

used to account for royalties. Focusing narrowly on the Auditing and Financial System (AFS), the memo discusses the remaining problems with the automated system and MMS' efforts to resolve them.

Because this memo is limited to the technical aspects of the AFS, it does not discuss the underlying accounting rules. Ongoing efforts by the U.S. General Accounting Office will examine the accounting rules and practices in detail. Nor did OTA examine issues related to the accuracy or timeliness of disbursements to States and Tribes, auditing practices or enforcement measures, paperwork and reporting requirements, or MMS' estimates of the amount that will be saved as a result of their planned AFS improvements.

BACKGROUND

The Department of the Interior has been collecting bonuses, rents, royalties, and other receipts from Federal and Indian mineral leases since 1921. The U.S. Geological Survey's Conservation Division was responsible for managing the royalty program from 1926 to 1982. Criticisms of their collection, accounting, and disbursement had circulated for decades. In the late 1970s, partly in response to those criticisms and partly due to the growth in the scope of their mission,* the Conservation Division began designing a new computerized royalty management system. The target date for implementing the first phase of the new system (the Auditing and Financial System) was January 1983. Phase Two--the Production Accounting and Auditing System--had a target startup date of January 1984.⁷

⁷ U.S. Department of the Interior (DOI), Report of the Commission on Fiscal Accountability of the Nation's Energy Resources, D. Linowes, Chairman, January 21, 1982.

* Royalties increased from \$123 million in 1960 to more than \$4 billion in 1981.

In 1981, however, criticisms of the program began to receive a lot of publicity, with journalists alleging that theft and fraud were widespread.⁸ In May 1981, preliminary drafts of a GAO report, *Oil and Gas Royalty Collections- Longstanding Problems Costing Millions*, circulated within the government. GAO cited mismanagement, maintenance of an obsolete accounting system, and failure to collect all royalties due the Federal government. This was the sixth GAO report criticizing the program in 22 years. Moreover, between 1969 and 1977, the DOI Inspector General had issued five similar reports.⁹ In July 1981, the media openly blamed the Federal government for mismanagement, and admonished the oil and gas industry for greed and corruption.¹⁰ These charges led to investigations, proposals for reform, and lawsuits.'

On July 8, 1981, the Secretary of the Interior established the Commission on Fiscal Accountability of the Nation's Energy Resources (the Linowes Commission). Its charter was to examine allegations of massive irregularities in royalty payments, to investigate charges of oil theft from Federal and Indian lands, and to make recommendations for improving fiscal accountability of

⁸ See, e.g., Los Angeles Times, Jan. 12, 1981, sec. 4, p. 1; Los Angeles Times, Jan. 15, 1981, sec. 4, p. 1; Washington Post, Feb. 1, 1981, p. A17; Los Angeles Times, Mar. 21, 1981, sec. 3, p. 18; New York Times, Apr. 4, 1981, p. 7; CBS News, 60 Minutes, vol. XIII, no. 30, April 12, 1981; New York Times April 15, 1981, p. A26.

⁹ Russell Davis, James E. Wilen, and Rosemarie Jergovic, "Oil and Gas Royalty Recovery Policy on Federal and Indian Lands," Natural Resources Journal, vol. 23, no. 2, April 1983.

¹⁰ Washington Post, July 2, 1981, p. B17.

^{*} Between February and August 1981, the Senate Select Committee on Indian Affairs held four hearings on Federal supervision of oil and gas leases on Indian lands. In August 1981, the Senate Energy and Natural Resources Committee met on the collection, accounting, and disbursement of Federal and Indian mineral royalties. In April 1981, the House Committee on Government Operations, Subcommittee on Commerce, Consumer, and Monetary Affairs, held hearings on USGS oil and gas royalty collection practices. Between September and December 1981, the House Interior and Insular Affairs Committee, Subcommittees on Oversight and Investigations and on Mines and Mining, convened three joint hearings on royalty management. In the Spring of 1981, the Western Attorney Generals Association, the Interstate Oil Compact Commission, and the Western States Land Commissioners Association sent resolutions to the Secretary of the Interior urging upgrading of the minerals management system and look-back audits of royalty accounts. In May 1981, the State of California (joined by ten other States) filed suit alleging that significant royalty losses were occurring due to DOI's failure to discharge its responsibility to collect all royalties due. Davis et al, supra note 4.

the Nation's energy resources. On January 21, 1982, the Commission submitted its report, which stated that 'management of the Nation's energy resources has been a failure for more than 20 years."¹¹

The Commission found the major shortcomings of the USGS royalty management system to be: 1) the USGS did not verify data reported by companies, 2) the lease account records were so unreliable that the agency often did not know which companies had paid the royalties owed and which had not,* 3) late payments were common, 4) lessee's records were seldom audited or critically reviewed, and 5) penalties for underpayment scarcely existed.¹²

The Commission also found that the USGS system lacked the basic internal controls needed to assure that oil and gas royalties were paid in full and on time. Internal controls are a system of checks and balances that protect an organization's assets. Effective internal controls give reasonable assurance to management that no misstatement of accounts, either accidental or deliberate, is occurring. According to the Commission's report, internal controls built into the royalty management system should assure that Federal managers have a record of new production as soon as it begins; show accurately royalties paid and due, and who is responsible for payment; obtain enough information to allow Federal managers to verify company statements concerning amounts produced, amounts of products sold, and their value; and provide adequate penalties to enforce requirements for accurate and timely reporting.

¹¹ DOI, supra note 7.

¹² Ibid.

* Of 26,769 total accounts, 19,487 had balances in 1980, about equally divided between under- and overpayments. But the balances in either direction were mostly erroneous, and USGS considered them worthless for determining who owes what when. DOI, supra note 6.

Because USGS recordkeeping was in such disarray, the Commission could not determine the exact amount of underpayments. The results of individual audits suggested, however, that hundreds of millions of dollars (7-10 percent of annual obligations) went uncollected every year.¹³

Finally, the Commission's report expressed concern about USGS' ability to design and implement the new royalty management system on schedule. The Commission believed that Phase One, which was intended to improve recordkeeping and incorporate internal controls to identify and keep track of payers, was too complex to be completed on time. The report recommended that parts of the Auditing and Financial System be tested manually before proceeding to automation. It also expressed doubts about the complexity and lack of pre-testing of Phase Two, which would include system cross-checks on production data.

On January 19, 1982, the Secretary of the Interior replaced the USGS Conservation Division with MMS. That reorganization (and other reforms instituted at the same time) was based both on the Commission's findings and on the Secretary's perception that large royalty losses were occurring.¹⁴

The second response to the Commission's findings was legislative--the Federal Oil and Gas Royalty Management Act of 1982 (FOGRMA).¹⁵ The purposes of FOGRMA were to clarify and expand the authorities and responsibilities of the Secretary of the Interior in managing the Federal oil and gas royalty accounting system, to require the development and implementation of enforcement practices, and to utilize the capabilities of States and Indian tribes in the Federal royalty management system. Among other things, the Act requires:

¹³ Ibid.

¹⁴ Davis et al, *supra* note 9.

¹⁵ P.L.97-451.

- o DOI to establish a comprehensive auditing, inspection, collection, and fiscal and production accounting system for oil and gas leasing;
- o lessees and interest holders to make royalty payments;
- o lessees and interest holders to notify the Secretary of the transfer of any lease interest or obligation;
- o lessees and interest holders to maintain records for 6 years;
- o DOI to disburse royalties to States monthly and to Tribes at least monthly;
- o DOI to provide a description and accounting of payments to States and Tribes;
- o payers to pay interest on late royalty payments or underpayments at the Internal Revenue Service rate; and
- o DOI to pay interest on late disbursements to States and Tribes.

Both FOGRMA and the Outer Continental Shelf Lands Act Amendments of 1978 (OCSLA) include reporting requirements. FOGRMA required the Secretary of the Interior to develop an annual report format following consultations with the House Committee on Interior and Insular Affairs and the Senate Committee on Energy and Natural Resources. The current format addresses 6 topics: RMP accomplishments; mineral revenue collections, escrow release, and disbursements; auditing activities; inspections and enforcement; organizations, functions, and structure; and status of the Linowes Commission recommendations. OCSLA requires the Secretary to report every 2 years on delinquent oil and gas royalty accounts on Federal lands, and on auditing and accounting procedures implemented to assure accurate and timely payment of royalties.

Following the MMS reorganization and passage of FOGRMA, DOI continued to emphasize automating its various tasks in order to provide adequate accounting for royalties. They developed the Auditing and Financial System (AFS) to ac-

count for and distribute royal ties from producing or producible Federal on-shore and Indian leases and all offshore leases. It was automated in 1983 (after three years of development and testing) on three networked VAX minicomputers. It soon became apparent, however, that the volume and complexity of the workload would exceed the capability of the processing environment. 1'

In 1983, there was again a lot of publicity on the sorry state of royalties management. Critics argued that the system had been centralized and implemented much too rapidly. The RMP had consolidated and moved to Denver, hired new staff, chosen and installed the computer system, and brought all regions online in about 12-18 months total. Both the hardware and operating system were disasters. The system lacked flexibility and was not user-friendly. The three machines could only be synchronized once a week, and corrections could not be made online. It took 5 minutes to get a screen record up (if the system wasn't down, which it was frequently). Also, the system could not handle discrepancies between payer information in the database and the monthly reports. When they occurred, it reported no payment.1'

MMS sought and obtained funding to convert AFS from the minicomputers to a mainframe computer. The contract for this conversion was awarded in 1985, and the system became operational in September 1987.

¹⁶ Bettenberg, *supra* note 4.

¹⁷ William D. Bettenberg, Director, MMS, personal communication to OTA, September 1988.

The second automated element, the Bonus and Rental Accounting support System (BRASS), accounts for and distributes annual rentals from around 61,000 nonproducing onshore Federal leases. This function was historically the responsibility of the Bureau of Land Management (BLM). It was transferred to MMS in 1983 and became operational on one VAX minicomputer in 1984.¹⁸

The Production Accounting and Auditing System (PAAS) maintains production data for all on- and offshore leases. PAAS also provides a cross-check with sales data reported to AFS, and generates exceptions when discrepancies are found.¹⁹ PAAS has been operational for offshore and solid mineral leases since 1985, and for all onshore leases since October 1989.

¹⁸ Bettenberg, *supra* note 4,

¹⁹ *Ibid.*