

GAO

Report to the Chairman, Subcommittee  
on Mineral Resources Development and  
Production, Committee on Energy and  
Natural Resources, U.S. Senate

June 1990

# MINERAL REVENUES

## Shortcomings in Onshore Federal Oil and Gas Production Verification



**RESTRICTED**—Not to be released outside the  
General Accounting Office unless specifically  
approved by the Office of Congressional  
Relations.

RELEASED

548826



United States  
General Accounting Office  
Washington, D.C. 20548

---

**Resources, Community, and  
Economic Development Division**

B-238152

June 26, 1990

The Honorable Jeff Bingaman  
Chairman, Subcommittee on Mineral Resources  
Development and Production  
Committee on Energy and Natural Resources  
United States Senate

Dear Mr. Chairman:

This report responds to your request that we evaluate the Department of the Interior's inspection and enforcement program responsibility for onshore federal and Indian oil and gas lease production verification. The Secretary of the Interior has assigned that responsibility to the Bureau of Land Management. Specifically, this report shows that the extent of the Bureau's production verification is inadequate to enable Interior to accurately determine oil and gas royalties.

As agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from the date of this letter. At that time we will send copies to the Secretary of the Interior and other interested parties and make copies available to others upon request.

This review was performed under the direction of James Duffus III, Director, Natural Resources Management Issues, who can be reached at (202) 275-7756. Major contributors are listed in appendix VIII.

Sincerely yours,

A handwritten signature in cursive script, appearing to read 'J. Dexter Peach'.

J. Dexter Peach  
Assistant Comptroller General

Enclosure

reported by companies. Because BLM does not ensure accurate reporting of production, the industry is still essentially operating on an honor system.

BLM relies on its checklist inspections to meet the FOGRMA requirement that leases producing significant quantities of oil and gas, as well as those with histories of noncompliance, be inspected at least annually. These checklist inspections, however, do not verify production. Very few production verification inspections are performed. BLM cannot ensure that this combination of inspections is an effective strategy for verifying production in order to satisfy FOGRMA's requirement that Interior accurately determine royalties.

Furthermore, decentralization of responsibility, coupled with inadequate guidance and oversight, have resulted in significant differences in how BLM's field offices have implemented the inspection and enforcement program. In addition, BLM's official data for the inspection and enforcement program are unreliable, contributing to BLM's inability to effectively oversee implementation of the program.

---

## Principal Findings

---

### Most Oil and Gas Production Is Not Verified

Although production verification is a key to meeting FOGRMA's requirement that Interior establish a system to accurately determine oil and gas royalties, BLM's inspection program verifies production on only a small number of leases. Since 1986, BLM has conducted production verification inspections on less than 3 percent of the 15,000 federal and Indian leases in the 9 states included in GAO's review. Instead, BLM relies on its checklist inspections to surface potential production underreporting. As a result, the extent of BLM's production verification is inadequate to satisfy FOGRMA's requirement that Interior be able to accurately determine royalties.

### Program Oversight Is Inadequate

In January 1987, BLM decentralized responsibility for its inspection program to its state and field offices with little guidance, and it has not conducted any agencywide evaluations of the program. Left essentially on their own, field offices have varied widely in organization and staffing of the program, the degree of supervisory oversight provided inspectors, the number of inspections planned and conducted, the types

---

---

<b>Chapter 6</b>		55
<b>Agency Comments and Actions Taken or Planned in Response to Our Concerns About BLM's Inspection and Enforcement Program</b>	Production Verification	55
	Program Oversight	56
	Automated Program Data	56
	Cooperation Between BLM and MMS	56

<b>Appendixes</b>	Appendix I: Objectives, Scope, and Methodology	58
	Appendix II: Basic Checklist Inspection Record	63
	Appendix III: Analysis of Citations Issued by Six BLM Field Offices	65
	Appendix IV: Producing Oil and Gas Lease Inspections, Citations, Assessments, and Civil Penalties in Fiscal Year 1986	68
	Appendix V: Producing Oil and Gas Lease Inspections, Citations, Assessments, and Civil Penalties in Fiscal Year 1987	69
	Appendix VI: Producing Oil and Gas Lease Inspections, Citations, Assessments, and Civil Penalties in Fiscal Year 1988	70
	Appendix VII: Comments From the Department of the Interior	71
	Appendix VIII: Major Contributors to This Report	93

<b>Tables</b>	Table 2.1: Production Verification Inspections Completed	23
	Table 3.1: Average Number of Leases, Wells, and Completed Inspections Per Full-Time Equivalent Inspector in Fiscal Year 1988	33
	Table 4.1: Leases and Priorities in Fiscal Year 1988	41
	Table 4.2: Reported Inspections of High-Priority Leases in Fiscal Year 1988	42
	Table 4.3: Reported Inspections of Low-Priority Leases in Fiscal Year 1988	43
	Table 4.4: Recorded and "Empty" Inspections in Fiscal Year 1988	44
	Table 4.5: Accuracy of AIRS Data for Selected Fiscal Year 1988 Inspections	45

---

---

---

## Federal Laws Require Inspection and Enforcement

The Congress responded to these problems by passing the Federal Oil and Gas Royalty Management Act of 1982 (FOGRMA). FOGRMA requires that Interior establish a comprehensive system, which includes inspections, for accurately determining oil and gas royalties. FOGRMA further directed Interior to establish procedures to ensure that authorized inspectors at least annually inspect each lease site that either (1) produces or is expected to produce significant quantities of oil or gas in any year or (2) has a history of noncompliance with applicable laws or regulations. FOGRMA does not provide details about the type of inspections to be conducted. However, as part of the comprehensive system, such inspections must provide information relevant to the accurate determination of oil and gas royalties. A key component of a comprehensive system for accurately determining oil and gas royalties is the verification of production. The Secretary of the Interior assigned responsibility for verifying production to BLM. BLM assigned responsibility for production verification to its inspection and enforcement program.

FOGRMA also authorized Interior to impose civil and criminal penalties against operators who fail to comply with government requirements. Finally, FOGRMA directed Interior to establish and maintain adequate training programs for its inspectors in the inspection and accounting methods and techniques to be used to implement FOGRMA.

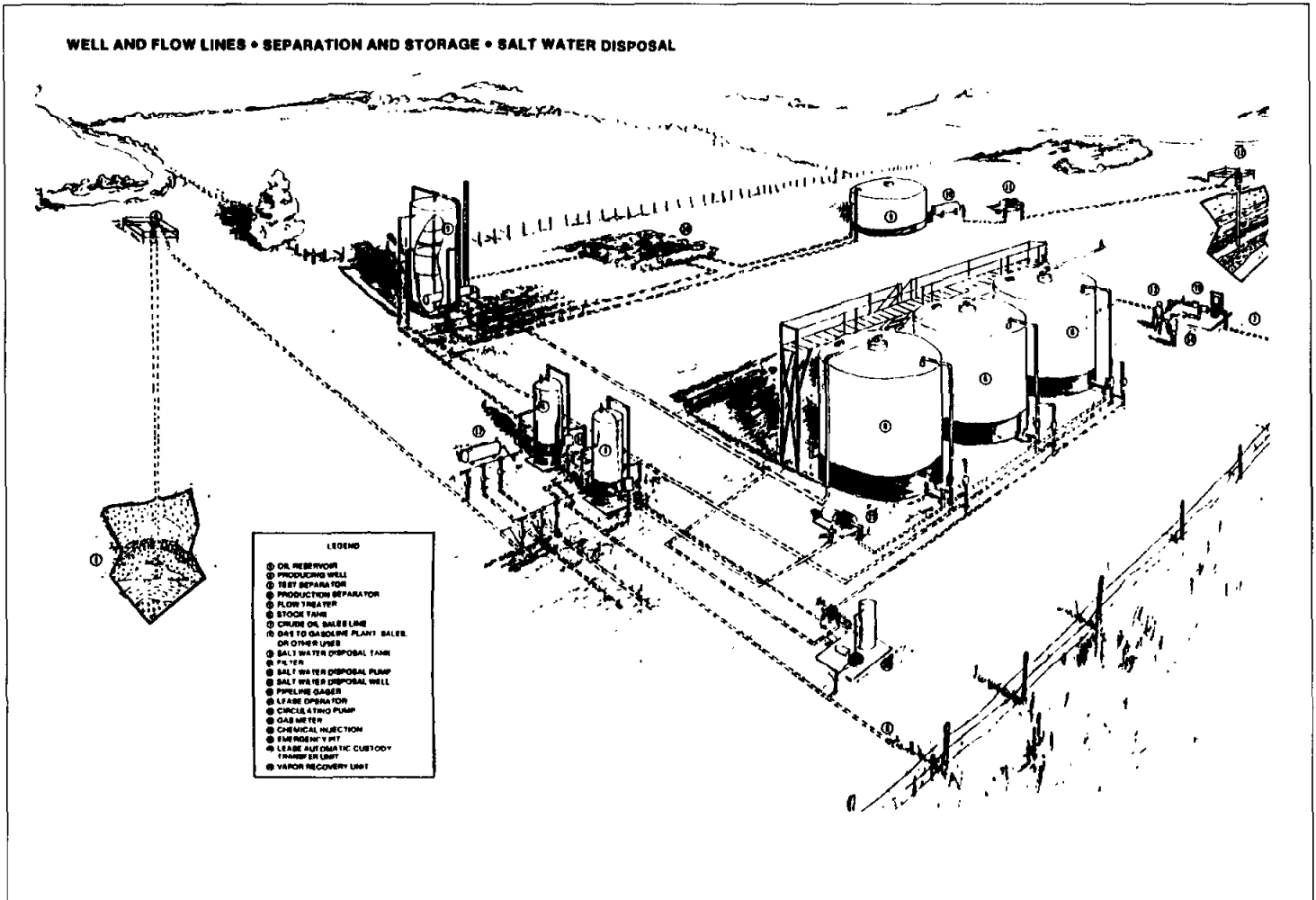
---

## BLM's Inspection and Enforcement Program

BLM has implemented FOGRMA and other laws concerning onshore oil and gas operations through regulations intended to promote the orderly and efficient exploration, development, and production of oil and gas. These regulations are further implemented and supplemented by BLM's Onshore Oil and Gas Orders, which specify minimum standards of performance for oil and gas operators. BLM plans to issue nine orders, and had issued five as of April 1990.

BLM's headquarters consists of program offices that issue policy guidance for their respective programs. BLM field operations are comprised of state offices, district offices, and resource area offices. BLM has 12 state offices, each managed by a state director. State offices are responsible for providing statewide program direction, oversight, and coordination of resource programs for federal lands under BLM's jurisdiction. Each state office has several district offices, each managed by a district manager. Each district office is responsible for two or more resource areas. District offices provide oversight and support to their resource area offices.

Figure 1.1: Oil Production Facility



Source: Based on Primer of Oil and Gas Production, Dallas, Texas: American Petroleum Institute, 1976



---

where operations could constitute a serious risk to public health and safety if a major undesirable event occurred; (3) require an inspection to comply with laws, regulations, or agreements, such as those with tribal organizations; or (4) have at least one major violation, or at least five other violations, relating to the environment or to public health and safety in a period greater than 24 months.

Field offices generally assign inspection priorities at the start of each fiscal year and prepare inspection plans summarizing the numbers and types of inspections planned for that year. They are expected to complete 100 percent of their high-priority inspections, but they are allowed to determine the frequency of inspections for the remaining leases. However, the strategy states that BLM's goal is to inspect all producing leases at least once every 3 years and to inspect new leases within the first year of production start-up. In addition to these inspections, inspectors perform other production-related inspections, such as witnessing or independently performing oil measurement prior to a sale, or witnessing the calibration of gas meters (which measure gas production).

---

## Conducting Inspections

BLM's current strategy describes three levels of production inspections:

- Level 1: a basic checklist inspection that is intended to identify whether there may be any problems with how production is being handled, measured, and reported.
- Level 2: a follow-up inspection performed in response to problems identified by a level 1 inspection or some other source.
- Level 3: a detailed production verification inspection for instances in which there is reason to suspect significant loss because oil or gas production was mishandled.

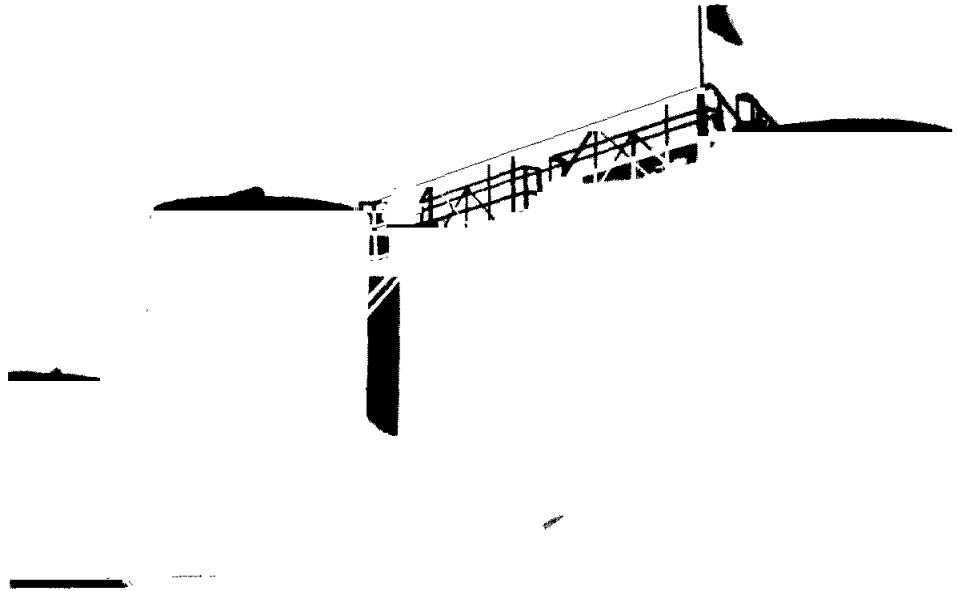
BLM regards basic checklist inspections as screening inspections because they identify problems that indicate the need for a follow-up inspection or a production verification inspection. Inspectors use a 40-point checklist to conduct basic checklist inspections (see app. II), which generally take an hour or less to complete on one-well leases. BLM's inspection strategy goals are based on using level 1 checklist inspections. Level 2 follow-up inspections consist of any steps that may be taken to resolve a problem, but they are not widely used. Rather, problems noted in a basic checklist inspection are generally resolved during that inspection or result in a level 3 production verification inspection.

- resolve or forward to MMS for action any differences between the inspector's calculations and the operator's reported volumes.

Figure 1.4 shows a BLM inspector gauging the oil in a storage tank on a federal lease during a production verification.

---

**Figure 1.4: Inspector Gauging Oil Storage Tank**



---

## Enforcement Actions

Inspectors have a series of enforcement actions they can take when an operator is not in compliance with federal requirements. If the violation is minor and obviously inadvertent, the inspector may initially issue an oral warning to the operator. If an operator needs clarification of a federal standard, or if a site-specific requirement is necessary, the inspector may issue a written order to the operator. If the operator violates a regulation, the inspector may issue a Notice of Incidents of Noncompliance, which is a citation requiring that the violation be corrected. These citations may be related to surface management requirements, production, safety, or other administrative requirements, such as failure to comply with an inspector's order. To determine an operator's compliance history when assigning inspection priorities, BLM counts the number and types of citations issued to the operator during the previous 24 months.

If the operator does not correct a cited violation within the time allowed, BLM may issue an assessment for the violation. Major violations may result in daily assessments, limited to \$500 per day per violation, up to a maximum of \$1,000 per day per operator per lease. Minor violations

When AIRS was implemented in September 1986, it replaced a previous automated system. In August 1988, BLM designated AIRS as the official record of inspection and enforcement accomplishments. AIRS is used to record the results of inspections, information related to lease identification, the status of individual wells and production and storage facilities on leases, inspection priorities, citations, and BLM approvals of specific operations, such as disposal of waste water. Field offices that perform inspection and enforcement are responsible for ensuring the accuracy of their own AIRS data. BLM's Denver Service Center maintains the AIRS system and provides support to AIRS users in state and field offices.

---

## MMS Royalty Accounting Responsibilities

MMS is responsible for accounting for and collecting revenues from federal and Indian leases. To help ensure accurate royalty payments, MMS uses several processes, including audits and automated reviews of data.

Although BLM has historically received onshore production reports from operators, transfer of this function to MMS was completed in 1989. MMS now receives production reports from onshore operators and subsequently provides information to BLM, although BLM retains the inspection and enforcement responsibility for all onshore leases.

BLM and MMS coordinate their efforts under a Memorandum of Understanding initially signed in January 1984. If inspectors identify problems during an inspection that could affect reported royalties, they are to notify MMS so an audit of reported sales may be initiated. Similarly, if MMS personnel identify problems during an audit of an operator, they may ask BLM to inspect that operator's leases and verify production. In December 1988, the agencies updated the Memorandum and addressed specific coordination needs relating to the transfer of onshore production reporting.

---

## Objectives, Scope, and Methodology

Concerned about possible significant problems in the management of BLM's inspection and enforcement program, the Chairman, Subcommittee on Mineral Resources Development and Production, Senate Committee on Energy and Natural Resources, asked GAO in May 1988 to evaluate the program and determine whether FOGRMA requirements are being fulfilled. In subsequent discussions with the Chairman's office, we agreed to present program data and to evaluate (1) the adequacy of production inspections, (2) BLM's program oversight, (3) the accuracy of BLM's official program data, and (4) cooperation between BLM and MMS, including

---

more reliable, we presented data from the summaries in our appendices. We did not verify the accuracy of those data.

The Department of the Interior provided written comments on a draft of this report. Those comments are presented and evaluated in appendix VII, and comments regarding actions that Interior has taken or planned are summarized in chapter 6.

## Few Inspections Verify Production

Under BLM's strategy, production verification inspections are conducted if problems identified in checklist inspections are not resolved or if there is reason to suspect significant loss because of mishandling of oil or gas production. Few production verification inspections are conducted because most problems found during basic checklist inspections are resolved during those inspections. However, the Montana state office program coordinator told us that he strongly encourages field office staff to do production verification inspections on leases with problems identified during checklist inspections, as well as random inspections on leases selected for other reasons.

According to AIRS, BLM field offices under the Montana, New Mexico, and Wyoming state offices have conducted 68 production verification inspections since fiscal year 1986, which represents less than 1 percent of the approximately 15,000 leases managed by these state offices. BLM state and field office representatives from Montana and New Mexico, however, believe that AIRS figures are inaccurate, and they rely more on figures presented in quarterly reports prepared by the field offices. According to state office summaries of these quarterly reports, 460 production verification inspections have been conducted since fiscal year 1986, which, if each inspection was for a different lease, covers less than 3 percent of the leases. Data on production verification inspections are presented in table 2.1.

**Table 2.1: Production Verification Inspections Completed**

State office	FY 1986		FY 1987		FY 1988		Total leases <sup>a</sup>
	AIRS	Qtly. report	AIRS	Qtly. report	AIRS	Qtly. report	
Montana	0	30	7	63	13	72	1,700
New Mexico	1	84	0	56	0	17	9,812
Wyoming	2	76	30	62	15	<sup>b</sup>	3,920
<b>Total</b>	<b>3</b>	<b>190</b>	<b>37</b>	<b>181</b>	<b>28</b>	<b>89</b>	<b>15,432</b>

<sup>a</sup>Data from July 1988 AIRS data base

<sup>b</sup>The Wyoming State Office did not require quarterly reports in fiscal year 1988

## BLM Has Not Validated Its Inspection Strategy

BLM's inspection strategy has been modified several times, and the role of production verification inspections has changed over time. In its fiscal year 1986 inspection strategy, BLM encouraged field offices to conduct production verification inspections on 15 percent of their high-priority leases. In its May 1987 strategy, however, BLM no longer encouraged these inspections. Program officials believed they were not

However, the results of this test could be interpreted to show that production verification inspections are indeed cost-effective, because additional revenues collected were almost 6 times the total cost of all 109 inspections. Nevertheless, because BLM cannot show that the test was adequately designed, it is impossible to reach conclusions on the basis of this test. For example, BLM cannot document how the inspected leases were selected or that they were representative of high-priority leases.

Furthermore, BLM has not adequately assessed whether its current inspection strategy is effective in meeting the FOGRMA requirement that Interior be able to accurately determine oil and gas royalties—that is, whether the “shoe fits the foot.” A BLM official also told us that the strategy has not been evaluated by external experts, such as other agencies or groups that have inspection responsibilities. As a result, BLM does not know if the program is effective.

Currently, two BLM district offices are conducting a pilot project in which the criteria for assigning a high priority under FOGRMA’s production standard have been increased to a monthly average of 18,000 barrels of oil (from 3,000 barrels) or 70 Mmcf of gas (from 30 Mmcf). If BLM adopts these criteria, fewer leases would rank as high priority, which would give inspectors more flexibility to select other leases to inspect and to determine what types of inspections to perform. The pilot project will run until 1991.

---

## Conclusions

Because BLM’s basic checklist inspections provide information related to production, they satisfy FOGRMA’s requirement for annual inspections of leases with high production or histories of noncompliance. However, they do not verify production. In fact, BLM does little to verify production. We believe that the extent of BLM’s production verification is inadequate for satisfying the FOGRMA requirement that Interior be able to accurately determine oil and gas royalties.

---

## Recommendations

Because BLM does not ensure accurate reporting of production, we recommend that the Secretary of the Interior require the Director of BLM to determine whether, using available resources, alternative inspection strategies would better identify significant underreporting of production. Such a determination should explore using production verification inspections on randomly selected leases. If Interior determines that such probability sampling would be more efficient than inspecting all high-

# Inspection Program Oversight Is Inadequate

BLM's oversight of its inspection and enforcement program is inadequate. Since BLM decentralized program responsibility to state offices in January 1987, no BLM headquarters manager has had direct responsibility for the program. State office program coordinators have responsibility for program oversight; however, they do not have line authority over the program. As a result, field offices differ in their implementation of the inspection and enforcement program.

In addition, little program evaluation has been done. Since decentralization, no BLM headquarters evaluations have been done. Further, not all state office coordinators have formally evaluated their programs, and the types of evaluations that have been done differ. Without thorough monitoring or evaluation of field offices, BLM cannot ensure compliance with its inspection program strategy.

---

## Program Responsibility Is Decentralized

Following BLM's general management philosophy of decentralization, a 1986 BLM task force recommended that responsibility for monitoring and evaluating the inspection and enforcement program be delegated from BLM headquarters to state offices. As a result, the headquarters inspection and enforcement office was disbanded in January 1987, and responsibility for coordination and oversight was officially transferred to state offices in May 1988. State offices exercise this responsibility through program coordinators, who hold staff positions and do not have direct line authority.

---

## Decentralization of Program Recommended by BLM Task Force

Decentralization of the inspection and enforcement program resulted from recommendations of a 1986 BLM task force. The task force examined the program to determine whether it (1) met its objectives, (2) made the most efficient use of the agency's resources, (3) applied appropriate regulatory effort to ensure compliance with the law, and (4) met the administration's policy objectives. The November 1986 task force report recommended several actions to strengthen the program by making it conform to BLM's decentralized organization and by making more efficient use of BLM's resources, including the following:

- Merge the program with other fluid minerals program activities and emphasize state office responsibility for managing program activities in the field by changing the headquarters role from detailed field office coordination and oversight to policy coordination and guidance.

The study was to assess state office implementation of BLM's 1986 task force recommendations and the May 1988 BLM memorandum. It found that state and field offices generally perceive that the program "has essentially faded away in Washington,...and do not perceive either a strong core of technical expertise nor strong management support for the program that they feel is needed." The study reported that this perception was caused by unfilled vacancies, which prevented the fluid minerals division from fulfilling its obligations to the inspection and enforcement program, and that BLM headquarters needs to assume its proper and expected role in policy, guidance, and general program oversight. BLM management agreed with the report's findings.

---

### State and Field Office Oversight of the Inspection and Enforcement Program

The three state offices that we reviewed have inspection and enforcement program coordinators who are responsible for providing policy guidance to and evaluating field office programs. State office program coordinators hold staff positions, advising the state directors. They do not have direct line authority over field office personnel. Coordinators in the three state offices told us that they receive copies of field offices' annual inspection plans, which they review but do not formally approve.

The six field offices we visited (one district office and five resource area offices) varied in the amount of program oversight received. Four resource area offices in New Mexico and Wyoming received additional oversight from district office program coordinators, who are generally responsible for providing guidance and assistance, but who are in staff positions without direct authority to supervise inspectors. The Montana resource area office did not have a district office coordinator to assist it, so it and the Montana district office received oversight from the state office coordinator.

---

### Program Is Implemented Inconsistently

The inspection and enforcement program has been implemented inconsistently by the six field offices we reviewed. We found variances in supervisory controls, staff levels, use of production verification inspections, enforcement actions, and the certification program.

---

### Supervisory Controls Vary

Responsibilities of and expectations for supervisors varied among field offices, as did the types of supervisory activities. Because much of the



undocumented supervision. As a result, field offices have little evidence of the extent to which inspectors are supervised. Without appropriate supervision, field offices may not be able to ensure that inspectors are doing their jobs correctly.

Field office supervisors told us that they often supervised inspectors informally through day-to-day contacts, rather than through more formal means. For example, not all supervisors regularly accompanied inspectors on inspections or reviewed documented inspection results or enforcement actions. Some supervisors noted that they had confidence in the inspectors' abilities because most inspectors have years of experience and are certified. Inspectors in the six field offices we visited averaged 5 years of experience as inspectors plus another 6 years of prior oil and gas experience, and all but two were certified.

Because none of the field supervisors regularly accompanied inspectors on field inspections to review their performance, they could not ensure the consistency of inspections, or the consistency or appropriateness of enforcement actions. For example, the Rio Puerco supervisor said that he had accompanied the only inspector perhaps twice a year, while the Farmington East supervisor said his field visits ranged from four times a year to a couple of times per month, depending on the inspector's grade level and experience. Supervisors who told us that they made occasional field visits did not document those visits.

Not all supervisors reviewed checklist inspection records. For example, the Farmington West supervisor said he reviewed handwritten inspection records completed by inspectors and initialled them before giving them to the data entry clerk for input into AIRS. The Farmington East supervisor said he reviewed all inspection records but did not document his review. Supervisors in Buffalo and Kemmerer said they spot-checked inspection records, and we noted that inspection records in Buffalo were initialled. Supervisors in the other three offices said they did not generally review inspection records.

Similarly, not all supervisors said they reviewed documented enforcement actions. For example, the Farmington East supervisor said he reviewed enforcement actions and initialled them. In contrast, the Great Falls supervisor said that he did not review any enforcement actions taken by the inspectors because he believed that the inspectors knew what actions were proper and that they have never received complaints from lease operators.

**Table 3.1: Average Number of Leases, Wells, and Completed Inspections Per Full-Time Equivalent Inspector in Fiscal Year 1988**

Field office	Inspectors	Average		
		Leases	Wells	Inspections
Farmington				
Farmington East	6 <sup>a</sup>	295	1,700	105
Farmington West	6 <sup>b</sup>	295	1,175	15
Buffalo	12	295	1,440	60
Great Falls	3.75 <sup>c</sup>	230	1,025	150
Kemmerer	2.65 <sup>d</sup>	280	1,400	170
Miles City	2 <sup>b</sup>	90	250	80
Rio Puerco	3.1 <sup>e</sup>	135	810	120
<b>Total/Average</b>	<b>24.5</b>	<b>240</b>	<b>1,150</b>	<b>95</b>

<sup>a</sup>Excludes a supervisor who does not do inspections and one full-time inspector who was in training in fiscal year 1988 and therefore did not complete any inspections independently.

<sup>b</sup>Excludes supervisor who does not do inspections; all inspectors are full-time.

<sup>c</sup>Includes a supervisory inspector who estimated that he spent 75 percent of his time doing inspections and three full-time inspectors

<sup>d</sup>Includes a supervisory inspector who estimated that he spent 75 percent of his time doing inspections, one full-time inspector, and one inspector who estimated that he spent 90 percent of his time doing inspections in fiscal year 1988

<sup>e</sup>Includes a supervisory inspector who estimated he spent 10 percent of his time doing inspections and three full-time inspectors

### Use of Production Verification Inspections Varies

Not all field offices conduct production verification inspections or conduct them in the same manner. The two Montana field offices and the Kemmerer, Wyoming, office reported conducting production verification inspections in fiscal year 1988 in response to problems identified during checklist inspections or on randomly selected leases. However, the other three field offices did not report conducting any production verification inspections in fiscal year 1988 and did not plan to conduct any in fiscal year 1989. Inspectors who conducted production verification inspections spent varying amounts of time at each lease site during its month of inspection. Great Falls inspectors estimated they spent 3 full days; a Miles City inspector estimated 6 to 8 full days; and Kemmerer inspectors estimated 2 to 3 hours on each of 6 days. BLM's current strategy does not indicate how much time should be spent at a lease site during a production verification inspection.

### Enforcement Actions Vary

Field offices varied in their use of oral warnings and written orders, authorized by BLM for certain circumstances, such as inadvertent minor

the 6 field offices—19 inspectors and 6 supervisors—were hired prior to December 1986.

National certification program guidance states that inspectors must clearly demonstrate proficiency by actually performing the 61 tasks listed in the technical review, even inspectors hired before the program was announced, and that simulating these skills is not acceptable. Field offices generally did not follow this requirement. Instead, reviewers varied the technical review according to their interpretation of what was necessary and each inspector's knowledge and experience. For example, only two inspectors said that all tasks were covered in their technical reviews. Others said that they had general discussions with their reviewers but did not address or demonstrate each task, and others said that they were not asked to undergo the technical review because they were experienced inspectors.

National certification program guidance also states that certification covers both production and drilling operations, and that the technical review must cover both. However, the Miles City, Montana, and Farmington West, New Mexico, supervisors said that they expect new inspectors to conduct only checklist inspections, so technical review tasks related to other types of inspections, such as drilling inspections, are not expected of those inspectors.

---

## Program Evaluation Is Inadequate

As of July 1989, BLM had not centrally evaluated the inspection and enforcement program since January 1987, when the headquarters inspection and enforcement office was disbanded. State offices are expected to formally review and evaluate their field offices. However, these reviews differ among state offices, and not all offices have conducted such reviews. In addition, problems that have been reported in other Interior reviews of the inspection and enforcement program have not been addressed or corrected.

---

## Centralized Program Evaluations Discontinued

Prior to 1987, the headquarters inspection and enforcement office conducted quality assistance reviews of field offices. These reviews were intended to ensure that field offices were (1) implementing BLM oil and gas program directives and the program strategy; (2) issuing written citations when violations were detected and initiating uniform enforcement actions when violations were not corrected in a timely manner; (3) documenting inspection results and enforcement actions; and (4) providing training, equipment, and data entry and clerical support to

effectiveness of state office evaluation efforts varied widely, and that there was no uniformity in their evaluation processes. The study noted that the Montana and New Mexico state offices appeared to have fully implemented the requirement to evaluate their field offices, but that other state offices have not implemented the requirement. Because BLM headquarters has not issued formal guidelines describing the necessary components for effective state office reviews, the study concluded that BLM could not evaluate the adequacy of any state office review process.

---

### BLM's Response to Interior Program Evaluations Has Been Inadequate

In response to FOGRMA requirements, Interior's Office of the Inspector General conducted two biennial audits of Interior's royalty management activities that included BLM's inspection and enforcement program. Its most recent report, for fiscal years 1988 and 1989, found that BLM's current inspection strategy does not ensure proper production reporting because most inspections do not verify reported production. In response, BLM said that it would evaluate the need to change the strategy. The prior biennial review, for fiscal years 1986 and 1987, reported that BLM did not adequately support the inspection and enforcement program, and, as a result, BLM could not ensure accountability for oil and gas produced and sold from federal and Indian lands.

The Inspector General's office also reviewed BLM's inspection and enforcement program for fiscal years 1984 and 1985. The review identified six major problem areas: inadequate management support for the program; lack of accountability for oil and gas produced and sold; lack of oil transporter inspections; inconsistent interpretation, enforcement, and implementation of program regulations; failure to use cooperative agreements with Indian tribes and states; and inadequate training for inspectors. Its June 1986 report made 17 recommendations to correct these problems. A 1989 followup review found that although BLM reported implementing 15 of the 17 recommendations, only 8 had actually been implemented. Two recommendations not implemented addressed the need for inspectors to verify reported oil and gas production.

The Federal Managers' Financial Integrity Act of 1982 (31 U.S.C. 3512 (b) and (c)) requires agency heads to prepare annual reports on the status of their internal control and accounting systems. In Interior's fiscal year 1986 and 1987 reports, BLM's inspection and enforcement program was identified as a control weakness. Both reports found that the program does not ensure uniform interpretation, enforcement, and

- 
- Develop standard guidelines for state offices' program reviews and conduct such reviews annually;
  - Establish minimum standards for supervisory responsibilities, expectations, review, and documentation; and
  - Evaluate current program staffing levels and develop staffing standards.

percent). Of the 474 high-priority leases, 355 (75 percent) were ranked high under the production criterion only, 81 (17 percent) were ranked high under the compliance criterion only, and 38 (8 percent) were ranked high under both criteria.

**Table 4.1: Leases and Priorities in Fiscal Year 1988**

Field office	High-priority leases		Low-priority leases		Other leases <sup>a</sup>		Total leases
	No.	Pct.	No.	Pct.	No.	Pct.	
Farmington							
Farmington East	188	13	1,206	84	35	3	1,429
Farmington West	108	5	2,052	94	24	1	2,184
	296	8	3,258	90	59	2	3,613
Buffalo	92	11	724	82	63	7	879
Great Falls	20	3	684	95	19	2	723
Kemmerer	34	16	139	64	43	20	216
Miles City	18	4	291	74	86	22	395
Rio Puerco	14	9	148	90	2	1	164
<b>Total</b>	<b>474</b>	<b>8</b>	<b>5,244</b>	<b>88</b>	<b>272</b>	<b>4</b>	<b>5,990</b>

<sup>a</sup>May include newly producing leases that have not yet been ranked and abandoned leases that are no longer ranked as producing leases. Field offices reported completing 30 inspections on these leases in fiscal year 1988.

Source: AIRS, Feb. 1989.

We found that, on the basis of AIRS production and compliance data, 151 of the 474 leases that were assigned a high priority for inspection should have had a low priority. We similarly identified another 58 leases that were assigned a low priority when they should have had a high priority.

Inspectors or data entry clerks manually enter production and citation information and the assigned priority into AIRS. Field office representatives told us that production and citation data in AIRS may not be accurate, and that they may use other information when assigning inspection priorities. For example, the Farmington West supervisor stated that inspectors sometimes forget to enter production data into AIRS, but he believed that assigned priorities are correct, even if not supported by the production data in AIRS. The Buffalo supervisor stated that his inspectors may use combined oil and gas production when assigning high priorities, which is allowed under the program strategy, but not recorded in that manner in AIRS. The Rio Puerco inspector said he judges an operator's past cooperation when deciding whether to assign a high priority on the basis of compliance history. He noted that he usually

Reported Inspections of Low-Priority Leases

In fiscal year 1988, BLM established a goal of conducting basic checklist inspections on low-priority leases once every 3 years, which should result in about one-third of these leases being inspected annually. According to AIRS, five of the six field offices met this goal, as shown in table 4.3. However, Farmington West did not meet the goal because inspectors were assigned to other inspection and enforcement program activities, according to the supervisor.

Table 4.3: Reported Inspections of Low-Priority Leases in Fiscal Year 1988

Field office	Leases	Inspections	Percent
Farmington			
Farmington East	1,206	440	36
Farmington West	2,052	10	0 <sup>a</sup>
	3,258	450	14
Buffalo	724	427	59
Great Falls	684	409	60
Kemmerer	139	115	83
Miles City	291	284	98
Rio Puerco	148	56	38
<b>Total</b>	<b>5,244</b>	<b>1,741</b>	<b>33</b>

<sup>a</sup>Less than 1 percent  
Source: AIRS, Feb. 1989.

According to AIRS production and citation data, 51 of the 1,741 low-priority leases reported as inspected and 7 of the 3,503 low-priority leases reported as not inspected were incorrectly assigned low priority.

Reported Inspections Not Done

Inspections recorded in AIRS have not always been done. AIRS uses the closing date from inspection records to identify when inspections were done. However, we found that four field offices closed inspection records even though the inspections were not conducted. As a result, the number of completed inspections in AIRS is overstated. As table 4.4 shows, we identified 72 of these “empty” checklist inspections for fiscal year 1988. Of these 72 “empty” inspections, 26 were for high-priority leases in Farmington West, and the remaining 46 were for low-priority or unranked leases in the 4 offices.

## Inaccurately Reported Inspection Results

We randomly selected 300 leases from AIRS (50 from each field office). Of these, 199 were recorded as inspected in fiscal year 1988.<sup>1</sup> For these fiscal year 1988 records, we compared the data in AIRS with the 40-point inspection checklists completed by inspectors and found many discrepancies. As shown in table 4.5, we found that inspection results for all 40 points were accurately entered into AIRS for 110 of the 199 inspections (55 percent). Errors were made in 71 of the 199 inspection records (36 percent). Rio Puerco had the highest error rate—88 percent. The Rio Puerco inspector stated that when he put inspection results into AIRS, he often relied on his memory of inspections rather than writing his observations on inspection records. For the remaining 18 cases (9 percent), we were unable to determine whether AIRS data were accurate because we could not locate source documents at the field offices.

**Table 4.5: Accuracy of AIRS Data for Selected Fiscal Year 1988 Inspections**

Field office	Verified accurate		Erroneous		Unable to verify		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Farmington								
Farmington East	10	77	3	23	0	0	13	100
Farmington West	0	0	0	0	1	100	1	100
	10	72	3	21	1	7	14	100
Buffalo	20	57	3	9	12	34	35	100
Great Falls	30	64	17	36	0	0	47	100
Kemmerer	12	80	3	20	0	0	15	100
Miles City	37	95	2	5	0	0	39	100
Rio Puerco	1	2	43	88	5	10	49	100
<b>Total</b>	<b>110</b>	<b>55</b>	<b>71</b>	<b>36</b>	<b>18</b>	<b>9</b>	<b>199</b>	<b>100</b>

None of the six field offices had adequate procedures to verify the accuracy of data put into AIRS. Generally, data entry clerks, who enter AIRS data at all offices except Rio Puerco, told us that they visually scanned their entries to ensure their accuracy, but their work was generally not verified by someone else.

## Enforcement Data Are Incomplete

AIRS does not contain a complete record of enforcement actions. AIRS should record data on BLM's enforcement actions, such as citations issued for noncompliance, financial assessments, and civil and criminal penalties. However, AIRS data on these actions are incomplete. Further,

<sup>1</sup>Of the remaining 101 leases, we were able to confirm from field office files that 96 were not inspected in fiscal year 1988. We could not locate field office files for the remaining five leases.



---

## Inadequate AIRS Guidance and Controls

Although responsibility for data quality rests with field offices, system maintenance and support is provided by BLM's Denver Service Center. Inaccuracies in automated data have occurred in part because there is little central guidance on certain AIRS procedures. As a result, field offices develop their own procedures. Further, AIRS does not have key internal controls, such as edits to identify data inconsistencies and measures to prevent erroneous data from entering AIRS.

---

### Guidance

The Service Center has issued some guidance to field offices. However, guidance has not been issued on certain AIRS procedures, which has made AIRS data unreliable.

Service Center guidance has included an instruction manual, summaries of program changes, an AIRS newsletter, and an informal telephone hotline. The manual provides instructions for entering data into AIRS and lists authorized codes. The Service Center has modified AIRS several times and with each change has provided implementation instructions and summaries. The newsletter provides miscellaneous AIRS information to field offices, and the telephone hot line is used for specific questions or problems identified by users. Service Center representatives told us that the issued guidance allows field offices the flexibility to use the system differently to meet local requirements or needs, and field office representatives agreed that this flexibility is desirable.

However, guidance has not been issued for critical AIRS procedures, such as opening inspection records, closing or deleting inspection records, or verifying data entry. Without such guidance, BLM cannot make meaningful use of AIRS to manage the inspection and enforcement program.

---

### Controls

AIRS does not have key internal controls, such as measures to prevent erroneous data entry by field offices and edits to ensure that AIRS data are accurate. Data entered by different field offices may be inconsistent and therefore not useful for accumulation or comparison. For example, most offices record gas production in thousand cubic feet (Mcf), but Buffalo uses million cubic feet (Mmcf), which causes Buffalo's production data to be understated when compared with other offices' data.

Further, AIRS does not have edits to ensure that the dates for opening and closing inspections are valid or that the closing date comes after the opening date. Nor does AIRS require that inspection results be recorded

---

## Recommendations

We recommend that the Secretary of the Interior require the Director of BLM to

- develop and issue guidance providing minimum AIRS requirements and procedures, including procedures to open and close inspection records and to verify the accuracy of data entered into AIRS;
- monitor field office compliance with the minimum requirements and procedures to ensure consistent implementation;
- reconsider adding edits to AIRS to further ensure the accuracy of AIRS data; and
- make all enforcement actions involving federal or Indian leases a part of compliance histories recorded in AIRS.

The February 1987 revision provided that BLM would request MMS to perform audits when BLM inspections indicate that such audits may be needed, and that MMS would begin such audits within 20 working days of receiving requests and would report to BLM within 180 days. If MMS was unable to meet this reporting deadline for reasons beyond its control, it would furnish BLM a status report within 45 days that would specify the time needed to complete the audit. In addition, MMS would request that BLM conduct an inspection or review lease records when needed to resolve accounting exceptions or to follow up on audit findings. BLM was to begin these inspections within 10 or 20 working days (depending upon the potential seriousness of problems) and report to MMS within 90 or 180 days (again, depending upon the potential problems).

The December 1988 revision eliminated these time frames. According to the chief of MMS' Royalty Compliance Division, this was done to allow MMS to shift its priorities and resources to conducting comprehensive company audits under its April 1988 audit strategy, rather than auditing individual leases requested by BLM. Under this revision, BLM continues to notify MMS of potential royalty irregularities identified during inspections so that audits may be initiated. He noted that MMS accumulates these requests and uses the information to help determine audit emphasis or identify specific leases to examine. MMS may also continue to request BLM to inspect leases to resolve reporting exceptions or audit findings. The December 1988 revision also contained procedures for BLM and MMS to follow when receiving, correcting, and distributing data from production reports.

---

## Timeliness

According to several BLM state and field office representatives, the results of their requests for audits are often not received in a timely manner. MMS' untimely responsiveness to BLM requests for data was also the primary complaint cited by BLM's Program Evaluation Division's 1989 preliminary study. MMS officials did not agree that timeliness is a valid concern because they said that BLM's program activities do not depend on MMS data.

---

## Law Enforcement

BLM law enforcement agents in Montana and New Mexico told us that MMS' cooperation with their criminal investigations of underreported production has been a problem because MMS does not notify BLM of erroneous reports filed by operators, which could indicate criminal actions, and because MMS has not provided them with other information

Transferring inspection and enforcement staff to MMS could incur substantial costs because MMS does not have a field office structure comparable to BLM's. BLM's inspection and enforcement program consists of over 100 inspectors (plus supervisory and support staff) located in 33 field offices under 9 state offices. Locating the staff in BLM's field offices, rather than in a central location, minimizes travel requirements to and from inspections. If MMS relocated BLM program personnel to its Denver center of operations, substantial relocation costs would be incurred, as well as substantial costs for the inspectors to travel into the field. On the other hand, if MMS created a field office structure for the inspection and enforcement program, substantial start-up costs could be incurred, as well as annual program costs. Finally, if BLM staff are transferred to MMS but left in place at BLM's field offices, MMS could have the same type of difficulties ensuring consistent and effective program implementation that BLM has had.

---

## Strengths of MMS

The production verification component of the inspection and enforcement program is perhaps more closely aligned with MMS' mission—royalty accounting and collection—than with BLM's tradition of surface management. Accordingly, moving the program to MMS could enhance cooperation between royalty collection and production inspection. The more centralized management of MMS could also encourage more consistent program implementation in the field.

In addition, MMS auditors are familiar with some of the production documents that BLM inspectors use to verify production. According to the chief of MMS' Royalty Compliance Division, when MMS conducts a comprehensive audit of an oil and gas company, auditors usually compare the company's reported production volume for selected leases with source documents, such as the buyer's statement of volume received, to evaluate the accuracy of the company's reported production. However, such audits do not include on-site inspections that may reveal physical causes of underreported production, nor do they include independent measurement of production, which BLM compares with production documents as part of production verification inspections.

---

## Conclusions

BLM and MMS have improved their cooperation between the inspection and enforcement program and the royalty management program by addressing problems that we identified 10 years ago. Although some BLM

---

# Agency Comments and Actions Taken or Planned in Response to Our Concerns About BLM's Inspection and Enforcement Program

---

In its formal comments on a draft of this report (see app. VII), Interior agreed, in general, with all of the report's recommendations. In addition, Interior noted that BLM has already recognized a number of the program deficiencies identified in the report and taken or planned several actions to address our concerns. We have not verified these actions, nor have we evaluated their effect on the program. However, we believe that if these actions are effectively implemented, they will significantly improve BLM's inspection and enforcement program.

---

## Production Verification

Interior agreed that checklist inspections are not sufficient for effective production verification and deterrence of misreporting. Interior also agreed that BLM needs to do more than what is required under the current inspection strategy to adequately verify production. As a result, Interior said that BLM is considering revisions to its inspection strategy and associated procedures.

Interior noted that verifying all production would require witnessing every sale and verifying recorded information. Interior further said that although such full production verification inspections are too costly to use as the sole inspection tool for all leases, BLM is considering revisions to its current program strategy to use such inspections routinely and more frequently.

Interior noted that a BLM task force recently reviewed the inspection and enforcement program strategy and program resource needs. According to Interior, the task force developed revised procedures to ensure adequate inspection coverage, recommended intensive inspections on a sampling of leases, recommended that all producing Indian leases be inspected annually, and estimated resource needs to accomplish such revisions to the strategy. Interior also identified the following actions to ensure production accountability that BLM has taken or planned:

- Minimum standards for oil and gas measurement and site security were issued.
- A peer review of the inspection strategy is planned.
- A proposal to increase the role of oil and gas operators in production verification is being developed.
- The feasibility of contracting out inspections is being evaluated.
- Stricter penalties for noncompliance are being considered.

---

**Chapter 6**  
**Agency Comments and Actions Taken or**  
**Planned in Response to Our Concerns About**  
**BLM's Inspection and Enforcement Program**

---

Interior also said that appropriate BLM and MMS staff will receive cross-training in agency procedures, which should improve timeliness of data access, and that an interagency meeting has been scheduled to discuss better coordination of law enforcement matters.

**Appendix I  
Objectives, Scope, and Methodology**

**Table I.1: Federal and Indian Onshore Oil and Gas Production and Royalties, Calendar Year 1988**

State office	Oil production		Gas production		Royalties	
	Million barrels	Percent	Mmcf <sup>a</sup>	Percent	Million dollars	Percent
New Mexico <sup>b</sup>	27	17	504	50	\$159	34
Wyoming <sup>c</sup>	69	45	324	32	174	37
Montana <sup>d</sup>	14	9	23	3	29	6
Subtotal	110	71	851	85	362	77
Other states	46	29	154	15	109	23
<b>Total</b>	<b>156</b>	<b>100</b>	<b>1,005</b>	<b>100</b>	<b>\$471</b>	<b>100</b>

<sup>a</sup>Million cubic feet.

<sup>b</sup>Includes Kansas, New Mexico, Oklahoma, and Texas

<sup>c</sup>Includes Nebraska and Wyoming

<sup>d</sup>Includes Montana, North Dakota, and South Dakota.

Source: Mineral Revenues. The 1988 Report on Receipts from Federal and Indian Leases, published by MMS.

As shown in table I.2, these three state offices also accounted for 79 percent of the onshore leases and wells administered nationwide by BLM.

**Table I.2: Federal and Indian Onshore Oil and Gas Leases and Wells, as of July 1988**

State office	Leases		Wells	
	Number	Percent	Number	Percent
New Mexico <sup>a</sup>	9,812	50	37,049	45
Wyoming <sup>b</sup>	3,920	20	20,344	25
Montana <sup>c</sup>	1,700	9	7,457	9
Subtotal	15,432	79	64,850	79
Other states	4,245	21	17,245	21
<b>Total</b>	<b>19,677</b>	<b>100</b>	<b>82,095</b>	<b>100</b>

<sup>a</sup>Includes Kansas, New Mexico, Oklahoma, and Texas.

<sup>b</sup>Includes Nebraska and Wyoming

<sup>c</sup>Includes Montana, North Dakota and South Dakota

Source: AIRS.

In each of the three states reviewed, we selected the two field offices (district or resource area offices) responsible for inspecting (1) the largest number of leases and (2) the smallest number of leases, as reported in BLM's AIRS. Table I.3 lists the field offices we selected for review.

To present program data, we obtained BLM's official data from AIRS. We also obtained field office quarterly report summaries prepared manually by state offices, but we did not verify the accuracy of these data. We obtained the inspection data as of February 1989, to allow time for field offices to enter 1988 data. To evaluate the accuracy of AIRS data and the adequacy of BLM's internal controls over the data, we interviewed the AIRS user representative at the Denver Service Center and program staff, including data entry personnel, at the field offices we visited, and we conducted various tests of the AIRS data. We also randomly sampled 50 leases in AIRS for each of the 6 field offices we visited (300 leases altogether) and compared AIRS data with information shown in field office source files. As shown in table I.4, 199 of these leases were inspected in fiscal year 1988, 96 were not inspected in fiscal year 1988, and we could not locate the field office files for 5 leases.

**Table I.4: Leases Reviewed at Six BLM Field Offices**

Field office	Inspected in FY 1988	Not inspected in FY 1988	File not found	Total leases
Farmington				
Farmington East	13	11	1	25
Farmington West	1	24	0	25
	14	35	1	50
Buffalo	35	14	1	50
Great Falls	47	0	3	50
Kemmerer	15	35	0	50
Miles City	39	11	0	50
Rio Puerco	49	1	0	50
<b>Total</b>	<b>199</b>	<b>96</b>	<b>5</b>	<b>300</b>

To evaluate the record of cooperation between BLM and MMS, including whether one agency is better able than the other to fulfill production verification responsibilities, we interviewed BLM state and field office staff regarding their contacts with MMS. We also interviewed MMS royalty management personnel (in the Royalty Compliance and Production Accounting Divisions) regarding their interaction with BLM inspection and enforcement staff. We also reviewed the Memorandum of Understanding between BLM and MMS.

Our work was conducted from May 1988 through July 1989. Our review was performed in accordance with generally accepted government auditing standards. However, although we used program data in AIRS



# Basic Checklist Inspection Record

FORM 3160-11		U. S. DEPARTMENT OF THE INTERIOR		BUREAU OF LAND MANAGEMENT	
RESOURCE AREA: _____	TWP: _____	RANGE: _____	SEC: _____		
CLASS: _____	MERIDIAN: _____	QTR: _____	L&P: _____		
INSPECTION ITEM ID: _____	COUNTY: _____	STATE: _____	LAB: _____		
INSPECTION: _____	OPEN DATE: ___/___/___	CLOSE DATE: ___/___/___	NO. TRIPS: _____		
LEASE NAME: _____	INDIAN AGCT: _____	TYPE LEASE: _____	HAZARD: _____		
OPERATOR: _____	SPC MGMT AGCT: _____	LEASE STAT: _____	ROYALTY: _____		
CONTRACT: _____	NATURAL GWS: _____	START DATE: ___/___/___			
INSPECTOR: _____					
	SATISFACTORY	DATE INSPECTED (YY/MM/DD)			
<b>A. GENERAL</b>					
1. SITE PROPERLY IDENTIFIED _____					
2. WELL EQUIPMENT SATISFACTORY _____					
3. ENVIRONMENTAL PROTECTION SATISFACTORY _____					
4. TEMPORARY OR EMERGENCY PITS APPROVED _____					
5. PITS SATISFACTORY _____					
6. SURFACE USE IN ACCORDANCE WITH APPROVED PLAN _____					
7. 3160-6 (MONTHLY REPORT OF OPERATIONS) COMPLETE AND CURRENT _____					
8. DOES THE 3160-6 COMPLAIN REASONABLY OF:					
a) PRODUCTION VS. SALES _____					
b) TANK CAPACITY VS. INVENTORY _____					
c) REPORTED WELL STATUS VS. ACTUAL _____					
<b>B. LIQUID HYDROCARBON PRODUCTION</b>					
9. MEASUREMENT DONE ON LEASE, OFF LEASE, OR BOTH _____					
10. OFF LEASE MEASUREMENT APPROVED _____					
11. METHOD OF MEASUREMENT: METER _____					
TANK GAGE _____					
OTHER (SPECIFY AS B11 IN REMARKS) _____					
12. OTHER METHOD OF MEASUREMENT APPROVED _____					
13. METHOD OF MEASUREMENT SATISFACTORY _____					
14. VALVES SEALED/SEALABLE TO BITUMIN STANDARDS _____					
15. FACILITY DIAGRAMS SATISFACTORY _____					
16. IS PRODUCTION STORED ON LEASE, OFF LEASE OR BOTH _____					
17. OFF LEASE STORAGE APPROVED _____					
18. LIQUID HANDLING EQUIPMENT SATISFACTORY _____					
<b>C. OIL, CONDENSATE, NATURAL GAS PRODUCTION</b>					
19. COMMINGLING DONE ON LEASE, OFF LEASE OR BOTH _____					
20. COMMINGLING APPROVED _____					
<b>D. NATURAL GAS PRODUCTION</b>					
21. TYPE OF GAS PRODUCTION: GAS WELL _____					
CLUSTERFIELD _____					
22. GAS DISPOSITION BY SALES _____					
USE ON SITE _____					
FLARING/VENTING _____					
OTHER (SPECIFY AS B22 IN REMARKS) _____					
23. FLARING/VENTING OR OTHER APPROVED _____					
24. GAS MEASURED ON LEASE, OFF LEASE, OR BOTH _____					
25. OFF LEASE MEASUREMENT APPROVED _____					
26. METHOD OF MEASUREMENT ORIFICE _____					
TURBINE METER _____					
ESTIMATION _____					
OTHER (SPECIFY AS B26 IN REMARKS) _____					
27. METHOD OF MEASUREMENT APPROVED _____					
28. METHOD OF MEASUREMENT SATISFACTORY _____					
29. GAS HANDLING EQUIPMENT SATISFACTORY _____					
30. ARE LIQUIDS REQUIRED TO BE COLLECTED? _____					
31. LIQUIDS COLLECTED FROM DRIPS SATISFACTORY _____					

# Analysis of Citations Issued by Six BLM Field Offices

Table III.1 shows the numbers of citations issued in fiscal years 1986, 1987, and 1988 by the six BLM field offices we visited. Table III.2 shows that more than half of these citations related to production, such as valves not being sealed properly.

**Table III.1: Citations Issued at Six BLM Field Offices in Fiscal Years 1986, 1987, and 1988**

Field office	FY 1986	FY 1987	FY 1988
Farmington			
Farmington East	134	156	195
Farmington West	73	106	176
	207	262	371
Buffalo	102	260	204
Great Falls	30	116	75
Kemmerer	4	7	21
Miles City	127	152	345
Rio Puerco	1	3	1
<b>Total</b>	<b>471</b>	<b>800</b>	<b>1,017</b>

Source. AIRS

**Table III.2: General Nature of Violations Cited**

Reason for issuance	FY 1986		FY 1987		FY 1988	
	No.	Pct.	No.	Pct.	No.	Pct.
Production	238	51	449	56	598	59
Surface	231	49	330	41	406	40
Safety	1	0 <sup>a</sup>	5	1	0	0
Administrative	0	0	10	1	4	0 <sup>a</sup>
Unidentified codes	1	0 <sup>a</sup>	6	1	9	1
<b>Total</b>	<b>471</b>	<b>100</b>	<b>800</b>	<b>100</b>	<b>1,017</b>	<b>100</b>

<sup>a</sup>Less than 1 percent

Source. AIRS

Table III.3 shows all possible specific violations and the total number of each violation for the six field offices we visited. The total numbers represent all data in AIRS through fiscal year 1988.

**Appendix III  
Analysis of Citations Issued by Six BLM  
Field Offices**

<b>Reason for citation issuance<sup>a</sup></b>	<b>Number<sup>b</sup></b>	<b>Percent</b>
<b>Administrative requirements</b>		
41. Sales and movement of oil and condensate are not documented according to minimum standards	0	0
42. Operator has not established a site security plan in accordance with minimum standards	0	0
43. Operator does not maintain a seal record	0	0
44. Operator does not have a self-inspection program	0	0
50. Failed to comply with a notice, written order, or instruction of the authorized officer	11	.2
52. Prepared, maintained or submitted false, inaccurate or misleading reports, notices, affidavits, records, data, or other written information	3	.1
53. Failure to obtain approval for specific operations	0	0
Citations coded to unidentified codes	194	3.6
<b>Total</b>	<b>5,410</b>	<b>100.0</b>

<sup>a</sup>Items numbered 1 through 40 represent citations resulting from the 40-point basic inspection checklist shown in app. II. Items numbered 41 through 53 are not directly related to the checklist.

<sup>b</sup>Includes 1,017 citations issued in FY 1988; 800 citations issued in FY 1987; 471 citations issued in FY 1986; 347 citations issued prior to FY 1986; and 2,775 undated citations; for a total of 5,410 citations.

<sup>c</sup>Less than 1 percent

Source: AIRS.

# Producing Oil and Gas Lease Inspections, Citations, Assessments, and Civil Penalties in Fiscal Year 1987

	AIRS <sup>a</sup>	Quarterly reports <sup>b</sup>
<b>Montana State Office</b>		
Production verification inspections	7	63
Inspections other than PVIs <sup>c</sup>	908	1,824
<b>Total inspections</b>	<b>915</b>	<b>1,887</b>
Citations <sup>d</sup>	1,114	632
Assessments and civil penalties		
Amount	\$26	\$2,750
Number issued	2	<sup>e</sup>
<b>New Mexico State Office</b>		
Production verification inspections	0	56
Inspections other than PVIs	2,751	5,548
<b>Total inspections</b>	<b>2,751</b>	<b>5,604</b>
Citations	5,514	3,312
Assessments and civil penalties		
Amount	0	\$30,250
Number issued	0	<sup>e</sup>
<b>Wyoming State Office</b>		
Production verification inspections	30	62
Inspections other than PVIs	1,433	2,444
<b>Total inspections</b>	<b>1,463</b>	<b>2,506</b>
Citations	1,528	1,142
Assessments and civil penalties		
Amount	\$1,625	\$1,850
Number issued	9	<sup>e</sup>

<sup>a</sup>Data from AIRS data base as of May 1988

<sup>b</sup>Data from state office summaries of quarterly reports prepared manually by field offices.

<sup>c</sup>Production verification inspections

<sup>d</sup>Data relate to all inspections performed; information is not available by type of inspection

<sup>e</sup>Not reported

# Comments From the Department of the Interior

Note: GAO comments supplementing those in the report text appear at the end of this appendix.



## United States Department of the Interior

OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20240

APR 01 1990

Mr. James Duffus, III  
Director, Natural Resources  
Management Issues  
General Accounting Office  
Washington, D.C. 20548

Dear Mr. Duffus:

The Department appreciates the opportunity to review the General Accounting Office (GAO) draft report, MINERAL REVENUES: "Shortcomings in Onshore Federal Oil and Gas Production Verification" (GAO/RCED-90-99). General and specific comments prepared by both the Bureau of Land Management (BLM) and the Minerals Management Service (MMS) on the draft report's findings and recommendations are enclosed for your incorporation into the final GAO report. The general comments included in Enclosure 1 are meant to inform GAO about the complexities and interrelationships found in an integrated minerals program as they relate to the findings. Enclosure 2 provides our response to the recommendations. Enclosure 3 outlines some specific comments by paragraph on the findings.

We also appreciate the time and effort your auditors spent in meeting with members of BLM on March 7, 1990, to clarify the issues, to ensure mutual understanding of the report content and to inform your auditors of BLM's recent initiatives implemented prior to and since completion of this report. My staff informs me that the meeting was extremely positive and beneficial to all involved. We especially appreciate the professionalism and cooperative attitude displayed by your staff.

Be assured that through ongoing internal reviews and responses to other audits and investigations, BLM has already recognized a number of the program deficiencies which your report identifies, and we are taking aggressive actions to remedy those deficiencies. We are implementing important initiatives, several of which respond directly to your recommendations, to strengthen our Inspection and Enforcement (I&E) program. As a result, we agree in general with all of your recommendations. Some of the findings relate to problem areas of which we were previously unaware, which further validates this report and allows timely initiation of corrective actions.

We agree that:

1. Current inspection procedures need to be improved to provide adequate assurance of production verification. A BLM task force has recently completed a comprehensive review of BLM's I&E strategy. The findings of that task force are currently under management consideration for a decision. BLM has

See comment 1.

GENERAL COMMENTS

Chapter 2 - Production Verification

The discussions between our respective staffs were very positive and constructive in developing a mutual understanding of "production verification" and what might constitute a more effective inspection program to adequately ensure production verification. This is probably the single key issue that has been raised on a recurring basis as a failing in the implementation of Interior's Inspection and Enforcement Program. We all agree that verifying all production in its pure sense means witnessing each and every sales transaction, verifying recorded information on the spot, and reviewing and comparing every sales, measurement, and production record to ensure the information is accurate and consistent. However, we are convinced that we all can agree that this is a prohibitively costly task. Importantly, we also can agree that BLM needs to do more than what is required under the current inspection strategy and that can be accomplished with current resources to adequately ensure production verification.

BLM believes that many inspection actions, alone or together, may constitute a program of production verification. These actions include witnessing or independently conducting measurement activities such as tank gauging to ensure accuracy, proper technique, and proper equipment; witnessing gas meter calibrations to ensure meter accuracy; witnessing oil meter provings to ensure accurate metering; comparisons of sales records with production reports and other operator measurement records; and independent calculation of gas production from gas production recording charts. All of these actions are currently part of BLM's program but in varying degrees of emphasis and priority.

BLM developed the most stringent form of production verification inspection--a month-long study of a lease operation involving witnessing and verifying each and every sales transaction, called a PVI, and incorporated it into inspection strategies during the past several years. These inspections have been utilized in the past both to resolve production accountability problems discovered through other inspections and on a random spot-check basis for "production verification."

Enclosure 1-1

Appendix VII  
Comments From the Department of  
the Interior

Chapter 5 - BLM/MMS Cooperation

In most instances, it is clear to the reader that a perceived lack of cooperation between BLM and MMS may be more a matter of misunderstanding between the agencies.

We agree that a joint evaluation of the Memorandum of Understanding (MOU) would be very constructive. Specifically identified in the BLM/MMS/BIA MOU is a section that outlines working procedures and authority for a Joint Steering Committee whose sole responsibility is to oversee implementation of the base MOU document. Through this Committee and since the present audit, BLM and MMS have worked to address each other's concerns.

Also, we believe that the conclusion at the end of the second paragraph, page 2, "Little has changed in the intervening 7 years" may be an overstatement. Page 23 describes some of MMS's responsibilities, but it does not address MMS's automated reviews of royalty payments and reporting, and MMS's tribal royalty audits. Together, these efforts have resulted in additional collections of more than \$634 million during those intervening years. While we concur that production verification is an important component of the overall royalty management process, the Department clearly does not permit ". . . the oil and gas industry to operate essentially on an honor system . . . ."

We agree that there are very valid pros and cons regarding the alternatives for placement of the I&E function. However, we strongly believe that the I&E function is integral to and interdependent with the operational approval function. As such, it cannot be efficiently split from BLM's overall oil and gas management program.

The inspection and enforcement functions for oil and gas operations of Federal and Indian lands were transferred to BLM from the MMS in 1982. The reasons for that transfer were: 1) the inspection and enforcement function is integral to BLM's multiple use and resource protection decisions; 2) retaining all operations and resource oversight functions in a single agency streamlines interagency management relationships and provides better service to the public and the Indians.

Enclosure 1-3

See comment 4.

See comment 5.

See comment 1.

Appendix VII  
Comments From the Department of  
the Interior

Inspection and Enforcement Strategy and a determination of the personnel and resources needed to implement any revisions to the Strategy. BLM has determined that previous commendable efforts to redirect existing and even shrinking resources in order to address immediate priorities through changes in priorities and procedures have opened BLM to criticism for the work foregone or incompletely covered and steadily reduced BLM credibility both within and outside the Department. A BLM task force has evaluated the effectiveness of current procedures, especially with regard to production accountability, and has developed those revised procedures that need to be conducted in order to address the recurring criticisms of the program and provide effective production verification. Second, the task force developed a range of levels of inspection goals for consideration. Last, BLM's task force estimated the manpower and resources that would be needed to implement the individual Strategy options.

The task force findings are in agreement with those of the OIG and GAO, that the present Strategy does not provide for adequate frequency of witnessing measurement actions or measurement/production record reviews and comparisons, or procedures that require those actions to be conducted routinely to ensure production accountability. The BLM is considering revised procedures that incorporate those actions on a routine basis and also increased frequency of conducting those inspection procedures. Further, the BLM is considering task force recommendations to provide the field offices the flexibility to conduct such intensive inspections on a significant sampling of all our leases, rather than repeatedly conducting such inspections on the same high priority leases annually as is required under the present Strategy. Low producing leases, which represent nearly 90 percent of the producing leases, pose potentially higher risks of production accountability problems because of the present low frequency of inspections on them. With this change, such leases would be inspected on a less predictable basis, which would significantly increase the effectiveness of the BLM inspection program. Also with regard to production accountability under BLM's Indian trust responsibilities, the task force has recommended a change that all producing Indian leases be inspected annually in order to more fully protect the Indian mineral interests. Recommended revisions if approved will significantly strengthen BLM's ability to ensure production accountability.

Enclosure 2-2



**Appendix VII  
Comments From the Department of  
the Interior**

Developing Proposed Rulemaking to Increase Operator Role in  
Production Verification

BLM is preparing proposed changes to Onshore Oil and Gas Order Nos. 3, 4, and 5 to require increased operator verification of purchaser measurement actions and retention of records for BLM review. Since operators have a 7/8ths interest in the oil and gas sold, they should take a more active role in verifying the production sold. This will supplement BLM inspection efforts to verify production.

Evaluating the Feasibility of Contract Inspections

BLM is evaluating the cost effectiveness and feasibility of using contract inspectors as a means of extending I&E coverage. A Request for Information has been prepared for publication in the Commerce Business Daily to determine the availability of commercial sources for inspections.

Consolidation of Inspector Resources for Efficiency to be Evaluated

BLM will evaluate and identify those areas where consolidation or sharing of inspector resources between offices would provide more cost effective coverage of inspection goals and more efficient use of inspector resources, enhance the necessary close coordination between inspectors and engineers and ensure the maximum capability for on-the-job training and "mentoring" by experienced personnel. For those offices where efficiencies can be improved, the appropriate actions will be initiated.

Considering Stricter Penalties

BLM is preparing a Notice of Intent soliciting information regarding the utility of a Proposed Rulemaking to add instances of noncompliance to the existing regulations for which immediate monetary fines can be imposed. The proposed rulemaking would include provisions to crack down on repeat offenders with immediate monetary fines under certain criteria.

**CHAPTER 3 - I&E PROGRAM OVERSIGHT**

RECOMMENDATION

"To ensure that BLM's inspection and enforcement program is consistently implemented, we recommend that the Secretary of Interior require the Director of BLM to strengthen program oversight, including the following specific actions:

- develop standard guidelines for state offices program reviews and conduct such reviews annually:

Enclosure 2-4

Appendix VII  
Comments From the Department of  
the Interior

TPR Guidelines Being Developed

TPR guidelines are currently being developed by the BLM WO for adequate State oversight of the field level I&E program. This guidance will greatly enhance nationwide consistency, accountability, and the ability to identify area-specific program weaknesses and resource allocation needs for prompt correction. TPR evaluation criteria will also be supplemented by the issuance of the I&E manual and handbooks for BLM's Onshore Oil and Gas Orders, which are also currently being developed.

Internal Control Reviews Scheduled

The BLM WO will conduct an Internal Control Review of the Indian portion of the I&E program, due to be completed in July 1991, followed by an Alternative Internal Control Review (AICR) of the Federal lands I&E program during FY 1991 and 1992, due to be completed in July 1992.

Review of Annual Field Office I&E Plans

After the revised I&E Strategy is finalized by BLM Washington, field offices will be asked to prepare and to submit an annual plan for accomplishing current I&E program objectives. These annual plans will be reviewed by BLM Headquarters to assure consistency with the overall Inspection/Enforcement program strategy and objectives. Field Offices will subsequently provide quarterly reports to provide a basis for assessing actual performance against the annual plan. In this manner, BLM Washington will monitor field accomplishments and provide the necessary program oversight over field I&E activities.

Field Assistance Visits Under Consideration

BLM will consider instituting a program of Field Assistance Visits by a small team of inspectors led by Washington Office personnel, to assist the field offices in resolving I&E program implementation problems, to provide on-the-job training, and to ensure consistent understanding and implementation of technical policies and guidance. The team will assist the field offices in identifying needed program improvements, which the offices will be responsible for implementing.

Manager Training Being Developed

An "I&E for Managers" course is being developed by the Bureau's Phoenix Training Center to better educate supervisors and managers in the specific workings of the program, interrelationships with other portions of the Fluid Minerals Program, and the recent initiatives outlined here. The course should be ready for implementation in early FY 1991.

Enclosure 2-6

Appendix VII  
Comments From the Department of  
the Interior

clearly communicated to the field office in subsequently issued Directives. Data in the AIRS system will be used for development, implementation, and follow up for the annual I&E strategy, replace the Quarterly Inspection and Enforcement report, be used to record all drilling, production, and abandonment inspections, and issuance and followup of all BLM initiated enforcement actions, approvals, etc. In addition, and most important, it will be used as a work load analysis, budget, and resource allocation tool by all organizational levels including the Washington Office.

BLM to Require Automation Skills

The BLM has recently placed a considerable emphasis on automated system use and computer literacy as evidenced in a recent requirement for all staff to have elements on automation skills and understanding in all Position Descriptions and Performance Appraisals as well as inclusion of an automation element in all employees Individual Development Plans.

BLM is Developing AIRS Database Quality Assurance Plan

An AIRS Data Quality Assurance Plan is currently being developed to ensure that a comprehensive set of procedures is in place for data entry, verification, and use. The plan will contain guidance on the following subjects:

- 0 Timeliness of data entry and review of those data.
- 0 Responsibility for verification and compliance at various organizational levels.
- 0 Identification of data elements for which data is: required to be entered and is critical to the program requiring the highest degree of accuracy; required to be entered but not critical and not requiring as high a level of accuracy; and data elements available for field use but data is not required to be entered.
- 0 Reports required to be run in AIRS and frequency of such reports to enable determination of data quality levels.
- 0 Hardware and software configuration management directives.
- 0 System documentation.
- 0 User documentation.
- 0 Data security procedures.

Enclosure 2-8

Appendix VII  
Comments From the Department of  
the Interior

RECOMMENDATION

"-- monitor field office compliance with the minimum requirements and procedures to ensure consistent implementation"

BLM to Continue Ongoing Monitoring of Database

Once formal and centralized guidance is established on data standards, requirements, and procedures, monitoring of field office compliance will occur through Washington Office staff participation in AICR's, ICR's, and TPR's as requested. Service Center Staff will also be directed to continue to monitor the AIRS database on a high level to review critical data elements as identified by the Washington Office. Additional monitoring will take place as offices are reviewed for their compliance with the Quality Assurance Plan.

RECOMMENDATION

"-- reconsider additional AIRS edits to further insure the accuracy of the AIRS data."

Maximum Edits in Place with AIRS Version 3.00 in May 1990

With the implementation of AIRS Release 3.00 scheduled for nationwide release in May 1990, the maximum number of individual field edits will be in place in AIRS. Open and close dates are now edited individually. Some fields such as inspector name or IID cannot be edited completely because of the wide variation of possible values. Interactive edits between two or more date elements are being planned for inclusion in a rewrite of the AIRS system in FY 1991. An example of an interactive edit would be editing the production rating for inspection priority against the production values for average oil and gas in the same section. In addition to these edits, a number of reports have been implemented in previous AIRS releases to identify to the field areas where data is in need of further cleanup, such as inspections not closed out or empty inspections.

CHAPTER 5 - BLM/MMS COOPERATION

RECOMMENDATION

"We recommend that the Secretary of the Interior require the Directors of BLM and MMS to jointly evaluate whether the current Memorandum of Understanding adequately addresses BLM's concerns regarding timeliness and law enforcement."

Enclosure 2-10

Appendix VII  
Comments From the Department of  
the Interior

SPECIFIC COMMENTS ON FINDINGS

Penalty Reduction

Page 22, line 8: The State Director is not empowered to reduce penalties. Suggest placing a period after "assessments" and deleting "or penalties."

Jurisdiction for Kansas

Page 24, last paragraph: Kansas is under the jurisdiction of the New Mexico State Office. Delete "Kansas" from the Wyoming group and add "Kansas" to the New Mexico group.

Pilot Productivity Districts

Page 31, line 5: It should be stated that the Rock Springs District is one of two districts in a test program and is authorized to modify Bureau standards in conducting its regulatory program.

I&E Program Management

Page 35, last paragraph: Suggest a rewrite of the second, third, and fourth sentences. "When the Inspection and Enforcement Division was disbanded, its chief was transferred to a State Office and the staff was merged into the Division of Mineral Lease and Reservoir Management. These staff members continued providing technical, procedural, and policy advice to all field offices. They received, for comment, copies of State Office annual inspection plans. One of the staff members told us . . . ."

Editorial

Page 39, second paragraph, line 6: Insert "had" between "they" and "confidence."

Priority Ranking Errors Clarified

Page 53, next to last paragraph: The gravity of the statement at the top of page 52 is not supported by the findings. If a total of 209 (151 + 58) leases were indeed incorrectly assigned priorities, the error rate for the total number of leases reviewed (5990) is less than 3.5 percent. The report indicates 58 leases were incorrectly assigned a low priority and 323 (474 - 151) were properly reported as high priority. Therefore, 15 percent (58 of 323) of the high priority leases would have been miscoded. This error rate may not be laudatory, but neither does it support GAO's findings in this section. Additionally, the conclusion that improper ranking occurred was based on a comparison of the priority

See comment 4.

See comment 3.

See comment 7.

Enclosure 3-1

---

**Appendix VII  
Comments From the Department of  
the Interior**

See comment 4.

Jurisdiction for Kansas

Page 73: Delete Kansas from the Wyoming group and add Kansas to the New Mexico group.

Pages 74 and 75, subscript b: Add Kansas.

Pages 74 and 75, subscript c: Delete Kansas.

Enclosure 3-3

However, we continue to believe that because BLM does not ensure that oil and gas production is accurately reported for the computation of royalties, the industry is essentially operating on an honor system.

6. Interior is correct that it does not have authority under FOGRMA to use probability sampling of high-priority leases to satisfy the requirement for annual inspections of such leases. We have modified our recommendations in chapter 2 to urge Interior to consider sampling as it revises its inspection strategy, and if Interior determines that sampling may be more effective than annual inspections of all high-priority leases, Interior should ask the Congress to amend FOGRMA accordingly.

7. Interior stated that for some leases in AIRS, priority rankings were changed, but not the production data for those leases. Therefore, according to Interior, the priorities may be correct, regardless of the production data found in AIRS. For our analysis, we used AIRS production and compliance data to determine whether the inspection priorities in AIRS were correct. Because we found that priorities in AIRS often did not agree with production and compliance data, we concluded that AIRS was unreliable as a management tool for determining whether inspection priorities were correct. We clarified this matter in chapter 4.

8. Interior stated that use of oral warnings has not been authorized on a nationwide basis. However, we found that in 1988 BLM formally adopted the recommendations of its 1986 task force, one of which was to authorize the use of oral warnings. Subsequently, we discussed this matter with BLM's Chief, Compliance and Operations Branch. He said that Interior's comment was incorrect. Therefore, we made no change to the report.

9. Interior said that written orders do count against operators' compliance histories and are tracked in AIRS. However, in 1988 BLM formally adopted its 1986 task force recommendations, one of which stated that written orders do not carry either the inherent threat of monetary penalties or the negative connotation of citations. Subsequently, we discussed this matter with BLM's Chief, Compliance and Operations Branch. He said that Interior's comment was incorrect. Therefore, we made no change to the report.

10. Interior expressed concern that AIRS should not be expected to track enforcement actions, such as court judgments, against operators, if they occur outside of BLM. Subsequently, we discussed this matter with BLM's Chief, Compliance and Operations Branch. We agree that BLM should not

# Major Contributors to This Report

---

Resources,  
Community, and  
Economic  
Development Division,  
Washington, D.C.

Robert W. Wilson, Assistant Director  
Leonard W. Ellis, Assignment Manager

---

Denver Regional  
Office

Sue Ellen Naiberk, Evaluator-in-Charge  
Kathleen Arnold, Site Senior  
Felicia Turner, Programmer Analyst



Requests for copies of GAO reports should be sent to:

U.S. General Accounting Office

Post Office Box 6015

Gaithersburg, Maryland 20877

Telephone 202-275-6241

The first five copies of each report are free. Additional copies are \$2.00 each.

There is a 25% discount on orders for 100 or more copies mailed to a single address.

Orders must be prepaid by cash or by check or money order made payable to the Superintendent of Printing, U.S. Government Printing Office, Washington, D.C. 20540.





---

**Appendix VII**  
**Comments From the Department of**  
**the Interior**

---

be expected to track actions that do not involve federal or Indian leases. The branch chief told us that external enforcement actions involving federal or Indian leases are usually recognized and handled by means of direct instructions to appropriate field offices to increase the number of inspections on affected leases. However, we believe that all enforcement actions involving federal or Indian leases should be part of operators' compliance histories and therefore should be recorded in AIRS, BLM's official data base for the inspection and enforcement program. We have revised chapter 4 accordingly.

---

The following are GAO's comments on the Department of the Interior's letter dated April 5, 1990.

---

## GAO Comments

1. Interior agreed, in general, with all of this report's recommendations and noted that BLM has taken or planned several actions to address our concerns. We have not verified these actions, nor have we evaluated their effect on the program. However, we believe that if these actions are effectively implemented, they will significantly improve the inspection and enforcement program. We have recognized Interior's actions in chapter 6.
2. Interior disagreed with our statement that the results of its 1986 test of production verification inspections could be interpreted to show that such inspections are cost-effective. Interior noted that the one lease for which additional royalties were collected was not randomly selected. However, as we pointed out, BLM was unable to document how any of the inspected leases were selected, including whether they were high-priority leases. Because of this, we concluded that BLM should not use that test to draw conclusions about the usefulness of random production verification inspections. Nevertheless, we are pleased to see that Interior has identified several corrective actions BLM has taken or planned to improve its inspection strategy, including consideration of random production verification inspections. If BLM's corrective actions are effectively implemented, they will address some of our concerns.
3. Interior commented that we had overstated the seriousness of the effect of AIRS data errors in the management of the inspection and enforcement program. However, we still believe that the quantity and types of data errors that we found make AIRS of limited use in managing the program. We modified our statement in chapter 4 to clarify our view. Regardless, Interior identified several corrective actions BLM has taken or planned to improve its management of AIRS, including measures to improve data accuracy. If BLM's corrective actions are effectively implemented, they will address some of our concerns.
4. Changes have been made to the report in response to certain comments in Interior's letter.
5. Interior disagreed with our statement that because BLM does not ensure accurate reporting of production, the oil and gas industry essentially operates on an honor system. Our report recognizes that other functions within Interior help ensure accurate reporting of royalties.

Appendix VII  
Comments From the Department of  
the Interior

coded in the database against the average production coded in the database. The priorities assigned are in all likelihood correct even though the seven rating factors and the average oil and gas production values may not appear to support that priority ranking. Comparison of actual production values against the coded priority was not evaluated by GAO. In most cases the field offices have been found to be updating only the overall priority ranking each year and not correctly updating all other fields in the priority section, including the oil and gas production values. Future directives will require this data to be updated at a specified frequency.

Checklist Errors Clarified

See comment 3.

Page 58, last paragraph: Again, the gravity of the statement is not supported by the findings. The errors referenced in this section are errors on the 40-item checklist section of the AIRS data. Rather than expressing the error rate in terms of the percent of checklists that had an error in any record (71 of 199 or 36 percent), the error rate should be expressed in terms of the percentage of data elements that were in error. In the event that there was an average of as many as five errors in each checklist that contained at least one error, this would result in a rate of five errors times 71 checklists out of 40 data elements times 199 checklists, or less than 4.5 percent (355 of 7960).

Enforcement Actions Tracking Clarified

See comment 8.

Page 60, third paragraph: Informal enforcement actions have not been sanctioned by this office. A few offices have been approved to use verbal warnings on a trial basis, but this policy has not been implemented on a nationwide basis. Written orders do count against an operator's noncompliance record. This is considered an enforcement action and as such is documented and tracked in AIRS. All enforcement actions initiated by the BLM will be tracked in AIRS.

See comment 9.

See comment 10.

Page 60, fourth paragraph: AIRS was not designed to track enforcement actions outside the BLM. Any enforcement action issued by the local BLM office can be tracked up to and including correction, and if appealed to the State Director or IBLA. Any other actions such as court judgments would not be appropriate to include in the AIRS data base and would be inconsistent with the current use of AIRS data. These actions would not have any impact on an operator's compliance history and/or development of the I&E strategy.

Enclosure 3-2

Appendix VII  
Comments From the Department of  
the Interior

We agree that some areas of cooperation and information exchange need improvement, although efforts over the past 6 years have reduced such problems significantly.

To promote closer coordination between MMS and BLM and ensure responsive action by both agencies concerning administration of a minerals program that adequately accounts and verifies production volumes and payment of correct royalties, BLM and MMS will pursue the following actions.

MMS/BLM Cross Training Efforts Will be Increased

Cross training for appropriate personnel to enhance understanding of the other Bureau's procedures will be increased. This will improve timeliness of royalty and production data access, which greatly facilitates BLM's production accountability and MMS's royalty determination functions.

MMS/BLM Meeting on Law Enforcement Scheduled

A meeting has been scheduled for April 1990, between MMS and BLM to discuss better coordination in law enforcement matters. This meeting is part of continuing discussions to improve the coordination between the Bureaus on matters pertaining to criminal investigations related to the extraction and sale of both Federal- and Indian-owned minerals.

Steering Committee Will Review the Current MOU

The GAO's concerns regarding the effectiveness of the BLM/MMS/BIA MOU for interagency information sharing will be brought to the Steering Committee at the next meeting.

We expect that the Steering Committee will initiate a review of the MOU and make any necessary improvements or changes to enhance timely interagency information exchange and the effectiveness of coordination of criminal investigations.

We will inform you of the results of our next Steering Committee Meeting and keep you advised as to our efforts and progress in improving interagency cooperation and information sharings.

Enclosure 2-11

RECOMMENDATION

"-- develop and issue guidance providing minimum AIRS requirements and procedures, including procedures to open and close inspection records and to verify the accuracy of data entered into AIRS"

BLM to Prepare Central Directives on Requirements and Procedures

Since the initiation of the GAO review in May of 1988, additional guidance has been issued regarding AIRS requirements and procedures. During the period of May 1988 through March 1990 Instruction Memoranda have been issued to the field giving specific guidance regarding minimum standards and procedures for AIRS data entry and use. These directives cover topics such as entry of inspection item identifications (IID) by type of agreement, well status, formation, completion codes, operator name changes, I&E strategy development implementation and tracking, open and close dates, effective dates for changes and noncompliance actions, legal land descriptions, and other issues identified as needing further guidance. Previously issued guidance is currently being compiled and reviewed and will be reissued as a part of the Bureau's directives system.

AIRS Program Updated with Quality Control Reports

In addition to these directives, new versions of AIRS have been released to the field, with another major release planned for May 1990. The issued releases included additional reports to identify data in need of cleanup.

AIRS User Group Formed

In addition to the actions listed above, an AIRS and MRO user group has been formed as of May 1989. This user group comprises field office representatives from the nine BLM State Offices that have AIRS databases. These individuals are inspectors, data entry clerks, and managers using AIRS data. Some of the functions of the group are to identify weakness in AIRS data and data standards as well as identification of needed data edits.

BLM Increases Efforts to Validate Database

Efforts to verify the accuracy of the AIRS database have been initiated and will continue. Three State Office TPR's have been conducted in the last year in which AIRS data has been reviewed for consistency and problem areas identified for correction. Additionally, a project to verify the accuracy of the data and to improve the quality of data Bureauwide for selected critical elements was completed.

Enclosure 2-9



Appendix VII  
Comments From the Department of  
the Interior

Nationwide I&E Workshop Scheduled

A nationwide I&E workshop is scheduled to bring program managers as well as on-the-ground inspectors together to create consistent understanding of the new I&E strategy and related Onshore Orders, and discuss program problem areas and feasible solutions. Results of the workshop will be distributed to all field offices and will provide a basis for consistent administration and TPR evaluation criteria of select program components.

Supervisory Position Description Standards to be Reviewed

As a result of both a program evaluation scoping done by the BLM Division of Program Evaluation and an AICR conducted by the Division of Fluid Mineral Lease and Reservoir Management, recommendation was made for the enhancement of field supervisor and management expertise. The AICR contains a specific recommendation for revision of position descriptions (PD) for field office personnel directly involved in I&E program supervision and management. The revised PD standards will incorporate criteria for technical expertise. This effort will be expanded to incorporate an evaluation of supervisor review and documentation standards included in the above recommendation.

Staffing Level Analysis and Revision

BLM is currently developing revisions to the I&E strategy, which identify aggregate field staffing levels necessary to accomplish alternate inspection frequency options. The Director will make a decision on implementing one of the strategy option proposals in the near future.

BLM will subsequently review and further define I&E staffing levels and develop standard criteria by which managers will be able to determine field office specific staffing and resource allocation needs. These criteria will consist of items such as well inventory and type, anticipated future development, technical inspection difficulties, and diversity of operations for a given area.

CHAPTER 4 - AIRS/MRO PROGRAM

The following 3 actions respond generally to all of the recommendations in this chapter.

AIRS Database Use to Increase

BLM believes that the quality of the data in any automated system is directly tied to the user's understanding and use of the system and data. The requirement to use AIRS as a workload and program management tool will be

Enclosure 2-7

Appendix VII  
Comments From the Department of  
the Interior

- establish minimum standards for supervisory responsibilities, expectations, review and documentation:
- evaluate current staffing levels and develop staffing standards"

RESPONSE

BLM recognizes that insufficient program oversight has been provided for the I&E program since 1987 at all levels. This has been borne out by BLM's own internal review conducted in the third quarter of 1989, as well as by the Report of the Office of the Inspector General on the I&E and Related Programs and by the subject report. Early in the third quarter of FY 1989, BLM initiated a number of actions to substantially strengthen program oversight at all levels and has developed additional actions since that time. These program initiatives are described below.

Field Office Technical and Procedural Reviews Initiated

Beginning in April 1989, several State Offices initiated or scheduled formal Technical and Procedural Reviews (TPR's) of field office I&E programs. In addition, as indicated in the report, some BLM field offices have had longstanding and continuing programs of field office review. During the remainder of FY 1989, 12 district offices in 5 States were reviewed. Of those FY 1989 reviews, Washington Office personnel participated in three reviews. Six district offices in five States have been or are scheduled to be reviewed in FY 1990, and Washington Office (WO) personnel have or will participate in a number of these reviews. We believe this is a very strong effort on the part of the field offices to significantly strengthen oversight of the I&E program, and that Washington Office participation in a significant number of these reviews will serve as one of several mechanisms to ensure more program consistency.

Increase Program Staffing at the Washington Level

Ability by the BLM Headquarters to participate in field TPR's has recently been enhanced by the addition of two I&E positions in BLM's Division of Fluid Mineral Lease and Reservoir Management. These two positions are in program guidance and oversight. Further field support by the BLM WO will come from the added technical engineering, and AIRS/MRO expertise recently acquired by the BLM WO.

Enclosure 2-5

Appendix VII  
Comments From the Department of  
the Interior

The revised strategy options also include the staffing and funding estimates to meet inspection goals and objectives. The task force review recognized the need for increased numbers of accountability inspections and also for a balanced program to include drilling, abandonment, and environmental and public health and safety inspections.

Peer Review and Validation of Inspection Strategy

BLM plans to validate its inspection Strategy by convening a peer review group to evaluate the proposed revised inspection Strategy.

Minimum Measurement and Site Security Standards for Industry Recently Issued

BLM has also addressed the issue of production verification through issuance of Onshore Order No. 3 (Site Security), and Onshore Order Nos. 4 and 5 (oil and gas measurement respectively) during the past year.

Onshore Order No. 3 establishes minimum standards for site security by providing a system for production accountability and covers the use of seals, bypasses around meters, self inspection, and transporter documentation requirements, unauthorized removal or mishandling of oil and condensate, facility diagrams, recordkeeping and site security plans.

Among the standards is required submission of a site security plan that includes a self-inspection program to monitor production volumes.

Onshore Order No. 4 establishes requirements and minimum standards for the measurement of oil and to provide standard practices for lease oil storage and handling facilities. Proper oil measurement ensures that the Federal Government and Indian mineral owners receive the royalties due.

Onshore Order No. 5 establishes minimum standards for the proper measurement of gas and for the conservation of natural resources. Proper gas measurement ensures that the Federal Government and Indian mineral owners receive the royalties due.

Enclosure 2-3

Appendix VII  
Comments From the Department of  
the Interior

Response to Recommendations  
Draft Report by the General Accounting Office

MINERAL REVENUES: "Shortcomings in Onshore Federal  
Oil and Gas Production Verification"  
(GAO/RCED-90-99)

CHAPTER 2 - PRODUCTION VERIFICATION

RECOMMENDATION

"Because basic checklist inspections do not ensure accurate reporting of production, we recommend that the Secretary of the Interior require the Director of BLM to determine whether, using available resources, alternative inspection strategies would better identify significant under reporting of production. Such a determination should explore using production verification inspections on randomly selected leases, as well as consideration of whether probability sampling of high production leases for inspection would satisfy the legislative requirement for annual inspections."

RESPONSE

BLM agrees with GAO that current Level I inspections do not include sufficient requirements for and frequency of witnessing individual operator measurement actions and production measurement and reporting record reviews and comparisons to adequately assure effective spot check of production verification and deterrence for misreporting.

BLM has also determined that probability sampling of high priority leases would not satisfy the legislative requirement for annual inspections of leases with significant production or those with a history of noncompliance.

The actions BLM is taking to improve production verification are described below.

Alternative Inspection Strategies Under Consideration

BLM has recently undertaken a number of important program improvement initiatives in order to address both recent and recurring criticisms by outside investigations. Key among those initiatives is an internal task force review of the Nationwide

See comment 6.

See comment 1.

Enclosure 2-1

Appendix VII  
Comments From the Department of  
the Interior

See comment 2.

See comment 1

As acknowledged in the report, BLM has evaluated this inspection type and has concluded that the resources and inspection time required for these inspections cannot be justified for use on a routine basis, considering the minor royalty value of the production accountability problems discovered in BLM's experience. In point of fact, the successful New Mexico production verification inspection cited by GAO as demonstrating the cost benefit of those inspections was misleading because GAO had incomplete information. That inspection should not have been included in the random sample test by BLM since the production accountability problem resulting in the large amount of royalty due had previously been identified by a Level 1 type inspection. BLM strongly believes that more leases can be inspected more cost effectively and more accountability problems identified with less intense procedures than those employed in a FVI. FVI's do, however, have a place in BLM's inspection program as a followup to resolve production accountability problems in certain specific cases.

BLM believes that production can be most cost-effectively verified for the greatest number of leases on a spot-check basis by witnessing a measurement, meter calibration, or proving action and reviewing and comparing sales and measurement records with production reports for accuracy and reasonableness. BLM is currently considering revisions to its inspection strategy and associated procedures to incorporate these elements to be required on a routine and more frequent basis.

Chapter 4 - AIRS/MRO Program

See comment 3.

See comment 1.

BLM agrees with each of the three recommendations of the report. In general we agree with the findings of the report, we disagree with the statement at the top of page 52 to the effect that the AIRS data is so unreliable that it cannot be used meaningfully to fulfill the system's objectives. Numerous actions have been undertaken to correct problem areas identified by the GAO review.

It should be noted that the level of quality has significantly improved in the AIRS data since the GAO completed its review in July of 1989. AIRS was implemented in September 1986, replacing the USGS MS-1 system. The MS-1 system had fewer quality controls, and the data in AIRS that was carried over from MS-1 has a much lower level of quality than data entered since 1987. The AIRS system was relatively new--less than 3 years old--when the GAO conducted its review. The system was still evolving. Individual users were still being trained and gaining a better understanding of the use of the system. The staff at all levels of the BLM, traditionally not computer oriented, have continued to gain a better understanding and have increased its use and dependency on automated systems to implement and monitor the I&E program.

Enclosure 1-2

**Appendix VII  
Comments From the Department of  
the Interior**

2

recently issued minimum industry standards for measurement and site security and is also developing proposed rulemaking which would increase the operator's role in production verification, evaluating the feasibility of contract inspections, considering the advisability of establishing stricter penalties for noncompliance, and planning a peer review validation of the inspection strategy.

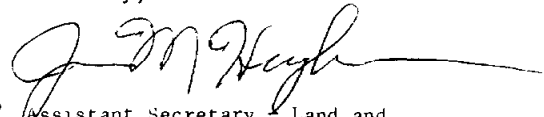
2. Program oversight by the BLM needs to be strengthened. BLM is implementing several corrective actions such as guidance for, review of, and participation in field level Technical and Procedural Reviews, increased Washington Office staffing, Internal and Alternative Internal Control Reviews, I&E training and position description standards for managers, a nationwide I&E workshop, and field staffing level analysis.

3. The Automated Inspection and Recordation System (AIRS) database is still in a validation stage and is undergoing needed improvement. Recent initiatives such as new position description and performance appraisal standards for automation and training for involved staff, AIRS validation, monitoring, quality assurance plans, updates, and central directives on requirements and procedures have been implemented, or will be shortly, since the initiation of GAO's study.

4. Concerns regarding the adequacy of the BLM/MMS/BIA Memorandum of Understanding in assuring effective interagency information exchange will be brought to the Joint Steering Committee for consideration.

Thank you for the opportunity to comment. The Department values your assistance in objectively evaluating our oil and gas production accountability and verification programs which can only result in more efficient and comprehensive administration of the Federal and Indian mineral estate.

Sincerely,



**Deputy** Assistant Secretary Land and  
Minerals Management

Enclosures

# Producing Oil and Gas Lease Inspections, Citations, Assessments, and Civil Penalties in Fiscal Year 1988

	AIRS <sup>a</sup>	Quarterly reports <sup>b</sup>
<b>Montana State Office</b>		
Production verification inspections	13	72
Inspections other than PVIs <sup>c</sup>	1,464	1,927
<b>Total inspections</b>	<b>1,477</b>	<b>1,999</b>
Citations <sup>d</sup>	1,257	686
Assessments and civil penalties		
Amount	\$3,506	\$6,250
Number issued	13	<sup>e</sup>
<b>New Mexico State Office</b>		
Production verification inspections	0	17
Inspections other than PVIs	2,702	3,717
<b>Total inspections</b>	<b>2,702</b>	<b>3,734</b>
Citations	1,669	1,746
Assessments and civil penalties		
Amount	\$2,522	\$2,000
Number issued	8	<sup>e</sup>
<b>Wyoming State Office</b>		
Production verification inspections	15	<sup>f</sup>
Inspections other than PVIs	2,817	<sup>f</sup>
<b>Total inspections</b>	<b>2,832</b>	<sup>f</sup>
Citations	927	<sup>f</sup>
Assessments and civil penalties		
Amount	\$9,000	<sup>f</sup>
Number issued	27	<sup>f</sup>

<sup>a</sup>Data from AIRS data base as of July 1989.

<sup>b</sup>Data from state office summaries of quarterly reports prepared manually by field offices

<sup>c</sup>Production verification inspections

<sup>d</sup>Data relate to all inspections performed; information is not available by type of inspection.

<sup>e</sup>Not reported.

<sup>f</sup>Wyoming State Office did not require quarterly reports.

# Producing Oil and Gas Lease Inspections, Citations, Assessments, and Civil Penalties in Fiscal Year 1986

	AIRS <sup>a</sup>	Quarterly reports <sup>b</sup>
<b>Montana State Office</b>		
Production verification inspections	0	30
Inspections other than PVI <sup>c</sup> s	628	1,462
<b>Total inspections</b>	<b>628</b>	<b>1,492</b>
Citations <sup>d</sup>	178	840
Assessments and civil penalties		
Amount	0	\$8,250
Number issued	0	<sup>e</sup>
<b>New Mexico State Office</b>		
Production verification inspections	1	84
Inspections other than PVI <sup>c</sup> s	4,914	8,340
<b>Total inspections</b>	<b>4,915</b>	<b>8,424</b>
Citations	2,956	5,656
Assessments and civil penalties		
Amount	0	\$12,000
Number issued	0	<sup>e</sup>
<b>Wyoming State Office</b>		
Production verification inspections	2	76
Inspections other than PVI <sup>c</sup> s	1,433	2,409
<b>Total inspections</b>	<b>1,435</b>	<b>2,485</b>
Citations	660	1,597
Assessments and civil penalties		
Amount	0	\$8,040
Number issued	0	<sup>e</sup>

<sup>a</sup>Data from AIRS data base as of May 1988

<sup>b</sup>Data from state office summaries of quarterly reports prepared manually by field offices.

<sup>c</sup>Production verification inspections

<sup>d</sup>Data relate to all inspections performed, information is not available by type of inspection.

<sup>e</sup>Not reported



**Appendix III  
Analysis of Citations Issued by Six BLM  
Field Offices**

**Table III.3: Total Specific Violations Cited in AIRS for the Six Field Offices**

<b>Reason for citation issuance<sup>a</sup></b>	<b>Number<sup>b</sup></b>	<b>Percent</b>
<b>Surface requirements</b>		
1. Site is not properly identified	1,341	24.8
2. Well equipment is not satisfactory	290	5.4
3. Environmental protection is not satisfactory	460	8.5
4. Temporary or emergency pits are not approved	226	4.2
5. Pits are not satisfactory	56	1.0
6. Surface use is not in accordance with approved plan	109	2.0
<b>Production</b>		
7. Monthly Report of Operations is not complete and accurate	28	.5
8. Monthly Report of Operations [does not] confirm the reasonableness of:	63	1.2
a. Production vs. sales		
b. Tank capacity vs. inventory		
c. Well status vs. actual status		
<b>Liquid hydrocarbon production</b>		
10. Off-lease measurement is not approved	5	.1
12. (Other) method of measuring oil and condensate is not approved	1	0 <sup>c</sup>
13. Method of measuring oil and condensate is not approved	27	.5
14. Valves are not sealed in accordance with minimum standards	1,491	27.6
15. Site facility diagram is not satisfactory	210	3.9
17. Off-lease storage of oil and condensate is not approved	0	0
18. Liquid handling equipment is not Satisfactory	266	4.9
<b>Oil, condensate, natural gas production</b>		
20. Commingling is not approved	6	.1
<b>Natural gas production</b>		
23. Flaring or venting... is not approved	28	.5
25. Off-lease measurement is not approved	6	.1
27. Method of measurement (other than orifice meter) of natural gas is not approved	2	0 <sup>c</sup>
28. Method of measuring natural gas is not satisfactory	54	1.0
29. Natural gas handling/treating equipment is not satisfactory	31	.6
31. Collection of liquids is not satisfactory	3	.1
<b>Water disposal</b>		
33. Water disposal method is not approved	36	.7
35. Disposal of water is not satisfactory	451	8.3
<b>Safety (hydrogen sulfide operations)</b>		
37. Tank batteries are not properly equipped	5	.1
38. Warning signs are not properly installed	2	0 <sup>c</sup>
39. If required, the contingency plan is not available	1	0 <sup>c</sup>
40. Personnel are not properly protected	4	.1

(continued)



---

because it is BLM's official record system for the inspection and enforcement program, we believe that the data are unreliable (see ch. 4). We discussed our findings with BLM and MMS officials, obtained official comments from the Department of the Interior, and incorporated those comments where appropriate.

Table I.3: Field Offices Reviewed

State office	Size	Field office	Leases <sup>a</sup>
New Mexico	Largest	Farmington Resource Area	
		Farmington East <sup>b</sup>	1,759
		Farmington West <sup>b</sup>	1,780
			3,539
	Smallest	Rio Puerco Resource Area	168
Wyoming	Largest	Buffalo Resource Area	867
	Smallest	Kemmerer Resource Area	183
Montana	Largest	Great Falls Resource Area	742
	Smallest	Miles City District Office	425

<sup>a</sup>As of July 1988

<sup>b</sup>Farmington Resource Area's inspection and enforcement program is divided into East and West, with separate geographical areas, staffs, procedures, and AIRS data responsibilities.

Source: AIRS.

The district offices responsible for the four resource area offices we selected in New Mexico and Wyoming coordinate the inspection and enforcement programs for their respective resource areas. These district offices are the Albuquerque District Office, New Mexico (for both Farmington Resource Area and Rio Puerco Resource Area); Casper District Office, Wyoming (for Buffalo Resource Area); and Rock Springs District Office, Wyoming (for Kemmerer Resource Area). The Lewistown District Office in Montana is responsible for the Great Falls Resource Area, but the district office has no inspection and enforcement program responsibilities.

We generally limited our review of program implementation and data to fiscal years 1986, 1987, and 1988.

## Methodology

To evaluate the adequacy of BLM's production inspections and management controls over program implementation, we interviewed program headquarters officials in Washington, D.C.; program coordinators in the three state offices (Montana, New Mexico, and Wyoming); program coordinators at the three district offices that have a coordination role; and inspectors, supervisors, and managers at the six field offices identified in table I.3. We also reviewed pertinent legislation and regulations; program strategies issued by BLM headquarters for fiscal years 1986, 1987, and 1988; any modifications or clarifications to these that were issued by the three state offices; and other relevant documentation at state and field offices.

---

# Objectives, Scope, and Methodology

---

## Objectives

In a May 13, 1988, letter, the Chairman, Subcommittee on Mineral Resources Development and Production, Senate Committee on Energy and Natural Resources, asked us to evaluate BLM's inspection and enforcement program, including whether FOGRMA requirements are being met. In subsequent discussions with the Chairman's office, we agreed to conduct a management review of the inspection and enforcement program to determine whether BLM can ensure that production verification is adequate to protect federal, state, and Indian royalty interests. Our review objectives were to

- evaluate the adequacy of BLM's production inspections;
- evaluate BLM's oversight of the program;
- present program data on the number of inspections completed and enforcement actions taken, and evaluate the accuracy of and internal controls over BLM's official data; and
- evaluate the cooperation between BLM and MMS in royalty management related to production verification, including whether one agency is better able than the other to verify production.

---

## Scope

We selected three BLM state offices that accounted for the majority of federal and Indian oil and gas production and government revenues—Montana, New Mexico, and Wyoming. The Montana State Office is also responsible for oil and gas leases in North Dakota and South Dakota; the New Mexico State Office is also responsible for oil and gas leases in Kansas, Oklahoma, and Texas; and the Wyoming State Office is also responsible for oil and gas leases in Nebraska.<sup>1</sup> As shown in table I.1, these three state offices accounted for 71 percent of the oil production, 85 percent of the gas production, and 77 percent of the royalties from onshore federal and Indian leases in calendar year 1988 (the most recent year for which such data are available).

---

<sup>1</sup>BLM's inspection and enforcement program uses the term "inspection item," which generally includes individual leases, as well as communitization agreements and units by participating area, which may have more than one lease. Throughout this report, the term "lease" is used in place of inspection item.

---

## Program Oversight

Interior agreed that BLM has exercised insufficient oversight of the inspection and enforcement program since 1987. Interior noted that this matter also surfaced in BLM's 1989 internal review and in the November 1989 report by Interior's Office of the Inspector General. Interior said that BLM has initiated a number of actions to strengthen program oversight.

For example, Interior said that BLM is revising the inspection and enforcement program strategy to identify field staffing levels needed to accomplish alternate inspection options. Further, Interior said that BLM will subsequently develop criteria for specific field office staffing and resources. In addition, Interior identified several other corrective actions that BLM has taken or planned:

- Headquarters staffing has been increased to provide additional guidance and oversight to field offices, including participation in technical and procedural field reviews of the program.
- Internal control reviews have been scheduled.
- An inspection and enforcement program course for BLM managers is being developed, and a nationwide workshop for BLM inspection and enforcement program managers and inspectors has been scheduled.
- Position description standards will be revised to require program expertise for field managers as well as supervisory review and documentation.

---

## Automated Program Data

Interior noted that BLM has initiated several improvements in the management and use of AIRS. For example, Interior noted that position descriptions, performance appraisal standards, and training for staff using AIRS are being revised, and central directives on AIRS validation, monitoring, quality assurance, and updates are being developed. Interior also said that new centralized guidance requiring the use of AIRS by field staff will result in improvements in AIRS data and that a new version of AIRS, which will contain additional edits to ensure data accuracy, is scheduled to be implemented in May 1990. We believe that these improvements, if effectively implemented, will respond to our concerns regarding the accuracy of AIRS data.

---

## Cooperation Between BLM and MMS

Interior agreed that cooperation and information exchange related to production verification between BLM and MMS needs improvement. Interior said that an evaluation of the interagency Memorandum of Understanding would be considered and that needed changes would be made.

---

representatives expressed concern about cooperation with MMS, MMS representatives did not believe that these concerns were valid. While cooperation might be further enhanced by transferring the inspection and enforcement program to MMS, there are likely to be disadvantages to such a move, and more importantly, the move would not correct the problems discussed in this report. BLM and MMS could consider ways to improve cooperation under the current framework.

---

## **Recommendations**

We recommend that the Secretary of the Interior require the Directors of BLM and MMS to jointly evaluate whether the current Memorandum of Understanding adequately addresses BLM's concerns regarding timeliness and law enforcement.

requested for use in criminal investigations. However, if MMS staff identify possible criminal activity through their audits, the chief of MMS' Royalty Compliance Division said he has requested them to notify him, and he in turn refers the cases to Interior's Office of the Inspector General. He said that the Inspector General's office has asserted that it has jurisdiction over suspected fraud in production reporting. While the chief worked directly with BLM law enforcement agents in the past, he stopped doing so when the Inspector General's office asserted its current position. Therefore, he believes that BLM's primary dispute is with the Inspector General's office rather than with MMS.

---

## Neither Agency Is Clearly Better Able to Fulfill Inspection and Enforcement Program Responsibilities

Deciding to transfer a program from one agency to another requires a detailed examination of the costs and benefits involved, which our review did not do. There are certain merits to leaving the inspection and enforcement program in BLM. On the other hand, there could be benefits to transferring the program to MMS—at a cost. To ensure that production is reported accurately for royalty determination purposes, Interior must do both on-site inspections—to guard against physical causes for underreporting—and post-production audits—to match production documentation with production reports. We believe that neither agency is clearly in a better position to fulfill responsibilities of the inspection and enforcement program. More importantly, we believe that transfer of the program alone would not be sufficient to correct problems identified in this report.

---

## Strengths of BLM

When BLM conducts production inspections, it does more than just review production documentation. Such inspections also include on-site observations of operations, which may reveal physical causes—such as unsealed valves—of underreported production and susceptibility to theft. In addition, production inspections are only one aspect of BLM's inspection program; inspectors also inspect drilling and abandonment operations, and they inspect for surface, environmental, and safety issues, which are not related to production and so do not affect royalties. If responsibility for production-related inspections is transferred to MMS, MMS would have to expand its normal role to include on-site inspections, requiring additional technical expertise. Furthermore, either BLM would still need inspectors for non-production-related inspections, or MMS would have to also assume responsibility for those inspections, which are unrelated to MMS' mission.



---

# More Cooperation Between BLM and MMS Needed

---

To better ensure that the government receive accurate royalty payments, BLM and MMS have improved cooperation between their respective programs—inspection and enforcement and royalty management. Specifically, BLM and MMS have a Memorandum of Understanding that defines certain responsibilities for each agency. However, some BLM state and field office staff identified problems in obtaining information from MMS.

While cooperation between the inspection and enforcement program and the royalty management program might be enhanced by moving the inspection and enforcement program to MMS, this move would be likely to have certain disadvantages and costs. Alone, such a move would not be able to correct the problems identified in this report.

---

## Cooperation Between BLM and MMS

BLM and MMS developed and now cooperate under a Memorandum of Understanding to define responsibilities for managing onshore oil and gas leases. Some BLM representatives, however, expressed concerns about the timeliness of information MMS has provided and about MMS' cooperation in law enforcement investigations.

---

## Lack of Cooperation Was Identified Earlier

Our 1981 report on oil and gas royalty collections, when both inspections and royalty accounting were done by the Geological Survey, identified the need for field inspection staff to assist accounting personnel in verifying reported data and noted that this cooperation rarely occurred.<sup>1</sup> In addition, the Linowes Commission reported in 1982 that there was no routine system for making federal accountants aware of inspection results, and that accountants did not flag anomalies that signal the need for inspections.

---

## Memorandum of Understanding

Addressing these concerns, BLM and MMS signed a Memorandum of Understanding in January 1984. Its purposes were to create a smooth functional relationship between the two agencies, assign responsibility for specific onshore lease management activities, and identify required information exchanges. The Memorandum was revised in February 1987 and again in December 1988 and covers several areas of interaction between the two agencies, including inspections.

---

<sup>1</sup>Oil and Gas Royalty Collections—Longstanding Problems Costing Millions (AFMD-82-6, Oct. 29, 1981).

when an inspection is closed, thereby causing “empty” inspection records.

Service Center representatives told us that AIRS edits were developed by a requirements committee, with participation by users, and they believe that the edits are adequate. They stated that data that need to be consistent throughout BLM (such as lease identification numbers) are edited, whereas data that are used by individual offices are not edited. They also stated that additional edits would so restrict the system that it would become unusable. However, they noted that a July 1989 AIRS modification does edit the opening and closing dates to require that the month be a number between 1 and 12, and the day be a number between 1 and 31. Although this is an improvement, incorrect dates, such as February 30, can still be entered, and records can still be closed with dates preceding opening dates.

Although we were able to determine the number of “empty” checklist inspection records in AIRS by writing our own computer program to identify records that had closing dates but no inspection results, a December 1988 AIRS modification may make identification of “empty” records virtually impossible in the future. Field offices may now choose to carry forward inspection results from previous inspections when new inspection records are opened. If a field office uses this option, the newly opened inspection record will show inspection results and therefore will look like a completed inspection. There is no way to identify such records if they are subsequently closed without inspections having been done. A Service Center official stated that this modification was made at the request of field offices and is meant to reduce the burden of entering data by allowing only changes to inspection records to be entered, rather than the complete results of new inspections.

---

## Conclusions

BLM’s official inspection and enforcement program data are unreliable. As a result, BLM cannot ensure that leases are assigned correct priorities to comply with FOGRMA requirements, whether reported inspections have in fact been done, or whether inspection results are recorded correctly. BLM also cannot tell the extent to which various enforcement actions are used. Without accurate data, BLM cannot ensure that its program complies with FOGRMA or its current strategy, nor does BLM have accurate and complete data to monitor and evaluate the program.

AIRS does not contain information on enforcement actions that occur outside BLM, such as court judgments.

BLM state and field office representatives generally told us they do not believe that AIRS enforcement data are complete (see app. III for AIRS data). Consequently, they place more reliance on enforcement data in their manual quarterly reports. Furthermore, our comparison of enforcement data recorded in AIRS with data in year-end summaries of the quarterly reports shows substantial differences. The quarterly report usually contained higher numbers than AIRS (see apps. IV, V, and VI).

In addition, in the BLM field offices we visited, data on oral warnings and written orders were not recorded in AIRS. BLM field officials told us that this is because oral warnings and written orders do not count against operators' compliance histories. Inspectors told us that they use such enforcement actions to get lease operators to correct certain minor problems. However, the extent to which oral warnings and written orders are used cannot be determined from AIRS.

Also, enforcement actions that occur outside BLM, such as court judgments, are not recorded in AIRS because AIRS was not designed to track such actions. For example, although Montana state office representatives have not sought criminal penalties under FOGRMA, they told us they are aware of some operators being convicted in federal courts, but those convictions are not recorded in AIRS.

In its formal comments on a draft of this report, Interior said that it would not be appropriate to record these actions in AIRS because they are inconsistent with the use of AIRS. Subsequently, BLM's Chief, Compliance and Operations Branch, clarified Interior's comments. He said that BLM should not be expected to track actions against operators that do not involve federal or Indian leases and that those actions should not count against operators' compliance histories. He also told us that external actions involving federal or Indian leases are rare and that BLM handles such situations with direct instructions to appropriate field offices to increase the number of inspections on affected leases. We agree that BLM should not be expected to track actions against operators that do not involve federal or Indian leases. However, we believe that any enforcement actions involving federal or Indian leases should be part of operators' compliance histories. Therefore, all enforcement actions involving federal or Indian leases should be recorded in AIRS, BLM's official data base for the inspection and enforcement program.

Chapter 4  
Automated Official Program Data  
Are Unreliable

**Table 4.4: Recorded and “Empty”  
Inspections in Fiscal Year 1988**

Field office	Inspections	“Empty”	Percent
Farmington			
Farmington East	627	12	2
Farmington West	85	30	35
	712	42	6
Buffalo	569	24	4
Great Falls	452	2	0 <sup>a</sup>
Kemmerer	157	0	0
Miles City	378	4	1
Rio Puerco	71	0	0
<b>Total</b>	<b>2,339</b>	<b>72</b>	<b>3</b>

<sup>a</sup>Less than 1 percent.  
Source: AIRS, Feb. 1989

In addition to the 42 inspections identified above as not completed in 1988, Farmington has even larger numbers of “empty” checklist inspections for fiscal years 1987 and 1986. We found that 669 (29 percent) of Farmington’s 2,330 inspections reported as completed in 1987 and 508 (15 percent) of the 3,475 inspections reported as completed in 1986 were not done. These “empty” inspections were caused by closing inspection records for inspections not performed by using the reported prior inspection completion date. According to the AIRS user representative, these records should be deleted from AIRS, rather than closed. As a result of Farmington’s practice, the number of completed inspections reported in AIRS for prior years is overstated.

Farmington also closed 1,420 “empty” inspection records by using fictitious dates of 1981 or 1966, thereby making these records readily identifiable as not having been completed because those dates preceded AIRS’ implementation in 1986. These “empty” checklist inspection records do not affect the number of inspections reported as completed since 1986. However, they should also have been deleted from AIRS, rather than closed.

Comparing AIRS data with year-end quarterly reports, which are no longer required by BLM headquarters, we found substantial differences in the numbers of reported inspections over the past 3 years (see apps. IV, V, and VI). These reporting discrepancies have not been reconciled by BLM, although some state and field offices are trying to improve the quality of their AIRS data.

worked informally with lease operators to get problems corrected, rather than issuing citations.

**Inaccurately Reported Inspections**

Although AIRS data showed that most of the field offices we reviewed inspected their high-priority leases and at least one-third of their low priority leases in fiscal year 1988, some of these inspections were not done.

**Reported Inspections of High-Priority Leases**

As table 4.2 shows, fiscal year 1988 AIRS data indicate that the 6 field offices inspected 434 (92 percent) of the 474 leases identified in AIRS as high priority. However, AIRS data indicate that Great Falls and Farmington West did not inspect 25 percent and 31 percent, respectively, of their high-priority leases. The Great Falls supervisor told us that his office overlooked inspecting four leases, but that three had been incorrectly designated as high-priority leases. He said that he started a production verification inspection on the remaining lease in September 1988 but did not complete it until November 1988, so this inspection was not reported until fiscal year 1989. The Farmington West supervisor said that his inspectors were assigned to other inspection and enforcement activities.

**Table 4.2: Reported Inspections of High-Priority Leases in Fiscal Year 1988**

Field office	Leases	Inspections	Percent
Farmington			
Farmington East	188	187	99
Farmington West	108	75	69
	296	262	89
Buffalo	92	92	100
Great Falls	20	15	75
Kemmerer	34	33	97
Miles City	18	18	100
Rio Puerco	14	14	100
<b>Total</b>	<b>474</b>	<b>434</b>	<b>92</b>

Source: AIRS, Feb. 1989.

According to AIRS production and compliance data, 127 of the 434 high-priority leases reported as inspected and 24 of the 40 high-priority leases reported as not inspected were assigned high priority but should have been assigned low priority.

---

# Automated Official Program Data Are Unreliable

---

BLM's official data for the inspection and enforcement program are not reliable. We identified several types of errors in the data contained in AIRS, such as leases whose inspection priorities did not correspond with production and compliance data, inspections recorded as completed although they were not done, and inspection results incorrectly recorded. As a result, BLM cannot ensure that high-priority leases are correctly identified and inspected at least annually, as required by FOGRMA, or that the remaining leases are inspected every 3 years, as required by BLM's current program strategy.

Furthermore, because data on enforcement actions are incomplete, neither we nor BLM can accurately determine the extent to which various enforcement actions were used. Data on BLM's enforcement actions were not always entered into AIRS, nor were enforcement actions that occur outside BLM, such as court judgments.

These data problems are due in part to the lack of central guidance for entering data into AIRS. In addition, AIRS lacks necessary internal controls that could prevent some data inaccuracies.

---

## Inspection Data Are Unreliable

AIRS, BLM's official automated data system for the inspection and enforcement program, is intended to help BLM manage the program by (1) reducing inspectors' reliance on manual files; (2) ensuring that legislative requirements are met; and (3) providing needed management information. Data recorded in AIRS include inspection priorities, inspections completed, and inspection results. However, we found many inaccuracies in AIRS inspection data. We believe that because AIRS official inspection and enforcement program data are unreliable, they are of limited use in managing the program.

---

## Inspection Priorities That Do Not Agree With Production and Compliance Data

AIRS should identify leases that meet BLM's criteria for being designated high priority—requiring at least annual inspection under FOGRMA. Data that must be recorded in AIRS to accomplish this task include reported production and compliance history—that is, numbers and types of citations issued. However, in AIRS we found leases whose inspection priorities did not correspond with production and compliance data.

As shown in table 4.1, the 6 field offices we visited identified 474 leases as high priority for inspection in fiscal year 1988—about 8 percent of their total inventory of 5,990 leases. These offices ranked 5,244 leases (88 percent) as low priority and did not rank the remaining 272 leases (4

implementation of regulations, or accurate reporting of oil and gas produced from public lands. BLM's planned corrective actions for identified control weaknesses were almost the same for both 1986 and 1987: to implement a program for (1) inspecting oil transporters; (2) reviewing the uniformity of application of oil and gas regulations; and (3) using cooperative agreements with Indian tribal organizations, the Bureau of Indian Affairs, and states. In 1987, BLM added a fourth planned action: ensuring a uniform level of competence for inspectors.

While BLM has taken some of these actions, it has not fully addressed the reported program weaknesses or taken the actions in a timely manner. Specifically, (1) BLM did not issue instructions for inspecting oil transporters until February 1988; (2) field offices are not uniformly interpreting, enforcing, or implementing oil and gas regulations; (3) few inspection program cooperative agreements with Indian tribal organizations have been implemented; and (4) BLM has not uniformly implemented its certification program. In addition, in October 1989, the Office of Management and Budget designated BLM's inspection and enforcement program as a high-risk area within Interior's responsibility for ensuring accurate collection of oil and gas royalties.

---

## Conclusions

When BLM decentralized program oversight and evaluation responsibilities to state offices in 1987, it did not ensure that state offices consistently implemented their responsibilities. As a result, field offices have implemented their programs differently. Because field office supervision is often informal and not documented, BLM does not know whether the extent of supervision is appropriate or whether individual inspectors are applying program requirements correctly and consistently.

In addition, with decentralization, BLM discontinued headquarters program evaluations. Since then, state office program coordinators have not all formally evaluated their field offices. Without adequate program oversight and evaluation, BLM cannot ensure that program implementation complies with its inspection and enforcement program strategy.

---

## Recommendations

To ensure that BLM's inspection and enforcement program is consistently implemented, we recommend that the Secretary of the Interior require the Director of BLM to strengthen program oversight, including the following specific actions:

inspectors. The quality assistance reviews were conducted by teams comprised of headquarters and state office staff. Reviews identified gaps between policy and field office procedures. Field offices were required to respond to the headquarters inspection and enforcement office and to implement or otherwise address any recommendations.

When the headquarters inspection and enforcement office was disbanded in January 1987, headquarters' responsibility for general program evaluation was transferred to the Program Evaluation Division, which is responsible for conducting general evaluations of all BLM programs. Centralized quality assistance reviews were discontinued.

Since then, the Program Evaluation Division has not conducted a complete evaluation of the inspection and enforcement program, other than the 1989 preliminary study of the program. The study reported major inconsistencies in states' program implementation and oversight as well as lack of headquarters oversight. However, the study concluded that state offices should be allowed time to review their own programs first, and that these state evaluations should in turn be evaluated by the headquarters division responsible for fluid minerals.

---

### State Offices Have Not Consistently Evaluated Their Field Offices

When the headquarters inspection and enforcement office was disbanded in 1987, responsibility for in-depth program evaluation—formerly accomplished through centralized quality assistance reviews—was delegated to state offices. We found that state offices have not consistently reviewed their field offices. The Montana state office program coordinator said he generally reviewed each of the three field offices twice a year but reviewed two of the field offices only once in fiscal year 1988. The New Mexico state office program coordinator said he generally reviewed each of the seven field offices every 3 years but did not conduct any reviews in fiscal year 1988 because of limited travel funds. The Wyoming state office program coordinator said he had not conducted formal evaluations of any of the nine field offices through fiscal year 1988 because of other program priorities, but that he informally reviewed field office programs without documenting such reviews. According to the state coordinators, evaluations in both New Mexico and Montana were similar to the former headquarters quality assistance reviews, in that they assessed whether field offices were complying with the program strategy.

In addition, the preliminary study conducted by the headquarters Program Evaluation Division reported that the scope, timing, purpose, and



violations or unclear federal standards. The Montana and Wyoming state office program coordinators said that they discouraged the use of oral warnings unless inspectors documented such warnings with written citations. In contrast, the New Mexico State Office specifically authorized oral warnings in a July 1988 memorandum, stating that their use should be noted in inspection records. In the Farmington, New Mexico, office one program supervisor encouraged oral warnings, while the other supervisor discouraged their use and preferred that his inspectors rely on written citations. Inspectors in all six field offices said they issued oral warnings, but only the Miles City, Montana, inspectors said they usually documented the warnings with subsequent citations or inspection record notes.

Field office use of written orders also varied. Some offices used them, but inspectors in other offices said they issued citations for the same types of problems. For example, Buffalo, Wyoming, inspectors said they issued written orders when operators filed incorrect site diagrams. Then if the operators failed to submit correct diagrams, they issued citations. However, the Farmington West, New Mexico, supervisor said that his inspectors issued citations for both situations.

Field offices also varied in their use of stronger enforcement actions, including the relative number of citations issued. The average number of citations per inspector issued in fiscal year 1988 ranged from a low of 1 in Rio Puerco to a high of 111 in Miles City. In addition, the Program Evaluation Division's preliminary study noted a lack of uniformity in the use of enforcement actions among field offices. For example, the study noted that a lease operator was shut down by one BLM field office for noncompliance but allowed to continue lease operations elsewhere by another field office in spite of the same identified deficiencies.

---

### Certification Program Varies

Field offices varied in how they implemented the technical review requirement of the national certification program. The program, as announced in December 1986, was intended to create a consistent level of expertise among inspectors.

Of the 24 inspectors and 7 supervisors in the 6 field offices we reviewed, 22 inspectors and 6 supervisors were certified. Two inspectors in Farmington, New Mexico, were hired in 1987 and had not yet completed their formal training because of budget restrictions, and the Rio Puerco, New Mexico, supervisor was a minerals manager who did not intend to become a certified inspector. Most inspection and enforcement staff in

---

## Staff Levels Vary

BLM has substantially improved program staff levels since inadequate program staff levels were identified by us in 1981<sup>1</sup> and the Linowes Commission in 1982, when the inspection and enforcement program was managed by the Geological Survey. In 1981, we reported that there were 47 federal inspectors reviewing activities at over 44,000 producing wells (an average of about 940 wells per inspector) and found that this ratio was not enough to provide adequate coverage. In 1982, the Linowes Commission reported that there were 63 federal inspectors for 17,500 leases (an average of about 280 leases per inspector) and recommended an increase to at least 83 full-time inspectors, resulting in an average of about 210 leases per inspector. In 1988, BLM reported that 117 program inspectors nationwide were responsible for 19,700 producing leases and 82,100 wells. The total number of inspectors has increased 150 percent since 1979, the average number of wells per inspector has decreased 25 percent from 940 to 700, and the average number of leases per inspector has decreased 40 percent from 280 to 170.

However, these staff levels are not evenly distributed among field offices, resulting in wide variances in average numbers of leases, wells, and completed inspections per inspector, as shown in table 3.1. Although these averages are not the only factor to consider when comparing the offices (other comparisons could address factors such as types of inspections, complexity of leases, and travel time between leases), they demonstrate variation in relative staff levels and work loads.

---

<sup>1</sup>Oil and Gas Royalty Collections—Longstanding Problems Costing Millions, (AFMD-82-6, Oct. 29, 1981).

supervision was informal and not documented, there is limited evidence of the extent of supervision provided.

### Responsibilities and Expectations

The responsibilities of inspection and enforcement program supervisors varied among field offices. Supervisors in two field offices (Kemmerer, Wyoming, and Rio Puerco, New Mexico) were managers who also had responsibilities for other minerals programs. They estimated that they spent 50 percent or less of their time on the inspection and enforcement program. Supervisors in the other four field offices were inspectors responsible solely for inspection and enforcement program activities. In three offices (Buffalo, Wyoming, and Great Falls and Miles City, Montana) they were required to conduct inspections and supervise inspectors. In the Farmington, New Mexico, office they only supervised inspectors.

Performance expectations for supervisors also varied. For example, Buffalo's supervisory expectations included the following detailed statements:

- Do quality control follow-up inspections on 5 percent of all field inspections done by the inspectors being supervised.
- Supervise three inspectors; ensure accurate records and field documentation are kept. Spot-check at least 10 percent of all citations issued for completeness, accuracy, and appropriateness. The overturning of no more than six appeals by state directors will be considered fully successful performance.

In contrast, the Farmington East supervisor had less detailed supervisory expectations:

- Exercise managerial leadership through direct and indirect supervision of inspectors within realm of assigned areas of responsibilities. The standard is met if working relationships are maintained within the resource area. Work assignments are clearly managed and employees utilized effectively to complete assigned tasks; employees are guided, directed, and counseled.
- Ensure that communication and teamwork are continually being improved. The standard is met by maintaining open communication and coordination with program and other staff.

### Extent of Supervision

The Linowes Commission reported in 1982 that supervision of inspectors was haphazard, and we could not determine if this situation has changed. We found that supervisors generally relied on informal,

- Enhance consistency in program activities by completing and issuing regulations and the Onshore Oil and Gas Orders and by maintaining stable guidelines.
- Ensure consistency in enforcement actions.
- Develop and implement a formal certification program for inspectors, including specific and comprehensive training and development, to ensure a minimum level of technical and regulatory competence.
- Restructure the centralized quality assistance reviews, formerly conducted by the headquarters inspection and enforcement office to monitor field office implementation of the program, so that management evaluations are conducted by the headquarters program evaluation division and in-depth evaluations are conducted by state offices.

The task force report was signed by the Director of BLM in December 1986 and distributed to state offices in 1987. However, some state offices did not implement any of the task force recommendations because they were uncertain about whether the Director's concurrence was a directive to proceed with changes. In May 1988, BLM clarified the confusion and formally implemented the report's recommendations in a memorandum from the Director of BLM to the state office directors.

---

### Headquarters Oversight of the Inspection and Enforcement Program

In response to the task force recommendations, the headquarters inspection and enforcement office was disbanded in January 1987. The May 1988 memorandum stated that although this office had been created in response to the considerable amount of attention given the program by the Congress and the public, the program had matured to the point where it no longer required that level of visibility in BLM. As a result, responsibility for general program evaluation was transferred to the Program Evaluation Division, and the headquarters inspection and enforcement role became one of policy-level coordination and guidance.

Since that time there has not been a headquarters BLM manager directly in charge of the inspection and enforcement program. When the inspection and enforcement office was disbanded, its staff was merged into another BLM division but continued to provide technical, procedural, and policy advice to state offices, including comments on state office annual inspection plans. Because program authority had been delegated to state offices, no BLM headquarters official had the authority to direct the state offices to run their programs differently.

A preliminary study of the inspection and enforcement program was conducted by BLM's Program Evaluation Division in the spring of 1989.

---

**Chapter 2**  
**Limited Production Verification Does Not**  
**Ensure Accurate Computation of Royalties**

---

priority leases annually, as required by FOGRMA, Interior should ask the Congress to amend FOGRMA accordingly.

cost-effective because they had not generally identified significant production underreporting. Under BLM's current strategy, production verification inspections are generally conducted only if problems identified in checklist inspections are unresolved. The current strategy allows field offices to randomly select up to 1 percent of their total leases for production verification inspections, but it says that these should not interfere with completing required checklist inspections and production verification inspections initiated as a result of identified problems.

BLM's chief of the division responsible for fluid minerals told us that the inspection strategy was developed to fit available program resources, so that the FOGRMA requirement to inspect high-priority leases at least annually could be met—"making the foot fit the shoe." For example, he stated that the oil and gas production figures initially used to define significant production under FOGRMA would have required about 150 inspectors to annually inspect all leases meeting this definition. However, because the state offices planned to have only about 117 inspectors, he said that the definition was changed so that it would result in the number of leases that 117 inspectors could inspect annually.

BLM has similarly decided what type of inspections to perform. BLM uses checklist inspections instead of production verification inspections largely to fit the number of inspections to the availability of inspectors and to ensure that high-priority leases are inspected annually. According to a BLM headquarters official who helped develop the current strategy, BLM did not think that it had enough inspectors to conduct annual production verification inspections on all high-priority leases because such inspections are so time-consuming. Instead, BLM decided to use checklist inspections to meet the FOGRMA requirement for at least annual inspections of high priority leases.

BLM's decision to rely on checklist inspections was also based in part on a BLM test conducted during fiscal year 1986. State offices were directed to conduct production verification inspections on at least 15 percent of the leases assigned a high priority under the production criterion. Eight state offices conducted 109 production verification inspections in this test, at an estimated cost to BLM of about \$107,000. Only one inspection resulted in significant additional royalty revenues—about \$625,000. Because only one inspection resulted in significant recovery of revenues, BLM concluded that random production verification inspections were not cost-effective and should be used only when indicated by checklist inspections.

# Limited Production Verification Does Not Ensure Accurate Computation of Royalties

FOGRMA requires Interior to establish a comprehensive system to accurately determine oil and gas royalties. A key component of such a system is the verification of production. However, BLM's inspection and enforcement program verifies production on only a small number of leases. The extent of BLM's production verification is inadequate to satisfy the FOGRMA requirement that Interior be able to accurately determine royalties.

## Allegations of Theft and Production Underreporting Continue

In 1982 the Linowes Commission reported that the absence of production verification was a fundamental defect in the onshore oil and gas inspection program, which at that time was administered by the Geological Survey. The Commission noted that companies were on an honor system because the inspection program did not verify operators' reports of oil and gas production and sales. Several witnesses before the Commission suggested that the aggregate underpayment of royalties could run into the hundreds of millions of dollars, and the Commission heard testimony alleging that extensive theft and fraud had occurred.

The Commission believed that inspectors should independently verify production by comparing (1) operator data with inspection observations and source data and (2) sales reports with production reports. The Commission report noted that

inspectors must not only determine that openings to tanks are locked or sealed; that there is no unauthorized piping that bypasses meters; that waste pits are not filled with oil in ways that invite theft. They must also check wells actually producing on the lease, to see that they match the number reported in the operators' [sic] monthly production report; and they must check meters to see that they accurately measure the oil and gas flowing through them.

While BLM has improved the inspection and enforcement program since assuming responsibility for it, allegations of oil and gas theft continue. For example, in May 1989, testimony before the Special Committee on Investigations, Senate Select Committee on Indian Affairs, indicated that theft is occurring from some oil and gas leases on Indian lands.

In an October 1989 letter to Interior, the Office of Management and Budget identified BLM's onshore inspection program as a high-risk area associated with Interior's responsibility for ensuring the accurate collection of revenues. The letter cited an inadequate number of inspectors and an incomplete central information system for the decentralized program.

whether one agency is better able than the other to fulfill production verification responsibilities.

Our review addressed production inspections. Because the Secretary of the Interior has assigned responsibility for production verification to BLM, we limited our review to BLM's inspection and enforcement program. We did not specifically address oil and gas theft occurring from federal or Indian leases, the effectiveness of the inspection and enforcement program in identifying or preventing theft, or the role of law enforcement in the inspection and enforcement program. Because we found that BLM was doing little to verify production volume, we did not extend our review to address how effectively BLM was verifying the reported oil and gas quality.

Our review included three BLM state offices covering nine states: Montana (responsible for oil and gas leases in Montana, North Dakota, and South Dakota), New Mexico (responsible for Kansas, New Mexico, Oklahoma, and Texas), and Wyoming (responsible for Nebraska and Wyoming). These three state offices accounted for 71 percent of federal and Indian onshore oil production and 85 percent of federal and Indian onshore gas production. For each state office, we reviewed its field office responsible for inspecting the most leases and its field office responsible for inspecting the fewest leases, in order to determine if program implementation varied among offices because of size. The Farmington, New Mexico, resource area office's inspection and enforcement program is divided into two operations, designated East and West, each having its own inspectors, supervisors, procedures, and data. We met with BLM inspection and enforcement staff in Washington, D.C., at the three state offices, and at the six field offices. We reviewed relevant legislation, regulations, policies, and guidance. We also met with BLM's AIRS user representative and conducted various tests of AIRS data at BLM's Denver Service Center. Finally, we met with MMS staff to discuss coordination and reviewed the BLM-MMS Memorandum of Understanding. Appendix I provides more details on our objectives, scope, and methodology.

We conducted our review from May 1988 through July 1989 in accordance with generally accepted government auditing standards. However, although we use AIRS data because they are BLM's official data for the inspection and enforcement program, we do not believe they are reliable, and BLM officials agreed. Because BLM officials believe that manually prepared state office summaries of field office quarterly reports are



may result in one-time assessments of \$250 per violation, up to a maximum of \$500 per operator per lease.

If an operator does not correct a violation within 20 days of an assessment, or longer if specified by BLM, a civil penalty of up to \$500 per day per violation may be levied by BLM. If the violation is not corrected within 40 days of the civil penalty, the penalty may be increased to up to \$5,000 per day per violation, up to a maximum of 60 days. If an operator does not correct a violation following the civil penalty period, the regulations require BLM to initiate proceedings to cancel the lease.

Criminal penalties may also be sought against persons convicted of the above violations. Criminal penalties may consist of a fine of up to \$50,000, or imprisonment for up to 2 years, or both.

If necessary, at any time during the enforcement proceedings, BLM may also shut down lease operations if they have commenced without BLM approval, or if a violation is major. Operators may contest any enforcement action and request an administrative review before a BLM State Director, who has the power to reduce assessments. In addition, the Secretary of the Interior has the power to reduce penalties.

---

## Certification Program

In December 1986 BLM instituted a certification program for inspectors—"The National Certification Program for Oil and Gas Inspection and Enforcement Personnel." This program requires that all inspectors be certified before they are authorized to issue citations for violations. The certification program requires new employees to (1) successfully complete two formal training courses on drilling and production, (2) undergo a comprehensive on-the-job training program covering 67 individual elements, and (3) demonstrate proficiency in 61 field inspection tasks (the technical review). Inspectors who were employed prior to December 1986 were also expected to demonstrate their knowledge and skills in the technical review before being certified under this program.

---

## Reporting

Until August 1988, BLM headquarters required state offices to prepare and submit quarterly reports summarizing inspection activity. The reports were initiated by the field offices and then summarized by each state office. Currently, BLM's strategy states that BLM can track the number and types of inspections performed by querying the Automated Inspection Records System (AIRS), the inspection and enforcement program's computerized official data base.

For example, a problem with the valves on an oil storage tank could be identified in a checklist inspection and could result in a detailed production verification inspection. Such valves must be sealed using uniquely numbered metal strips that must be cut to open the valves, thereby allowing detection of unauthorized removal of oil. Figure 1.3 shows a correctly sealed valve leading from an oil storage tank on a federal lease. An inspector who sees a valve that is incorrectly sealed or not sealed when conducting a basic checklist inspection could determine that this problem warrants a subsequent follow-up or production verification inspection.

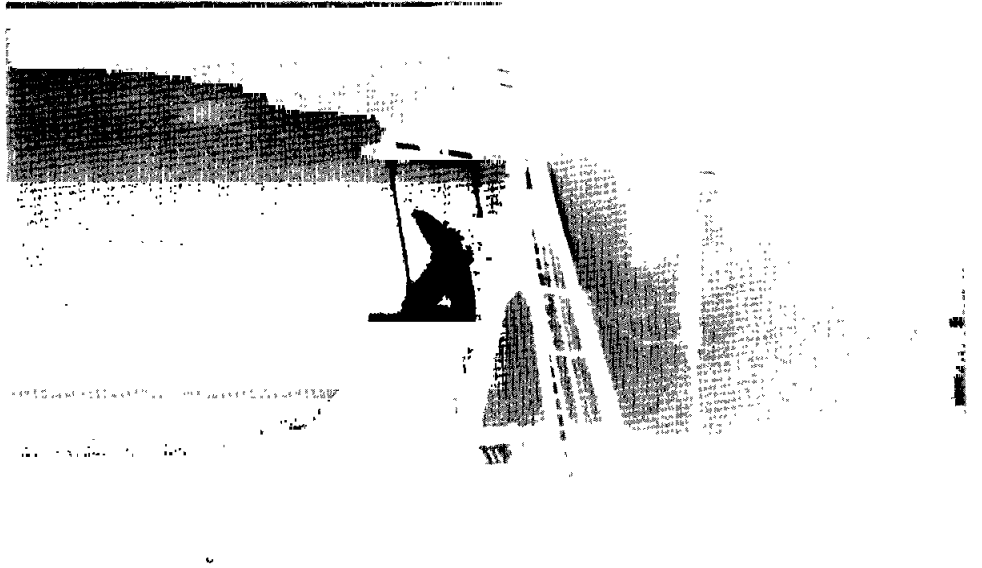
Figure 1.3: Correctly Sealed Oil Valve



Production verification inspections are much more time-consuming because they require observations and measurements over a period of time, generally 1 month. During this period, the inspector should

- verify inventories when opening and closing measurements are made, either by observation or by independent measurement;
- ensure that the operator and purchaser use proper measurement equipment and techniques;
- witness every transfer of production;
- calculate production for the period and compare it with volumes reported by the operator for the period and for a past comparable period; and

Figure 1.2: Oil Pumping Unit



## Assigning Inspection Priorities

Although FOGRMA requires at least annual inspections of leases that produce significant quantities of oil or gas, as well as leases that have histories of noncompliance with law and regulations, the act did not define significant production or history of noncompliance. Therefore, BLM established the following criteria for such leases:

- monthly oil production averaging at least 3,000 barrels or monthly gas production averaging at least 30 million cubic feet (Mmcf); or
- at least one major violation or at least five total violations related to production or site security during the previous 24 months. (Major violations are those causing or threatening immediate, substantial, and adverse impacts on public health and safety, the environment, production accountability, or royalty income.)

BLM designates leases that meet either of these standards as high priority for inspection.<sup>3</sup>

Field offices develop a second priority list of leases that (1) are located in or next to an area of special environmental sensitivity—a designated wilderness area, for example—or in an area where operations could constitute a serious risk to the environment; (2) are located in an area

<sup>3</sup>BLM's inspection and enforcement program uses the term "inspection item," which includes individual leases, as well as communitization agreements and units by participating area, which may have more than one lease. Throughout this report, the term "lease" refers to all of these.

BLM's basic management philosophy provides for decentralized control, with as much authority and responsibility as possible delegated to lower operating levels. Responsibility for BLM's inspection and enforcement program is also decentralized, with oversight exercised through its state offices. BLM reported in June 1988 that it employed about 117 inspectors nationwide at its district and resource area offices (referred to in this report as "field offices") and that fiscal year 1987 program expenditures totaled \$7.1 million.

BLM's program policy is presented through "strategies" issued by BLM's Director to the state offices, and in turn distributed by state offices to their field offices. Under BLM's decentralized organization, the strategies are considered guidelines rather than requirements. State and field offices are expected to comply with the strategies; however, offices may vary in their interpretation.

The current strategy, effective for fiscal year 1988 and subsequent years, was issued in draft in May 1987 and was made final in August 1988. This strategy was developed by a team of state and field office representatives, with BLM headquarters having an advisory and review role. It states that BLM's highest priority inspections are those relating to production, and that its primary inspection goal is to meet the FOGPMA mandate to inspect, at least annually, all leases with significant production or with histories of noncompliance.

BLM's inspection and enforcement program includes inspections of producing oil and gas wells, as well as inspections of well drilling and abandonment operations. Production inspections—which focus on production accountability, but may also address environmental and safety issues—represented about 85 percent of the total inspections completed in the inspection and enforcement program. The remaining 15 percent of inspections focused on drilling and abandonment of operations.

When inspecting producing leases, BLM inspectors generally inspect all the facilities, such as the pump that brings the oil and gas out of the ground; the heater-treater that separates the oil, gas, and residual water; and the tanks used to store production until it is sold. Inspectors also inspect the pipes, valves, and gauges that transport the oil and gas and connect these facilities. Figure 1.1 illustrates a complete oil production facility, and figure 1.2 shows a typical oil pump on a producing federal lease.

# Introduction

---

Federal and Indian onshore oil and gas leases yielded royalties of \$471 million in 1988, the latest year for which such data are available. Royalties are usually 12-1/2 percent of the value of oil and gas produced. Of the \$471 million, the federal government received \$413 million from its leases, and Indians received \$58 million from their leases. The federal government distributed about half of its royalties to states.<sup>1</sup>

The Department of the Interior's Bureau of Land Management (BLM) is responsible for inspecting federal and Indian onshore oil and gas leases—about 20,000 in production nationwide—and enforcing provisions of federal laws and regulations. Inspection and enforcement are intended to prevent theft or waste of oil and gas and to guarantee proper production and measurement of these resources for determining royalty payments. Interior's Minerals Management Service (MMS) is responsible for accounting for and collecting these revenues.

Concern about inspection and enforcement were raised in the late 1970s and the 1980s, with reports issued by GAO, Interior's Office of the Inspector General, and the Commission on Fiscal Accountability of the Nation's Energy Resources (the Linowes Commission),<sup>2</sup> and with testimony at several public hearings. The following inspection and enforcement problems were among those identified:

- The federal government relied almost entirely on production and sales data reported by oil and gas companies, making little effort to verify the accuracy of the information and allowing industry to operate essentially on an honor system.
- The quality of lease inspections conducted by the federal government was questionable, allowing thefts and violations on federal leases to go undetected.
- The federal government employed too few field inspectors, many of whom were inexperienced and untrained.
- Federal inspectors did not regularly communicate with accounting personnel about discrepancies found during inspections.

---

<sup>1</sup>By law, all states except Alaska receive 50 percent of the royalties generated from federal leases within their boundaries, and Alaska receives 90 percent.

<sup>2</sup>*Fiscal Accountability of the Nation's Energy Resources*, Report of the Commission, chaired by David F. Linowes, Jan. 1982.

---

Table I.1: Federal and Indian Onshore Oil and Gas Production and Royalties, Calendar Year 1988	59
Table I.2: Federal and Indian Onshore Oil and Gas Leases and Wells, as of July 1988	59
Table I.3: Field Offices Reviewed	60
Table I.4: Leases Reviewed at Six BLM Field Offices	61
Table III.1: Citations Issued at Six BLM Field Offices in Fiscal Years 1986, 1987, and 1988	65
Table III.2: General Nature of Violations Cited	65
Table III.3: Total Specific Violations Cited in AIRS for the Six Field Offices	66

---

## Figures

Figure 1.1: Oil Production Facility	13
Figure 1.2: Oil Pumping Unit	14
Figure 1.3: Correctly Sealed Oil Valve	16
Figure 1.4: Inspector Gauging Oil Storage Tank	17

---

## Abbreviations

AIRS	Automated Inspection Record System
BLM	Bureau of Land Management
GAO	General Accounting Office
FOGRMA	Federal Oil and Gas Royalty Management Act of 1982
MMS	Minerals Management Service
Mcf	thousand cubic feet
Mmcf	million cubic feet

# Contents

---

<b>Executive Summary</b>		2
<hr/>		
<b>Chapter 1</b>		10
<b>Introduction</b>	Federal Laws Require Inspection and Enforcement	11
	BLM's Inspection and Enforcement Program	11
	MMS Royalty Accounting Responsibilities	19
	Objectives, Scope, and Methodology	19
<hr/>		
<b>Chapter 2</b>		22
<b>Limited Production Verification Does Not Ensure Accurate Computation of Royalties</b>	Allegations of Theft and Production Underreporting	22
	Continue	
	Few Inspections Verify Production	23
	BLM Has Not Validated Its Inspection Strategy	23
	Conclusions	25
	Recommendations	25
<hr/>		
<b>Chapter 3</b>		27
<b>Inspection Program Oversight Is Inadequate</b>	Program Responsibility Is Decentralized	27
	Program Is Implemented Inconsistently	29
	Program Evaluation Is Inadequate	35
	Conclusions	38
	Recommendations	38
<hr/>		
<b>Chapter 4</b>		40
<b>Automated Official Program Data Are Unreliable</b>	Inspection Data Are Unreliable	40
	Enforcement Data Are Incomplete	45
	Inadequate AIRS Guidance and Controls	47
	Conclusions	48
	Recommendations	49
<hr/>		
<b>Chapter 5</b>		50
<b>More Cooperation Between BLM and MMS Needed</b>	Cooperation Between BLM and MMS	50
	Neither Agency Is Clearly Better Able to Fulfill Inspection and Enforcement Program Responsibilities	52
	Conclusions	53
	Recommendations	54

of enforcement actions taken, the amount of training given inspectors, and the extent of program evaluation. For example, a lease operator was shut down by one BLM field office for noncompliance but allowed to continue lease operations elsewhere by another field office in spite of the same identified deficiencies. As a result of the wide variance among field offices in program implementation, BLM does not know the extent of compliance with its inspection program strategies.

---

### Automated Inspection Data Are Unreliable

Inadequate guidance and monitoring have also resulted in BLM's computer-based information system being unreliable. For example, some leases' inspection priorities did not correspond to production and compliance data, some inspections were entered into the system that were not performed, and some inspection results were inaccurately recorded. In addition, the Automated Inspection Record System does not contain information on enforcement actions involving federal or Indian leases that occur outside BLM, such as court judgments. As a result of these deficiencies, the system is of limited use in managing the program.

---

### Recommendations

Because BLM's reliance on checklist inspections does not ensure accurate reporting of production, GAO recommends that the Secretary of the Interior require the Director of BLM to determine whether, using available resources, alternative inspection strategies would better identify significant underreporting of production. Interior should look at alternatives such as conducting production verification inspections on randomly selected leases. If Interior determines that such probability sampling would be more effective than inspecting all high-priority leases annually, Interior should ask the Congress to amend FOGRMA accordingly. (See ch. 2.)

In addition, GAO recommends that the Secretary direct the Director of BLM to require stronger program oversight (see ch. 3) and to improve the program's official automated data (see ch. 4).

---

### Agency Comments

The Department of the Interior provided written comments on a draft of this report. Interior agreed, in general, with all of our recommendations. Interior also said that BLM is taking actions to remedy deficiencies identified in our report. Interior's comments are presented and evaluated in appendix VII, and comments regarding actions that Interior has taken or planned are summarized in chapter 6.



---

# Executive Summary

---

## Purpose

In 1988, the federal government, states, and Indians shared almost half a billion dollars in revenues from a percentage (called royalties) of the value of the oil and gas produced from about 20,000 leases located on onshore federal and Indian lands. Concerned, however, about persistent allegations of continued underpayment of such royalties, the Chairman, Subcommittee on Mineral Resources Development and Production, Senate Committee on Energy and Natural Resources, asked GAO to evaluate the Department of the Interior's inspection and enforcement program responsibility for onshore federal and Indian oil and gas lease production verification. The Secretary of the Interior has assigned that responsibility to the Bureau of Land Management (BLM). Our review addressed adequacy of inspections, program oversight, and accuracy of program data.

---

## Background

Responding to problems identified by GAO, Interior's Office of the Inspector General, and the Commission on Fiscal Accountability of the Nation's Energy Resources (the Linowes Commission), the Congress passed the Federal Oil and Gas Royalty Management Act of 1982 (FOGRMA). This act requires Interior to establish a comprehensive system, including inspections, for accurately determining oil and gas royalties. A key component of such a system is the verification of production. The act also requires at least annual inspections of leases producing significant quantities of oil or gas and leases having histories of noncompliance with applicable laws and regulations.

BLM generally performs two types of inspections relating to production. The basic 40-point checklist inspection is a brief observation of a lease to identify production-related problems, such as improperly sealed valves. It is not designed to verify inventories or production or to compare calculated production with volumes reported by the operator for the period or for a past comparable period. The production verification inspection is meant to determine if underreporting of production has occurred. It is more comprehensive and includes several visits to a lease site within a month to verify inventories, observe and estimate production, and compare calculated production with volumes reported.

---

## Results in Brief

The extent of BLM's production verification is inadequate to satisfy FOGRMA's requirement that Interior accurately determine royalties. In 1982, the Linowes Commission concluded that the federal government had allowed the oil and gas industry to operate essentially on an honor system whereby royalties were based on mostly unverified data

