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United States General Accounting Office

GAO

Report to the Secretary of the Interior

March 1986

# PUBLIC LANDS

# Interior Should Ensure Against Abuses From Hardrock Mining

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GAO

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

Resources, Community, and
Economic Development Division
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March 27, 1986

The Honorable Donald P. Hodel
Secretary of the Interior

Dear Mr. Secretary:

This report describes how effectively the Bureau of Land Management (BLM) is regulating mining activities conducted under the Mining Law of 1872, as amended. We found that because BLM does not require its state offices to screen mining claim data at the time the claims are recorded (1) some claims are recorded without sufficient information to determine their location and (2) claims located on federal lands after they are closed to minerals exploration and development are not being identified and invalidated. Furthermore, despite legislative requirements for reclamation, some BLM lands are not being reclaimed, and BLM does not require most miners to post bonds covering the costs of reclamation.

As you know, 31 U.S.C. 720 requires the head of a federal agency to submit a written statement on actions taken on our recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Operations not later than 60 days after the date of this letter and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of this letter.

We are sending copies of this report to the Senate Committee on Energy and Natural Resources, the House Committee on Interior and Insular Affairs, and other interested parties.

Sincerely yours,

J. Dexter Peach
Director

# Executive Summary

About 2 million mining claims are located on federal lands, mostly in the West. Yet, until the 1970's, the federal government did not know the number of claims on its lands or where they were located. Further, the federal government had little authority to control the environmental effects of mining. The Federal Land Policy and Management Act of 1976 (FLPMA) was intended to correct these shortcomings by requiring claim holders to record mining claims with the Interior Department's Bureau of Land Management (BLM) and by authorizing BLM to protect its lands from environmental damage.

GAO reviewed BLM's policies and procedures to determine if BLM is assuring that

- mining claims are not located on federal lands after they are closed to mineral exploration and development and
- federal lands are adequately reclaimed once mining activity ceases.

## Background

Under the Mining Law of 1872, still in effect, a person could enter federal lands and establish or locate a claim to a valuable deposit of hardrock minerals such as gold, silver, and copper. The law required only that the claim holder meet state requirements for recording claims, which generally meant entering the claims in county land records. Few other conditions were imposed. Consequently, federal land managers had few means under the Mining Law to control environmental damage.

By its nature, however, mining can cause significant environmental disturbance. Consequently, under various laws, the Congress prohibited mining in national parks, wilderness areas, and other special-purpose lands by "withdrawing" them from mining. FLPMA required claim holders to record their claims with BLM's state offices so that BLM could maintain an accurate inventory of mining claims. This recording process also allows BLM to identify and invalidate claims located on federal lands after they are withdrawn.

FLPMA further authorized BLM to directly regulate environmental effects on its lands. Mining operations affecting more than 5 acres a year must have an approved plan of operations, including a plan to reclaim lands disturbed by mining, while smaller operations need only file a notice of intent to mine. (See pp. 10 and 22.)

## Results in Brief

Because BLM does not require its state offices to review mining claim data submitted by the claim holder at the time the claims are recorded, some offices are not invalidating claims which are located on federal lands after they have been withdrawn from mining. (See p. 17.) In addition, despite the requirements for reclamation, some BLM lands are not being reclaimed, and BLM does not require most miners to post bonds covering the costs of reclamation. (See pp. 24 and 28.)

## Principal Findings

### Screening Mining Claims

In 5 of the 10 western states where most mining claims are located, BLM state offices screen claims as they are recorded to make sure that they are not located on withdrawn lands. However, BLM offices in the other five states—California, Colorado, Nevada, Oregon, and Wyoming—do not screen. In Colorado and Nevada, GAO estimates that 2,178 and 2,286 mining claims, respectively, were located on federal lands after they had been withdrawn from mineral exploration and development. (See p. 16.)

### Reclamation of Mined Federal Lands

Between 1981 and 1984, more than 8,600 plans of operation and notices of intent to mine were filed with BLM. Each of these mining projects could cause surface disturbance requiring some degree of reclamation, such as reshaping the land, reapplying topsoil and vegetation, and removing or controlling toxic materials.

To determine whether reclamation requirements are being met, BLM recommends at least one mine site inspection. GAO obtained information from BLM on the most active mining districts in 10 western states and found that more than half of 556 mine sites that began operations in 1981 had not been inspected. BLM was, therefore, not aware of whether any of these mining operations had been abandoned and left unreclaimed. Of 246 sites that were inspected, 96 sites, or 39 percent, had not been reclaimed at the time of inspection. (See p. 24.)

The full extent to which mined lands are not reclaimed is unknown, but BLM officials in Colorado and Nevada were able to identify 30 sites for GAO which showed varying degrees of environmental damage, including deep trenches and open pits. Each of these sites was either abandoned or mining operations had been suspended, and BLM officials doubted that operators will return to reclaim the sites. (See pp. 24-27.)

One way to ensure that mined sites are reclaimed is to require operators to post a bond that covers the costs of reclamation and is released only when the land has been reclaimed. Although BLM can bond mine operators who file a plan of operations, it is agency policy to require a bond only if operators have a record of noncompliance. Further, the regulations do not require bonds from operators working under notices of intent—the most frequent type of mining operation.

BLM excludes most operations from bonding requirements because of its concern for imposing added costs on mine operators. However, without such a financial guarantee, BLM has no way of assuring that reclamation will occur. GAO believes, based on limited available information, that the relatively modest cost of bonding is justified by the need to assure that mined lands will be reclaimed by the operator and not at public expense. (See pp. 27-30.)

## Recommendations

GAO recommends, among other things, that the Secretary of the Interior direct BLM to

- screen mining claim information at the time claims are recorded and invalidate those claims located on federal lands after they have been withdrawn (see p. 18) and
- require all mine operators to post a bond in an amount large enough to cover the costs of reclamation if their operations could cause significant land disturbance. (See p. 32.)

## Agency Comments

Interior disagreed with GAO's recommendations. It stated that BLM already requires sufficient claim location information and that it is not necessary to invalidate claims until an operator plans to begin mining. In addition, its current bonding policy, according to Interior, is an equitable managerial tool and can foster both mineral development and environmental protection goals without imposing substantial costs on operators. (See pp. 18 and 32 and app. I.)

Although BLM requires sufficient claim location information, some BLM offices do not screen that information (at the time claims are recorded) to determine whether they are located on withdrawn lands. Because claim holders must perform some assessment work on the land each year to maintain title to their claims, BLM is not assuring that environmental damage will not occur to withdrawn lands between the time a

claim is recorded and an operation proposed. Finally, GAO's review demonstrates that the current bonding policy is not achieving environmental protection goals, since at least 30 sites in 2 states were left unreclaimed. GAO found that, contrary to Interior's assertion, bonding can better assure that reclamation will take place without placing an undue burden—about $12 to $75 per year for a typical small operation—on mine operators. (See pp. 18 and 32 and app. I.)

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## Abbreviations

| | |
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| BLM | Bureau of Land Management |
| FLPMA | Federal Land Policy and Management Act of 1976 |
| GAO | General Accounting Office |
| RCED | Resources, Community, and Economic Development Division |

# Introduction

Until the 1970's, the development of certain minerals on federally owned lands was largely unrestricted. In general, persons wishing to establish a mining claim on federal lands did not have to inform the federal government, nor could the government directly regulate mining to control environmental damage. However, legislation passed in 1976 attempted to remedy this by requiring claim holders to (1) record their claims with the federal government, (2) take measures to mitigate environmental impacts, and (3) reclaim mined federal lands. Accordingly, the Department of the Interior's Bureau of Land Management (BLM) issued regulations in 1977 and 1980.

## The Mining Law of 1872

Unlike fuel minerals (coal, gas, and oil), minerals such as gold, silver, and copper can be mined by anyone who discovers them on federal lands. Under the Mining Law of 1872 (30 U.S.C. 22 et seq.), a U.S. citizen (or a corporation licensed to do business in the U.S.), can freely enter federal lands open to mineral development and establish a claim to any valuable hardrock mineral deposit discovered. Once the claim has been entered in local land records, the claim holder has exclusive rights to the land for mining purposes. To maintain the claim, the holder must perform at least $100 of assessment work a year, that is, drilling, excavation, or other development work. After a deposit has been discovered, the claim holder may patent the claim and purchase the land, including mineral rights, from the government for $2.50 to $5 an acre. Whether patented or not, however, a mining claim is a fully recognized private interest that can be traded or sold.

The Mining Law of 1872 was one of a number of laws aimed at increasing settlement and development of the West. Originating in the rules and customs instituted by miners during the early days of the Gold Rush, its basic underlying principle was the granting of exclusive mineral rights as a reward for discovery.

In 1920 the Mineral Leasing Act (30 U.S.C. 181 et seq.) amended the Mining Law of 1872 by creating a leasing system for coal, oil, gas, phosphate, and other fuel and chemical minerals. Under a leasing system, the government determines which of its lands will be made available for mineral development and, in its leases, sets the terms under which development can take place. In 1955 common varieties of sand, stone, and gravel were removed from development under the Mining Law. Other minerals, however, commonly referred to as locatable, hardrock, or nonfuel minerals, still fall under the Mining Law of 1872. They

include both metallic minerals, such as gold, silver, copper, iron and lead, and nonmetallics, such as fluorspar and asbestos.

Since the Mining Law required only that claim holders meet local recording requirements, the federal government did not know how many claims were located on federal lands, although in the mid-1970's, estimates were as high as 6 million claims. Without a search of county records, the government was unable to tell which claims were being mined, on which lands they were located, or whether mining claims were being located on lands that had been closed to mineral development.

Of the 732 million acres of federal lands, mining is prohibited on more than 135 million acres, which are said to be withdrawn from mineral entry. Some of these lands were withdrawn by the Congress under a number of different laws; others were withdrawn by the Secretary of the Interior under various legislative authorities.

More than half of these withdrawn federal lands are national parks and monuments; the remaining lands are managed by BLM, the U.S. Forest Service, and other federal agencies. Wilderness areas, Indian reservations, military reservations, scientific testing areas, some reclamation projects, and some wildlife refuges are also off-limits to mining.

Mining was restricted in withdrawn areas because the Congress or the Secretary of the Interior believed that it would conflict with the intended purpose or values of the lands. In general, mining claims located on federal lands after the land has been withdrawn from mineral exploration and development are considered invalid, and anyone working such a claim on withdrawn land is trespassing.

Without such mitigating measures and land reclamation requirements, mining can leave unsightly scars on the land, create health and safety hazards, contribute to air and water pollution and soil erosion, and destroy vegetation and wildlife habitat. Prior to the passage of the Federal Land Policy and Management Act of ~~1976~~ (FLPMA) (43 U.S.C. 1701 et seq.), these environmental effects could be regulated to some extent under federal clean air and water legislation and under certain state laws. However, BLM land managers lacked clear and direct authority to regulate the environmental effects of mining, and withdrawals became a tool to use in the absence of such authority.

## The Federal Land Policy and Management Act of 1976

FLPMA established a policy of land use planning and management based on the concepts of multiple use and environmental protection. It was enacted, in part, in response to the recommendations of a commission the Congress established in 1964 to make a comprehensive study of public land laws. The Public Land Law Review Commission's 1970 report cited several shortcomings in the Mining Law, noting that federal land managers were unaware of where mining claims were located and that they had no means to effectively control environmental impacts resulting from mining activity.

FLPMA required all persons holding mining claims on federal lands—those managed by BLM, the Forest Service, or any other federal agency—to record their mining and claim sites with BLM. BLM was also authorized to take necessary actions to control environmental impacts on its lands. Section 314 of FLPMA requires all holders of mining claims to file a record of their claims within 90 days after they are located. Holders of claims located before October 1976 were given 3 years to record their claims. According to BLM, as of September 1985, about 2 million mining claims were recorded with the agency, 90 percent of them in the western states.[1]

To control the effects of mining and other activities, Section 302(b) of FLPMA directs the Secretary of the Interior to ". . . take any action necessary to prevent unnecessary or undue degradation of the lands." According to BLM regulations, this means that operators must reclaim lands disturbed by mining as soon as feasible, which in turn means reshaping land disturbed by operations, saving and reapplying topsoil, controlling erosion, isolating or removing toxic materials, and revegetating disturbed areas.

These regulations apply only to the approximately 342 million acres of BLM lands, which account for about half of the federal domain. While BLM is responsible for managing the mineral resources underlying lands owned by other federal agencies, those agencies regulate the surface resources of their lands. Thus, the Forest Service, second to BLM in acreage with about 192 million acres, has separate authority under regulations issued in 1974 to control the environmental effects of mining on its lands.

[1]These states include Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, and Wyoming. Those with the greatest number of recorded mining claims are Nevada (about 319,000 claims), Utah (about 283,000 claims), Arizona (about 228,000 claims), and Colorado (about 207,000 claims).

## Objectives, Scope, and Methodology

Our objective was to evaluate how BLM carries out its mining claims recording and environmental protection responsibilities under FLPMA. In particular, we focused on whether BLM had procedures to assure that

- BLM is provided with enough information to determine (1) where mining claims are located on its lands and (2) whether mining claims were located on federal lands after the land was withdrawn from mineral exploration and development and
- mined federal lands are adequately reclaimed once mining activity conducted under the Mining Law of 1872 ceases.

## Recording Mining Claims

In examining how BLM records mining claims, we talked to BLM officials in each of the 10 western states that account for most hardrock mining activity on federal lands. We discussed claim-recording procedures over the telephone with BLM state office officials in eight of these states: Arizona, California, Idaho, Montana, New Mexico, Oregon, Utah, and Wyoming. In addition, we visited the Colorado and Nevada BLM state offices to discuss recording procedures and to review a sample of mining claim files. We chose these two states for in-depth review because of the large number of mining claims located in each state. BLM officials also suggested these states because of their high levels of mining activity. (See app. II for a list of BLM offices visited.)

In order to estimate the number of claims with inadequate location descriptions or located on withdrawn land, we developed statistically reliable projections for Nevada and Colorado at the 95-percent confidence level from the sample of active claims we selected. In order to be considered active, the claim had to have either a current annual assessment affidavit on file (a document from the claim holder stating that the legal requirements for holding a claim were met), or have been filed within the last year prior to September 14, 1984. In Nevada we drew a sample of 135 mining claims which included 38 inactive and 97 active mining claims from a universe of 317,538 claims. On the basis of the number of active mining claims in the sample, as of the time of our review we projected the active claim universe in Nevada to be 228,627 at the 95-percent confidence level. In Colorado, the sample of 280 mining claims, including 184 inactive and 96 active mining claims, came from a universe of 206,619. Again at the 95-percent confidence level, we projected the active claim universe in Colorado to be 70,250.

To determine whether the mining claim location information was sufficient to locate the claim on the ground, we asked BLM officials to determine the sufficiency of the information contained in the location notices. To determine if claims were located on withdrawn lands, we plotted the claims on BLM master title maps and noted if they lay partially or completely on withdrawn federal lands. In doing this, we compared the date of the location of the mining claim to the date of the withdrawal. Any claim located after the date of the withdrawal was considered invalid. Any claim located prior to the date of the withdrawal was considered valid. Our projections were based only on invalid claims. Throughout this process, BLM officials assisted us in order to confirm our findings.

## Mined Land Reclamation

To determine whether mined federal lands are being reclaimed, we talked to responsible BLM officials in Washington, D.C., and in each of the 10 western state offices. Within each state, we also gathered data over the telephone from BLM district offices located in areas with heavy mining activity. Again, because of the amount of mining in those two states, we visited Colorado and Nevada BLM state offices. Officials there identified mining sites and accompanied us on visits to these sites that they believed had been abandoned without reclamation.

Because of the similarity in land management and environmental protection responsibilities, we reviewed Forest Service bonding practices in order to compare them with those of BLM. We visited three Forest Service offices in Colorado: the Rocky Mountain regional office in Denver, the Ouray Ranger District office in Montrose, and the Alamosa Ranger District office in Durango. There, we interviewed officials responsible for mined land reclamation on Forest Service lands. At the two district offices, we also reviewed selected case files to determine how the Forest Service handles mining operations involving significant surface disturbance.

We conducted our review between September 1984 and November 1985 in accordance with generally accepted government auditing standards.

# BLM Should Strengthen Its Procedures for Recording Mining Claims

Although one of the major objectives of FLPMA's mining claim recording requirement was to allow federal land managers to know where mining claims are located in case they wanted to sell or exchange their lands, not all BLM state officials review mining claim location information at the time the claims are recorded. Consequently, some claims are recorded without sufficient information for BLM to determine their location on the ground.

BLM had earlier recognized that the recording process allows its land managers the opportunity to identify mining claims located on federal lands after these lands have been withdrawn so that the claims could be declared invalid and not recorded with the agency. Although BLM once had a policy to check land status at the time claims were recorded, that policy expired in 1977. Current BLM policy, although it recognizes that claims on withdrawn lands should be identified and declared invalid, does not specify when this should be done. As a result, we found that BLM is recording invalid mining claims.

## Requirements for Mining Claim Location Data

FLPMA's requirement for recording mining claims with BLM was intended to let federal land managers know which of their lands were covered by mining claims. Before FLPMA was enacted, each time BLM, the Forest Service, or other land-managing agencies proposed a sale or exchange of land, it had to undertake a lengthy search of county records to determine whether any outstanding mining claims might encumber the conveyance. If mining claims did exist, the agency had to take formal administrative actions (as is still required) to determine the mining claim's validity or legal status.

Section 314 of FLPMA requires claim holders to file a notice or certificate of location with BLM in addition to meeting state law requirements that usually require claims to be recorded with the county where the mining claim is located. Claim holders are required to submit a copy of the notice or certificate of location and a geographic description that would allow BLM officials to locate the claimed lands precisely or, as expressed in FLPMA, on the ground. According to BLM regulations, the claim holder must submit data with the location notice that identifies the specific quarter-section (a 160-acre area) in which the claim is located. To further locate the claim, the notice must be accompanied by either a map or narrative description that places the mining claim in relation to some well-known permanent object such as a hill, bridge, stream fork, or road intersection.

## Screening for Mining Claim Location Information

To determine whether BLM was obtaining sufficient information to locate mining claims on the ground, we talked to 10 western BLM state offices and reviewed a sample of current location notices in two of these states—Colorado and Nevada.

We found that the 10 BLM state offices check location information as the claims are recorded to make sure that claim holders specify the quarter-section in which the mining claim is located. This information is required for entering a record of the claim into BLM's computerized mining claim recording system. If the information is not included, BLM staff ask the claim holder to provide it. However, BLM state officials responsible for recording mining claims told us that quarter-section data were not enough to locate mining claims on the ground. Although BLM regulations require claim holders to furnish more detailed information that allows the claim to be found on the ground, some BLM state offices do not check to make sure that this information is provided.

BLM state offices in Colorado, Montana, Nevada, and Oregon do not check beyond quarter-section data, while state offices in Arizona, California, Idaho, New Mexico, Utah, and Wyoming check for maps or some other information that places the claim in relation to some well-known landscape feature. For example, in New Mexico, BLM state officials told us that they ensure that enough information is provided by plotting mining claim locations on BLM's master title maps. A copy of the map is then placed in the mining claim file.

In Colorado and Nevada, states with a great deal of mining activity that do not check for information more specific than the quarter-section data, we reviewed a statistical sample of mining claim location descriptions. BLM officials determined for us the adequacy of the claim location information. Based on this determination, we estimate that in Colorado about 2,950 location descriptions do not contain enough information to locate the claims on the ground, while in Nevada this is true of about 4,800 location descriptions.

In addition to not being able to locate claims on the ground, in these cases BLM officials would have to obtain further information from claim holders when any changes in land use or a land sale or exchange are contemplated. A number of BLM state office officials told us, however, that trying to obtain information at that point can be difficult and time-consuming because claim holders are often hard to find. In their view, it is much easier to gather location information when the claim is recorded.

## Screening for Mining Claims on Withdrawn Lands

More than 135 million acres of federal land are closed to mining. Mining claims located on these lands before they were withdrawn are considered to have valid existing rights. Claims located after the lands were withdrawn are considered invalid. However, not all BLM state offices check to make sure that mining claims located on these lands after they were withdrawn are declared invalid. BLM state offices in Arizona, Idaho, New Mexico, Montana, and Utah routinely make such checks, but offices in California, Colorado, Oregon, and Wyoming do not. Nevada does not screen claims as they are recorded, but it has begun to retrospectively review claims filed since 1977. We estimate that, in Colorado, about 2,178 mining claims were located on federal lands after they were withdrawn and, in Nevada, about 2,286 were located on withdrawn federal lands after the date of the withdrawal.

In addition to our sample results, we found other evidence that mining claims were being located on lands after they had been withdrawn. In an April 1984 memorandum from the Montrose, Colorado, District Manager to the State Director, the District Manager stated that he suspected that more than 70 mining claims had been located in an area of federal land withdrawn since 1957 for a Colorado River water storage project. In checking this area further, we found 231 mining claims that had been located either totally or partly within the boundaries of this withdrawn area after the withdrawal had occurred. We brought this matter to the attention of BLM state officials who told us that they would not rule on the validity of the claims unless BLM received complaints from the public or other land-managing agencies.

In those states that routinely screen location information, BLM staff check mining claim information against BLM's master title maps. These maps show the status of all lands within a state. If the claim appears to be on withdrawn federal lands, BLM adjudicates the claim, that is, it issues a formal decision on the claim's validity and notifies the claim holder. An Arizona BLM official estimated that about 300 to 400 mining claims recorded before January 1984 were invalidated in this way, while Idaho BLM officials estimated that they invalidated between 1,500 to 2,000 mining claims recorded before January 1985 because they were located on withdrawn lands.

Although current BLM policy is to adjudicate invalid claims when they are identified, in those states where the status of claimed lands is not routinely checked, BLM officials adjudicate a claim only when some specific complaint is made, either by the public or other land-managing agencies. The California BLM state office, for example, recently reviewed

some mining claims at the request of an environmental organization and found that they had been located on withdrawn lands. In addition, the head of BLM's Mining Law and Salable Minerals Division in Wyoming told us that some mining claims had recently been declared invalid because they had been located on lands withdrawn for aesthetic and environmental protection. The division chief said, however, that the BLM state office did not know how many other such claims existed.

BLM state office officials in Colorado and Oregon have undertaken reviews of their mining claim files as time and staff availability permit. The Nevada BLM state office has instituted a systematic review of all recorded mining claims, but as of September 1985, it had completed a review of claims filed in 1977 only.

## BLM Lacks a Policy on When to Check Land Status of Mining Claims

The variation among BLM state office practices on screening mining claim information arises from the absence of an agency-wide policy on when these claims are to be screened. Although BLM policy recognizes that claims on withdrawn land without valid existing rights should be identified and declared invalid, it does not specify when this should be done. BLM once had a directive requiring that the recording process be used to identify mining claims located on withdrawn federal and private lands. But it was allowed to expire, and the agency has not issued any specific instructions to BLM state offices on when to examine land status.

According to BLM's program leader for mining claim recording, the agency expects claim holders to review land records in local BLM offices to make sure their claims are located on lands open to mineral exploration and development. After that, BLM state offices may check location notices, depending on how important the activity is considered relative to other BLM state program responsibilities. BLM officials in state offices that review mining claim data at the time of recording believe that screening is a high priority because it protects withdrawn federal lands and reduces the administrative costs of subsequently adjudicating claims. Officials of those BLM state offices that do not screen claims told us that they have higher priority land management activities.

Although BLM does not currently have a policy on when location notices should be screened, this was not always the case. According to a 1980 report on selected aspects of the recording process prepared by Interior's Inspector General, BLM had a directive on recording procedures that expired in 1977. The directive specified that master title maps be examined, and if a mining claim appeared to be located in an area

restricted from mining, the mining claim was to be declared invalid. Pointing out that BLM was subject to criticism for recording invalid claims, the Inspector General recommended that BLM replace the expired guidance and establish a formal, uniform procedure to timely identify invalid mining claims for subsequent adjudication.

No action was taken on the Inspector General's recommendation. According to BLM's mining claim recording program leader, the possibility of establishing such a uniform policy has been discussed within BLM for a number of years, but it has not been considered of sufficiently high priority to renew the directive. Nevertheless, in a June 1980 memorandum to all state offices, the BLM Director said that one of the purposes of the recording process was to help BLM prevent unauthorized mining and possible surface damage on withdrawn federal lands.

## Conclusions

FLPMA's requirement to record mining claims with BLM was designed to give federal land managers information needed to carry out their planning and management responsibilities. The recording process can also assist BLM land managers in preventing damage to withdrawn lands on which mining is prohibited.

Some BLM state offices make sure that mining claim notices contain sufficient location information and are not located on withdrawn federal lands. Other state offices, however, have accorded this job a lower priority, performing it intermittently or not at all. BLM headquarters is aware of the problem, but it has not taken corrective action.

While BLM requires claim holders to submit mining claim location information, its current procedures to screen the information stop short of ensuring that the required level of detail is provided. Because some BLM state offices check only for quarter section data, claims have been recorded which BLM officials are unable to locate on the ground. By checking for all necessary location information at the time the claim is recorded, BLM saves the time and expense that may be involved in later searches. With this detailed location information, BLM can also identify and invalidate claims on withdrawn lands, thus protecting the lands from mining and any related damage before trespass occurs.

## Recommendations

We recommend that the Secretary of the Interior require the Director of the Bureau of Land Management to establish a uniform policy to review

mining claim location information when the claims are recorded with BLM to ensure that:

- The location information provided contains sufficiently detailed descriptions to enable land managers to find the location of claimed federal lands.
- Only those mining claims located on lands open to mineral exploration and development are recorded with BLM. Mining claims located on federal lands after the lands were withdrawn should be formally declared invalid by BLM.

## Agency Comments and Our Response

Interior did not agree with our recommendations, contending that current BLM policies and regulations were sufficient. Pointing out that BLM has had a policy to determine land status since 1977, Interior said that it has always been the responsibility of the claim holder to establish land status before locating a mining claim. Thus, while land status determination is provided as a service as resources permit, it is not the sole or even primary function of the mining claim recording program.

Interior suggested that to review location information before recording mining claims would not be possible until some of the large backlog of claims in state offices from the rush to meet the FLPMA deadline was cleared. In any case, Interior said, it would be more cost-effective to determine whether a mining claim is located on withdrawn land at the time a claim holder plans to begin operations rather than during the recording process. First, Interior said, earlier screening does not prevent surface disturbance since this takes place during the process of claim staking. Second, Interior states that BLM officials can best determine the location of the claim on the ground when reviewing an operator's proposed operation. Finally, Interior said, FLPMA does not require that BLM be able to pinpoint the claim, but only locate it on the ground.

Interior went on to point out that mining claims located on federal lands before they are withdrawn retain valid existing rights, a concept not recognized in our report. Therefore, Interior believed that many of the more than 2,000 claims in Nevada we projected to be on withdrawn lands were those with valid existing rights. Interior also believed that our sample of claims was drawn from all claims recorded, not just those that are current and active and, therefore, our estimate was inflated. For these reasons, Interior concluded that our analysis needed to be redone and our conclusions adjusted accordingly.

Interior's interpretation of our findings and recommendations is based on incorrect assumptions about our review methodology. To correct this problem, we have made clarifying changes to the report. For example, we have made clear that our projections were based only on claims located on lands after the date of withdrawal and do not include claims with valid existing rights. Likewise, our projections are based not on the total number of claims recorded, as Interior charges, but only on those claims that are active. We, therefore, remain confident in our analysis and the conclusions drawn from it.

Current BLM policy, although it recognizes that mining claims located on lands after they were withdrawn should be identified and declared invalid, does not specify that this should be done at the time the claims are recorded with BLM. Yet, BLM state officials told us that doing so saves time and trouble involved in later searches. In addition, those same BLM state officials believe it is important because it protects withdrawn federal lands from possible surface disturbances and reduces the administrative costs of locating the claim holder and invalidating the claims later on.

We disagree with Interior that checking a claim location at the time a claim holder proposes to begin operations is more cost-effective. All BLM state offices already review claim location information to some extent at the time claims are recorded. Carrying this screening process further would take little extra effort in our view and—even more important—is the only way BLM can make sure that its requirements for complete information are met. We also disagree that checking land status during this screening process affords no additional environmental protection to withdrawn lands. At a minimum, claim holders must perform at least $100 of assessment work each year to maintain title to their claims, which could include drilling and excavation. Consequently, Interior has no assurance that no further damage will occur to withdrawn lands between the time a claim is recorded and an operation proposed.

Although Interior implies that the backlog of claims has kept BLM state offices from screening location information even if they wanted to, we found no indication of this in our review. Those BLM state offices that do not screen told us that although they recognize the importance of initial screening, they have assigned this task a low priority because of other land management responsibilities. They did not mention a backlog of claims as a reason for not screening.

In using the term "pinpoint," we did not mean to suggest that BLM require any more information, but only that it check to make sure that the information needed to locate the claim was actually furnished. Although "pinpoint" is commonly used to mean "precisely locate," we have deleted it from the report in the interests of clarity. As noted earlier, BLM officials reviewed claim location descriptions for us and it was their view that the data provided were not enough to locate the claims on the ground.

# BLM Should Require Bonding to Assure Reclamation of Mined Federal Land

To prevent unnecessary or undue environmental degradation of its lands, BLM requires all mine operators to reclaim lands disturbed by mining as soon as feasible. Bonding—requiring an operator to post a financial guarantee—could provide such assurance, but BLM has limited its use. We found unbonded mining operations that have been either suspended or abandoned, and any reclamation of these damaged lands may have to be performed at public expense.

## BLM Requirements for Land Reclamation

Before FLPMA's enactment, the Secretary of the Interior generally had two options for controlling the environmental effects of mining operations under the Mining Law of 1872: informally requesting the mine operator to control environmental impacts or withdrawing the land from mineral activity. If the mine operator did not cooperate, the Secretary then had to seek court-ordered actions or institute withdrawal procedures. By giving the Secretary broad authority to prevent unnecessary or undue degradation of the public lands without specifying the means, Section 302(b) of FLPMA granted the Secretary clear authority to effectively exercise environmental controls.[1]

## Types of Mining Operations

The type and extent of reclamation needed to mitigate mining damage vary depending on the nature of the mining operations and the type and extent of the damage to the land. BLM's regulations define reclamation to mean taking reasonable measures to prevent unnecessary or undue degradation of the federal lands, including reshaping land disturbed by operations, saving and reapplying topsoil, taking measures to control erosion, taking measures to isolate, remove or control toxic materials and revegatating disturbed areas.

BLM's regulations implementing Section 302(b) of FLPMA define three distinct levels of mining operations: (1) casual use, (2) disturbances of 5 acres or less per year, and (3) disturbances of more than 5 acres per year. At all three levels, the operator must prevent unnecessary or undue degradation and complete reclamation at the earliest feasible time.

The first level, "casual use," normally includes operations that cause only negligible surface disturbance. Mining activities are generally considered casual use if they do not involve the use of mechanized earth-

[1] While the Secretary may still have to seek court orders to prevent operators from causing undue or unneccessary degradation, FLPMA provides clear authority for such actions.

moving equipment and explosives. For the second level, surface disturbance of 5 acres or less per year, the operator must submit a letter or "notice of intent" to BLM 15 days before starting operations. For the third level, surface disturbance of more than 5 acres per year, the operator must submit a "plan of operation" that describes the entire mining operation, including equipment, location of access routes, support facilities, drill sites (to the extent possible), and reclamation plans. While operators are required to notify BLM when any necessary reclamation has been completed, they are not required to indicate in their notices or plans the dates by which they expect to have completed site reclamation. According to BLM regulations, BLM may require reclamation of mine sites even before the operation is complete if the site is inactive for an extended period of time.

As table 3.1 shows, since 1981, 8,645 notices of intent and plans of operations were filed with BLM, with more than 2,000 filed in Nevada. More than 70 percent of all filings have been notices of intent.

**Table 3.1: Notices and Plans Filed With BLM Under the Surface Management Program** (1981 - 84)

| State | Notices of intent filed from 1981 through 1984 | Plans of operations filed from 1981 through 1984 | Combined total |
|---|---|---|---|
| Alaska | 902 | 274 | 1,176 |
| Arizona | 731 | 336 | 1,067 |
| California | 317 | 876 | 1,193 |
| Colorado | 532 | 31 | 563 |
| Idaho | 264 | 42 | 306 |
| Montana | 280 | 28 | 308 |
| Nevada | 1,841 | 222 | 2,063 |
| New Mexico | 190 | 13 | 203 |
| Oregon | 599 | 29 | 628 |
| Utah | 643 | 81 | 724 |
| Wyoming | 373 | 41 | 414 |
| **Total** | **6,672** | **1,973** | **8,645** |

## Extent of Reclamation

To determine whether mine operators were fulfilling BLM's reclamation requirements, we collected information on operations conducted in the 10 BLM resource areas with the greatest mining activity in each of the 10 western states we examined. We looked only at operations conducted under notices and plans filed in 1981, the first year operators were

required to notify BLM. We expected that some action would have been completed in these cases in the past 4 years and that BLM would have had enough time to inspect them. The 556 operations identified represent about 29 percent of all those filed that year in the 10 western states we reviewed.[2]

BLM does not require any mine site inspections but recommends that district offices make at least one inspection to make sure that operators are complying with reclamation and operating requirements. Because of the number of mine operators and the great distances over which they are spread, BLM recognizes that more frequent site inspections are difficult. BLM's Winnemuca, Nevada, office, for example, has more than 500 hardrock mining operations scattered over the 8 million acres in its district and has designated two staff geologists to inspect the sites in addition to their other duties. Consequently, BLM had not been able to inspect 310, or 56 percent, of the 556 operations. Of the 246 sites that had been inspected, 96, or 39 percent, were unreclaimed at the time of BLM's inspection. BLM did not know, however, whether these sites had been abandoned or operations simply suspended because operators had not informed them of their intent. In those cases where BLM officials tried to contact the operators, they were unsuccessful.

## Unreclaimed Mine Sites in Colorado and Nevada

Although BLM is not aware of the full extent to which unreclaimed mined lands may be a problem, we asked agency officials in Colorado and Nevada if they were aware of any such sites in their states. They identified for us 30 unreclaimed sites, including one in an area being considered for wilderness designation. Generally, operations on these sites had been approved in 1981, but none had been reclaimed as of August 1985. At all of these sites, significant land disturbance occurred after reclamation requirements went into effect.

While it is possible that operators planned to resume mining, all had been inactive for some time—from 1 to 4 years. This inactivity, coupled with the fact that most of these operators had been exploring for minerals, led BLM officials to believe that operations had been abandoned. Officials were, therefore, doubtful that operators would return to reclaim the mining sites. If the lands are to be reclaimed, it will be at public expense. However, BLM is not required to reclaim the lands,

[2]The 10 BLM Resource Areas we contacted and the number of notices and plans of operation filed in each during 1981 include: Lower Hila, Ariz., 80; Barstow, Calif., 79; San Juan, Colo., 53; Cascade, Idaho, 14; Dillon, Mont., 37; Shoshone-Eureka, Nev., 148; Las Cruces-Lords Burg, N.M., 22; Grants Pass, Oreg., 27; San Juan, Utah, 70; Divide, Wyo., 26.

except where public health is endangered, and has no plans at present to do so.

During our visits to 28 of the 30 sites, BLM officials pointed out to us a variety of types of land disturbance, including drill holes with miles of access roads leading up to them and large open pits and trenches creating safety hazards.[3] They also showed us waste piles, containers of caustic chemicals, and ponds containing cyanide used in mineral extraction. While four of the sites we visited had been larger operations conducted under plans of operation, 24 mining operations had been conducted under notices of intent.

Some of the sites included:

1. At an abandoned open-pit barite mine in Winnemucca, Nevada, 25 acres of top-soil had been removed to expose the underlying mineral deposit. Also abandoned were spoil piles and a half-mile road leading up to the mine.

2. A roughly 10-acre mine site in Washoe County, Nevada, was littered with mining equipment and a destroyed mobile home. Pieces of the mobile home were scattered throughout the area. Two 50-gallon barrels of sulfuric acid and several sacks of caustic chemicals were left behind and had been vandalized; acid from a barrel riddled with bullet holes had drained into the ground. (See fig. 3.1.)

3. On less than an acre of land in BLM's Carson City, Nevada, district, a trench, 5-feet deep by 15-20 feet wide by 150-200 feet long, presented safety hazards to the public and to wildlife. (See fig. 3.2.) BLM officials thought this trench, like others we saw, was probably dug as part of an exploratory venture; when no minerals were found, the site was abandoned.

4. Unreclaimed mining sites along the San Miguel River and the San Juan River in Colorado were littered with abandoned and rusting mining equipment.

5. At a 15-acre former silver mining operation in BLM's Elko, Nevada, district, access roads and a cyanide leaching pond, used to chemically extract silver, were left behind. An unstable dam that was left behind

[3]Because of time constraints, we were unable to make on-site visits to 2 of the 30 sites. For these sites, BLM officials provided us with site records and photographs that indicated land disturbances.

had flooded a natural spring. Also left unreclaimed were several deep trenches and a road that had been widened from 28 to 92 feet.

6. A cyanide leaching pond in BLM's Battle Mountain, Nevada, district still contained cyanide-contaminated liquids when we visited in May 1985. (See fig. 3.3.) The site covered more than an acre.

7. Over 1 mile of drill roads that were abandoned in BLM's Battle Mountain, Nevada, district left scars on a mountainside.

**Figure 3.1: Sulfuric Acid and Chemicals Left Behind**

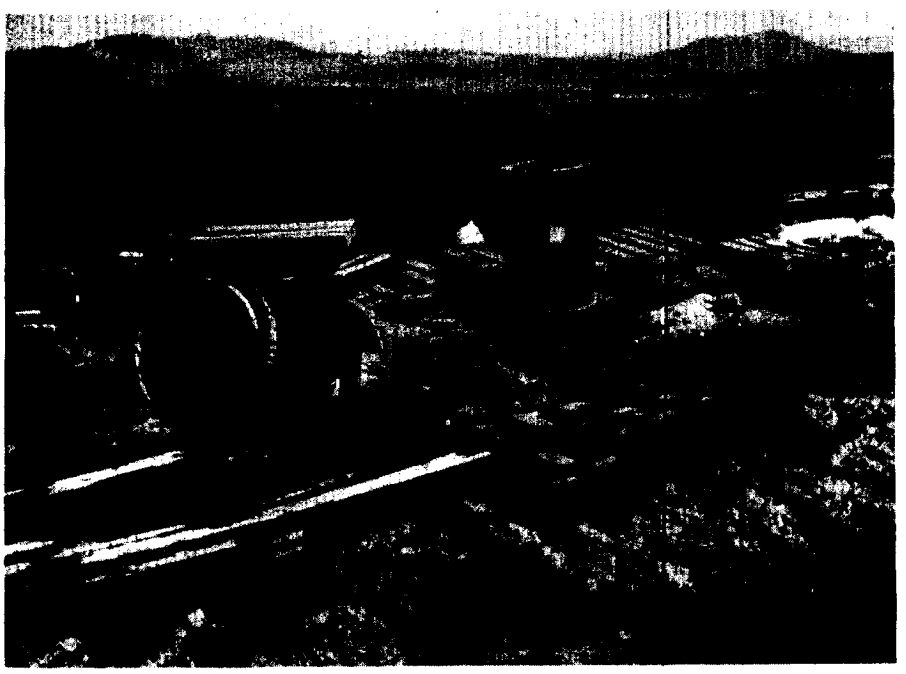

Figure 3.2: Safety Hazard Caused by Deep Trench

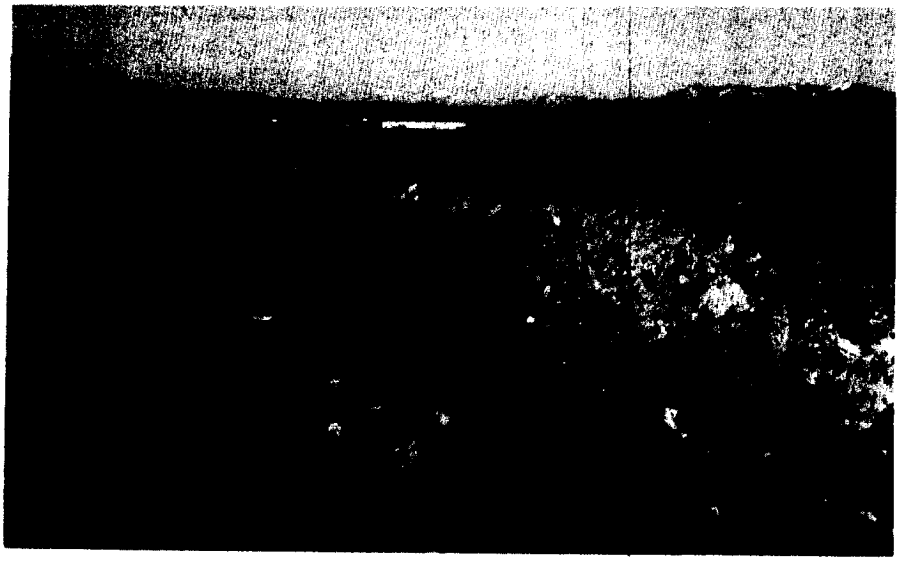

Figure 3.3: Pond Containing Cyanide Solution

## Use of Reclamation Bonds

According to Colorado and Nevada BLM officials responsible for surface management, bonding can assure that lands damaged by mining operations are reclaimed. When an operation is subject to bonding, BLM may

ask a mine operator to post a cash guarantee with either the U.S. Treasury or a commercial financial institution in an amount sufficient to cover the estimated reclamation costs. The bond is released only when the operator satisfactorily completes the reclamation work described in the plan of operations. According to BLM's draft environmental impact statement for its surface management regulations, a bond is not an absolute guarantee that a mine site will be reclaimed, but the effect of default on an operator's future ability to be bonded may provide an additional incentive. In any case, the amount of the bond is meant to cover the federal government's reclamation costs, if necessary.

While the federal government has had limited experience bonding hardrock mining operations, according to Forest Service records, the average reclamation cost for a small exploratory type mining operation could range from $2,000 to $5,000. According to a Forest Service official and several major insurance companies that have had extensive bonding experience, the cost of a hardrock mining bond has ranged from $6 to $15 per $1,000 worth of coverage per year—about $12 to $75. Insurance companies' representatives also told us that a mine operator who is financially sound and has a good record of past compliance with federal surface management requirements would have little difficulty obtaining a bond.

BLM regulations say that bonding may be required for mining operations involving more than 5 acres, that is, those conducted under plans of operation. If such an operation would cause only minimal disturbance to the land, however, it may be exempted from this requirement. In addition, if an operator has already posted a bond with a state agency, evidence of this will be accepted in lieu of a federal bond.[4]

In practice, however, BLM has rarely used its bonding authority because the agency is reluctant to impose extra costs on mine operators. According to BLM policy as described in its surface management manual, reclamation bonds are required only when an operator has an established record of regulatory noncompliance. That is, if BLM finds that an operator is not complying with its regulations or has not carried out the required reclamation work, it may issue a noncompliance notice. If the operator then fails to take the actions required by the notice, BLM can require the operator to furnish a bond. BLM can also seek a court order

[4]Colorado, Idaho, Montana, Oregon, Utah, and Wyoming have authority to require a bond on operations conducted under the Mining Law, but the extent to which this authority is exercised varies.

enjoining the operator from further mining and ordering the operator to reimburse BLM for the cost of reclamation.

In addition, BLM does not require bonds for operations conducted under notices of intent, even though, as we observed, they may cause damage as severe, if not as extensive, as that conducted under plans of operation. Generally, operations under notices are exploratory, and involve drilling holes, digging trenches and pits, and constructing access roads. These types of operations account for most mining activity conducted under the 1872 Mining Law—77 percent—and they also accounted for 24 of the 28 abandoned mine sites we visited. Yet, under current regulations, BLM can require a bond from operators working under notices only if BLM issues a notice of noncompliance and then requires the mine operator to submit a plan of operation. Not until the operator fails to comply with the actions required by the noncompliance order and is requested to file a plan of operations can BLM require a bond.

Among the 556 notices and plans BLM identified for us (see p. 24), only one operator was required to furnish a bond. BLM subsequently had to use the money to reclaim the mine site.

In draft surface management regulations published in 1976, BLM proposed bonding for all operations that would cause significant surface disturbance, including those conducted under notices of intent. However, many of the public comments BLM received on the proposal objected to this inclusion, arguing that operators working under notices of intent were typically small miners who lacked the ability to pay the cash amount of the bond or pay the premiums charged by bonding companies. Therefore, in its final regulations, BLM limited the bonding requirements to operations conducted under plans.

With such limited bonding requirements, BLM state officials have often been unsuccessful in getting operators to fulfill their reclamation obligations, as evidenced in part by the number of abandoned mines we saw in Colorado and Nevada. BLM officials in the Winnemucca, Nevada, district office told us of one such case, involving the open-pit barite mine discussed earlier. BLM's inspection early in 1983 revealed that the mine was no longer operating and that the pit, road, and waste piles had been left unreclaimed. Later that year, BLM found that the mine had been abandoned, the operating company had vacated its address of record, and the company's equipment was being sold under court order. The company did not respond to BLM's two noncompliance notices or to BLM's threat to require a bond and initiate court proceedings. Finally, an

attorney for the company informed the district office that the company was out of business and had no unencumbered assets.

BLM district officials then contacted a Department of the Interior solicitor to determine the feasibility of initiating legal action against the operator. The solicitor advised that it was not worth seeking a judgment, as any action or compensation ordered would be uncollectible because BLM had waived bonding requirements. He advised the officials, in the future, to obtain reclamation bonds whenever a plan of operation requires reclamation. However, when the BLM state director passed along the solicitor's advice to the district office, he reminded officials there of BLM's policy to require bonding only in cases where there is an established record of noncompliance.

BLM officials in Colorado told us about their efforts to get operators to reclaim two sites we visited along the San Miguel River. While inspecting these sites, BLM officials found large rock piles and open pits, and no evidence of reclamation. Although BLM issued notices of noncompliance in October 1983, by August 1985 neither operator had responded.

## Other Federal Programs Require Bonding for Reclamation

Other federal programs, including some administered by BLM, use bonding as a means to ensure that land is reclaimed after mining or drilling is complete. For example, bonds are required for all oil, gas, and coal operations on federal lands.

The Forest Service also requires hardrock mine operators on its lands to post reclamation bonds. Unlike BLM, however, the Forest Service requires bonds for all types of operations likely to create significant surface disturbance. In this way, if operators on Forest Service lands do not reclaim their mine sites, the Forest Service has funds for carrying out reclamation. Field supervisors review the operator's plan of operations, determine the likely degree of surface disturbance, and set the amount of the bond accordingly. Where only minimal disturbance is anticipated, the supervisor may not require a bond at all. According to field supervisors in two Colorado Forest Service districts, bonding is used extensively for mining operations, several of which are near abandoned mine sites on BLM lands.

## Conclusions

While the full extent of the problem is not known, some BLM lands where mining activity is being conducted under the 1872 Mining Law have been left without adequate reclamation. Since BLM does not expect these

operators to return, any reclamation will be done by the federal government. However, since BLM is not required to do the reclamation, these pitted and scarred landscapes will likely remain.

Although BLM has established regulations for reclaiming lands affected by mining, it has done little to enforce them. Inspections are infrequent because of the number of mine sites and the great distances over which they are scattered. Bonding mining operations—requiring a financial guarantee that the lands will be reclaimed—could be an effective enforcement tool, but BLM regulations and policy have limited its use. At present, BLM requires a bond only for operations covering 5 or more acres, and then only for operators with a record of noncompliance.

We believe that BLM's decision to require a reclamation bond should be based on the significance of land disturbance likely to result from the mining operation, not solely on the operator's past performance or the amount of land involved. As evidenced by several of the abandoned mine sites we saw, an operator's past performance is no guarantee that lands will be reclaimed. Even with the best of intentions, an operator may go bankrupt and be unable to pay for reclamation. Also, operations conducted under notices of intent can be just as damaging as those under plans of operation, and they are far more numerous.

Although we recognize BLM's concern for imposing additional costs on mine operators, without the financial guarantee that a bond provides, BLM has no way of assuring that reclamation will occur. In our view, operators must accept responsibility for correcting any damage they cause. The cost of a bond should be considered part of the cost of a mining operation and is justified by the need to assure that mined lands are reclaimed by the operator and not at public expense. As suggested by the Forest Service's experience, a bonding requirement still permits miners to operate while protecting the public from the possibility of mine abandonment. Further, the cost of bonding need not be prohibitive.

BLM land managers need to monitor the status of mining operations and their compliance with reclamation requirements, but they are now hampered from doing so because, without regular inspections, they have no way of knowing when mining operations are supposed to be complete. This information could be readily available, however, if operators were required to report their anticipated completion dates in their notices of intent and plans of operation.

## Recommendations

To help assure that federal lands damaged by mining operations conducted under the Mining Law of 1872 are reclaimed, we recommend that the Secretary of the Interior (1) base his decision on whether to require a reclamation bond on the significance of land disturbance likely to result from the mining operation and (2) require mine operators to post a bond in an amount large enough to cover the estimated costs of reclamation if their operations could cause significant land disturbance.

Also, to enable BLM to better monitor the status of mining operations and operators' compliance with reclamation requirements, we recommend that the Secretary amend the surface management regulations to require operators to furnish, as part of their notices of intent or plans of operations, the anticipated completion dates of their mining operations.

## Agency Comments and Our Response

According to Interior, bonding of all operators is neither possible nor desirable. BLM's current policy of bonding only those operators with a history of noncompliance is, in its opinion, a more equitable managerial tool. In addition, it allows the Secretary of the Interior to walk the tightrope between his dual responsibilities to prevent unnecessary and undue environmental degradation under FLPMA and to promote mineral development under the Mining Law of 1872.

It is Interior's view that bonding is a substantial cost that many small operators could not afford. Interior said that premiums are high—often 10 to 20 percent or more of projected costs. Interior said that bonding could change the face of the industry and that our analysis should be redone.

Interior said that its preferred approach is to require bonding of past offenders and to vigorously enforce compliance. Although the Department agreed in principle that operators should provide BLM with estimates of mining completion dates, it believes that its current policy calls for sufficient information exchange between operators and BLM to advise the agency when reclamation will be completed.

Although Interior contends that its current policies are equitable and satisfy the Secretary's dual responsibilities, we found this was not the case. While BLM may be promoting minerals development, considering the number of unreclaimed mine sites (30) pointed out to us by BLM officials, we believe Interior is not meeting its responsibilities to prevent unnecessary and undue degradation.

As to the costs of bonding, we disagree with Interior's contention that it would impose significant burdens on operators. We found, based on limited available information, that the cost of a bond for a typical small hardrock mining operation might range from about $12 to $75 a year. If an operator finds the cost of bonding excessive, we believe Interior should be concerned about whether the operator can afford to undertake the necessary site reclamation. We have modified our recommendation language to clarify that the decision to bond should be based on the significance of potential land disturbance.

Interior suggests that its policy of vigorously enforcing compliance with its surface management regulations is preferable to bonding. However, as our report points out, BLM does not require any inspections and recommends only one inspection during the life of a mining operation. As a result, we found that more than half the operations in the busiest mining regions of the West had not been inspected at all. We are also skeptical that current BLM policy provides for sufficient information exchange between operators and BLM to advise the agency when reclamation will be completed. As noted in our report, we found that even among those operators that had been inspected, BLM was unaware of the status of 39 percent of them because operators had not informed BLM if the operations were suspended or completed.

# Advance 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

JAN 7 1986

Mr. J. Dexter Peach
Director, Resources, Community, and
Economic Development Division
General Accounting Office
Washington, D.C. 20548

Dear Mr. Peach:

Thank you for the opportunity to comment upon the draft proposed report entitled 1872 Mining Law - The Bureau of Land Management Should Improve Its Regulation of Hardrock Mining. We appreciate the efforts that your investigators have made to assess Bureau of Land Management (BLM) practices with respect to mining claim recordation and surface management regulation mandated by the Federal Land Policy and Management Act (FLPMA).

We find the analysis in this draft report seriously flawed. Many of these flaws appear to derive from a fundamental misunderstanding of some mining law precedents and background leading to FLPMA passage. This leads to conclusions and recommendations to which we strongly object.

Please find enclosed our detailed comments upon the draft report. Specific comments addressing the details presented in the draft are provided on a paragraph-by-paragraph basis. Our comments on the basic conclusions in each chapter are followed by our reply to each formal recommendation of the report. Lastly, we include a copy of the draft report containing our technical and editorial annotations.

We trust that the General Accounting Office will find this exhaustive review of the draft report useful. A substantial additional reanalysis of pertinent facts relevant to the conduct of this program would be most appropriate. The magnitude of this additional effort is such that a new draft report should be prepared and subjected to further review. We request an opportunity to meet with you and your staff to discuss these issues and to assure our best mutual effort to optimize improvement of the future conduct of this program.

Sincerely,

J. Steven Griles

Assistant Secretary for Land
and Minerals Management

Enclosures

General Comments to Draft GAO Report - 1872 Mining Law
The Bureau of Land Management Should Improve Its Regulation of Hardrock Mining

Introduction

The draft report briefly reviews mining law background, the necessity for establishing a Federal recordation system, and the express authority for surface management regulations. The authors note that prior to FLPMA mining claimants did not inform BLM of their mining claim locations nor could the Government regulate mining to control environmental damage. More correctly, it should be noted that several earlier statutes required the recordation of mining claims on certain categories of land, but the courts ruled that failure to file with BLM did not void the mining claims. Also, the Government did have authority to regulate mining law activities before 1976 (see 43 CFR 3809.0-3), but did not exercise it via BLM regulation. Of course, substantive Federal environmental laws (e.g., Clean Air, Clean Water) were applicable to mining claim activities upon their enactments, though enforcement authority was not vested in the Secretary of the Interior. Withdrawal of land from mineral entry was indeed the primary tool for "regulating" and "managing" impacts from locatable minerals.

Mining Claim Recordation

With such an historical perspective, we see Section 314 of FLPMA as providing a mining claim recordation system primarily to clarify disparate procedures previously land available to and in use by land managers. By creating the conclusive presumption of abandonment for failure either to initially record one's mining claim or to file an affidavit of assessment work annually, stale mining claims were to be removed on October 23, 1979, and every December 31, thereafter, by operation of law. The onus of establishing the proper land status before locating one's mining claim has fallen upon mining claimants since 1866. Therefore, adjudication of land status, though provided as a service to mining claimants as resources allow, is not the sole, or even primary, function of the mining claim recordation (MCR) program.

The authors of the draft report seem unaware of the avalanche of initial recordings that buried BLM State Offices in the few weeks before the end of the three-year grace period for pre-FLPMA mining claims. An analysis of these statistics in a historical context is essential to a substantially improved understanding of the history of this program. Furthermore, there is BLM Manual direction, and there has been policy since 1977, to adjudicate land status. The General Accounting Office suggestion seems to be that such checks should be done prior to recording the mining claims. While this may be attainable in the future when a steady-state basis is reached, many of the thousands of mining claims received, when staffing did not allow the luxury of immediate status checks, have yet to be adjudicated.

We hasten to point out that in terms of limiting environmental disturbance on withdrawn lands, screening at the MCR stage is not as cost effective as during the review of a plan of operations or notice under 43 CFR 3809, for two reasons. First, the disturbance of mining claim-staking itself, though minimal, has already occurred when a mining claim is recorded with BLM, so early screening is no help then. Second, FLPMA requires description of mining claims sufficient for BLM to locate them on the ground. By regulation we ask for a quarter-section legal description and a map or narrative to help find the claims within that 160-acre tract. To state that FLPMA requires a "pinpointing" of mining claims is an exaggeration. A BLM field official, in the course of reviewing a proposed operation under 43 CFR 3809, will be able to determine most accurately if the subject mining claims are partially or entirely within withdrawn areas. In some instances, it may be necessary to go upon the land to find the corner monuments, but this is what the law contemplates. The most cost effective time to determine mining claim position with respect to withdrawn land is clearly during the review of a 43 CFR 3809 notice or plan.

The concept of mining claims predating a withdrawal, and therefore constituting a valid existing right to remain and work the mining claims, has gone entirely unrecognized. We suspect strongly that many of the 2,286 mining claims in Nevada projected to be on withdrawn land were located prior to closure to mineral entry. Furthermore, the estimate is inflated by 41 percent because the cumulative recordation data base was used rather than the active mining claims listing. This statistical analysis needs to be completely redone and the inferences and conclusions derived therefrom adjusted accordingly.

Surface Management Regulation

Section 302(b) of FLPMA gave the Secretary broad authority to take actions necessary to prevent unnecessary and undue degradation of the land, as your report correctly notes. However, the penultimate sentence of this subsection reaffirms Congressional support of the Mining Law of 1872 and the rights of locators under the mining laws. Read together, we interpret this section as directing the Secretary to regulate mining activities in a manner so as to assure reclamation of disturbed land, while also adhering to the express objective of the mining law--to promote development of the Nation's locatable minerals. The BLM's surface management regulations and policies attempt to walk this tightrope.

In Chapter 3 of the draft report, the issue of whether or not BLM should require the posting of bonds by all operators proposing to disturb lands, requires reanalysis as well. The enclosed specific comments show the Nevada field examples to be inaccurately reported, thus failing to support the premise that bonding could have insured the reclamation of these lands.

More important, perhaps, is the larger issue of whether or not a policy of indiscriminant bonding of all operators is wise. No analysis is made in the report of the trade-offs implicit in such a policy nor is there a recitation of the deterrent effects upon mining claimants on National Forest lands. The real question is how much exploratory effort has been or could be stifled by the punitive practice of bonding all because of the sins of a few. Despite the statement that bonding should simply be considered a cost of doing business, it is a substantial cost unable to be borne by many small operators, if obtainable at all. By requiring an otherwise capable mining claimant to post a financial guarantee, the BLM would simply be shifting its managerial burden to the insurance industry, where the unknowns of mined land reclamation have caused excessive premiums, often as high as 10-20 percent, or more, of projected costs. Given the very real potential for bonding pratices to totally alter the face of this industry, we believe that this section of the draft also merits a substantial reanalysis. The goal of this effort should be to develop factual documentation of both real environmental parameters as well as actual cost statistics in both the public and private sector. The current status of the bonding industry should also be addressed. Only then will it be possible to derive defensible conclusions regarding a proper and feasible future role for bonding.

Our current reconciliation of the issue is to require bonding of past offenders and to vigorously enforce compliance. Examples of these efforts from the California Desert District, and elsewhere, can easily be provided during the preparation of your revised draft. Admittedly, this bonding policy is administratively more burdensome to BLM than your proposal, but we feel strongly that the Secretary's charge is a balanced one. Comparison to Federal oil, gas, and coal lessees and operations on private mineral rights ignores the statutory differences involved. Since 1866 the "hardrock" miner has expressly had the Congressionally granted right to explore and develop minerals from the public domain, not simply the Secretarial permission to do so (as is the case with leasable and salable minerals). This right is now tempered by the FLPMA mandate to prevent undue or unnecessary degradation, not replaced entirely by this latter legislation.

Summary

In conclusion, we restate our views as to each formal recommendation in the draft report.

Now on p. 18.

Page 21 - Current regulations already require a sufficient description to satisfy the FLPMA-mandated policy of allowing BLM to find claims on the ground. "Pinpointing" is unnecessary and would be an unwarranted burden on mining claimants by prematurely causing them to contract for surveys. Frankly, we fail to see a problem that needs fixing here.

Now on p. 18.

Page 22 - All mining claims that are timely filed with BLM should be accepted for recordation. Land status determination, as staff levels permit, is already Bureau-wide policy. Potential impacts from mining activities on withdrawn lands are more cost-effectively precluded at the 43 CFR 3809 notice or plan review stage.

Now on p. 32.

Page 36 - Paragraph 1 - Bonding of all operators is neither possible nor desirable. Targeted bonding is a more equitable managerial tool and when used effectively can foster both goals of the Secretary--the prevention of unnecessary and undue degradation and the development of the Nation's mineral resources.

Now on p. 32.

Page 36 - Paragraph 2 - Although completion dates of proposed operations are often difficult to anticipate, we agree in principle with the recommendation that operators provide BLM with such estimates. However, current policy calls for sufficient information exchange between operators and BLM to effectively advise the authorized officer of the estimated date when reclamation will be completed. Penalties should be imposed only for failure to complete activities by the estimated date when good faith efforts to comply are not evident.

Specific Comments to Draft GAO Report - 1872 Mining Law
The Bureau of Land Management Should Improve Its Regulation of Hardrock Mining

The following comments to the draft GAO report are submitted as an addendum to the general comments of our attached memorandum. These specific remarks, on a paragraph-by-paragraph basis, are intended to point out factual error and ambiguities and do not address the conclusions of the report.

Chapter 1 Introduction

See comment 1.

Page 8, paragraph 1 - On certain Federal lands mining claimants did have to notify the BLM pre-FLPMA. See 43 CFR Subparts 3816, 3821, 3826, 3827, and 3734. Prior to FLPMA the Secretary could have regulated mining under the authorities at 30 U.S.C. 22 et. seq., and 612, 43 U.S.C. 1201, and 16 U.S.C. 1280. In addition, Federal laws such as Clean Air and Clean Water Acts applied, though administered by other agencies. Examples of mining regulations by the Secretary prior to FLPMA are placer mining operations in powersite withdrawals (43 CFR 3736) and operations in the King Range National Conservation Area (43 CFR 3827). The Secretary of Agriculture began regulating mining disturbances in 1974 on National Forest land.

See comment 1.

P. 8, para. 2, sentence 1 - Many minerals used in construction and chemical production are locatable under the mining laws, e.g., uncommon varieties of building stone, cement- and metallurgical-grade limestone, fluorspar, bentonite, etc.

See comment 1.

P. 8, para. 2, sentence 2 - A mining claimant must be a U.S. citizen (or a corporation licensed to do business in the U.S.) and only the public domain is generally open to location. Acquired federal mineral estate must be leased under 43 CFR 3500.

See comment 1.

P. 8, para. 2, sentence 5 - Lode mining claims may be purchased for $5/acre and placer claims for $2.50/acre.

See comment 2.

P. 9, para. 1 - The origins of the mining law are European traditions, particularly of Saxony, that were carried to the California goldfields. See "The Miners Law," 21 Public Land and Resources Digest 230 (1984).

See comment 1.

P. 9, para. 2 - The last sentence is inaccurate. By withdrawing land from mineral entry, the legislative or executive branch is indeed determining which lands are available for development, just as is done in leasing by the exercise of Secretarial discretion.

See comment 1.

P. 9, para. 3 - sentence 2 - A diligent search of county records and field inspection of the land in question prior to FLPMA were the routine for determining if land was encumbered with mining claims.

See comment 3.

P. 9, para. 3, sentence 3 - Approximately 280 million acres of Federal land is withdrawn from mineral entry. See the "Inventory of Federal Lands Unavailable for Mineral Activities" by the Interagency Land Withdrawal/Inventory Task Force, 2/5/85.

Now on p. 9.
See comment 1.

P. 10, para. 1 - Reclamation projects may be opened to mining claim location, under certain restrictions, at Secretarial discretion. See 43 CFR 3816.

Now on p. 9.
See comment 1.

P. 10, para. 2 - The second sentence makes no qualification for pre-existing mining claims in a withdrawn area. Mining claims have valid existing rights until proven otherwise in a Departmental hearing.

Now on p. 9.
See comment 1.

P. 10, para. 3 - The last sentence does not recognize the substantive environmental laws, both Federal and State, that did apply pre-FLPMA. Prior to passage of such laws, any mining claim regulations that might have been adopted would have been much less effective. For example, where possible we now look to compliance with the standards established by EPA and the States as defining limits to unnecessary degradation.

Now on p. 10.
See comment 2.

P. 10, para. 4 - We note that the PLLRC report did support retention of the Mining Law of 1872, as amended, and not for substitution with a leasing system. The majority of the PLLRC felt that the claimant-initiated system of rights was a desirable process.

Now on p. 10.
See comment 2.

P. 11, para. 2, sentence 1 - Mining claimants on split-estate lands (primarily stockraising homesteads) also are required to file under FLPMA.

Now on p. 10.
See comment 1.

P. 11, para. 2, sentence 5 - As of 9/30/85 about 2.03 million mining claims have been recorded, well over 90% in the west.

Now on p. 10.
See comment 1.

P. 11, para. 2, sentence 6 - Sec. 302(b) is not specific to mining. The Secretary is directed to take action to prevent unnecessary or undue degradation from any and all activities.

Now on p. 10.
See comment 4.

P. 11, footnote - The States listed are the homes for BLM State Offices with jurisdiction over all the States to which the mining law applies except Alaska, Arkansas, Louisiana, Mississippi, and Florida. For example, Oregon MCR filings include State of Washington filings as well. We note further that the numbers listed approximate the cumulative total recorded mining claims in the States of NV, UT, and CO, not the currently active mining claims.

Now on p. 11.
See comment 1.

P. 12, para. 2 - Clause (2) should read "whether mining claims were located on withdrawn lands before or after closure to mineral entry." Again there is no recognition of valid existing rights in the draft report.

Now on p. 11.
See comment 1.

P. 12, para. 3 - Nevada and Colorado have approximately one-fourth of all active mining claims (27.5%) not one-third.

See pp. 19-21.

P. 13, para. 1 - The confidence levels calculated for the statistical projections are meaningless if the assumptions about the data base are incorrect. As noted above, a cumulative recordation file was apparently used, not a currently active mining claims file. Furthermore, your attempts to plot the sample mining claims upon the master title plats, though perhaps an instructive exercise, is not what FLPMA demands. The law requires a sufficient description to allow BLM to locate the mining claims on the ground.

Now on p. 12.
See comment 1.

P. 13, para. 3 - The Forest Service offices at Ouray and Alamosa are "Ranger Districts" not "District Offices."

Chapter 2 Mining Claim Recordation

See pp. 19-21.

P. 15, para. 1 - The report implies that it is no longer BLM policy to review land status. The BLM Manual at 3833.12E2 (effective 6/83) gives Bureau-wide policy direction to adjudicate land status. The last sentence of your paragraph assumes that the recorded mining claims were located after the lands were withdrawn, without any factual citation to support the charge.

Now on p. 14.
See comment 2.

P. 15, para. 2 - FLPMA Sec. 314 has not changed the burden of the Department to administratively determine mining claim validity if an exchange or sale of the same land is proposed. It simply reduced the likelihood of this being necessary by legislatively voiding mining claims not recorded with BLM.

Now on p. 14.
See comment 1.

P. 16, para. 1 - The BLM regulations do not require the location notice to identify the claimed land to the nearest quarter-section, rather it should be in the additional information required. The contents of a location notice or certificate of location are controlled by State law.

See pp. 19-21.

P. 17, para. 1 - BLM regulations do not call for a description sufficient to "pinpoint" mining claims on a map. 43 CFR 3833.1-2(b)(5)(ii) restates the FLPMA mandate that it be sufficiently described to allow BLM officials to locate the mining claims on the ground. We note that BLM's master title plats, though extremely useful for many functions, do not show topography and therefore are not generally an aid to "pinpoint" mining claims referenced to a "topographic, hydrographic or man-made feature." How many of the sample recorded mining claims did GAO auditors attempt to locate in the field based upon the materials supplied?

See pp. 19-21.

P. 17, para. 2 - The projections are incorrect, based, as they were upon the cumulative data base, as well as the fallacy that the descriptions were insufficient for field identification of the mining claims.

Now on p. 15.
See comment 5.

P. 17, para. 3 - A field check for mining claims on lands proposed for disposition is still recommended because of the time lag from location to recordation and posting to the computer files. Furthermore, an incorrect legal description on a location notice and in the recordation file does not void a mining claim. For over a century, the positioning of a mining claim on the ground has been controlling evidence in the courts and the Department. Thus a diligent search in the field, coupled with a published Notice of Realty Action (NORA), is designed to supplement the MCR system to identify mining claimants.

See pp. 19-21.

P. 18, para. 1- The statistical projections are once again flawed because of the data base. Also, did the GAO auditors compare location dates versus the dates of closure to mineral entry, or the type of mineral location barred? Withdrawals based upon the 1910 Pickett Act remain open to mining claim location for metalliferous minerals.

Now on p. 16.
See comment 6.

P. 18, para. 2 - Were the location dates on these mining claims checked? Also, lode mining claims may be partially located upon withdrawn lands in order to establish extralateral rights. Lastly, do the provisions of the Act of August 11, 1955 (P.L. 359) apply here?

Now on p. 16.
See comment 1.

P. 18, para. 3 - The figures given for Arizona and Idaho are the cumulative totals of mining claims declared null and void for any reason in those States. The vast majority of these mining claims were voided for failure to timely file affidavits of annual assessment work.

See pp. 19-21.

P. 19, para. 3 - See the earlier comment upon paragraph one of page 15. Furthermore, the recordation process cannot stop location of mining claims upon withdrawn lands, only the recordation of such locations. Therefore the only advantage to immediate land status checks is for the claimant to be notified as soon as possible. While this service is provided by BLM whenever resources allow, no additional protection of the land is gained by it.

Now on p. 16.
See comment 1.

P. 20, para. 2 - Again, see the above comment to page 15.

Now on p. 17.
See comment 7.

P. 20, para. 3 - The uniform policy sought by the Inspector General is in place. What GAO auditors have witnessed is the decisions made at the various BLM State Offices to balance timing of land status determination with the available staffs.

Chapter 3 Bonding to Assure Reclamation

Now on p. 22.
See comment 1.

P. 23, para. 1 - Reclamation is required as soon as is feasible, not as soon as possible (See 43 CFR 3809.1-3(d)(3).) There is a significant distinction. Furthermore, "temporarily...abandoned" is a contradiction in terms.

Now on p. 22.
See comment 1.

P. 23, para. 2 - As discussed earlier, there were actually many controls on mining prior to FLPMA. Even post-FLPMA the Secretary must still seek court orders to enjoin noncomplying operations from undue or unnecessary degradation, though the authority for such injunctions is now much clearer.

See pp. 32-33.

P. 24, para. 3 - Casual use may include the use of motorized vehicles if the area is not closed to off-road vehicles. Besides "part-time miners," the act of mining claim location itself is usually at the casual use level. The sixth sentence implies that BLM usually does not have any idea when reclamation is to be completed. However, there is no recognition of the dialog between operators and BLM that allows for such estimation on an on-going basis. That is, compliance checks in the field afford BLM the best opportunity to gauge when reclamation is due because of the myriad variables affecting the completion of activities as scheduled.

Now on p. 24.
See comment 8.

P. 25, para. 2 - Where are the 585 operations so identified? The total for Nevada that year is 534 and for Colorado it was 182. Why was 1981 chosen to study? Because it represents the first year the 43 CFR 3809 regulations were in effect, there is bound to be "start-up" problems with them by both BLM and operators alike.

Now on p. 24.
See comment 9.

P. 26, para. 1 - BLM policy does not require compliance inspections to be conducted by geologists. In fact, use of geologists for such work should be curtailed, substituting less expensive technical personnel where available. Of the 114 unreclaimed sites reported, how many involved pre-1981 disturbances not required to be addressed in the notices or plans filed thereafter? How many were actually still active sites?

Now on p. 24.
See comment 1.

P. 26, para. 3 - BLM officials inferred that the operations were abandoned, as contrasted with the irrebuttable conclusion of abandonment that FLPMA Sec. 314 imposes for failure to file. These two concepts are important to differentiate.

Now on p. 25.
See comment 1.

P. 27, para. 2 - If all 30 sites were unreclaimed, what did BLM officials show GAO auditors at the two sites that were not part of the 28 mentioned?

Now on p. 25.
See comment 10.

P. 27, para. 3 - It appears that a few worst-case examples have been reported to strengthen the argument for bonding, but has there been an effort by GAO to determine if indeed conclusive abandonment has occurred? In other words, are affidavits of assessment work still being recorded with BLM? Our Nevada State Office reports that the 10-acre mine site in Washoe County was abandoned by the operators in 1981. Rather than file a notice or plan, they chose abandonment to avoid the reclamation requirement of the new regulations. The example from the Carson City District is reported to us to be an active case. We understand that a dialog is underway between a Canadian firm, the mining claimant, and BLM to fill in the trench. We note also that were the site actually abandoned, the Nevada Revised Statutes at 455.010-.040 authorizes counties to fence or close hazardous openings, though they rarely do so because of cost.

Now on p. 25.
See comment 11.

P. 28 - Our Nevada State Office reports that the 15-acre silver mining operation was conducted without notice or plan being filed with BLM. By the time District personnel discovered the operation the responsible company had filed for bankruptcy. Clearly, bonding of this operation was impossible because BLM did not know of its existence. The proper course of action is to bring criminal charges against the company as described in W.O. Instruction Memorandum 85-389. This guidance is not acknowledged in the draft report. The example in the Battle Mountain District of over 1 mile of abandoned drill roads is reported to us to be access to operations on railroad grant lands, which disturbance pre-dated the applicable regulations.

Now on p. 28.
See comment 12.

P. 30 - The report's authors recognize that default on a bond may adversely affect an operators ability to acquire bonding in the future, and thusly provide incentive for reclamation. What is left unsaid is that records of non-compliance with BLM surface management regulations, particularly if followed by imposition of criminal or civil penalities, will have the same effect without an industry-wide penalty occurring. To what regulation is the fourth sentence referring?

Now on p. 28.
See comment 13.

P. 31, footnote - Recognition of the States' authority to bond operators on public land is rather tersely dismissed when in many cases it represents an important permission to mine. Interestingly, though, we are not aware of any State agencies requiring the posting of bonds without regard to the size of the operation proposed and/or character of the land so affected.

Now on p. 29.
See comment 2.

P. 32, para. 3 - We note that the past concerns of industry are continuing today. The difficulty in acquiring a bond, in all types of BLM program areas, is prompting the Bureau to begin to study this matter in detail.

Now on p. 30.
See comment 14.

P. 33, para. 3 - The example of unreclaimed disturbance along the San Miguel River represents significant historical degradation well before 1981 according to officials in the Montrose District Office.

Now on p. 30.
See comment 15.

P. 34, para. 1 - Because of the differences in scale between many "hardrock" operations and those in the oil and gas or coal mining business, we are unpersuaded that comparisons are meaningful. Even so, we suspect strongly that bonding in those industries represents a substantially smaller fraction of the total monies invested in the operation than in the majority of hardrock cases if bonding were to be imposed on all.

Now on p. 30.
See comment 16.

P. 34, para. 2 - Though the Forest Service's surface management regulations do not contain the notice vs. plan threshold, the report's authors recognize that bonding by the USFS is not universal. What are their statistics on bonding success? Have they (or GAO) conducted any studies to determine how much activity has been stifled by bonding? What is the "minimal disturbance" that may go unbonded? The anecdotal information provided in this paragraph does not lead to any clear conclusions on this matter.

The following are GAO's comments on the the Department of the Interior's letter dated January 7, 1986.

## GAO Comments

1. Clarifications or corrections have been made to the text of the report.

2. This additional information does not require a change to the text of the report.

3. Although there are a number of estimates of the amount of federal land withdrawn from mineral development, including those cited by Interior, we have found in our previous work on the subject that they frequently double-count overlapping withdrawals on the same land. Our estimate of about 135 million acres (the figure 140 million appeared in the draft report) represents the amount of land identified for review under BLM's withdrawal review program, roughly 63 million acres, plus about 72 million acres (this figure is derived from BLM's 1984 Public Land Statistics) of federal land contained in national parks and monuments.

4. The text has been clarified to reflect the location of BLM state offices. Our totals represent all mining claims for the states of Arizona, Colorado, Nevada, and Utah.

5. Our report does not suggest that getting more complete location descriptions would eliminate the need for field inspections in the case of land sales or exchanges. Rather, it points out that BLM does not always have the information necessary to do the field inspections because the information was not checked for at the time the claim was recorded. As we note, regular screening is preferable to waiting until a land sale or exchange occurs and then trying to track down the claim holders, which may be difficult and time-consuming.

6. As noted earlier, claims were checked to make sure they were located after the date of withdrawal. It is possible that some of the claims may fall under the provisions of the Act of August 11, 1955, but BLM officials had not checked to determine whether or not this is the case.

7. BLM's manual currently does not state when land status checks should be performed. Furthermore, as stated in our report, according to BLM headquarters claim-recording program leader, the possibility of establishing a uniform policy as suggested by Interior's Inspector General has been discussed within BLM for a number of years, but it has not been

considered of sufficiently high priority to renew the 1977 directive. Nevertheless, some BLM state offices have been performing the status checks.

8. As stated in the report, the 556 operations (the figure appeared as 585 in our draft report) were those conducted under plans and notices filed in 1981 in the BLM resource areas with the most mining activity in the 10 western states we examined. We examined plans and notices filed in 1981 because we believed that in the past 4 years some action should have been completed in these cases. We believe that choosing 1981 cases would have given BLM ample time to inspect these operations at least once.

9. By reporting that BLM's Winnemuca office had two geologists who conducted compliance inspections, we did not mean to imply that such inspections should be conducted by geologists; we intended only to point out the small number of personnel responsible for such a large number of compliance inspections. BLM state officials did not know whether any of the 96 (this figure appeared as 114 in our draft report) sites were still active because operators had not informed them whether these operations had been abandoned or simply suspended. In addition, BLM officials could not tell us how much of the land disturbances on the 96 sites occurred before or after the 1981 surface management regulations went into affect.

10. The operations we visited were selected with the assistance of BLM officials. While BLM officials were unsure whether the operations were abandoned, such a determination is unnecessary because BLM can require reclamation of mine operations that are inactive for an extended period of time, as each of the 30 sites had been, unless BLM grants written permission.

In any case, the filing of an annual assessment affidavit does not necessarily indicate active mining. For example, an operator may diligently file assessment affidavits, thereby retaining legal title to the claim, but suspend mining operations with no intent to resume mining or complete required reclamation.

Regarding the 10-acre mine site in Washoe County, Nevada, our review of BLM's district office records shows that the operator was working under a preliminary plan of operations filed in April 1981. Although the operator did not submit a final plan, he was nevertheless subject to the reclamation requirements of his preliminary plan.

Regarding the example from the Carson City District, although dialogue is ongoing between the operator and BLM, no mining has occurred for some time. According to BLM district office officials, if the operator had been bonded, the trench could have been reclaimed and there would be no need for further dialogue. Furthermore, at the time of our review, BLM still had no guarantee that the operator would reclaim the land. Finally, we believe BLM's comment that Nevada counties rarely fence or close hazardous openings left from mining operations further highlights the need for a federal bonding requirement, which would provide funds to eliminate the hazard.

11. Regarding the 15-acre silver mine in Nevada, BLM's comments are not consistent with evidence we found in BLM's district office records. According to these records, the operator filed a plan of operation in July 1983, and BLM approved the plan with specific reclamation requirements. It was not until after the plan was approved that the operator filed for bankruptcy.

During our visits we saw several examples of unreclaimed access roads in the Battle Mountain district, Nevada. The example referred to in our report was identified by BLM officials as having been built since 1981 for access to a mining operation but left unreclaimed.

12. We believe that the greatest incentive for reclamation under a bonding requirement will be the operator's desire to have the bond released and the money returned. A secondary incentive is the fact that default on a bond may adversely affect the operator's ability to acquire future bonding. We are not convinced that bonding only operators with a history of noncompliance would have the same effect.

13. Our footnote is not intended to dismiss the importance of state authority to bond operators. However, this authority varies between states, and BLM officials we spoke with were in most cases unaware of state bonding requirements. As discussed in the report, if an operator has posted a bond with a state agency, a federal bond is not required.

14. According to Colorado BLM officials we spoke with and BLM records we reviewed, much of the surface disturbance needing reclamation occured after 1981. In fact, BLM sent a notice of noncompliance to the operator in October 1983; however, the operator never responded and the site was left unreclaimed.

15. We are encouraged by Interior's intention to study the bonding issue for all of its programs. However, based on limited bonding information we obtained from the Forest Service and insurance companies (see page 28), we do not necessarily agree that it is difficult to acquire a hardrock mining bond. In addition, our intent in discussing bonding in other federal mineral programs is simply to point out that bonding is a widespread practice for other operations that require federal lands to be reclaimed. In any case, as Forest Service experience shows, the costs of bonding hardrock mining operations need not be substantial.

16. As stated in our report, the purpose of our review was to determine only if BLM had procedures to assure that mined federal lands are adequately reclaimed once mining activity ceases. We did not intend to evaluate the effectiveness of the Forest Service's bonding program; we only intended to compare it with BLM practices, given the similarity in Forest Service and BLM responsibilities.

# BLM Offices Visited by GAO

## Colorado State Office, Denver, Colo.

- Montrose District Office, Montrose, Colo.:

  Uncompahgre Basin Resource Area Office, Montrose, Colo.
  San Juan Resource Area Office, Durango, Colo.

## Nevada State Office, Reno, Nev.

- Battle Mountain District Office, Battle Mountain, Nev.:

  Shoshone—Eureka Resource Area Office, Battle Mountain, Nev.

- Carson City District Office, Carson City, Nev:

  Lahontan Resource Area Office, Carson City, Nev.
  Walker Resource Area Office, Carson City, Nev.

- Elko District Office, Elko, Nev.

- Winnemucca District Office, Winnemucca, Nev.

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