

Editor's note: Reconsideration granted, decision reaffirmed by Order dated March 16, 1993 at 124 IBLA 287A th I below.

RED THUNDER, INC., ET AL.

IBLA 91-186, 91-220, 91-221

Decided November 3, 1992

Consolidated appeals from decision of the Lewiston, Montana, District Office, Bureau of Land Management, approving amendment to mine plan of operations MTM-77779.

Affirmed.

1. Environmental Quality: Environmental Statements--Mining Claims: Plan of Operations

BLM's decision to approve a mining plan amendment (1) to allow cyanide leaching operations at a gold mine to proceed and (2) to allow leach pads to be abandoned, and its accompanying FONSI will be affirmed where the record (including an extensive report demonstrating that abandonment of leach pads will not result in discharge of harmful levels of cyanide into the environment) reveals no unnecessary or undue degradation of the lands, and BLM's decision is not convincingly challenged on appeal.

The Board will affirm a FONSI with respect to a proposed action if the record establishes that a careful review of environmental problems has been made, all relevant environmental concerns have been identified, and the final determination that the impact is insignificant is reasonable in light of the environmental analysis. When mitigating measures are imposed to reduce impacts of the environmental effects of the proposed action that might otherwise be significant, a FONSI is properly affirmed.

2. Environmental Quality: Environmental Statements--Mining Claims: Environment--National Environmental Policy Act of 1969: Finding of No Significant Impact

"Cumulative impact" is the impact on the environment that results from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or persons undertakes such other actions. An EA examining the cyanide retention

qualities of a heap leach operation need not include a discussion of an exploration plan that, during the pendency of the appeal, is withdrawn by the operator.

3. American Indian Religious Freedom Act:
Generally--National Historic Preservation Act:
Applicability--Indians: Generally--Mining
Claims: Plan of Operations

Where the Montana State Historic Preservation Office is aware that an area may possess traditional cultural values, owing to the presence of Native American fasting and vision questing sites there, but nevertheless concludes that no properties eligible for inclusion on the National Register of Historic Places were identified in the area, BLM is not required to comply with sec. 106 of the National Historic Preservation Act. Rather, it is adequate for BLM to address effects of gold mining on cultural values through its compliance with the American Indian Religious Freedom Act. BLM complies with the latter act where it actively solicits the opinions of Native Americans, both individually and in tribal groups, and considers reasonable mitigating measures.

APPEARANCES: Donald R. Marble, Esq., Chester, Montana, and Paul Zogg, Esq., Boulder, Colorado, for appellant Red Thunder, Inc.; Virgil F. McConnell, Sr., pro se; Jim Vogel, Esq., Harlem, Montana, for Fort Belknap Community Council; Karen Dunnigan, Esq., Office of the Field Solicitor, U.S. Department of the Interior, Billings, Montana, for the Bureau of Land Management; Alan L. Joscelyn, Esq., Helena, Montana, and Patrick Garver, Esq., Salt Lake City, Utah, for Zortman Mining, Inc.; Tommy H. Butler, Esq., Special Assistant Attorney General, Helena, Montana, for the Department of State Lands, State of Montana.

OPINION BY ADMINISTRATIVE JUDGE HUGHES

Red Thunder, Inc. (Red Thunder), Virgil F. McConnell, Sr., and Fort Belknap Community Council (FBCC) have appealed from a February 28, 1991, decision of the Lewiston (Montana) District Office, Bureau of Land Management (BLM), approving ore loading and leaching operations under an amendment to Federal Plan of Operations MTM-77779 of Zortman Mining, Inc. (Zortman). Approval of the amendment, known as Amendment No. 10, authorized the expansion of the Landusky Mine in Phillips County, Montana, including construction and operation of the Sullivan Park heap leach pad. Because they raise similar issues, these appeals are consolidated. 1/

1/ Three appeals have been docketed, styled as follows: Red Thunder, Inc., IBLA 91-186; Virgil F. McConnell, Sr., IBLA 91-220; and Fort Belknap Community Council, IBLA 91-221. Both McConnell and FBCC have adopted the statement of reasons filed on behalf of Red Thunder. We shall accordingly refer collectively to Red Thunder, McConnell, and FBCC as "appellants."

Both Zortman and the State of Montana, Department of State Lands (DSL), have filed documents in support of BLM's decision. Zortman and DSL are recognized as respondents in this proceeding.

This is the second time this matter has been before us. On December 19, 1990, we issued a decision modifying BLM's June 22, 1990, decision approving Amendment No. 10. We required BLM to re-examine whether to prepare an environmental impact statement (EIS) for the plan amendment following completion of a study of the amount of cyanide retained in heaps on leach pads at the Landusky minesite after leaching. 2/ Red Thunder, Inc., 117 IBLA 167, 184-88, 97 I.D. 263, 273-75 (1990). 3/ That study had been ordered by BLM at the time it approved the plan amendment. Specifically, BLM ordered Zortman to examine the amount of cyanide retained in the heaps on abandoned leach pads at the Landusky site. 4/ We perceived that BLM's requiring such study implied there was a substantial question about the severity of the cumulative impacts of leaving cyanide solution in the spent ore on the abandoned pads. Accordingly, we directed BLM to prepare further environmental review documents, as required by 40 CFR Part 1500 (1989) and Departmental regulations, when the study of cyanide retention in the abandoned heaps was completed. Red Thunder, Inc., supra at 188, 97 I.D. at 274-75.

The Cyanide Retention Study and Report

As discussed in Red Thunder, Inc., supra at 185-88, 97 I.D. at 273-74, BLM's concern was that pockets of heap material, called blind-offs, with elevated concentrations of cyanide solution might remain in the heaps after processing. Blind-offs would occur if the flow of cyanide solution through the heaps was blocked by fine material or material that had been compacted as it was placed on the heap, such as by ore truck tires. BLM was further concerned that any elevated concentrations of cyanide in blind-offs might

2/ Amendment No. 10 included a comprehensive mine reclamation plan which applies to all ore heaps at the Landusky Mine, requiring cyanide neutralization of all spent ore heaps to continue until the leachate discharge of less than 0.22 mg/liter Weak Acid Dissociable (WAD) is maintained over a 6-month period, including a snowmelt and spring runoff period. Red Thunder, Inc., supra at 185, 97 I.D. at 273.

3/ Familiarity with that decision is presumed for purposes of this decision.

4/ Stipulation No. 9 to Amendment No. 10 required Zortman to undertake a study to research the following: (1) cyanide concentrations and specific moisture retention in all abandoned heaps on the site after neutralization; (2) development of blind-offs within the heaps and their effect on heap neutralization; (3) infiltration rates as they relate to reclamation practices; (4) rates of natural cyanide degradation occurring over time in neutralized heaps; and (5) long-term seepage from reclaimed heaps to identify volumes, concentrations of metals and cyanide, and rates of natural cyanide degradation and metal attenuation that would occur following release of the solution.

not be cured by rinsing, as the rinse water might not be able to flow through the area. As the plan called for the heaps to be abandoned in place after processing, it was necessary to consider whether cyanide would be retained in the abandoned heaps.

During the pendency of the appeals addressed in our decision in Red Thunder, Inc., *supra*, BLM proceeded with arrangements to complete the cyanide retention study. A meeting was held on June 26, 1990, at the Basin Creek Mine near Helena, Montana, to discuss approaches to investigating concerns raised by BLM and DSL about rinsing behavior and the long-term impact to the surface waters of the area. Input to this workplan was solicited from an ad hoc review committee composed of representatives from DSL, BLM, U.S. Forest Service and the Environmental Protection Agency as well as a representative of Pegasus Gold Corporation (Pegasus), Zortman's parent corporation. No members of Red Thunder, FBCC, or other representatives of local Indian groups were included in the committee or attended its meetings, which were evidently not publicized.

In July 1990, following the committee meeting, acting on Zortman's behalf, Schafer and Associates (Schafer), in association with EIC Corporation, prepared a workplan for the investigation of rinsing behavior and long-term cyanide degradation. Schafer conducted a pilot study using the abandoned 1982 heap at the Landusky Mine to evaluate testing equipment performance and installation techniques in coarse-textured heap leach pad material. The purpose of that study was to assure successful monitoring of the degradation and rinsing study. 5/ See generally Report on Cyanide Degradation and Rinsing Behavior in Landusky Heaps (Report) at 6-1 - 6-14. Installation of instruments in the 1982 heap commenced on July 26, 1990, and data collection began on August 6, 1990. After measurements of conditions in the heap were completed, the heap was excavated, exposing the material at depth, in order to examine the condition of the material and to compare those conditions with the measurements. Thus, the accuracy of the measurements could be determined. Excavation and sampling of the pilot study area concluded on August 23, 1990.

Between August 1 and September 21, 1990, sampling equipment similar to that tested in the pilot study was placed at depth in the abandoned

5/ A variety of "downhole" tests were run, in which instruments were dropped into steel casing or "access tubes" in holes drilled into the 1982 heap. Downhole probes, including gamma and neutron probes, were used to obtain information on the in-place density and water content of the porous material with depth, at various stages of the test leaching and rinsing. Suction lysimeters were also used to obtain moisture and soil gas samples at depth, and heat dissipation units were used to measure water content. Bromide (which closely mimics cyanide) and fluorescein dye (which is easily traced in small concentrations and would be retained in blind-offs) were applied to the surface to act as "tracers" to reveal flow patterns and effective velocities.

1986 heap. 6/ Id. at 7-1 - 7-43. The bulk of the testing was done at the 1986 heap. From September 25 to October 5 the study area of the 1986 heap was leached with cyanide solution and data was collected from the sampling equipment. From October 12 to October 26 one half of the 1986 area (Area A) was drained under gravity and then sprayed with fresh water to allow rinsing, and then further data was collected. The other half of the area (Area B) was drained and left to the process of "natural degradation" in place. Samples were taken (1) during application of the barren solution; (2) during the "rest period" after completion of leaching; (3) during application of rinse water to Area A; and (4) after completion of rinsing.

The behavior of the fluids applied to the 1986 pad is generally described as follows in the Report: "[A]ppplied water moved downward quickly through the profile. The wetting front moved through the entire 80 foot monitoring zone within roughly 12 hours. Perched water table conditions did not appear to form during solution application. The degree of saturation never approached fully saturated conditions at any depth" (Report at 7-12). That finding showed that fluids flowed freely through the heap, so that there was no indication of impermeable zones or blind-offs which could cause cyanide solution to be retained. The data also confirmed that free cyanide levels declined substantially even without rinsing during the 20 days following completion of leaching in Area B of the 1986 heap.

The study also used the 1986 heap, as well as the Montana Gulch Waste Dump site at the mine, to determine infiltration of precipitation water on reclaimed and unreclaimed structures, in order to investigate water balance and predict long-term flux (rate of flow) of water through heaps. The 1986 heap was used to study unreclaimed conditions, and the Montana Gulch Waste Dump site to study reclaimed conditions.

The Report was completed on January 22, 1991, and forms the basis for BLM's conclusions that there would be no significant environmental impacts from abandoning the heaps and that leaching could begin on the Sullivan Park Pad.

The Report confirmed that the heaps contained gradations of textures of ore, from coarse at the bottom to fine at the top, in each 25-foot "lift" of the heaps. The "lift" is the vertical increment of ore added to the heap by dumping ore out of ore trucks as the heap is constructed. Each heap

6/ Considerably more testing was done on the 1986 heap and more testing equipment was used. A total of 24 neutron access tubes were lowered through the first 3 lifts, 12 per plot in 30-foot grid spacing (Report at 7-1). Additional equipment was installed at two places, one where a prominent fine layer was found, and another where slow solution circulation was suspected. All data from all tests are included in the Report's appendix.

contains many lifts. The reason for the variation in texture in each lift is that when the ore is dumped from the truck down the face of the lift, the coarser material cascades to the bottom so that, as the lift is set down, finer material collects on top (Report Fig. 3.1). Further, the upper 3 to 5 feet of each lift, containing the finer material, are compacted by the tires of the ore trucks as they cross the lift to dump more ore to expand the heap. The top several feet of each lift were also subject to modification by mechanical weathering and particle disintegration induced by leaching. Zortman alleviated the compaction of the lift surface by ripping the surface in two directions at 3-foot spacing (Report 3-1 and 3-2).

Fluid transport downward through the heap would generally be expected to be slower through fine material than through coarse. Accordingly, in view of the compaction of the fine material at the top of each lift, it was regarded as likely that blind-offs would occur, if at all, along the horizontal plane between the top of the older lift (containing finer materials) and the bottom of the newer lift (containing coarser materials) placed immediately above. These planes, denoting the horizontal boundaries between lifts, are described as "lift interfaces." Therefore, the study tested several of the lift interfaces in the 1982 and 1986 heaps. Test results confirmed that there were three distinct gradations of material in each lift: the top 3 to 5 feet being fines, the lower 5 feet being "medium to large rocks," and the material lying between being of "intermediate" size (Report at 6-11). Material size was found to be homogenous laterally. Id.

The study tested heap material at depths up to about 80 feet, allowing several lift interfaces to be sampled. It was recognized that the Sullivan Park heap would eventually be up to 400 feet high, and that porosity of material at greater depth would be reduced, owing to the weight of the overburden above it. However, it was noted that a large decrease in permeability would be necessary to reduce the flow capacity of the ore. Experience at the Landusky Mine, based on well recovery tests within the heap, showed that a reduction in porosity did not reduce the observed permeability of ore (Report at 7-40).

Test results from depths up to 80 feet were extrapolated to reflect conditions at greater depths, up to 400 feet, based on laboratory tests of potential breakdown of ore under loading. Ore from the Landusky Mine was subjected to a vertical load of 110 pounds per square foot, the equivalent of 400 feet of overburden. Physical examination of the ore revealed that this increased vertical load slightly reduced the size of some of the larger particles, but very little change was observed in the percentages of finer materials. The Report concluded:

As the permeability of porous media is influenced most strongly by the finer particles, it can be concluded that particle breakdown under loading will not lead to the formation of continuous fine layers and that the results obtained in this

study can therefore [be] extrapolated to the much higher Sullivan Park heap.

(Report at 7-41).

The study confirmed that fluid drained more slowly through fine material than coarse, but found no evidence of fines migration or "impermeable zones." Despite this difference in fluid drainage, water movement within the heaps was found to be "relatively rapid and uniform" (Report at vi). Unsaturated flow processes were found to dominate within the heap material, so that fluids tended to move quickly through the material. The study found that, even if the pad was not rinsed following leaching, natural degradation processes reduced levels of cyanide by "10 to 20-fold over the first 12 months following leaching," largely by volatilization (the act of vaporizing), a process in which cyanide is slowly neutralized and harmlessly released into the air. Id. 7/

Rinsing the heap with water after leaching was found to be effective in quickly reducing the levels of cyanide, metals, and nitrate in the heap. One "pore volume" of water 8/ removed from 50 to 90 percent of the cyanide and metals in the pore water. Although there were areas where the rate of solution circulation was slower than in the remainder of the heap, leaching and rinsing occur in these zones, albeit at a slower rate, and natural degradation occurred there as well (Report at 7-42 - 7-43).

The study also predicted the long-term flux of rainwater through heaps, both with and without vegetative cover, in order to predict, in turn, future impacts to groundwater after closure. The Report contains an environmental risk exposure assessment using computer modelling, in order to assess risk of exposure to potential "receptors" (humans, mice, birds, cattle, chickens, bluegill, and perch) as a result of infusion into ground and surface water of storm water running through the heaps.

7/ Although the prospect of hydrogen cyanide (HCN) gas being released into the air seems alarming, the HCN gas released from volatilization is "extremely dilute" (Report Fig. 3.4). There is no evidence of any significant threat from HCN gas even while the full-strength cyanide solution is being applied to the heap. Although the release of HCN gas is controlled by keeping the pH of the solution high, a condition that might not prevail indefinitely in the abandoned heap, there is nothing to indicate that the release of HCN gas through volatilization poses any threat of harm. It appears that the process of volatilization is slow enough that significant concentrations of gas are not released, and that the small amount of HCN gas that is released diffuses and disperses in the atmosphere.

8/ One "pore volume" was defined as "the quantity of water equal to the water content of the heap at specific retention." Id. "Specific retention" is defined as follows: "As applied to a rock or soil the ratio of the volume of water which, after being saturated, it will retain against the pull of gravity[,] to its own volume. Dictionary of Mining, Mineral, and Related Terms (Bureau of Mines, U.S. Department of the Interior), 1051.

The exposure assessment noted that, when operations on the leach pad were concluded, the liners of all pads would be perforated, allowing water to flow downward through the finger drain system beneath the liner to ground water in unsaturated conditions. Cyanide concentrations would be gradually reduced by attenuation, mixing, dilution, and precipitation (Report at 9-2). During heavy precipitation causing saturated conditions, water could run off out the underdrain to the surface, threatening more immediate risk to humans, livestock, and wildlife using water for consumption. ^{9/} Thus, exposures for both surface and ground water runoffs were studied.

Using "extremely conservative" assumptions (including disregarding any natural attenuation or degradation of cyanide in the heap materials or in the water solutions, considering the consequences if all water ran off over the surface, and using a model storm event 50 percent in excess of the 100-year storm), the assessment predicts that no harm could occur to any receptor even if it is exposed for an extended period of time (Report at 9-22). These models were validated by simulating the rinsing event on the 1986 heap, and results conformed to actual data measurements (Report at 9-6).

BLM's Supplemental Environmental Assessment and Finding of No Significant Impact

On January 25, 1991, BLM and DSL issued a supplemental environmental assessment (SEA). The SEA states as follows concerning degradation of cyanide compounds in all spent ore heaps at the site:

Cyanide in the leached ore heaps would be degraded by dilution after completion of ore processing. Fresh make-up water would be circulated to dilute and degrade the cyanide compounds left in the heap. If dilution with water is unsuccessful, the effort would be supplemented by the addition of an oxidizing

^{9/} The underdrain system appears to have at least two functions. First, it provides a safeguard if the liner or pad should rupture during leaching operations, as it would intercept any fluid beneath the pad facility and transport it laterally via gravity to a point at the toe of the dike, where the flow "daylights as a surface flow which can be collected and monitored" (Zortman's Response to Supplemental Statement of Reasons, Response to Appellant's Assertions at 3 and Affidavit of Maxwell Botz at 2-3).

Second, after completion of leaching, the underdrain apparently serves to prevent failure of the pad structure during heavy precipitation or snowmelt. At closure, the liners of all pads would be perforated, evidently allowing water from light precipitation, when unsaturated conditions prevail, to flow downward through the underdrain system beneath the liner into the ground water. However, it appears that, in saturated conditions during heavy precipitation or snowmelt, water would run off out the underdrain to the surface, thus preventing water from filling the pad and rupturing its sides.

agent such as hydrogen peroxide. Circulation of the neutralizing solution would be handled through a contingency pond allowing for circulation of neutralizing solution from the pond back through the spent ore heap via spray lines normally used for cyanide solution application.

As required by Stipulation No. 1 to Amendment 10 cyanide neutralization of all spent ore heaps must continue until leachate discharge levels of less than 0.22 mg/l (milligrams per liter) [(WAD)] cyanide are maintained over a 6-month period which includes a spring snowmelt and runoff.

If chemical neutralization were not required, the resulting solution would be used for make-up water in the ongoing leaching process on active heaps. If chemical neutralization is necessary, the resulting batch of solution would undergo additional treatment to where it would be suitable for sprinkling on forest soils (land application) which attenuate metal concentrations. Neutralized solutions would be land applied when cyanide concentrations have been reduced to 0.22 mg/l WAD cyanide.

(SEA at 16-17).

The SEA also provided for perforation of the liners following neutralization of the heaps, presumably in response to the study's conclusions about surface and ground water runoff, discussed above:

To eliminate precipitation storage and undesirable hydraulic conditions associated with the reclaimed heap leach facility, [10/] the pad liner would be perforated once the heap has been

10/ According to Zortman's application for the plan amendment, "[t]he heap leach facilities consist of three separate reclaimable elements: (1) the containment dike, (2) the leached ore pad[,] and (3) contingency ponds. Tasks associated with the long-term reclamation of the heap leach facilities will include dike reclamation, process solution neutralization, liner perforation, slope reduction, resoiling[,] and revegetation" (Application at III-8). Further details of reclamation for the site are also set out in the record. Post-operation topography of containment dikes will reflect an overall slope of 2H:1V. Dike faces will be topsoiled and revegetated to blend with existing undisturbed contact zones. Id. at III-9.

Upon successful completion of solution neutralization and liner perforation, heap leach facility slopes will be graded to obtain a 2H:1V slope. The Sullivan Park heap leach pad, however, will be resloped to 2.25:1V with a 25-foot bench pioneered each 200 feet of slope length. Heap leach facility slopes are designed at an overall 2H:1V slope utilizing lift and bench construction. Additional site preparation will include the ripping of any compacted areas on the top of the leach pad facility to alleviate surface compaction and improve air and water movement for revegetation. Leach pad areas (crest, top, and slopes) will be

neutralized. Six-inch drain holes would be drilled through the heap synthetic and clay liners. Each drain hole would be backfilled with sized rock to an elevation of at least 5 feet above the liner surface.

(SEA at 17).

The SEA contained a revised impacts assessment, stating that "impacts to water quality, public health, or other environmental concerns, are not individually or cumulatively significant." BLM emphasized the following:

fn. 10 (continued)

resoiled and revegetated to complete final reclamation parameters. Id. at III-11.

Ponds established for solution processing or contingency operations will be perforated, backfilled, and graded prior to final reclamation. Backfilling will be completed using fill material from waste rock operations and/or concrete materials from structure footings or pads. Graded pond areas will be topsoiled and revegetated. Sediment accumulating in processing ponds will be sampled and analyzed to determine whether onsite disposal is feasible. If so, the resulting sludge will be buried with waste rock and the site further reclaimed; if not, cyanide in the sludge will be neutralized with an oxidizing agent and the sediment mixed with cement and disposed of pursuant to State law. Should any difficulty occur in neutralization or encapsulation in cement, a method of disposal will be developed in accordance with applicable Federal and state laws and regulations. Id. at III-16.

Overall slope of pit walls will be approximately 45 degrees (1H:1V) with 30-foot wide flat benches every 60 vertical feet. Pit floors will be sloped and graded to facilitate drainage and alleviate accumulation of stagnant water. When possible, pit floors will be resoiled and revegetated concurrent with ongoing mining operations. Id. at III-6.

Waste depository slopes will be reduced to obtain a final slope of 2H:1V. The top of waste depository sites will be ripped to alleviate surface compaction and improve air and water movement within the soil, thus promoting vegetation root growth and penetration. To stabilize and reestablish vegetative cover, the top and sloped areas of the waste depositories will be resoiled and revegetated. Id. at III-6.

Soil redistribution does not account for pit highwalls, soil stockpiles, the land application site, or certain roads to remain after reclamation, because these sites are not identified for revegetation or resoiling. Id. at III-20. Selection of plant species for revegetation is based on pre-mine species occurrence, post-operation land use objectives, establishment potential, growth characteristics, soil adaption and stabilizing qualities, wildlife palatability, and commercial availability. Id. at III-22.

Final reclamation will also include removal of all structures and equipment used in mining and processing, including, inter alia, existing Landusky processing plants, maintenance shop and support service structures, the new Landusky processing plant, leach pad pumps, and electrical structures. Id. at III-8.

1) Specific moisture retention in the heaps is low at 7.4 percent (average), increasing to 8 percent moisture content during leaching. After leaching ceases the moisture content returns to equilibrium within about a week and heap discharge stops. Approximately 10 percent of the pore space volume contains the retained solution. This allows for degradation of cyanide through volatilization to occur in the remaining air-filled pore space of the heap surrounding the [retained] fluid.

2) There is no evidence of blind-off development in the older heaps at the Landusky Mine and none is expected to develop in the proposed heaps. Therefore both active and passive heap detoxification processes would be able to occur throughout the ore heap at closure.

3) Any cyanide concentrations retained within the heap after detoxification procedures have ceased will continue to degrade naturally. Even assuming the unlikely retention of full strength cyanide solution in some portions of the heap the cyanide concentration would decline to acceptable levels [within] 6 to 8 years.

4) There is no threat to public health or the environment by effluent discharge from reclaimed heaps at the Landusky Mine. An environmental risk assessment was completed to identify the potential effects of cyanide and metals released from heaps due to a 6-inch storm event. Predicted levels of WAD cyanide were 0.055 mg/l in groundwater, and 0.037 mg/l in surface water. These amounts are well below the 0.22 mg/l Health Advisory level. Metal levels in cyanide solutions were found to be tied to the abundance of cyanide, as most occur as metal-cyanide complexes. When cyanide levels have reached the reclamation criteria of 0.22 mg/l, metals in solution are well within the drinking water standards.

(SEA at 23-24). BLM concluded that Zortman had satisfactorily complied with Stipulation 9; 11/ that no additional modifications, mitigations, or stipulations to Federal Plan of Operations MTM-77779 were warranted by the study findings; and that there are no significant impacts or issues requiring additional environmental analysis before loading and leaching could occur on the Sullivan Park leach pad. 12/

The SEA was subject to a 30-day comment period, and BLM scheduled a public meeting on February 21, 1991, in Dodson, Montana, some 45 miles from the minesite. Several objections to the location of the meeting were filed, including one by Red Thunder, asserting that it was too far from Hays or

11/ See note 4, supra.

12/ As the SEA was prepared jointly by BLM and DSL, it also indicated that no changes were warranted for the State operating permit. The SEA also addressed the Montana Gulch expansion leach pad, not at issue here.

Lodgepole to allow Native Americans to attend. Both BLM and DSL answered these objections, explaining that the Dodson site was selected as a central location for all interested parties.

BLM received many comments on its EA. Some of these comments criticized the methodology of the study. Red Thunder expressly requested that BLM prepare an EIS.

On February 28, 1991, BLM issued its supplemental finding of no significant impact (FONSI) and decision record approving Amendment No. 10 and allowing loading and leaching of ore: "The study results of stipulation #9 provide substantial confidence that individual and cumulative impacts of ore loading and leaching are not significant. The action will not cause unnecessary or undue degradation, and it is in conformity with federal regulations 43 CFR 3809, and [BLM's] Little Rockies Management Framework Plan." BLM also responded to numerous comments and objections.

BLM's FONSI and decision allow leaching operations on the Sullivan Park leach pad to proceed and permit Zortman to leave reclaimed leach pads on the site upon decommissioning. 13/ Based on its conclusion that these operations will have no significant impact, BLM did not prepare an EIS considering the environmental effects of approving Amendment No. 10. Appellants challenge both the decision to allow leaching and the failure to require preparation of an EIS.

[1] Section 302(b) of the Federal Land Policy and Management Act of 1976, 43 U.S.C. § 1732(c) (1988), as applied specifically by 43 CFR 3809.0-1 to operations authorized by the mining laws, dictates that, in managing the public lands the Department shall "take any action necessary to prevent unnecessary or undue degradation of the lands." The study completed by Zortman demonstrates convincingly that the approval of leaching operations on the Sullivan Park pad and the abandonment of that pad and others containing residual levels of cyanide as planned will not cause unnecessary or undue degradation of the lands.

Appellants' challenges to BLM's decision are unpersuasive. 14/ Appellants reiterate their concern that there are no studies that contaminants from mining operations do not enter King's Creek, which flows into the Fort Belknap Reservation, and that testing the water is not enough because contaminants could be in sediments. We rejected this concern as unfounded in Red Thunder, Inc., supra at 175-76, 97 I.D. at 268. The present record provides additional information indicating that appellants' concerns are groundless. BLM ruled as follows in its response to comments to its SEA:

13/ See note 10, supra.

14/ Respondents argue that appellants are barred from generally challenging the decision approving full implementation of Amendment No. 10, having failed to convince us to overturn BLM's decision in their previous appeal. We disagree. By bifurcating its decision into two stages, BLM effectively opened it to challenge twice. Of course, in the absence of presentation of new facts or arguments, we need not reconsider questions previously decided.

[W]ater quality monitoring of [King's] Creek is part of the overall mine monitoring plan. Two additional monitoring wells have been placed there per stipulation #6. Past BLM testing of the tailings has not identified any contaminants. A study commissioned for the Reservation with the Council of Energy Resource Tribes (CERT, 1987) also evaluated King's Creek. Their findings are as follows: "Environmental related studies indicate that mining activities are not presenting an environmental hazard to the water supplies of the reservation. This conclusion is based upon comparison of CERT's water and stream sediment geochemical data with previous similar studies and the national drinking water standard." And finally, State and Federal officials from DSL, BLM, and BIA walked the King Creek drainage on July 27, 1990. Water samples were taken from [King's] Creek at the Reservation boundary, King Springs, Bone Springs, and the confluence of King Creek with the North Fork People's Creek. No violations of drinking water criteria or standards were detected.

(BLM's Response to Comments to SEA at 5).

Zortman has demonstrated good faith in allaying concerns about adverse impacts on the water supplies of the Fort Belknap Reservation. By letter dated November 28, 1990, Zortman made a proposal for extensive air and water quality monitoring to the Fort Belknap Tribe. The proposal calls for monitoring surface water at 17 sites, including King's Creek flowing north from the Little Rocky Mountains. In addition, ground water is to be monitored at 10 sites in the Bull Creek, Mission Canyon, Lodgepole Creek, and Beaver Creek drainages on the Reservation north of the Landusky mine. Air quality is to be monitored at three sites near Hays, Lodgepole, and on Beaver Creek north of the Reservation. Appellants have failed to provide any convincing evidence that this water monitoring is not reasonably designed to disclose any contamination of King's Creek.

Zortman notes on appeal that baseline monitoring was, and continues to be, conducted to assess long term changes in the metal content of area waters. Heavy metals are expected to be exported from the mine area only if cyanide escapes. Accordingly, a plan has been developed to detect cyanide. If cyanide is detected, the spill contingency plan not only deals with treating the spill, but also calls for increased metals monitoring frequency to ensure that metals will not escape from the site. Appellants have not shown that this plan is inadequate to ensure that area waters will not be polluted by the operation.

Appellants point out that they have not had an opportunity to participate first-hand in the tests leading to the Report. However, we are aware of nothing that would compel a mine operator to consent to participation by third parties in such tests. The reliability of the study is well established by the credentials of its authors and by a statement in support of its methodology by noted authority (Zortman's Response, Affidavit of Adrian Smith). Appellants have not impeached these credentials. More specifically, appellants have failed to demonstrate that the methodology of extrapolating data to predict the situation at greater depths was erroneous.

We note that the instruments placed in the 1986 pad detected practically no cyanide when first inserted. Similarly, although the 1982 heap was excavated, exposing several lift interfaces, no evidence of cyanide was found, even though the pad had been decommissioned without rinsing. This data generally confirms BLM's finding that cyanide degrades naturally to levels far below danger to any organisms and controverts appellants' assertions that the abandoned heaps contain "deadly poison" and that cyanide, once placed into the ground, "cannot be cleansed" and will remain forever.

The tests undertaken on the 1986 heap also fail to indicate that pockets of ore containing dangerously high levels of cyanide were found or that such are likely to exist in the abandoned pads. We stress that the test evidence does not stand by itself, but corroborates other previously known facts also indicating that no blind-offs occurred: gold recovery from the ore was good, as was cyanide solution recovery; high levels of cyanide have not been observed in the many monitoring wells surrounding the decommissioned heaps.

Appellants assert that BLM's approval fails to assure that the Amendment No. 10 will not cause significant harm to groundwater. Appellants present a statement indicating that there may be vertical gradient components in the structure underlying the pad through which cyanide solution could enter a deeper bedrock aquifer, and that significant harm to groundwater could occur without detection. They also argue that water must be tested for all potentially harmful pollutants and that groundwater monitoring near the land application area is insufficient to assure that water pollution would be insignificant (Appellants' Supplemental Statement of Reasons).

DSL has presented expert opinion disputing appellants' assertion, indicating that there are no discrete groundwater aquifers in the traechyte porphyry and the syenite porphyry underneath the Sullivan Park leach pad. Relying on continuity evident in the groundwater potentiometric map, DSL asserts that the existence of separate aquifers is unsubstantiated and directly contrary to existing data.

In addition, Zortman and DSL each responds persuasively that, during leaching operations, the integrity of the design of the Sullivan Park Pad and the underdrain system in place beneath the pad and liner will prevent cyanide solution from entering the groundwater (Zortman's Response to Supplemental Statement of Reasons at 3-4 and supporting affidavits; DSL's Response to Supplemental Statement of Reasons at 3). Zortman and BLM point out that the underdrain system is monitored on a daily basis (Plan of Operations, Appendix 2, Table 4). Although not specifically addressed by Zortman in its response, the issue of the potential for contamination of groundwater after completion of leaching operations was considered extensively in the study, which (as discussed above) concluded that no significant threat was presented. Considering the entire record, we hold that BLM properly held that there would be no significant effect on the groundwater.

Zortman argues, with reason, that appellants have failed to establish any likelihood that the additional "potentially harmful pollutants" that they recommend testing for would actually be associated with heap leaching. *Id.* at 6-7. In the absence of such showing, we find no basis to fault BLM for allowing the permit amendment without additional testing. In any event, as BLM points out, there is good reason for the monitoring to focus on cyanide: unlike metals, cyanide is not naturally present in detectable amounts in area waters. If cyanide is detected, it is possible that metals may have been transported to the area as a result of the heap leach mining. ^{15/} The monitoring plan is reasonable and is designed to first detect the substance most indicative of contamination.

Finally, Zortman and DSL both point out that land application of cyanide solution is not likely to affect groundwater, as it is conducted with controlled amounts of treated solution being discharged to the application area. They stress that, as the ground is not saturated, there is little likelihood that solution could percolate downward and reach groundwater. Instead, the residual cyanide will be harmlessly absorbed and neutralized by vegetation. The amount of cyanide in such solutions will have been lowered by neutralization and will be known before land application, thus allowing application of the solution at a rate that will ensure successful land application (*see id.* at 8-9; DSL's Response to Supplemental Statement of Reasons at 4). As BLM notes, soil sampling is required for 3 years after use to monitor and verify the metals attenuation/retention abilities of the soil (BLM's Response to Supplemental Statement of Reasons at 14).

Further, we are convinced by the cyanide retention study and the case record that there are no unmitigated environmental impacts that will significantly affect the environment that have not been previously addressed. Section 102(2)(C) of the National Environmental Policy Act of 1969 requires preparation of an EIS in the case of "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C) (1988). As we held in *Red Thunder, Inc.*, *supra* at 175, 97 I.D. at 267,

^{15/} Appellants have submitted evidence from two tests allegedly showing high levels of lead in King's Creek. The validity of these tests is called into question because their results differ greatly, and because the samples were evidently not verified by at least two other samples. Even if valid, this test is at odds with the results of repeated water quality sampling. There are also tailings from historic mining predating and unrelated to the Landusky Mine that drain into King's Creek. No effort has been made to demonstrate that these levels are not caused by these historic tailings ponds.

Appellants refer to detectable levels of cyanide in the Ruby Creek Drainage. However, this condition evidently predates Zortman's leach pads at the head of the drainage. Appellants have not shown that such detectable levels are emanating from the leach pads on the Landusky Mine.

Appellants' claims concerning lead poisoning have been thoroughly rebutted by Zortman.

it is well established that the Board will affirm a FONSI with respect to a proposed action if the record establishes that a careful review of environmental problems has been made, all relevant environmental concerns have been identified, and the final determination that the impact is insignificant is reasonable in light of the environmental analysis. See also Southern Utah Wilderness Alliance, 123 IBLA 302, 308 (1992). When mitigating measures are imposed to reduce impacts of the environmental effects of the proposed action that might otherwise be significant, a FONSI is properly affirmed. Red Thunder, Inc., 117 IBLA at 183, 97 I.D. at 272; Idaho Natural Resources Legal Foundation, 115 IBLA 88 (1990), and cases cited.

Thus, one challenging such a finding must demonstrate either an error of law or fact or that the analysis failed to consider a substantial environmental problem of material significance to the proposed action. The ultimate burden of proof is on the challenging party. Such burden must be satisfied by objective proof. Mere differences of opinion provide no basis for reversal. G. Jon Roush, 112 IBLA 293, 297-98 (1990), and cases cited.

As we held in Red Thunder, Inc., supra at 181-83, 97 I.D. at 270-71, with one exception, BLM properly "tiered" its environmental review (using environmental assessments) of Amendment No. 10 to the original EIS prepared under Montana State law for the Landusky Mine in 1970. This procedure (we held) subjected the proposal to careful scrutiny (see id. at 176-77, 97 I.D. at 267-68), and we generally affirmed BLM's conclusion that no undue degradation of the environment will occur as a result of the amendment.

The one area of concern that we identified is the cumulative impacts of mining, specifically including the abandonment (or "decommissioning") of the pads on which leaching has been completed. Under 40 CFR 1508.7, a "cumulative impact" is the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. At decommissioning, the exhausted ore is not relocated, but left on the pad. If the material in the heap left on the pad contained high levels of cyanide, we held, there might be significant cumulative effects from so abandoning these pads. Therefore, we instructed BLM to consider this question before issuing a decision authorizing the Sullivan Park leach pad to be used. Id. at 188, 97 I.D. at 274-75.

The study completed by Zortman demonstrates convincingly that the approval of leaching operations on the Sullivan Park pad and the abandonment of the pads containing residual levels of cyanide do not entail cumulative environmental effects that will significantly affect the environment. Nor do we find any other significant, unmitigated environmental effect that has not been analyzed as required by law.

[2] We reject appellants' assertion that BLM must prepare an EIS considering Zortman's proposed exploration activity in the Southern Little Rocky Mountains. Appellants have provided us with documentation confirming that Zortman was considering and did request permission for

a project to explore for gold and silver in a large area to the east of the Fort Belknap Reservation. 16/

Appellants cite 40 CFR 1508.27(b)(6), specifically discussing the need for an EIS when there is a high degree of precedent for future actions. Citing 40 CFR 1508.25(a)(iii), appellants also argue that BLM may not "segment" its environmental analysis, and that both the Sullivan Park heap leach pad and the exploration plan are "interdependent parts" of Zortman's larger mining operations in the Southern Little Rocky Mountains.

By letter of July 9, 1992, Zortman informed BLM that it was withdrawing its 10-year mineral exploration program for lands in the Southern Little Rocky Mountains. Zortman explained that that program, which had been submitted to BLM on December 13, 1990, and thereafter was amended on March 23, 1992, "lost out" to other projects that might yield minable reserves within the next 1 to 3 years. Appellants have responded to Zortman's withdrawal by stating that future exploration of these lands may be easily reinstated and, therefore, should be included in a consideration of cumulative effects in a full EIS.

As noted above, under 40 CFR 1508.7, a "cumulative impact" is the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. The withdrawal of Zortman's exploration proposal greatly weakens appellants' claim that the proposal should have been considered. 17/ Zortman's letter leaves little doubt that the proposal is dead and not merely delayed or suspended. The withdrawal also undermines the notion that the exploration was an interdependent part of the Landusky Mine. No adjustment to that operation has been called to our attention.

If the proposal is reinstated, BLM must consider its environmental consequences as required by law. Any decision to allow exploration would be subject to appeal, at which time the appropriate degree of environmental review would be justiciable.

[3] Appellants also argue that BLM has failed to comply with the requirements of section 106 of the National Historic Preservation Act (NHPA), as amended, 16 U.S.C. § 470f (1988). Appellants refer to BLM's alleged failure to follow required procedures in considering the effects

16/ This map indicates that Zortman proposed to explore in approximately 38 different sections.

17/ Compare Havasupai Tribe v. United States, 752 F. Supp. 1471, 1504 (D. Ariz. 1990) (consideration of exploration alone would not contribute materially to an analysis of the cumulative impacts of other mines in the area); see also Cabinet Mountains Wilderness v. Peterson, 685 F.2d 678, 683 (D.C. Cir. 1982) (environmental assessment of an exploration program held not invalid for failure to consider development activities).

of approval of Amendment No. 10 on two sites identified by BLM's District Archaeologist in a June 12, 1990, memorandum and accompanying map. 18/

Section 106 of the NHPA provides:

The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. The head of any such Federal agency shall afford the Advisory Council on Historic Preservation * * * a reasonable opportunity to comment with regard to such undertaking.

Procedures are specified in 36 CFR 800.4 to review possible effects of undertakings on properties either listed in the National Register or eligible for inclusion in the National Register. The term "eligible for inclusion in the National Register" includes not only properties formally determined as eligible under 36 CFR Part 63, but also "all other properties that meet National Register listing criteria." 36 CFR 800.2(e).

The basis for appellants' belief that these sites should be included in the National Register appears to be that they are Indian religious sites, being considered important vision questing and fasting sites.

18/ The two sites are Gold Bug Butte, which is at the center of the Zortman Mine, and Mission Peak, just west of the minesite. BLM also identified Indian Peak as being a cultural site affected by mining activities at the Landusky Mine. The adverse effects on Mission Peak and Indian Peak appear to be limited to visual and audio intrusion on vision questing.

BLM expressly addressed this argument in the comments to its draft EA, issued in connection with its June 22, 1990, decision approving Amendment No. 10 subject to completion of the cyanide retention study:

"74. The very recent archaeological inquiry by the District BLM staff has resulted in numerous sites eligible for the National Register [of Historic Places (National Register)].

"These locations were identified as sites of primarily religious significance. As with similar resources elsewhere, sites that are religious in nature are not considered historic features eligible for the [National Register]."

Although the question of BLM's compliance with NHPA was thus justiciable as of June 22, 1990, appellants did not timely raise the matter. Nevertheless, we shall address this question, as BLM's asserted failure to comply, if proven, would be ongoing as of the issuance of its Feb. 28, 1991, decision.

In April 1990, BLM had initiated contact with representatives of Indian interests in the vicinity of the Landusky Mine for consultation regarding the then proposed mine expansion entailed by Amendment No. 10. It appears that BLM initiated contact in connection with its obligations to consider Indian religious questions under section 2 of the American Indian Religious Freedom Act of 1978 (AIRFA), 42 U.S.C. § 1996 (1988). No immediate response was received, but BLM persisted. 19/ Around the end of May 1990, BLM's archaeologist met with Indians from the Fort Belknap Reservation, who identified sacred sites in the Southern Little Rocky Mountains. His findings are set out in a June 12, 1990, memorandum and accompanying map.

The BLM archaeologist had previously, in May 1990, referred to some historic religious use of the Mission Peak area, just west of the mine:

Documentation exists for the use of this area as a fasting area for many generations. Its importance has been known in the past, but there is some doubt as to the continued use of the site since access has been denied to Native Americans. Additional adverse effects to the reservation are the visual and auditory distractions of the extant mine. [Citation omitted.]

In his June 12 memorandum, the archaeologist described Gold Bug Butte, which is at the center of the Landusky mine operations, as "a favored inter-tribal fasting and burial ground area." 20/

By letter dated June 5, 1990, the State Historic Preservation Office (State HPO), apparently having received notice of the BLM archaeologist's impending report, wrote to BLM as follows:

Thank you for sending the EA referenced above for our review. We find this amendment area was reviewed for cultural resources by our office in 1989. As your EA correctly states, no National Register properties were identified in the area of potential environmental effect for this proposed expansion.

We have received information since our review of the 1988 cultural resources inventory report, however, which indicates the area under consideration may possess traditional cultural values. We therefore recommend that the potential effects of

19/ The BLM archaeologist who initiated contact speculated in his May 9, 1990, report of activity that the Tribe did not respond because "extant mining activity and the remains of past mining activity have already destroyed the sacred aspects which are known to have been present at this locality."

20/ The archaeologist's report also comments generally on the religious significance of sites, noting that a small area that is sacred to one individual may not be particularly important to another. Further, an area such as a mountain, if held in high esteem by several individuals, may become regarded as sacred, and there are no time limits when the areas were not used for their presently regarded purpose.

this undertaking on traditional cultural values be considered and incorporated into the existing EA.

On February 20, 1991, BLM received a letter from the State HPO questioning whether the land area had been "the object of earlier intensive inventory within the framework of [36 CFR Part 800]," and whether there had been "later, additional inventory to determine whether properties of importance for traditional cultural values within a National Register framework (not an AIRFA framework) did occur within this or a later permit area." The State HPO requested that BLM provide a "quick answer" by a telephone call.

The record contains a copy of a State HPO memorandum documenting a telephone call from BLM in response to its letter. According to the memorandum, BLM advised the State HPO that there had been an earlier inventory, but that there had not been any later inventory concerning traditional cultural values. BLM advised the State HPO that it had addressed effects on cultural values through its effort to comply with AIRFA, and that no further action was being considered on the permit, which had already been reviewed. This explanation, which is consistent with BLM's statements at various places in the record that sites of religious concern should be considered religious resources under AIRFA instead of historical sites subject to the historic preservation laws, evidently satisfied the State HPO.

Departmental regulation 36 CFR 800.4(c)(3) provides that the State Historic Preservation Officer must agree that the eligibility criteria are met before a property can be considered eligible for the National Register for section 106 purposes. There is no indication that the State Officer has done so here, although he was clearly aware that sites possessing traditional cultural values were found in the area. Thus, we find no question as to eligibility or the need for procedural compliance with NHPA. 21/

In closing, we note that BLM has not disregarded the significance of Indian cultural sites. In the course of its AIRFA analysis, BLM actively solicited the opinions by Native Americans, both individually and in Tribal groups, and has considered and made some mitigating concessions to Indian concerns. 22/ As we held in Red Thunder, Inc., supra at 197, 97 I.D.

21/ Appellants make much of letters from the Advisory Council on Historic Preservation. The gravamen of these letters is simply to remind BLM that, if there are any properties (in either the plan amendment area or in the area of the planned exploration) that are determined eligible for the National Register, in consultation with the State HPO, then BLM might be required to obtain the Advisory Council's comments. As the State HPO did not determine that there were eligible properties in the plan amendment area, BLM was not required to do so. BLM's obligations concerning the area of the once planned exploration activities are not before us at this time.

22/ On June 21, 1990, in two memoranda to the file, BLM demonstrated that it did consider these questions: "Because of the nature of the

at 279, in the absence of a showing that BLM failed to consider other reasonable mitigating measures, it has complied with AIRFA, which does not require BLM to bar responsible mining (a legitimate use of the Federal lands), owing to its temporary intrusion on individual Indian religious practices. We stress, as we did in Red Thunder, that appellants have not specified any additional mitigative measures that BLM might have imposed but did not.

To the extent not expressly addressed, appellants' arguments have been considered and rejected. A request for hearing, filed by DSL on January 7, 1992, is denied as unnecessary.

Accordingly, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, the decision appealed from is affirmed.

David L. Hughes
Administrative Judge

I concur:

Franklin D. Arness
Administrative Judge

fn. 22 (continued)

locations, primarily landforms such as mountain tops, the only option would be to avoid the sites with mining activity if it was possible to do so within the constraints of the mining technology. One location, Gold Bug Butte, has already been disturbed by mining and is within the expected mining disturbance of [permit amendment 10] and probably could not be mitigated"

(Burt Williams Memorandum, June 21, 1990). Gold Bug Butte is described as

"a mixture of private and federal land [that] has been involved in mining activity for over 100 years. Currently the entire west side of the butte is being mined using open pit methods. The physical integrity of this area has been lost. * * * [N]o real mitigation of this location was possible due primarily to the land ownership pattern, the existing physical disturbance, and the surrounding level of activity"

(Scott Haight Memorandum, June 21, 1990).

BLM also recognized that

"religious practitioners on two of [the] 11 locations [identified by the archaeologist], Mission Peak and Indian Peak, could still experience visual or audio intrusion from mining activity should they be at the summit, or on the east side of these peaks. The reclamation requirements would mitigate the visual intrusion. The audio intrusion would not be reduced until after mine life, or during the annual 4 day shut-down that coincided with the Sun Dance Ceremony."

Id.

IBLA 91-186, 91-220, 91-221 : MTM-77779
: :
RED THUNDER, INC., ET AL. : Mine Plan of Operations
124 IBLA 267 (1992) : :
: Petition for Reconsideration
: Granted;
: :
: Decision Reaffirmed

ORDER

Red Thunder, Inc. (Red Thunder), has filed a petition for reconsideration of our decision in Red Thunder, Inc., 124 IBLA 267 (1992) (Red Thunder II). 1/ We grant the petition for purposes of clarifying our decision, which we reaffirm.

On reconsideration, Red Thunder challenges only that portion of our decision dealing with sec. 106 of the National Historic Preservation Act (NHPA), as amended, 16 U.S.C. § 470f (1988). Red Thunder II, supra at 283-87.

As the Landusky Mine has been developed, BLM has been in contact with the State Historic Preservation Office (State HPO), Montana Historical Society, concerning historical sites in the area affected by that mine. As late as 1989, attention was focussed on the area's history as a mining district. Old mine workings in the vicinity were not deemed suitable for inclusion on the National Register, but the State HPO had expressed

1/ The decision on reconsideration affirmed the February 28, 1991, decision of the Lewiston (Montana) District Office, Bureau of Land Management (BLM), approving ore loading and leaching operations at the Sullivan Park leach pad at the Landusky Mine under an amendment to Federal Plan of Operations MTM-77779 of Zortman Mining, Inc. (Zortman).

Previously, on December 19, 1990, we issued a decision modifying BLM's June 22, 1990, decision approving Amendment No. 10, by which BLM authorized the construction of the Sullivan Park heap leach pad. We required BLM to re-examine whether to prepare an environmental impact statement (EIS) for the plan amendment following completion of a study of the amount of cyanide retained in heaps on leach pads at the Landusky Minesite after leaching. Red Thunder, Inc., 117 IBLA 167, 184-88, 97 I.D. 263, 273-75 (1990) (Red Thunder I). We reviewed the cyanide retention study at length in Red Thunder II and concluded that BLM properly allowed leaching operations on the Sullivan Park Pad to proceed.

interest in preserving old mine records (Petition at App. D p.3). 2/

BLM had sent the State HPO a copy of its original environmental assessment (EA) of Amendment 10, which contained a brief discussion of effects of the proposal on cultural resources, based on the earlier inventory. That discussion did not mention Indian religious sites.

In April 1990, BLM contacted representatives of Indian interests in the vicinity of the Landusky Mine to consult with them regarding the then proposed mine expansion. When no response was forthcoming, BLM's archeologist initiated contact and met with Indians from the Fort Belknap Reservation around the end of May 1990. Together they identified sacred sites in the Southern Little Rocky Mountains. The archeologist's findings were set out in a June 12, 1990, memorandum. The archeologist recommended that some of those sites "be considered eligible for nomination to the National Register of Historic Places [(National Register)] until the sites can be fully evaluated with respect to the National Register eligibility criteria." As will be seen, BLM subsequently rejected that recommendation.

The State HPO evidently learned of the archeologist's suggestion prior to the issuance of his memorandum. On June 5, 1990, it wrote to BLM:

Thank you for sending the EA [for Amendment No. 10, Landusky Mine] for our review. We find this amendment area was reviewed for cultural resources by our office in 1989. As your EA correctly states, no National Register properties were identified in the area of potential environmental effect for this proposed expansion.

We have received information since our review of the 1988 cultural resources inventory report, however, which indicates the area under construction may possess traditional cultural values. We therefore recommend that the potential effects of this undertaking on traditional cultural values be considered and incorporated into the existing EA.

(Petition at App. D p.3).

As recommended by the State HPO, BLM did consider the effects of the mine plan on traditional cultural values. On

2/ Although citations are to appellant's petition for reconsideration, the cited documents are also contained in BLM's case record. Unless otherwise indicated, the history of the matter herein is based on our discussion in Red Thunder II, 124 IBLA at 283-87.

June 21, 1990, BLM placed two memoranda in its file noting those effects. BLM observed that one religious site named in the archeologist's report (Gold Bug Butte) was actually located in the area being mined and had "already been disturbed by mining and is within the expected mining disturbance of [the permit] and probably could not be mitigated." BLM also noted that Gold Bug Butte was in part privately owned and had been involved in mining activity for over 100 years. Mitigation of that site was not possible "due primarily to the land ownership pattern, the existing physical disturbance, and the surrounding level of activity." BLM noted that two other sites named by the archeologist (Mission Peak and Indian Peak) would be impacted by the mining such that one using the summit or the east side of those peaks would experience "visual or audio intrusion from mining activity." The audio intrusion would be limited to the life of the mine, and the visual intrusion would be mitigated by reclamation. BLM thus determined that the only site actually within the permit area had been long ago been rendered useless for cultural purposes by previous mining activities and land ownership patterns; that two other sites would be impacted only were through the life of the mine; and that many other religious sites were not affected by the proposal. BLM also indicated that "sites of religious concern should not be considered cultural resources subject to the historic preservation laws, but should be considered under" the American Indian Religious Freedom Act (AIRFA), 42 U.S.C. § 1996 (1988).

Also as recommended by the State HPO, BLM expressly addressed locations having religious values in the comments to its supplemental EA for Amendment 10, stating that the "very recent archaeological inquiry by the District BLM staff [had] resulted in numerous sites eligible for the National Register." Oddly, however, BLM seemed to directly contradict that statement by immediately adding that, "[a]s with similar resources elsewhere, sites that are religious in nature are not considered historic features eligible for the [National Register]." Red Thunder II, 124 IBLA at 284 n.18.

Viewing those statements in light both of the complete record and of BLM's subsequent actions, it appears that BLM intended to state that, although it had received a report from its archeologist and the letter from the State HPO indicating that there were religious sites in the area that might be eligible for the National Register, it had concluded that those sites were not eligible because they were "religious in nature" rather than "historic features." Although certainly ambiguous, BLM's statement must be regarded as a determination that the sites were not eligible for the National Register.

BLM evidently provided the State HPO with a copy of the amended EA and comments. On or around February 20, 1991, the

State HPO contacted BLM regarding its supplemental EA. Not surprisingly, it had questions about BLM's action:

We don't have an official comment on this as much as questions. Is it fair to assume that the land area covered in this assessment has been the object of earlier intensive inventory within the framework of 36 CFR 800? And, has there been later, additional inventory to determine whether properties of importance for traditional cultural values within a National Register framework (not an AIRFA framework) did occur within this or a later permit area?

If a call can offer a quick answer, that's fine!
Thanks for helping us sort this out.

(Petition at App. D-1).

BLM promptly responded by telephone. Its response plainly showed that it did not feel that the religious sites identified in the archeologist's survey were historic properties under NHPA. BLM indicated that there has been an earlier inventory, but no later, additional inventory concerning the religious sites. ^{3/} BLM also indicated that it had addressed effects on areas possessing cultural values through its effort to comply with AIRFA, and that it had completed its review of the permit amendment application.

On February 27, 1991, the State HPO wrote BLM:

I appreciated your immediate call to me in response to my February 18 letter on [Amendment 10]. As I suggested during that call, a letter to follow would probably be a good idea. Now--since I continue to field questions on the project and our consultation, I want again to request your written clarification.

I think that our questions of Feb. 18 are rather the heart of the issue and the questions I am hearing. In general, I heard you to say * * * that all survey reports for the projects under present consideration

^{3/} That statement is curious, in view of BLM's decision to subject the area to a thorough inventory by its archeologist. BLM apparently viewed that to be an inventory of religious sites, rather than historical sites. However, as noted below, the inventory was adequate to meet the requirements of 36 CFR Part 800 Subpart B.

(including [Amendment 10]) that BLM anticipates preparing have already been sent to us? [4/]

That letter leaves no doubt that the State HPO was aware that BLM had completed its survey reports for Amendment 10, although it is not clear whether BLM confirmed that belief by answering the State HPO's questions. The inescapable conclusion was that BLM would not declare the sites mentioned in its archeologist's report as NHPA sites. Any remaining doubt was erased by BLM's February 28, 1991, decision to allow operations to commence.

Departmental regulations at 36 CFR Part 800 Subpart B govern BLM's obligations in identifying historic properties under section 106 of NHPA. On reconsideration, appellant submits that BLM did not properly follow those regulations in concluding that there were no historic properties.

We note initially that, under 36 CFR 800.3(b), the procedures set forth in those regulations may be implemented by BLM in a flexible manner, as long as the purposes of section 106 and those regulations are met. We find that BLM adequately met those requirements.

The record indicates that BLM did review existing information on historic properties potentially affected by the undertaking. See 36 CFR 800.4(a)(1)(i). That survey identified sites throughout the area having religious significance and contained commentary on the question whether Indian religious sites should also be treated as historical sites. The survey by BLM's archeologist was adequate to meet the requirements of 36 CFR 800.4(b) and (c).

Appellant also asserts that, in making its decision, BLM did not comply with 36 CFR 800.4(a)(1)(ii), which provides that BLM shall "[r]equest the views of the State HPO on further actions to identify historic properties that may be affected." It is evident from the record that the State HPO was well aware of the findings of BLM's archeologist's extensive survey and had ample opportunity to consult with BLM on it. The State HPO did in fact offer comments in June 1990 that caused BLM to consider the effects of the amendment on those sites and whether they should be included on the National Register. By copying the State HPO with its EAs and responding to its concerns in its comments on those EAs, BLM also actively requested the views of the State HPO

4/ The State HPO also stated its understanding that all future considerations of traditional cultural properties with the potential to be considered for the National Register would occur as part of planning for anticipated future mining undertakings. The only issue presented here is BLM's consideration of traditional cultural properties in connection with Amendment 10.

as to historical sites both in 1990 and previously. ^{5/} The State HPO's questions in February 1991 were promptly answered by BLM by telephone. That was adequate consultation. Compare, Attakai v. United States, 746 F. Supp. 1395, 1407 (D. Ariz. 1990) (where there was no evidence, either in the files of the Bureau of Indian Affairs (BIA) or the State HPO, that BIA had either consulted with the State HPO or even notified it of BIA's findings that there were no historic properties). BLM also involved representatives of Indian tribes and the public in general in its decisionmaking process. See 36 CFR 800.4(a)(1)(iii).

At no time did the State HPO offer any objection to BLM's decision not to treat the sites as historical sites. As the State HPO did not oppose BLM's determination, it is properly presumed to agree with that determination. See 36 CFR 800.4(c)(5).

Departmental regulation 36 CFR 800.4(d) specifies the appropriate procedures for BLM to follow when no historic properties are found. BLM is required to notify the State HPO of that determination and to provide it "documentation" of that finding. BLM's finding of no historic properties was clearly made not later than the telephone communication on February 27, 1991. By publishing the details of its decision to allow the amendment and making its case record available to the public, BLM met the disclosure requirements of that regulation. Again, the record shows that the State HPO was well aware of BLM's decision not to declare the sites as historic properties and offered no formal objections to that decision, either in February 1991 or subsequently.

We reject Red Thunder's suggestion that BLM erred by not providing it with "notification that BLM had determined that there were no affected historic properties." That conclusion was evident from BLM's decision to proceed without declaring the sites historic properties and without taking any of the steps outlined in 36 CFR 800.5 when historic properties are found. Red Thunder has had ample opportunity to challenge BLM's actions in the course of the instant appeal, during which BLM's documentation was made available to it.

Appellant asserts on reconsideration that BLM's efforts to comply with the requirements of AIRFA are independent of its obligations under NHPA (Petition at 5 n.2, 7-8). The sites in question unquestionably had both historic and religious aspects. We find nothing in the regulations preventing BLM from using a single decisionmaking process to address both AIRFA and NHPA concerns, provided that BLM's actions meet the procedural

^{5/} Based on past practice, it appears that the State HPO and BLM had in place a system where BLM requested the State HPO's views by providing it informational copies of relevant material.

requirements of both statutes. We have held that BLM complied with AIRFA. Red Thunder I, 117 IBLA at 188-97, 97 I.D. at 275-79. We conclude herein that BLM also complied with the procedural requirements of NHPA.

On or around February 20, 1991, the Western Office of Project Review, Advisory Council on Historic Preservation (Council) wrote to BLM:

It has come to our attention that a proposed expansion of the Landusky Mine may affect traditional cultural properties within the area of potential effects of the mining operation. Based on information provided by Mr. Donald Marble, Esq., it appears that these properties may be eligible for inclusion in the National Register. If the properties are determined eligible in consultation with the State [HPO], then [BLM's] involvement in this project and the nature of the project's effects on this National Register property may require your agency to obtain the comments of the Council. The [NHPA] and the Council's regulations, 26 CFR Part 800, set forth this responsibility. We urge you not to take irrevocable [action] until these questions have been addressed.

Please investigate this matter to determine if BLM's involvement in this project requires the comments of the Council.

(Petition at App. D p.2). We reiterate that it appears that BLM, having concluded that the religious sites were not in fact eligible for the National Register, simply determined that it was not required to obtain the Council's comments. Red Thunder II, 124 IBLA at 286 n.21. Under 36 CFR 800.4(d), BLM is not required to take further steps in the NHPA process when no historic properties are found. It does not appear that the Council has taken issue with BLM's conclusion that the sites identified in the archeologist's report are not historic properties. See 36 CFR 800.4(c)(4).

Accordingly, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR

4.1, the petition for reconsideration is granted, and the decision is reaffirmed as clarified by this order.

David L. Hughes
Administrative Judge

I concur:

Franklin D. Arness
Administrative Judge