January 7, 2008

In the matter of: Petition for Modification
Oak Grove Resources, LLC
Oak Grove Mine
I.D. No. 01-00851 Docket No. M-2006-081-C

PROPOSED AMENDED DECISION AND ORDER

On October 26, 2006, Petitioner submitted a request to amend the terms and conditions of a modification granted under Docket No. M-2004-019-C, issued November 30, 2004, and finalized December 30, 2004. The petition was filed seeking to amend a modification of the application of 30 C.F.R. § 75.507 to Petitioner's Oak Grove Mine, located in Jefferson County, Alabama.

The cover letter for the requested amendment indicated that the sole purpose of the request was to allow the use of 4,160-volt high voltage down-hole/submersible pump installations in addition to the nominal 2,400-volt systems addressed by the original granting terms and conditions. The petitioner also attached the former petition. The petition included a detailed listing of the "proposed alternative method" which excluded several provisions included in the granting terms and conditions of Docket No. M-2004-019-C. MSHA had amended the petitioner's proposed alternative method to address significant concerns expressed by the mine's safety committee and the United Mine Workers of America. The perceived contradictions between the cover letter and the submitted petition resulted in several exchanges of information and meetings. On July 18, 2007, the petitioner attempted to provide a clarifying letter to Judy McCormick, the MSHA District 11 petitions coordinator. The letter explained that the requested amendment is "to modify only the voltage as originally requested" of the submersible pump systems. MSHA is interpreting this language to mean that the only matters at issue in this request are the increase to 4,160 voltage and Items 5(f)(v) and 5(h), which will be addressed below.

The Petitioner alleges that the alternative method outlined in the petition, as amended by MSHA in the terms and conditions of the order to grant the modification under Docket No. M-2004-019-C, with the addition of 4,160-volt systems, will at all times guarantee no less than the same measure of protection afforded by the standard.

MSHA personnel conducted investigations of the petition and the proposed amendment with attached diagrams for the pump installations at the Oak Grove Mine for both 2,400-volt and 4,160-volt systems and filed reports of their findings and recommendations with the Administrator for Coal Mine Safety and Health. After a careful review of the entire record, including the petition and diagrams, comments from interested parties, and MSHA's investigative report and recommendation, this Proposed Decision and Order is issued.

Finding of Fact and Conclusion of Law

The alternative method proposed by the Petitioner (as amended by MSHA) will at all times guarantee no less than the same measure of protection afforded the miners under 30 C.F.R. § 75.507.

MSHA is requiring, for this modification of 30 C.F.R. § 75.507 only, that the surface pump installations and control and power circuit(s) be examined under the 30 C.F.R. § 77.502 requirements because the circuit(s) that enter into the underground areas of the mine cannot be examined in their entirety to satisfy the requirements of 30 C.F.R. § 75.512 or the 30 C.F.R. § 75.364(b)(7) weekly examination requirement.

The petitioner's proposed alternative method in its amended petition differed from the granting terms and conditions of Docket No. M-2004-019-C in several ways. First, the granting terms and conditions require the low water probe be located thirty (30) feet above the water pump, rather than three (3) feet, as stated in this revised petition. The manufacturer of the pump unit has stated that the pumps will cavitate when the water is less than thirty (30) feet above the pump inlet. Based on this information, MSHA, in Item 2 of this PDO, continues to require the low water probe to be located not less than thirty (30) feet above the pump inlet and motor and electrical connections of the pump(s). When the water level reaches the low water probe, the pump(s) shall cease operation and the pump(s) must not start in either the manual or the automatic mode. Second, the amended petition includes two new requirements regarding circuit protection:

> a) Item 5(f)(v): The pump motor control shall include "look ahead" medium voltage ground fault relays to prevent starting into low ground resistance and to shutdown on high leakage ground current.
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> b) Item 5(h): The incoming high voltage three-phase alternating current system must be provided with a low resistance grounding medium for the grounding of the lightning/surge arresters for the high-voltage pump power circuits that are separated from the mine neutral grounding medium by a distance of not less than 25 feet.

The investigation conducted for the amended petition confirmed that the granting terms and conditions for Docket No. M-2004-019-C are acceptable for either the 2,400-volt or 4,160-volt submersible pumps proposed for use at the Oak Grove Mine. Only item 1 of the terms and conditions has been amended to include 4,160-volt systems.

The above additions (items 5(f)(v) and 5(h)) reflect standard technology and/or are required by the National Electric Code to protect the motors and switches. These items were not included in the terms and conditions of this PDO because they were not necessary. MSHA is not requiring the Petitioner to include these items on the pump motors because these mechanisms are already installed on the pump motors by the manufacturer. Consequently, these items will not be included in the Petitioner's amended petition because they neither enhance nor diminish the level of protection provided by the granting terms and conditions.

Finally, the initial granting terms and conditions of PDO Docket No. M-2004-019-C contained items not addressed in the petitioner's amended petition for modification. These items include specifications regarding the required circuit-interrupting device; testing requirements for the grounded-phase current transformer; the suitability of the power cable used in this application; and details of the training plan required under 30 CFR Part 48. These items continue to be required in the terms and conditions of this amended decision.

On the basis of the petition and the findings of MSHA's investigation, Oak Grove Resources, LLC is granted an amended modification of the application of 30 C.F.R. § 75.507 to its Oak Grove Mine. The modification granted under Docket No. M-2004-019-C will be superseded and replaced by this amended modification granted under Docket No. M-2006-081-C when this Proposed Amended Decision and Order becomes final.

ORDER

Wherefore, pursuant to the authority delegated by the Secretary of Labor to the Administrator for Coal Mine Safety and Health, and pursuant to Section 101(c) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 811(c), it is ordered that Oak Grove Resources, LLC's Petition for Modification of the application of 30 C.F.R. § 75.507 in the Oak Grove Mine is hereby:

GRANTED, for the use of three-phase, 2,400- or 4,160-volt alternating-current submersible pump(s) installed in return and bleeder entries and in sealed areas in the Oak Grove Mine, conditioned upon compliance with the following terms and conditions:

1. The three-phase, 2,400-volt or 4,160-volt, alternating-current electric power circuit(s) for the pump(s) shall be designed and installed to:

   (a) Contain either a direct or a derived neutral, which shall be grounded through a suitable resistor at the source transformer or power center. A grounding circuit originating at the grounded side of the grounding resistor must extend along with the power conductors and serve as the grounding conductor for the frame of the pump(s) and all associated electric equipment that may be supplied power from this circuit(s). The borehole casing shall be bonded to the system grounding medium.

   (b) Contain a grounding resistor that limits the ground-fault current to not more than 6.5 amperes. The grounding resistor must be rated for the maximum fault current available and must be insulated from ground for a voltage equal to the phase-to-phase voltage of the system.

2. The following protection(s) for the pump power circuit(s) shall be provided by a suitable circuit interrupting device of adequate interrupting capacity with devices to provide protection against undervoltage, grounded phase, short-circuit, and overload.

   (a) The under-voltage protection device shall operate on a loss of voltage to prevent automatic re-starting of the equipment.

   (b) The grounded phase protection device shall be set not to exceed 50 percent of the current rating of the neutral grounding resistor.

   (c) The short circuit protection device shall not be set to exceed the required short circuit protection for the power cable or 75 percent of the minimum available phase-to-phase short circuit current, whichever is less.

   (d) Each power circuit shall contain a disconnecting device located on the surface and installed in conjunction with the circuit breaker(s) to provide visual evidence that the power is disconnected.

   (e) The disconnecting device(s) shall include a means to visually determine the pump power circuit(s) is/are disconnected and be provided with a means to lock, tag-out, and ground the system(s).

   (f) The disconnecting device(s) shall be designed to prevent entry unless the disconnect handle is in the “off” position and the circuit is grounded.

   (g) The disconnecting device(s) shall be clearly identified and provided with warning signs stating, “Danger. Do not enter unless the circuit is opened, locked, tagged-out, and grounded.”

3. The three-phase, alternating-current system(s) shall be provided with a low resistance grounding medium for the grounding of the lightning/surge arresters for the high-voltage pump power circuit(s) that is separated from the neutral grounding medium by a distance of not less than 25 feet.

4. The electric control circuit(s) for the pumps shall meet the following requirements:

   (a) The control circuit shall be equipped with a probe circuit that determines a high and low water level.

   (b) The low water probe shall be located not less than 30 feet above the pump inlet and motor and electrical connections of the

pump(s). When the water level reaches the low water probe, the pump(s) will cease operation and the pump(s) shall not start in either the manual or the automatic mode.

(c) When the water level reaches the high water probe, the pump will start operation.

(d) The high and low water probes must consist of redundant electronic pressure transducers that are suitable for submersible pump control application.

(e) All probe circuits shall be protected by MSHA-approved, intrinsically safe barriers.

(f) The grounded-phase protective circuit for pump(s) shall be able to be tested by injecting a test current through the grounded-phase current transformer.

(g) A remote control and monitoring system can be used with the pump system for condition monitoring and for remote startup and shutdown control of the pumps. The remote control and monitoring system shall not allow remote reset of the pump power system when fault conditions (e.g. grounded phase, short circuit, or overload) exist on the system.

(h) Splices and connections made in submersible pump cables shall be made in a workmanlike manner and shall meet the requirements of 30 C.F.R. § 75.604.

5. The surface pump control and power circuit(s) shall be examined as required by 30 C.F.R. § 77.502.

6. The power cable to the submersible pump motor(s) must be suitable for this application, have a current carrying capacity not less than 125 percent of the full load motor current of the submersible pump motor, and have an outer jacket suitable for a wet location. The power cable must be supported at the entrance to the borehole and throughout its length by securing it with clamps, spaced approximately 25 feet apart, affixed to the discharge pipe casing.

7. The pump installations must comply with all other applicable 30 C.F.R. requirements.

8. Within 60 days after this Petition for Modification is granted, the Petitioner shall submit proposed revisions for their approved 30 C.F.R.

Part 48 training plan to the Coal Mine Safety and Health District Manager. These proposed revisions shall specify task training for all qualified mine electricians who perform electric work, monthly electric examinations as required by 30 C.F.R. § 77.502, and refresher training regarding the alternative method outlined in the petition and the terms and conditions stated in the Proposed Decision and Order.

The procedures of 30 C.F.R. § 48.3 for approval of proposed revisions to already approved training plans shall apply.

Any party to this action desiring a hearing on this matter must file in accordance with 30 C.F.R. § 44.14, within 30 days, a request with the Administrator for Coal Mine Safety and Health, 1100 Wilson Boulevard, Arlington, Virginia 22209-3939. If a hearing is requested, the request shall contain a concise summary of position on the issues of fact or law desired to be raised by the party requesting the hearing, including specific objections to the proposed decision. A party other than Petitioner who has requested a hearing shall also comment upon all issues of fact or law presented in the petition, and any party to this action requesting a hearing may indicate a desired hearing site. If no request for a hearing is filed within 30 days after service thereof, the Decision and Order will become final and must be posted by the operator on the mine bulletin board at the mine.

Terry L. Bentley
Acting Deputy Administrator for
Coal Mine Safety and Health