In The Matter of
Tata Chemicals (Soda Ash) Partners
Tata Chemicals Mine
I.D. No. 48-00155

PETITION FOR MODIFICATION

Docket No. M-2014-001-M

Proposed Decision and Order

On January 22, 2014, DMC Mining Services Corporation (DMC) filed a petition on behalf of Tata Chemicals (Soda Ash) Partners, seeking a modification of 30 CFR § 57.22606 (a) and (c) for the Tata Chemicals Mine, I.D. No. 48-00155 located in Sweetwater County, Wyoming where it produces trona. Petitioner requests a modification of the application of the standard to permit the use of non-permissible detonators to detonate explosives in the blast holes during work at the construction of the No. 7 ventilation shaft. The petition alleges that application of the standard introduces a safety risk to miners and that the alternative method outlined in the petition, will at all times guarantee no less than the same measure of protection afforded the miners by the standard.

> 30 CFR § 57.22606 (a) and (c) concerning "Explosive materials and blasting units (III mines)," states in part:
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> (a) Mine operators shall notify the appropriate MSHA District Manager of all non-approved explosive materials and blasting units to be used prior to their use. Explosive materials used for blasting shall be approved by MSHA under 30 CFR part 15, or non-approved explosive materials shall be evaluated and determined by the District Manager to be safe for blasting in a potentially gassy environment. The notice shall also include the millisecond-delay interval between successive shots and between the first and last shot in a round.
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> (c) Multiple-shot blasts shall be initiated with detonators encased in copper-based alloy shells. Aluminum and aluminum alloy-cased detonators, nonelectric detonators, detonating cord, and safety fuses shall not be used. All detonators in a round shall be made by the same manufacturer.

DMC states the following in its petition. DMC has been contracted by Tata Chemicals (Soda Ash) Partners for the construction of a twenty foot finished diameter ventilation shaft. The shaft will be constructed in two phases. Phase I will include the use of a raise boring drill to complete an eight foot diameter raise. This raise will remain intact during both phases of the project for ventilation and material handling. Phase 2 will consist of sinking through the shaft by slashing to twenty-two feet in diameter and installing a concrete liner to a final diameter of twenty feet.

In addition, DMC states that the geological ground conditions in the Green River Basin are highly conductive and interfere with permissible electric detonators. The ground inhibits the ability to safely conduct electricity to detonate a blast round. The resultant

potential for misfires and partial round detonation introduces a safety risk to workers, and the mine. To mitigate the risk, only the blasting detonators will be non-permissible, the explosives will be permissible. Rounds will be in either four or eight foot lifts. DMC submitted blast patterns and plans with its petition.

On February 6, 2014, DMC provided additional information regarding its petition which included three proposed blast patterns using non-electric detonators, a list of reasons DMC feels this is the safer option during shaft sinking, Tata Chemical's approved ventilation plan for use during sinking, a technical review by mining engineers Agapito Associates, Inc., and a list of conditions that it would follow to ensure the safe performance of the blasting operations.

On February 25 and 26, 2014, MSHA investigators conducted an investigation into the merits of the petition and on June 26, 2014, filed a written report of their findings with the Administrator for Metal and Nonmetal Mine Safety and Health. After a careful review of the entire record, including the petition and MSHA's investigative report, this Proposed Decision and Order is issued.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

Tata Chemicals mines Trona from its underground mine located approximately 27 miles west of Green River, Sweetwater County, Wyoming. The mine is classified by MSHA as a Category III mine which "applies to mines in which noncombustible ore is extracted and which liberate a concentration of methane that is explosive, or is capable of forming explosive mixtures with air, or have the potential to do so based on the history of the mine or the geological area in which the mine is located." 30 C.F.R. § 57.22003(a)(3).

The single level Tata Chemicals mine is located in bed 17 and is developed with room and pillar methods using continuous mining equipment. The bed is approximately 9 feet thick. The mine operates three shifts per day, seven days per week. The areal extent of mining has progressed to the point that the construction of s seventh ventilation shaft is in progress. The No. 7 Ventilation Shaft is currently under construction using the raise bore and slash method. An 8-foot diameter raise was drilled on the shaft center and is currently being slashed by blasting 4 to 8 foot deep rounds to create a 22 foot unfinished diameter shaft which will be concrete lined to 20 feet finished diameter. The shaft depth will extend 1,400 feet below the ground surface.

The alternative method proposed by the Petitioner, along with the terms and conditions listed below, will at all times guarantee no less than the same measure of protection afforded the miners under 30 CFR § 57.22606 (a) and (c).

ORDER

Wherefore, pursuant to the authority delegated by the Secretary of Labor to the Administrator for Metal and Nonmetal, 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 a modification

of 30 CFR § 57.22606 (a) and (c) to the Tata Chemicals (Soda Ash) Partners, as it pertains to blasting operations by DMC for the sinking of the No. 7 ventilation shaft at its Tata Chemicals Mine is hereby:

GRANTED, conditioned upon compliance with the following:

1. In the event of mine ventilation loss, the entire mine including the Tata No. 7 Ventilation Shaft shall be evacuated.

2. Warning shall be given to the employees working underground at the Tata No. 7 Shaft prior to the loading of explosives and before a blast round is initiated.

3. Immediately prior to the loading of a blast round, the split of air that is ventilating the Tata No. 7 Shaft shall be tested for methane and shall be continuously monitored with an approved calibrated instrument capable of providing both visual and audible alarms until the blast is successfully completed. If 0.1% (one tenth of one percent) or more of methane is found in the Tata No. 7 Shaft ventilating air split prior to the loading of the blast holes or after the loading has commenced, the loading shall immediately cease. Ventilation changes shall be made to reduce the methane level to less than 0.1% methane. Blasting shall not take place until the split of air contains less than 0.1% methane.

4. Explosive materials approved by MSHA under 30 CFR Part 15, and only those explosive materials specified in the petition (Dyno Nobel EzDet 25/500 ms (milliseconds) and Dyno Nobel EzTL 100 and 42 ms) shall be used during shaft sinking operations in the Tata No. 7 Shaft.

5. Before initiating a blast, all persons shall be withdrawn from the Tata No. 7 Shaft. All blasts shall be initiated from the surface with no persons within 75 feet of the shaft or shaft opening.

6. A minimum of 12,000 cubic feet of air per minute, or more as needed to ensure less than 0.1% methane at the bench, shall be maintained in the Tata No. 7 Shaft at all times during the loading of blast holes.

7. Non-electric tubing shall be inspected for cuts, nicks and abrasions. The tubing must be free of defects in order to confine the detonation and shall not be used if these defects are found.

8. Surface delays shall be located in fresh air and elevated approximately twelve inches off the pavement floor, in order to prevent pre-detonations and mitigate any buildup of methane gas.

9. A visual inspection around the plug shall be done prior to lifting to ensure nothing is caught. No rubber tired equipment on the bench to minimize this risk. In addition, only personnel responsible for loading the round shall be on the bench.

The round shall be initiated with an electric cap to remove the need to run nonel down the shaft which poses a risk of catching on the galloway during transport.

10. The protections from Snap-N-Shoot incidents from the manufacturer, as listed in the petition as attachment 10, shall be reviewed with all blasters.

11. The Scaled Distance Formula with a factor of 25 shall be used to determine a maximum weight of explosives detonated per 8 ms. This formula decreases the amount of explosives as the blasting closes in on the ventilation controls. In-hole timing delays shall be reviewed as the depth of the shaft nears bottom.

Any party to this action desiring a hearing must file a request for hearing within 30 days after service of the Proposed Decision and Order, in accordance with 30 C.F.R. Part 44.14, with the Administrator for Metal and Nonmetal Mine Safety and Health, 1100 Wilson Boulevard, Arlington, Virginia 22209-3939.

If a hearing is requested, the request must 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 and Order. A party other than the petitioner who has requested a hearing shall also comment upon all issues of fact or law presented in the petition. 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, this Proposed Decision and Order will become final and shall be posted by the operator on the mine bulletin board at the mine.

_____ /s/_____
Neal H. Merrifield
Administrator for Metal and Nonmetal
Mine Safety and Health