions concerning the nature and effects of the allocation, and the rights flowing to the holder of the allocation, must now be viewed in the light of the provisions of the stretchout contracts.

There are many provisions in the stretchout contracts bearing upon the nature and effect of the allocation. The contracts prohibit the milling company from producing concentrate in excess of the allocated amounts saleable to the Commission under the contracts unless excess production is sold to purchasers licensed by the Commission. The contracts prohibit sale or delivery of concentrate to or processing of ores by any person other than the named contractor, as to ores and concentrates derived from properties that are the subject of the particular contract, without the prior written approval of the Commission. The penalty for any violative

33. The Shoni Corp. v. Federal-Radorock Gas Hills Partners, Civil No. 4,819, D. Wyo.

sale or delivery, or processing, is a reduction in allocation equal to the quantity of ore or concentrate improperly sold, delivered or processed. The contracts prohibit the processing in the contractor's plant for delivery to the Commission prior to January 1, 1969, of any ores except from the properties particularly described in the contract. On January 1, 1969, other properties that have not participated in a deferral of allocation under the stretchout announcement may become eligible for the production of ores to be processed and sold to the Commission.[34] The Commission is empowered under the contracts to compel the contractor to acquire and process for delivery to the Commission ores from properties other than those described in the contract, subject to an annual maximum and a pro-rata monthly limit. The contractor itself, with Commission approval, may acquire and process for delivery to the Commission ores from properties other than those described in the contract, in which event the new properties are added to the contract.

The effect of the foregoing provisions is to permit rigid Commission control over the production and processing of uranium. As a practical matter, the contractor is limited to production of the amount of the allocations established for properties included in his milling contract, and all of such production must come from the property units for which the allocations have been established.

It has been accepted, both as a matter of theory and practice, since the allocation concept was born in 1958, that an operator controlling a property unit having a gross allocation could produce any part or all of his allocation from any one or more of the properties contained in the unit. The practice that has obtained following the consummation of stretchout and consolidation contracts confirms this fact. That is, where a stretchout and consolidation contract has consolidated previously separate property units into a single property unit, and the allocations in respect of those units into a single allocation, the operator of the consolidated unit has been and is free to produce any part or all of the aggregate consolidated allocation from any one or more of the pro-

34. Release, *op. cit. supra* note 28.

perties contained within the consolidated property unit. This fact is obviously inconsistent with any concept that would tie the allocation, or any part of it, to a particular property in the unit, rather than to the unit as a whole. Such a concept would require the operator to produce the allocation pro-rata from the various properties contained within the unit. This has never been the practice.

The negotiation of stretchout and consolidation contracts entailed a re-examination by the Commission staff of existing allocations, since consolidation was limited to existing allocations economically produceable by December 31, 1966, from original property units. In negotiating consolidation the Commission may have determined that no reserves at all on property "A" could be produced economically, but that twice the original reserves on property "B" could be mined economically. On this basis, the allocation recognized in consolidation would remain unchanged, but would be now predicated only upon properties "B" and "C" rather than equally upon properties "A," "B" and "C."

The stretchout contracts indicate in another manner the character of the allocation. The effect of the stretchout contract is to commit the contractor to defer for delivery in 1967 and 1968 a quantity of concentrate otherwise deliverable in the pre-1967 period. In exchange for this commitment, the contracts obligate the Commission to purchase, in 1969 and 1970, an additional quantity of concentrate equal to the amount deferred and delivered in 1967 and 1968.

The allocations for 1967 and 1968 must be produced from the properties expressly described in the contracts. The 1969 and 1970 allocations, however, may be produced either from these or from any other property, excepting only properties controlled by another producer that were eligible in the pre-1969 period under other stretchout contracts.

The 1969-70 allocations are, of course, based solely upon the deferrals to and deliveries in 1967-68. These deferrals and deliveries, in turn, are based upon allocations established upon the basis of November 24, 1958, reserves, subject to changes in these allocations occurring due to consolidation.

Thus, if the original allocation to a property unit is to be tied pro-rata to the properties in the unit, then 1969-70 allocations based on the original allocation would appear to be equally bound to the properties.

As has been noted, this is not the case, since in the 1969-70 period other properties, not included in the unit, become eligible for production of the allocation.

There is, finally, the very practical problem of the operator who controls the property unit comprised of many separate properties. Many of the included properties may contain reserves. These reserves will, of course, be of different quantities and qualities. The prudent operator is bound to produce first those reserves that can be produced most economically. Thus, the recognized right of an operator to produce all or any part of his allocation from any property contained in a property unit is predicated on the most realistic and logical needs of the mining industry.

It seems clear that the allocation constitutes a personal right of the operator useable as he may determine so long as such use complies with standards established by the Commission—a right that cannot under the milling contracts pass to the holder of a remainder or reversionary interest in the event of loss of the property by the operator.

To the extent that the Commission may endeavor to modify the allocation rights of an operator or owner, serious questions may arise. Certainly there appears to be no basis for the claim that the Commission had such power before the consummation of the stretchout contracts. It must be remembered, however, that in the absence of a stretchout contract, the independent producers allocation would expire on December 31, 1966. The Commission requires that before the property of any independent producer can be subject to the stretchout contract, the consent of the independent producer must be obtained. This consent would itself constitute an acquiescence in the provisions of the stretchout contract, including those provisions empowering the Commission to adjust or modify the allocation of the independent producer. Again, however, if the contractual provisions are effective to give this broad power to the Commission, it is imperative that the Commission exercise the power reasonably and in conformity to appropriate standards of fair play.[35]

COMPUTATION OF ROYALTY

Numerous royalty owners have contended that their royalties should be computed on the basis of concentrate selling price without deduction for the costs of milling. These claims have been the subject of two important cases in which the United States Court of Appeals for the Tenth Circuit[36] and the Supreme Court of Utah[37] have held that royalties are to be computed upon the selling price or value of raw ore rather than on the selling price of concentrate without deduction for milling costs. For economy in presentation, this article will be limited to a detailed analysis of the *Richardson* case. *Rimledge* involved similar facts.

In *Richardson,* the royalty owners held a 15% royalty interest, which was defined by the Lease and Agreement between the parties as "a royalty of fifteen per cent of the gross value of the ores, minerals and metals extracted . . . ."[38] The term "gross value" was defined as the "net returns derived from the sales of ores, minerals, and metals extracted and removed from the claims, excluding development and haulage allowances, but including premiums and bonuses other than the development and haulage allowances."[39] The properties that were the subject of the *Richardson* case had been mined before the Commission, in 1957, established programs permitting the sale of concentrate rather than raw ore. Accordingly, the plaintiff royalty owners acknowledged that as to ore sold before that time, they had received the full royalty to which they were entitled based upon the selling price of the raw ore sold. In 1957, the defendant Homestake Mining Company entered into a Custom Milling Agreement

35. Section 3(a) of the Federal Administrative Procedure Act provides: "No person shall in any manner be required to resort to organization or procedure not . . . published [in the Federal Register]." 60 Stat. 238 (1946), 5 U.S.C. § 1002(a) (1964). To the extent that the Commission might attempt to modify existing allocations upon the basis of its unpublished "allocation procedures," such attempts would probably be rendered ineffective by this provision.
36. Richardson v. Homestake Mining Co., 322 F.2d 329 (10th Cir. 1963).
37. Rimledge Uranium & Mining Corp. v. Federal Resources Corp., 374 P.2d 20 (Utah 1962).
38. Richardson v. Homestake Mining Co., *supra* note 36, at 329.
39. *Ibid.*

and a Concentrate Purchase Agreement with Uranium Reduction Company, the operator of a mill at Moab, Utah. Under these agreements, Uranium Reduction Company agreed to process and mill ores delivered by Homestake and to purchase the concentrate after completion of the milling process. The record established in *Richardson* that the amount agreed to be paid to Homestake on the purchase of concentrate, less the custom milling charges applicable under the Custom Milling Agreement were exactly equal to the amount that Homestake would have realized on the sale of raw ore under Circular 5, Revised, which was applicable to the properties in question situated in the Colorado Plateau area.

Based upon this record, and upon the *Rimledge* case and other authorities,[40] the Court of Appeals concluded that the royalty agreement was intended to provide for a royalty based upon the value of raw ore rather than the sale price of concentrate without deduction for milling charges.

There is reason to believe that royalty agreements formulated since the *Richardson* and *Rimledge* cases were decided have generally dealt specifically with the issues litigated in those cases so as to preclude any claim that royalties under such agreements should be determined on the basis of concentrate selling price without deduction for milling charges. There are, of course, many instruments still in effect that were drawn before the problem disposed of by *Richardson* and *Rimledge* became generally known. Accordingly, these cases provide sound authority for the interpretation of such pre-existing royalty agreements and, it is hoped, will forestall further litigation concerning the question.

40. Nevada Half Moon Mining Co. v. Combined Metals Reduction Co., 176 F.2d 73 (10th Cir. 1949); *cf.*, Coyle v. Louisiana Gas & Fuel Co., 175 La. 990, 144 So. 737 (1932); Crichton v. Standard Oil Co., 178 La. 57, 150 So. 668 (1933); Freeland v. Sun Oil Co., 184 F. Supp 754 (W.D. La. 1959), *aff'd*, 277 F.2d 154 (5th Cir. 1960); Ladd v. Upham, 128 Tex. 14, 58 S.W.2d 1037 (1933), *aff'd*, 95 S.W.2d 365 (1936); Matzen v. Hugoton Prod. Co., 182 Kan. 456, 321 P.2d 576 (1958); Phillips Petroleum Co. v. Ochsner, 146 F.2d 138 (5th Cir. 1944); Phillips Petroleum Co. v. Record, 146 F.2d 485 (5th Cir. 1944); Phillips Petroleum Co. v. Williams, 158 F.2d 723 (5th Cir. 1946); Vedder Petroleum Corp. v. Lambert Lands Co., 50 Cal. App. 2d 102, 122 P.2d 600 (1942); Wall v. United Gas Public Service Co., 178 La. 908, 152 So. 561 (1934); Warfield Natural Gas Co. v. Allen, 261 Ky. 840, 88 S.W.2d 989 (1935); Western Gulf Oil Co. v. Title Ins. & Trust Co., 92 Cal. App. 2d 257, 206 P.2d 643 (1949).

OTHER ISSUES

There are other issues that have become apparent in connection with the Commission's procurement program. Depending upon one's view of the nature of the allocation, the existence of an allocation might be thought to have an impact upon the duty owed by an operator to explore, develop and produce diligently a uranium mining property. There is also the problem of determining the price to be paid by the Commission for concentrate purchased in 1969 and 1970. The possible existence of claims against the Commission for refusal to purchase materials from ore reserves not recognized by the Commission, but claimed to have been established prior to November 24, 1958, may still be a problem, although it would appear that the statutes of limitations may have laid this issue to rest.[41] The first two of these problems will be treated briefly below.

A. The Allocation and the Duty to Operate Diligently

The duty of one who holds a mining property, subject to outstanding interests in their persons, as in the case of a lease, determinable contract, operating agreement or royalty agreement, to operate the property diligently, so as to maximize the value of the property, and the return to other interest holders, is well-recognized.[42] Such a duty may be imposed by the express terms of the instrument—contract, lease or deed—governing the relationship between the operator and the owners of the underlying interests. In the absence of an express duty, such a duty will be implied, unless negated by the terms of the instrument.[43]

41. See note 14 *supra* and accompanying text. Any such claim would be predicated on reliance upon the Commission's announcement of May 24, 1956. If the doctrine of the *Radium Mines* case, *supra* note 3, is applicable to that announcement, as it appears clearly to be, the announcement constituted an offer. The offer, if such it was, was withdrawn, or limited, by the Commission's announcement of November 24, 1958. See *supra* note 17. It is doubtful that any events occurring after November 24, 1958, could be relied upon in asserting a claim against the Commission except a later refusal by the Commission to recognize claimed reserves supported by a timely submission of reserve data. In any event, it is doubtful that any claim could have accrued less than six years ago, which indicates the high degree of probability, that such claims are barred by limitations.
42. Carter v. Arkansas Louisiana Gas Co., 213 La. 1028, 36 So. 2d 26 (1948); Freeport Sulphur Co. v. American Sulphur Royalty Co., 117 Tex. 439, 6 S.W.2d 1039 (1928); Watson Land Co. v. Rio Grande Oil Co., 61 Cal.App. 2d 269, 142 P.2d 950 (1943).
43. Fox Petroleum Co. v. Booker, 123 Okla. 276, 253 Pac. 33 (1926); Carter v. Arkansas Louisiana Gas Co., *supra* note 42; Brewster v. Lanyon Zinc Co., 140 Fed. 801 (8th Cir. 1905).

The market limitations imposed by the allocation system accentuate the duty to operate diligently. For example, the owner of a uranium property that is leased to an operator who controls a property unit, including the leased property, with an established allocation, is understandably anxious that *his* property be produced so that he will share in the allocation.[44] He may be fearful that a private market for uranium may never develop, in which case the reserves contained in his property will, he thinks, be valueless after the allocation expires. Against this concern must be balanced the desire of the operator, dictated by prudence, to mine the most economical reserves first.

If the allocation afforded a property unit were regarded as tied pro rata to the properties comprising the unit, the owner could contend persuasively that the operator had a duty to mine a particular property and use that property's pro rata share of the allocation. As has been noted, however, the allocation to the property unit plainly is not tied pro rata to the properties in the unit. Thus, the operator's right to produce any part or all of the unit allocation from any one or more of the properties in the unit is consistent with the operator's need, and duty, to produce first from the most economical reserves. The existence of an allocation for a property unit including a leased property therefore cannot properly be regarded as having any effect on the lessee's duty to operate diligently. Only if the allocation is for the specific property can the existence of the allocation be regarded as affecting the duty to operate diligently.

B. The 1969-70 Concentrate Purchase Price

The Commission's announcement of November 17, 1962, and stretchout contracts concluded as contemplated by that announcement, obligate the Commission to purchase in 1969 and 1970 an amount of concentrate equal to that deferred by the contractor and delivered in 1967 and 1968. The 1967-68 price is the same as would have been paid for the deferred concentrate, had it been delivered in the pre-1967 period

44. See, *e.g.*, Shoni Uranium Corp. v. Vitro Minerals Corp., 386 P.2d 938 (Wyo. 1963); Shoni Uranium Corp. v. Federal-Radorock Gas Hills Partners, *supra* note 33.

under former contracts. The per pound concentrate purchase price applicable in 1969 and 1970, however, is a lesser amount, equal to 85 per cent of average allowable production costs per pound incurred during the period January 1, 1963, through December 31, 1968, but not to exceed $6.70 per pound.

The stretchout contracts contain detailed and complex provisions for determining such average allowable production costs. These provisions attempt to specify in great detail those costs that are and those costs that are not allowable. The Committee on Atomic Energy of the American Bar Association Section of Mineral and Natural Resources Law noted one of the most difficult problems in its 1965 report:

> The accounting procedures, among other things, limit development costs so that to the extent there are remaining reserves as of January 1, 1969, benefiting from such development costs, those attributable to the base cost period must be reduced proportionately taking into account the remaining reserves. There are indications that this may become a particularly acute problem with respect to underground mining operations and development costs incurred in connection with the digging of a shaft inasmuch as the reserves that remain at January 1, 1969, will depend upon the appropriate definition of the mining unit being serviced by the particular shaft. The proposed mining unit for this purpose must be submitted to and approved by the Commission staff. There are indications that the mining operators and Commission staff may disagree as to the components of such mining units with the staff seeking to expand such mining units and the contractor seeking to keep them as small as possible.[45]

These and other problems that will undoubtedly arise in the interpretation and application of the stretchout contract provisions governing the 1969-70 concentrate purchase price determination will be difficult to resolve. It is doubtful, however, that these problems will be litigated. It is more likely that they will be worked out by negotiation between the Commission and its contractors.

45. A.B.A. SECT. M. & N.R.L., COMM. REP. 2 (1965).

CONCLUSION

It is remarkable that a Government program that is as far-reaching and rigidly-controlled as is the uranium procurement program, and that involves the huge sums of money that this program involves, can be as free as this program has been from litigation. There have sometimes been predictions that the number of disputes would increase for one reason or another. Such predictions, however, have not been fulfilled, and such disputes as have arisen, particularly those between the Commission and its contractors, have for the most part been resolved by negotiations between the interested parties.

If this history were not credited, there might now be occasion for further prediction of future disputes and litigation. However, there is no reason to believe that future problems will be more difficult to solve or will be solved in different ways from problems that have arisen in the past. As has been seen, the procurement program entails some potential issues—notably that of characterizing and giving form and substance to the allocation concept—that have not been conclusively resolved. It may be that these problems are of sufficient severity that litigation will be required to resolve them. If a court should be called upon to determine whether the allocation constitutes a personal right of the operator, rather than an interest that "runs with the land," it is submitted that the history and practice of the allocation program require the conclusion that the allocation is tied only to the entire property unit, and does not pass "piece a piece" on an unknown and indeterminable basis with parts of the unit. It follows from this conclusion that the existence of an allocation for a property unit cannot have any effect on the operator's duty to the owner of an interest in a single property included in the unit.

The law on computation of royalty payments appears to be settled. Time either has or shortly will conclude the possibility of claims against the Commission based on the pre-November 24, 1958, programs. The resolution of ambiguities and conflicts in the procedures and standards for determining the 1969-70 concentrate purchase prices will most likely be resolved, more or less peacefully, by negotiation.

On the whole, and despite the several difficult issues facing parties interested in the Commission's procurement program, it seems likely that the relative peace of the past will continue in the future, and that the resolution of these issues, if passed, will not be difficult if the evolutionary history of the procurement program is examined carefully, and its lessons are accepted.