

## Bill Olson

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**From:** Bill Olson <billjeanie.olson@gmail.com>  
**Sent:** Friday, September 07, 2012 8:32 PM  
**To:** 'Martin, David, NMENV'; Flynn, Ryan, NMENV; 'Davis, Jim, NMENV'  
**Cc:** 'Schoeppner, Jerry, NMENV'; 'Vollbrecht, Kurt, NMENV'; 'Marcoline, Joseph, NMENV'; Braswell, Misty, NMENV  
**Subject:** Copper Mine Rule - 2nd NMED Internal Discussion Draft  
**Attachments:** Copper Rule-NMED #2 Internal Discussion Draft 09072012.doc; Copper Rule - FA - CLEAN DISCUSSION DRAFT 08172012.doc; NMED 2nd Draft Copper Rule - Major Issues 09072012.docx

Attached you will find the 2<sup>nd</sup> NMED Internal Discussion Draft of the copper mine rule that incorporates the comments that we received on Wednesday of this week. Edits are denoted in track changes. Most of the changes that you see are due to Freeport edits. Also included are New Mexico Environmental Law Center and New Mexico Copper Corporation (NMCC) edits. Most of the NMCC comments were critiques and questions and were heavily weighted toward deferring regulation to MMD.

Also attached are the Financial Assurance rules. These rules were not changed due to the need to be consistent with MMD rules.

In addition you will find a summary discussion of some of the major issues that are present prepared by Kurt and myself.

Please let me know at any time if you have any questions. I am also available early next week (except Tuesday morning) to meet with you to discuss these drafts and any other questions you may have related to the copper mine rule and the rule development.

Bill

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## MAJOR ISSUES IN 9/7/12 NMED 2<sup>ND</sup> INTERNAL DISCUSSION DRAFT

### General Comments

- In response to MMD concerns language was added to the “Objective” to clarify that the copper mine rule is for prevention of ground water contamination under NMED authority under the Water Quality Act. Also added was MMD requested language to acknowledge that the mines are also regulated by MMD.
- We added requested language from MMD to provide copies of draft permits to MMD (even though this is already done now).
- We added more language to the engineering design sections to allow for demonstrations of alternate designs that can be administratively approved by NMED and reduce the need for variances.
- New Mexico Copper and the New Mexico Environmental Law Center have proposed changes to the Financial Assurance (FA) rules. Their changes would conflict with the FA rules of MMD. We have made no changes to the FA rules NMED proposed because they need to be consistent with MMD. (Note re MMD issues: Our FA rules contain extensive references to only applying for the purpose of discharge permit closure plans for the protection of ground water. They also defer hearings on FA release to MMD)

**Definitions “Critical Structure” and 20.6.7.33.B Slope Stability.** This has been a primary point of concern and discussion regarding both existing Freeport Chino and Tyrone Mine and the Questa Mine rock piles. We feel we have a reasonable defensible argument regarding the factor of safety number proposed for sloping of critical and non-critical structures at closure, and for pseudostatic analysis. Beyond the concerns that copper mine facilities should be designed using appropriate design criteria to minimize potential for slope failures, there is also concern that if we remove this language we will set precedent and it will have profound effects on other NMED facilities (e.g. Questa front rock piles). By putting factor of safety language in place it sets a strong foundation for insuring slope stability for protection of water quality (preventing uncontrolled release of contaminants) and undue risk to property.

**20.6.7.20A(1)** Freeport deleted the agreed language developed as part of the Tyrone Settlement (paragraphs 36-40) that discusses the need for a variance for new leach piles within the open pit. They are required to get a variance to operate a leach stockpile in an open pit since operating a leach pile in an open pit will result in an increase in ground water contamination. The Water Quality Act does not allow ground water contamination and without a variance this would violate the WQA. We set up the variance mechanism in the Tyrone Settlement to be able to legally permit these types of mining activities within the framework of the WQCC rules and the statute, and have now included this approach

in the rule. We accepted their deletion and addressed the variance issue in 20.6.7.20.A(1)(f) as discussed below.

**20.6.7.20.A(1)(f)** This addition is a modification of Freeport proposed language for alternate designs but we added in that a variance is necessary to compensate for their deletion of variance language in the preamble of Subsection A.

**20.6.7.20.B(2), 20.6.7.21.C(2)** Freeport wanted to remove the variance requirement for existing facilities that have caused ground water contamination. We have retained it. Removing the variance requirement for existing facilities is not in accordance with the Tyrone Settlement (paragraphs 41-43) language and continuing to discharge without a variance violates the WQA.

**20.6.7.21(B) New Waste Rock Stockpiles.** Freeport proposed to change the language such that it would allow ground water contamination from new waste rock stockpiles so long as the contaminated ground water is captured. The Water Quality Act does not allow ground water contamination and without a variance this would violate the WQA so we retained our language.

**20.6.7.22.A(4) New Tailing Impoundment Facilities.** Freeport proposed to change the language such that it would allow ground water contamination from new tailing impoundments so long as the contaminated ground water is captured. The Water Quality Act does not allow ground water contamination and without a variance this would violate the WQA so we retained our language.

**20.6.7.21A(2), 20.6.2.21.B(1)** Freeport added language regarding placement of materials inside (or outside) the open pit surface drainage area without a need for a variance. The way these were written they were essentially saying just about anything can be deposited in the open pit capture zone without engineering controls to prevent discharge of contaminants and ground water pollution. This is not in accordance with the Tyrone Settlement and would violate the WQA.

**20.6.7.24(4)** Freeport proposed to allow ground water contamination in the open pit by rule. This would violate the WQA.

**20.6.7.33C(1) and (2).** Top surface grading at closure has been the subject of much debate. There has never been a demonstration that grading top surfaces at such a shallow gradient (0.5%) is effective at shedding water. It is also a concern that it requires a great deal of experience and expertise to grade at such shallow gradients. That said, we agreed to it in closure permits at Tyrone and Chino (because of existing contamination and their capture systems, demonstrated capability to contain ground water contamination). We are not in agreement that this slope should be applied everywhere as an effective means to shed water from top surfaces. Infiltration into rock piles is a greater concern (faster movement of water through porous waste) for ground water protection. Top surface design needs to be such that water is shed from covers as quickly and effectively as possible, hence the slightly steeper gradient requirement for rock piles, but it still allows a mine to go to 0.5% slope upon a demonstration which Freeport has already done.

**20.6.7.33F(2). Cover performance standard.** Freeport proposed language would only be acceptable for the southwest part of the state where snowfall is minimal and precipitation is monsoon dominated. The rule needs statewide application if new mines are opened. Our language (which was developed after discussions with Freeport experts) would adequately cover any precipitation pattern found within the state of New Mexico, as well as the available materials currently being used for reclamation at the Tyrone and Chino Mines.