



United States Department of the Interior



BUREAU OF LAND MANAGEMENT

Montana State Office
5001 Southgate Drive

Billings, Montana 59101-4669
<http://www.mt.blm.gov/>

In Reply To:

SDR-922-07-01
3160 (922.WL)

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

December 12, 2006

DECISION

Mr. Darin W. Johnson)
Gray and Johnson, PLLP)
1701 Ave. E, Suite E)
Billings, Montana 59102)
)

SDR No. 922-07-01

AFFIRMED

Robert Hawkins, Inc. (Hawkins) through its attorney, Darin W. Johnson, requested a State Director Review (SDR) of the October 6, 2006, order of the Miles City Field Office (MCFO) Assistant Field Manager. The order required Hawkins to shut down operations on Well No. A-1 Yellowmule because of its failure to submit a water disposal application. The order also required Hawkins to remove old storage tanks and a treater. The SDR request was considered timely filed on November 7, 2006, in accordance with 43 CFR 3165.3(b) and was assigned number SDR 922-07-01. Hawkins requested the opportunity to give an oral presentation. The oral presentation took place on November 14, 2006. At the oral presentation, additional supporting documentation was requested, and that information was timely received on November 17, 2006.

BACKGROUND

Water Disposal

Well No. A-1 Yellowmule is located in the SESW, Sec. 6, T. 6 S., R. 36 E., Big Horn County, Montana, on Indian Lease 14-20-0252-4667. Approval to dispose of produced water from Well No. A-1 Yellowmule into an unlined pit was approved by the BLM on February 5, 1985. At the time of the approval, the well was producing approximately ½ barrel of water per day.

On August 11, 2006, the MCFO sent Hawkins a written order regarding the disposal of produced water. The order stated that, "The 24-hour well test shows that the Yellow Mule A-1 well was producing 19 barrels of water per day which is being disposed of in the unlined pit. Our records show that this method of water disposal was approved on February 5, 1985, under Section IV(4) of NTL-2B, Disposal of Produced Water. Section IV(4) states that the volume of water to be disposed of per facility does not exceed five barrels per day. Since the well is producing more than 5 barrels of water per day, you are not in compliance with the water disposal approval." The order requested that Hawkins submit a request for approval of disposal of produced water in accordance with Onshore Oil and Gas Order No. 7 (00#7) which superseded NTL-2B. The order also pointed out that, "The water analysis performed by Energy Laboratories on July 10, 2006, shows very high readings of benzene, oil and grease. The levels of benzene, oil and grease need to be considered in your request for disposal of produced water." The order advised that, "Alternatives for disposal of produced water may include

the use of unlined pit, disposal to a lined pit, or off-site disposal (e.g., disposal into permitted injection well). If disposal into an unlined pit is your selected alternative, you will need to meet the requirements of Onshore Oil and Gas Order No. 7, Sections III.D.2, III.E.1, and III.F." The order warned that continued use of the pit would result in a temporary shut-in order.

Hawkins responded to the order in a Sundry Notice and letter dated August 30, 2006. In the response, Hawkins requested a variance for the over production of disposal water of 5 barrels per day. Hawkins stated, "The well is presently producing 19 barrels of water per day into a fenced and flagged evaporation pit that holds approximately 5000 barrels of water. The Yellowmule A-1 well is a stripper oil well and it operates seven months out of each year, producing approximately 3,990 barrels of water during that operating period." Hawkins states that the disposal water from the well is well within the state of Montana Department of Environmental Quality's (DEQ's) numeric water quality standards and the Board of Oil & Gas standards.

The MCFO responded to Hawkins on October 6, 2006. The response stated, "The Sundry Notice dated August, 30, 2006, requesting a variance for disposal of 19 barrels per day of produced water is denied and is being returned unapproved. The 24-hour well test showed that Well #A-1 Yellowmule was producing 19 barrels of water per day, and is currently being disposed of in an unlined pit. Our records show that this method of water disposal was approved on February, 5, 1985, under Section IV(4) of NTL-2B, Disposal of Produced Water. Section IV(4) states that the volume of water to be disposed of per facility shall not exceed five barrels per day. Since the well is producing more than 5 barrels of water per day, it is not in compliance with the original water disposal approval." The letter goes on to state, "The water analysis taken from the treater outfall (i.e. current discharge point) show benzene, oil and grease at significantly higher than permissible levels. Therefore, the attached Notice To Shut Down Operation No. 06SO-DF-001 requires Robert Hawkins, Inc. to shut in this well within 24 hours upon receipt of this notice." The order stated that the well is to remain shut in until a valid water disposal method is approved.

Hawkins filed a request for an SDR on November 7, 2006, requesting that the State Director overturn the Shut-Down Order and allow Hawkins to continue to produce the well. Hawkins submitted a copy of the original conditions of approval attached to the water disposal approval that was granted by the BLM in 1985. The conditions of approval (COAs) were directly from Section V of NTL-2B which states the general requirements for permanent surface pits. Hawkins argues that it is in compliance with the COAs. Hawkins also points out that the original approval contains evidence (hand written notes based on a phone conversation between BLM and the operator) that the evaporation rate of the pond is 55 inches per year and the freshwater aquifer is found at a depth of 1104 feet and is approximately 50 feet thick. Hawkins points out that 00#7 allows the use of unlined disposal pits under several different criteria; only one of which requires that the volume be less than 5 barrels per day. One of the other criteria is if the water to be disposed of would not degrade the quality of surface or subsurface waters in the area. Hawkins argues that BLM has not shown that disposal of produced water would degrade, or has degraded the quality of surface or subsurface waters in the area. Hawkins goes on to state, "Rather than examine Hawkins' operation in light of the foregoing, the BLM wrongly and summarily concluded that production of

more than 5 barrels of water condemns the well to be shut-in. Such an order, in the face of the other evidence, amounts to an arbitrary exercise of the BLMs' authority."

Storage Tanks and Treater

Hawkins was issued a written order from the MCFO dated February 22, 2006, regarding the storage tanks on location. The order required Hawkins to repair or replace the storage tanks in a manner consistent with American Petroleum Institute (API) RP 12R1. This was to be completed by June 1, 2006, unless an extension was requested. A follow-up inspection conducted on June 5, 2006, found that no repairs had been made to the tanks. Another written order dated June 19, 2006, was issued to Hawkins. Hawkins was required to remove the unused storage tanks and the heater treater from the lease area to a designated storage or disposal site. This was to be completed by July 26, 2006, unless an extension was requested.

Hawkins submitted a Sundry Notice and letter dated July 24, 2006, regarding the storage tanks and heater treater. Hawkins' request was as follows:

Would like to leave in place the original heater treater and storage tanks for the following reasons; should there be a rupture in any of the vessels; for extra storage in the event of foul weather or that the crude purchaser for whatever reason cannot take delivery of oil in a reasonable amount of time, thus not forcing us to shut the well down; or if some individual(s) were to do vandalism at the tank battery with weapons of some sort or play with valves on the existing heater treater and storage tanks.

The request by Hawkins was denied by the MCFO in a letter dated October 6, 2006. The letter stated, "The request is denied because these facilities are inoperable." Hawkins was again ordered to remove the old storage tanks and treater.

Hawkins filed a request for an SDR on November 7, 2006. The main issue in the SDR was the shut down order. The shut down order was not based on the tanks and treater. In the SDR request, a footnote states, "Hawkins insists, as it has in correspondence with the BLM, that said facilities remain operable and vital to the Well's operation. They will be cosmetically repaired as soon as the weather allows." The issue of the tanks was discussed during the oral presentation. Photos taken by the MCFO and shared during the oral presentation showed that there was more than cosmetic damage to the tanks. Hawkins proposed to submit a plan for repairing the tanks.

Hawkins, through its attorney, submitted a plan for the tanks via email on November 17, 2006, followed by hard copy received on November 21, 2006. The plan submitted is as follows:

Hole in Tank Side

Hawkins has ordered Ken Kuntz to weld a metal patch over the hole in the side of the tank; if this has not already been completed. Hawkins will ensure that it is completed as soon as the weather allows, and will file appropriate notice with the BLM upon completion.

Tank Tops

Hawkins will install sheets of ¾ inch plywood over holes in the tops of the tanks. Hawkins will overlay the plywood and entire tank top with spray foam insulation, and will gloss the entire tank top with weather resistant paint and place warning signs on tanks indicating "no walking on top of tanks". The foregoing will be completed as soon as the weather allows, and Hawkins will file appropriate notice with the BLM upon completion.

DISCUSSION

Water Disposal

Hawkins correctly argues that 00#7 has multiple criteria for allowing the disposal of produced water into unlined pits; only one of which requires the volume of produced water to not exceed 5 barrels per day on a monthly basis. Hawkins cites the specific section of 00#7 (III.D.2.a) that addresses unlined pits and the criteria for allowing disposal of produced water in unlined pits. There are four criteria under this specific section. One criterion (Section III.D.2.a.iv) is for a volume of less than 5 barrels per day which is no longer applicable for this well. Another criterion (Section III.D.2.a.ii) is when the water is for beneficial use. This criterion also is not applicable for this well. The other two criteria that may be applicable to this well are as follows.

1. Section III.D.2.a.i. states:

The water to be disposed of has an annual average TDS concentration equal to or less than that of the existing water to be protected, provided that the level of any toxic constituents in the produced water does not exceed established State or Federal standards for protection of surface and/or ground water.

2. Section III.D.2.a.iii. states:

- (A) The water to be disposed of will not degrade the quality of surface or subsurface water in the area;
- (B) The surface and subsurface waters contain TDS above 10,000 ppm, or toxic constituents in high concentrations; or
- (C) The surface and subsurface waters are of such poor quality or small quantity as to eliminate any practical use thereof.

Hawkins argues that continued use of the unlined pit should be allowed based on the second criteria. However, Hawkins generically argues that the disposal of produced water would not degrade the quality of surface or subsurface waters in the area but did not provide additional information as required under Section III.D.2.b.iii of 00#7 that is necessary in a water disposal application.

Specifically, Section III.D.2.b.ii of 00#7 requires:

If the application is made on the basis that surface and subsurface waters will not be adversely affected by disposal in an unlined pit (criterion a.iii., above), the justification shall also include the following additional information:

- (A) Map of the site showing the location of surface waters, water wells, and existing water disposal facilities within 1 mile of the proposed disposal.
- (B) Average concentration of TDS (in ppm) of all surface and subsurface waters within the 1-mile radius that might be affected by the proposed disposal.
- (C) Reasonable geologic and hydrologic evidence that shows the proposed disposal method will not adversely affect existing water quality or major uses of such waters, and identifies the presence of any impermeable barrier(s), as necessary.
- (D) A copy of any State order or other authorization granted as a result of a public hearing that is pertinent to the authorized officer's consideration of the application.

Hawkins did not supply this information with its request for a variance dated August 30, 2006, nor was this information provided with the SDR request.

The MCFO order also stated that the water analysis taken from the treater outfall (i.e. the current discharge point) show benzene, oil and grease at significantly higher than permissible levels. The benzene level at the discharge point was 50µg/L. Montana Department of Environmental Quality Circular DEQ-7 (Enclosure 1) lists the Montana Numeric Water Quality Standards. The standard for benzene is 5µg/L for both surface water and ground water. Therefore, the benzene level at the discharge point exceeds the State standard. The benzene level in the disposal pit was 1.1µg/L which is within the State standard.

The concern with the benzene level is the area between the treater outfall and the pit. When the water leaves the treater, it is discharged onto a piece of metal. The water then runs onto the ground surface down a hill and into the pit. It is not completely evident what causes the reduction of the benzene in the water. It is likely that it volatilizes as the water runs down the hill. However, some of the benzene within the produced water could be soaking into the ground. Therefore, any application for disposal of produced water into the existing pit would need to address reduction of the benzene level prior to the produced water being discharged onto the ground surface.

It is not completely clear from the MCFO order what level of oil and grease is being exceeded. The oil and grease level at the discharge point was 18mg/L, and the level in the pit was 6mg/L. Administrative Rules of Montana (ARM) 17.30.637 General Prohibitions (Enclosure 2) states in part:

- (1) State surface waters must be free from substances attributable to municipal, industrial, agricultural practices or other discharges that will:
 - (a) settle to form objectionable sludge deposits or emulsions beneath the surface of the water or upon adjoining shorelines;
 - (b) create floating debris, scum, a visible oil film (or be present in concentrations at or in excess of 10 milligrams per liter) or globules of grease or other floating materials;

The 10 mg/L is recognized as the standard for oil and grease for surface waters. However, it has not been established that the water being disposed

of is affecting surface waters. 00#7 Section III.D.2.a.i. states in part; "...provided that the level of any toxic constituents in the produced water does not exceed established State or Federal standards for protection of surface and/or ground water." Oil and grease are not considered toxic constituents as defined by Section II.N. of 00#7. Section II.N. of 00#7 defines toxic constituents as, "substances in produced water that when found in toxic concentrations specified by Federal or State regulations have harmful effects in plant or animal life. The substances include but are not limited to arsenic (AS), barium (Ba), cadmium (CD), hexavalent chromium (bCr), total chromium (tCr), lead (Pb), mercury (Hg), zinc (Zn), selenium (Se), benzene, toluene, ethylbenzene, and xylenes, as defined in 40 CFR 261¹." Since oil and grease are not defined as toxic constituents as defined in 00#7, the Montana standard for oil and grease in State surface water is not applicable under Section III.2.a.1. of 00#7.

Title 40 CFR 435.52 (Enclosure 3) establishes an effluent limitation for oil and grease of 35 mg/L for produced water that is discharged for beneficial use in agriculture or wildlife propagation. This limitation represents the degree of effluent reduction attainable by the application of the best practicable control technology currently available. While beneficial use of the water is not applicable in this situation, the limitation can be used as a general guideline for disposal of produced water.

The chemistry between oil and grease and water needs to be considered when determining an acceptable level of oil and grease in the produced water. In general, oil and grease will float on the water. Therefore, the concern of oil and grease in the produced water should focus on accumulations of oil and grease on the water rather than the oil and grease affecting ground water. Accumulations of oil and grease on the water retard the evaporation process and can pose a hazard for birds that might land on the pit. Therefore, as long as the pit is kept reasonably free from surface accumulations of liquid hydrocarbons and is maintained to prevent birds from entering the pit, the level of oil and grease in the produced water from this well is acceptable for disposal in an unlined pit.

Storage Tanks and Treater

The photographic evidence clearly shows that the tops of the tanks are severely rusted and contain several holes. The photos also show a hole in the side of one of the tanks. The photos were shared with Hawkins during the oral presentation. Hawkins did not dispute the validity of the photos. Hawkins submitted its plans for the tanks as stated above.

BLM does not have specific standards for the repair of storage tanks. The regulations at 43 CFR 3162.1, however, do require that operators comply with, "... other orders and instructions of the authorized officer. These include, but are not limited to, conducting all operations in a manner which ensures the proper handling, measurement, disposition, and site security of leasehold production; which protects other natural resources and environmental quality; which protects life and property..." With this in mind, BLM relies on standard industry practices when specific requirements have not been developed. For

¹ The preamble to 00#7 (Federal Register/Vol. 58, No. 172, page 47355) refers to the toxic constituents listed in 40 CFR 116.

tank repairs, BLM relies on API Recommended Practice 12R1 Fifth Edition, August 1997; Recommended Practice for Setting, Maintenance, Inspection, Operation, and Repair of Tanks in Production Service.

The tank repairs proposed by Hawkins are not consistent with the API recommended practices and are therefore not acceptable. Also, the visible rust and corrosion on the top of the tanks brings doubt regarding the overall integrity of the tanks. Any proposed tank repair must include hydrostatic testing as referenced in API 12R1 Section 7.10.2.

DECISION

Water Disposal

The MCFO did not "wrongly and summarily conclude that production of more than 5 barrels of water condemns the well to be shut-in" as Hawkins argues. Conversely, the MCFO correctly determined that Hawkins was no longer in compliance with the original disposal approval. By written order, Hawkins was provided the opportunity to submit an application for disposal of produced water in accordance with OO#7. Hawkins submitted a request dated August 30, 2006 for a variance for the over production of disposal water for the well. However, Hawkins did not provide the necessary additional information as required under Section III.D.2.b.of OO#7 for MCFO to evaluate the application, and the well was subsequently shut-in.

The shut-down order is affirmed because the original water disposal method approved in 1985 is no longer valid, and a new water disposal method has not been approved by BLM. The A-1 Yellowmule well is to remain shut-in until a new water disposal method which is in compliance with OO#7 is applied for and approved.

Storage Tanks and Treater

The MCFO was correct in requiring the removal of the storage tanks as the photographic evidence clearly shows that the tanks are inoperable. Therefore, Hawkins is still in violation of the written order of October 6, 2006, requiring removal of the storage tanks and heater treater. Based on Hawkins' argument that additional storage is needed on the location and its plan to repair the tanks, Hawkins will be allowed additional time to submit either a plan for repair of the tanks or a plan for removing the tanks and heater treater. The plan must be submitted to the MCFO by March 1, 2007. A plan for repair must be consistent with API 12R1 and must include hydrostatic testing as referenced in API 12R1 Section 7.10.2 upon completion of the repairs. Hawkins must also demonstrate to the MCFO that the tanks and heater treater are "plumbed" in and are operable. Due to the inaccessibility of the well location during the winter, Hawkins is allowed until May 1, 2007 to complete the repairs or remove the tanks and heater treater. Failure to submit a plan by March 1, 2007, will result in an assessment in accordance with the MCFO order of October 6, 2006, and 43 CFR 3163.1(a)(2).

APPEAL RIGHTS

This Decision may be appealed to the Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR 4.400 and Form 1842-1 (Enclosure 4). If an appeal is taken, a Notice of Appeal must be filed in this office at the aforementioned address within 30 days from

receipt of this Decision. A copy of the Notice of Appeal and of any statement of reasons, written arguments, or briefs must also be served on the Office of the Solicitor at the address shown on Form 1842-1. It is also requested that a copy of any statement of reasons, written arguments, or briefs be sent to this office. The appellant has the burden of showing that the Decision appealed from is in error.

If you wish to file a Petition for a Stay of this Decision, pursuant to 43 CFR 4.21, the Petition must accompany your Notice of Appeal. A Petition for a Stay is required to show sufficient justification based on the standards listed below. Copies of the Notice of Appeal and Petition for a Stay **must** also be submitted to each party named in the Decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (see 43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

Standards for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a Decision pending appeal shall show sufficient justification based on the following standards:

- (1) The relative harm to the parties if the stay is granted or denied,
- (2) The likelihood of the appellant's success on the merits,
- (3) The likelihood of immediate and irreparable harm if the stay is not granted, and
- (4) Whether the public interest favors granting the stay.

/s/ Randy D. Heuscher

Randy D. Heuscher, Acting
Deputy State Director
Division of Resources

4 Enclosures

- 1-Montana Circular DEQ-7 in part (2 pp)
- 2-ARM 17.30.637 (1 p)
- 3-40 CFR 435.52 (1 p)
- 4-Form 1842-1 (1 p)

cc:

WO-310, LS, Rm. 501
All BLM State Offices
Miles City Field Office
North Dakota Field Office
Great Falls Oil and Gas Field Station