Appeals from a decision of the District Manager, Miles City District Office, Bureau of Land Management, approving an application for permit to drill.

Affirmed.

1. Environmental Policy Act--Environmental Quality: Environmental Statements--Oil and Gas Leases: Drilling

The Board will affirm BLM's decision approving an application for permit to drill where that approval was based upon an environmental assessment which reflects an evaluation of the environmental impacts sufficient to support an informed judgment, and where that approval was conditioned upon the operator's preparation of an acceptable contingency plan for the protection of individuals endangered by a potential emergency.


OPINION BY ADMINISTRATIVE JUDGE KELLY

Elberta M. Taylor and Don and Judy Smishek have appealed from an August 11, 1986, decision of the District Manager, Miles City District Office, Bureau of Land Management (BLM), approving an application for permit to drill (APD) filed by Amoco Production Company (Amoco). 1/ Amoco proposes to drill an exploration well, designated the USA Amoco (A) No. 1 well, located in sec. 19, T. 8 S., R. 20 E., Carbon County, Montana, approximately 4.5 miles south of Red Lodge. The USA Amoco (A) No. 1 well was to be drilled directionally to a depth of approximately 15,500 feet from private land to a bottom hole location on Federal lease M-38867.

Because of public interest and concern over Amoco's drilling program, BLM decided to prepare an environmental assessment (EA) to "provide full discussion and disclosure of the environmental impacts and public issues

1/ By order dated Oct. 14, 1986, the Board granted Amoco's motion to intervene in this case.
associated with the proposed project" (EA at 1-1, 1-4). As stated in the EA, Amoco was to drill the USA Amoco (A) No. 1 well through Paleozoic formations which may contain hydrogen sulfide \( (\text{H}_2\text{S}) \), commonly referred to as sour gas. BLM characterizes a well "blowout," involving the "uncontrolled, accidental releases of formation fluids," including \( \text{H}_2\text{S} \), as unlikely, but recognizes that such a "blowout could cause unpredictable, and possibly severe, environmental damage near the proposed well site" (EA at 3-43). While there is potential that the toxic effects of a blowout could result in "acute health effects, including respiratory arrest, unconsciousness, and possibly death" (EA at 3-45), the "risk of an \( \text{H}_2\text{S} \) fatality would be about the same or slightly more than the risk of death from a natural disaster like lightning or tornadoes * * *" (EA at 3-48). Nevertheless, out of what Amoco refers to as an "abundance of caution" (Response at 2), BLM required Amoco to prepare an \( \text{H}_2\text{S} \) "contingency plan," which BLM subsequently reviewed and approved.

Amoco summarizes the contingency plan as follows:

This contingency plan requires Amoco, among other things, to take certain precautions to prevent a blowout from occurring (such as use of blowout prevention equipment), to maintain an elaborate monitoring system to detect the presence of \( \text{H}_2\text{S} \), and to have an effective alarm system in place to alert people in the vicinity of an \( \text{H}_2\text{S} \) gas escape. During the three week period when Amoco will be drilling through the formations suspected of containing \( \text{H}_2\text{S} \), nearby residents of Piney Dell will be temporarily relocated, and a restaurant and condominium complex at Piney Dell will be closed. During this three week period, Amoco's \( \text{H}_2\text{S} \) contractor will also be policing the area within a 2.5 mile radius to maintain an inventory of all people in the area, including visitors. In this regard, during all phases of drilling operations, the two campgrounds in the 2.5 mile radius (Sheridan and Ratine) will be closed. In the unlikely event of an \( \text{H}_2\text{S} \) blowout, the plan also specifies evacuation measures to be followed. This evacuation plan, indeed the entire contingency plan, was discussed at a meeting on June 3, 1986, with the year-round residents within a 2.5 mile radius of the well, including the Smisheks.

(Amoco's Response at 2-3).

Upon completion and approval of Amoco's contingency plan, BLM approved the APD by decision dated August 11, 1986. In this decision, BLM explained that "[w]e have paid special attention to this project because of the potential environmental impacts of mineral development in an area which is presently noted for its tourist and recreational amenities, and because of the potential public safety hazards associated with drilling into possible \( \text{H}_2\text{S} \) formations in a populated area" (Decision at 1). Moreover, BLM informed Amoco that "[t]his permit only approves drilling and testing of this one well; production of oil or gas from the well would have to be approved after submission of a separate application and further environmental analysis. Beyond that, any future oil and gas development in this area would require further detailed environmental analysis." Id.
By letter dated August 11, 1986, BLM informed various interested parties, including the appellants herein, that it had approved Amoco's APD. In this letter, BLM stated that "[a]fter review of the environmental analysis (EA) and hearing from interested persons such as you, we have incorporated mitigating measures into the APD which will insure that effects on the Red Lodge area or the environment will be minimal." Additionally, BLM informed such interested parties of their appeal rights under 43 CFR 3165.4 and 43 CFR Part 4, stating that the "[f]iling of an appeal will not result in automatic suspension of operations approved under the APD unless requested in your appeal and IBLA agrees."

Don and Judy Smishek and Elberta M. Taylor filed their appeals from BLM's decision on September 10 and 11, 1986, respectively. In its Response, Amoco stated that "[n]either the Smisheks nor Mrs. Taylor requested a stay; therefore, Amoco commenced operations" (Amoco's Response at 4 n.2).

Taylor's appeal reads in its entirety: "I hereby appeal drilling Amoco 1 Carbon County; possible health hazards and depreciation of property."

The Smisheks challenge the decision on bases that question the sufficiency of the EA and the contingency plan. In their statement of reasons (SOR), they argue that "[w]hile it appears that you [BLM] have given considerable attention to the environmental items such as land, water, vegetation and wildlife, it appears that the human health & safety element is being grossly neglected" (SOR at 1).

According to the Smisheks, upon completion of the contingency plan, "someone, identity unknown, left several of the Contingency Plan books at the Grizzly Condo's South of Red Lodge and asked the lady manager to call a few people and let them know the books were available." * Id. at 2. Further, they contend that adequate notice was not provided to interested persons of Amoco's proposed drilling plans:

Subsequently a meeting was held in a room at the Grizzly Condo's for only those persons named in the plan as residents who should be concerned about an emergency and unsafe occurrence at the proposed well, such as a H2S blowout. The list of names was incomplete, inaccurate and should have included many more people. No consideration was given to the many, many people who could be at their cabins, or in the area participating in outdoor activities in the winter and summer on any given day. * * * There are many more who should have been advised of the possible dangers to life associated with this proposed well. *Id. at 2, 3."

In addition, the Smisheks state that it is "absurd" to rely on meteorological data from the Stillwater River Canyon in preparing a worst case analysis for the vicinity of the well, the Rock Creek Canyon. They conclude that "[t]here is no comparison." *Id. at 3.

102 IBLA 374
The Smisheks ask why a helicopter for evacuation is stationed an hour away "if H₂S can kill a
person in seconds," and why, "if the danger of a blowout is so remote, * * * [Amoco plans to] close down
Piney Dell/Grizzly Condos during the so-called 'critical time'?” Id. at 5.

[1] The challenges to BLM's decision to approve Amoco's APD relate to matters which BLM
addressed in the EA or which Amoco addressed in the contingency plan. In preparing an adequate EA,
BLM is required to "take a 'hard look' at the problem, as opposed to setting forth bald conclusions;
identify the relevant areas of environmental concern; and make a convincing case that environmental
impact is insignificant." Defenders of Wildlife, 79 IBLA 62, 68 (1984). In evaluating an EA, the Board
will ask whether the "record establishes that a careful review of environmental problems has been made,
relevant environmental concerns have been identified, and the final determination is reasonable in light
of the environmental analysis." Glacier-Two Medicine Alliance, 88 IBLA 133, 141 (1985). See Utah
Wilderness Association, 80 IBLA 64, 91 I.D. 165 (1984). In order to prevail in this case, appellants must
meet the following standard:

The party challenging the determination must show it was premised on a clear error
of law, a demonstrable error of fact, or that the analysis failed to consider a
substantial environmental question of material significance to the action for which
the analysis was prepared. See generally Utah Wilderness Association, supra]; United States v. Albert O. Husman, 81 IBLA 271, 274
(1984); see also Curtin Mitchell, 82 IBLA 275 (1984); In re Otter Slide Timber Sale, 75 IBLA 380
(1983). Mere differences of opinion provide no basis for reversal if BLM's decision is reasonable and is
supported by the record on appeal. See generally Oregon Shores Conservation Coalition, 83 IBLA 1
Glacier-Two Medicine Alliance, supra at 141.

The record does not support the Smishek's contention that "the human health & safety element
is being grossly neglected" (SOR at 1). The EA at 3-42 through 3-51 "describes the potential
environmental and safety risks associated with an accidental release of formation fluids (gas, oil or
water) from the exploration well" (EA at 3-42). In a subsection entitled "Human Health and Safety,"
BLM "addresses and quantifies the H₂S-related risks associated with the proposed drilling program,
assuming H₂S to be present." Id. at 3-44. BLM prepared "[a] detailed air quality and risk analysis * * *
to quantify the health and safety impacts associated with an accidental release of gas containing H₂S." Id.
at 3-45. BLM's worst case analysis assumes that there is H₂S in the area subject to drilling, and that a
blowout occurs. BLM concludes that "the risk probability of a human being exposed to H₂S
concentrations that could cause an acute health response, including death, was calculated to be
approximately 0.000062 (about 1 chance in 16,000) in Piney Dell and approximately 0.00000064 (about 1
chance in 220,000) in the Sheridan Campground." Id. at 3-48. BLM concludes that the "risk of an H₂S
fatality would be about the same or slightly more than the risk of death from a natural disaster like
lightning or tornadoes." Id.
In the EA, BLM provides a summary of the draft contingency plan, which "defines the H₂S safety measures to be employed during drilling and production testing operations." Id. at 3-48. The contingency plan, as approved by BLM, is comprehensive, including sections on safety equipment, operating procedures, operating conditions, emergency procedures, and evacuation of residents.

As noted, the Smisheks contend that the contingency plan contains an incomplete and inaccurate list of individuals "who should be concerned about an emergency and unsafe occurrence at the proposed well, such as a H₂S blowout" (SOR at 2). They conclude that "[t]here are many more who should have been advised of the possible dangers to life associated with this proposed well." Id. at 3.

In its Response, Amoco points out that the Smisheks "do not identify in their statement of reasons anyone else who should be listed," and provides the following explanation as to how it arrived at the list of names included in the contingency plan:

The list of names specifically mentioned in the contingency plan is based upon the assumption that Amoco will be conducting operations only during the fall, winter and early spring. This, in fact, is stipulated in the approved drilling permit: Amoco cannot operate from May 1 until September 1. (Permit Condition No. 18.) During the allowed drilling period, the population of the area in the vicinity of the well falls dramatically and is limited mainly to year-round occupants. Consequently, the plan only specifically identifies those residents who were determined by the H₂S contractor, the local Sheriff's office and Dames and Moore (which reviewed tax records to identify property owners [and who prepared the EA]) to be year-round occupants. (See Contingency Plan at 28-29.) As a practical matter, it would make little sense, and would involve pure speculation, to attempt to make a comprehensive list of everyone who might possibly be visiting the area during the three week period when Amoco is drilling through potential H₂S formations.

(Amoco's Response at 5-6).

Further, Amoco emphasizes provisions in the contingency plan which will ensure that all individuals in the area of the well will be notified and evacuated in the event of the emergency:

The fact that only year-round occupants are specifically listed in the plan does not mean, however, that weekend or other temporary visitors will fail to be notified and evacuated in the event of an emergency. Beginning one week before drilling operations enter the formations which may contain H₂S, Amoco's H₂S contractor will drive through the area on a daily basis. (See
Contingency Plan at 31, PE.) n3 These daily drive-throughs, along with the Sheriff Department's routine patrols, will help ensure that all residents and visitors in the area are identified. Furthermore, if an evacuation is required, a house to house search will be implemented, regardless of the information provided by the daily drive-throughs. (Contingency Plan at 27-28.) Thus, the contingency plan specifies procedures which will protect anyone who may be in the area, not just those people listed in the plan. Amoco believes this approach addresses the Smisheks' concerns.

3/ The contingency plan states that there will be daily drive-throughs in the area south of the well-site because that is where nearly all of the cabins used for vacations and weekends are located. However, Amoco's H₂S contractor will also conduct daily drive-throughs on the north side of the well.

(Amoco's Response at 6).

In response to the Smisheks' claim that it is "absurd" to rely upon meteorological data from the Stillwater River Canyon in preparing a worst case analysis for the vicinity of the well, Amoco points to BLM's conclusion in the EA that the Stillwater area is "oriented similarly in direction to the Rock Creek area." Id. at 7, quoting the EA at Appendix B-14. Moreover, according to Amoco, "the meteorological data from the Stillwater area used in the modeling merely confirmed the results obtained from the worst case assumptions Dames and Moore had made for Rock Creek Canyon" (Response at 7). Amoco explains that

[1]he 2.5 mile radius used in the contingency plan was determined by atmosphere dispersion modeling and application of the procedures specifically established for the BLM by the Lawrence Livermore National Laboratory to determine areas around the well which could have H₂S concentrations of 300 ppm [parts per million], 100 ppm, and 15 ppm, based on worst case assumptions" (Response at 3). According to Amoco, this meteorological data was arrived at "independently of the Stillwater data * * *." Id. at 7.

As to the Smisheks' question why a helicopter for evacuation is stationed an hour away "if H₂S can kill a person in seconds," Amoco responds that "[d]uring the three week drilling period, it will be stationed during the day in Laurel, Montana, about a 25 minute flight to the helicopter staging area, and at night in Bridger, Montana, about a 15 minute flight to the staging area." Id. at 8. Those persons within "the 300 ppm potential danger area will be relocated before drilling begins in the potential H₂S formation." Id. Further, "the helicopter will be used only for emergency evacuation of persons south of the well-site (which includes the Smisheks)." Id. at 8-9. Should an emergency take place, Amoco states that people within the 300 ppm potential danger area will be "immediately relocated by car, four wheel drive or snowmobile, if necessary, to a helicopter staging area.
well outside the 2.5 mile contingency plan radius." Id. at 9. Amoco concludes that "the time required to get a helicopter to the staging area will not affect the safety of those involved." Id.

In response to the Smisheks' question that "if the danger of a blowout is so remote, why close down Piney Dell/Grizzly Condos during the so-called 'critical time,'" Amoco states that "this area is within the boundaries of the 300 ppm concentration level under worst case conditions and is therefore being closed down as a precautionary measure." Id. at 9. In Amoco's view, such "action demonstrates the BLM's and Amoco's concern for the safety of anyone who could be adversely affected by an unlikely escape of H₂S." Id.

Based upon the record, we conclude that the EA, and the contingency plan required in the EA, reflect a careful review of the relevant environmental problems, that relevant environmental concerns, including public health and safety, have been identified, and that BLM's determination is "reasonable in light of the environmental analysis." Glacier-Two Medicine Alliance, supra at 141. The Smisheks have not shown that BLM's EA "was premised on a clear error of law, a demonstrable error of fact, or that the analysis failed to consider a substantial environmental question of material significance * * *." Id.

Accordingly, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, the decision of the District Manager, Miles City District Office, BLM, is affirmed.

John H. Kelly
Administrative Judge

We concur:

Gail M. Frazier
Administrative Judge

Will A. Irwin
Administrative Judge.