

364-363. GRIP and TRP argue that their proposed rule language for 20.6.7.11.H(1) takes into consideration that a single discharge permit may cover multiple discharging facilities. See Kuipers, Attachment 2 at 8.

365-364. Amigos Bravos and Mr. Olson do not offer alternative rule language for 20.6.7.11.H. See AB Exhibit 1 at 10 and WCO Exhibit 3 at 9.

366-365. In its Proposed Final Rule, NMED accepts a portion of the alternative language by adding the words “for each discharge location” to 20.6.7.11.H(1). This change appears to address the comments and testimony of the Parties. See Proposed Final Rule at 7, other than Freeport.

367-366. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.11.H as set forth by NMED in the Proposed Final Rule.

Subsection J

368-367. NMED proposes proposed 20.6.7.11.J in the Petitioned Rule which requires certain information dealing with the identification and physical description of the copper mine facility to be included in an application. See Petition, Attachment 1 at 7-8.

369-368. Freeport supports supported and offers evidence for NMED’s version 20.6.7.11.J set forth in the Petitioned Rule. See Eastep Direct at 30-31.

370-369. GRIP and TRP objected to NMED’s version of 20.6.7.11.J(2) and (6) as set forth in the Petitioned Rule and offer rule language and evidence for these changes. See Kuipers, Attachment 2 at 9. The alternative rule language for 20.6.7.11.J(2) would add “ore-stockpile” to the list of facilities to be described and would replace “ground water” with “water.” In turn, the alternative rule language for 20.6.7.11.J(6) would change language

relating to management of stormwater runoff and runoff. No technical testimony ~~is~~ was given as an explanation, other than that “ore-stockpile” is included in the August 17 draft and that “manage stormwater” is ambiguous.

371-370. The Attorney General, Amigos Bravos, and Mr. Olson do not offer alternative rule language for 20.6.7.11.J. See ~~NMAGAG~~ Exhibit 2 at 7-8; AB Exhibit 1 at 10-11; and WCO Exhibit 3 at 9-10.

371. NMED ~~makes~~ made a change to 20.6.7.11.J(2) in its Amended Rule, but the change does not relate to the rule language proposed by GRIP and TRP for 20.6.7.11.J(2). See Amended Petition, Attachment 2 at 7-8.

372. NMED ~~makes~~ made no further changes in ~~the~~ Proposed Final Rule except for non-substantive changes regarding facility and unit terminology. See Proposed Final Rule at 7-8.

373. The Commission finds that the rule language proposed by GRIP and TRP for 20.6.7.11.J(2) is not well-explained and confusing. The term “ore-stockpile” is not defined or used elsewhere in the proposed rules. Based upon the evidence in the record, a leach stockpile is a type of ore stockpile, and that is listed separately. The language “protect each area that may generate water contaminants from stormwater runoff and runoff” is not explained and is confusing. To the extent that the phrase “manage stormwater” is vague, its meaning is addressed more specifically in 20.6.7.17.C, particularly paragraph (4) of that subsection, and 20.6.7.18.D, which provide sufficient detail to define the objectives and requirements for stormwater management under the Copper Mine Rule.

374. The Commission finds that the rule language proposed by GRIP and TRP for 20.6.7.11.J(6) is not necessary and not sufficiently explained by the testimony, and that

reading 20.6.7.11.J(6) in conjunction with other parts of the rule address the concerns raised in Mr. Kuipers' exhibit.

375. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.11 J and J(1) through (11) as set forth by NMED in the ~~Amended Rule~~ and Proposed Final Rule.

Subsection O

376. NMED ~~proposes~~proposed-20.6.7.11.O in the Petitioned Rule which imposes requirements for an application to include information on a material characterization plan and, if applicable, a material handling plan. *See* Petition, Attachment 1 at 8.

377. NMED ~~makes~~made no changes to 20.6.7.11.O in the Amended Rule. *See* Amended Petition, Attachment 2 at 8.

378. Freeport ~~supports~~supported and offers evidence for NMED's version of 20.6.7.11.O set forth in the Petitioned Rule and Amended Rule. *See* Eastep Direct at 32-33.

379. The Attorney General ~~objects~~objected to 20.6.7.11.O and ~~proposes~~proposed rule language referencing 20.6.7.19.A; however, the Attorney General offers no specific evidence in support of the change, and 20.6.7.19.A does not address the topic identified in 20.6.7.11.O. *See* NMAGAG Exhibit 2 at 9.

380. GRIP, TRP, Amigos Bravos, and Mr. Olson do not offer alternative rule language for 20.6.7.11.O. *See* Kuipers, Attachment 2 at 10; AB Exhibit 1 at 12; and WCO Exhibit 3 at 10.

381. The Commission finds that the Attorney General's proposed rule language is ~~inappropriate~~not adopted because it appears to reference the wrong rule section and is not explained by testimony.

382. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.11.O as presented by NMED in the Petitioned Rule, Amended Rule, and Proposed Final Rule.

Environmental Compliance History

383. Amigos Bravos ~~proposes~~ proposed to a new Subsection X dealing with environmental compliance history. *See* AB Exhibit 1 at 13.

384. Amigos Bravos offers evidence in support of Subsection X to 20.6.7.11 through testimony from Mr. Shields. *See* Shields Direct at 5-6.

385. NMED and Freeport oppose the Subsection X dealing with environmental compliance history as proposed by Amigos Bravos and offers evidence in support of their opposition. *See* Skibitski Rebuttal at 4 and Eastep Rebuttal at 18.

386. The Commission finds that the Water Quality Act specifically addresses the requirements for environmental compliance history, the Copper Mine Rule requires compliance with the statute, and no evidence was offered that explains why a different rule is needed for the copper industry compared with other permit applicants. The Commission accepts the testimony on behalf of NMED that it does not need a permit applicant to provide additional information in order for NMED to satisfy the requirements of the Act.

~~387. The Commission further finds that if NMED were to determine that such a requirement is necessary, then the requirement should be included as a requirement for all discharge permits and not just copper mines unless there is some unique need to target a particular industry.~~

~~388.~~387. Based on the weight of the evidence, the Commission declines to adopt 20.6.7.11(X) as proposed by Amigos Bravos.

20.6.7.12 – Reserved:

~~389-388.~~ NMED ~~proposes~~proposed to reserve 20.6.7.12 for future rule amendments in the Petitioned Rule. *See* Petition, Attachment 1 at 9.

~~390-389.~~ NMED does not make changes to 20.6.7.12 in the Amended Rule. *See* Amended Petition, Attachment 2 at 9.

~~394-390.~~ The Commission finds that there are no objections from the other Parties to reserving 20.6.7.12 for future rule amendments.

~~392-391.~~ Based on the weight of the evidence, the Commission hereby adopts 20.6.7.12 as proposed by NMED in the Petitioned Rule, Amended Rule, and Proposed Final Rule.

20.6.7.13 – Reserved:

~~393-392.~~ NMED ~~proposes~~proposed to reserve 20.6.7.13 for future rule amendments in the Petitioned Rule. *See* Petition, Attachment 1 at 9.

~~394-393.~~ NMED does not make changes to 20.6.7.13 in the Amended Rule. *See* Amended Petition, Attachment 2 at 9.

~~395-394.~~ The Commission finds that there are no objections from the other Parties to reserving 20.6.7.13 for future rule amendments.

~~396-395.~~ Based on the weight of the evidence, the Commission hereby adopts 20.6.7.13 as proposed by NMED in the Petitioned Rule, Amended Rule, and Proposed Final Rule.

20.6.7.14 – Requirements for a Discharge Permit Amendment:

Undisputed Subsections A, B, C and D

~~396.~~ NMED ~~proposes~~proposed requirements for a discharge permit amendment at 20.6.7.14.A, B, C, and D in the Petitioned Rule. *See* Petition, Attachment 1 at 9.

~~397.~~

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397. NMED ~~makes~~made no changes to 20.6.7.14.A, B, C, and D in the Amended Rule. See Amended Petition, Attachment 2 at 9.

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398. Freeport ~~presents~~presented evidence to support 20.6.7.14.A, B, C, and D. See Eastep Direct at 36-38.

399. The Commission finds that 20.6.7.14.A, B, C, and D are undisputed because they are supported by Freeport and the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson do not provide alternative rule language. See Freeport NOI, AG Exhibit 2 at 9-10; AB Exhibit 1 at 13-15; Kuipers Attachment 2 at 11; WCO Exhibit 3 at 11.

~~399-400.~~ NMED made no changes to 20.6.7.14.A, B, C and D in the Proposed Final Rule.
See Proposed Final Rule at 9.

~~400-401.~~ Based on the weight of the evidence, the Commission hereby adopts 20.6.7.14.A, B, C, and D as set forth by NMED in the ~~Petitioned Rule, Amended Rule, and P~~Proposed Final Rule.

Subsection E

~~401-402.~~ NMED ~~proposes~~proposed 20.6.7.14.E in the ~~Amended~~Petitioned Rule which provides that NMED shall provide notice of all discharge permit amendment approvals or denials to those persons requesting notice. See Petition, Attachment 1 at 9.

~~402-403.~~ NMED ~~makes~~made no changes to 20.6.7.11.E in the Amended Rule. See Amended Petition, Attachment 2 at 9.

~~403-404.~~ Freeport ~~supports~~supported 20.6.7.14.E and ~~offers~~offers evidence for this provision. See Eastep Direct at 37-38.

proposed rule language is identical. *See* NMAGAG Exhibit 2 at 10 and WCO Exhibit 3 at 11-13.

411-412. Amigos Bravos also ~~proposes~~ proposes public notice requirements that are basically similar to those public notice requirements proposed by the Attorney General and Mr. Olson. *See* AB Exhibit 1 at 14.

412-413. The Attorney General offers no technical evidence to support its proposed change to 20.6.7.15. *See* Travers Direct at 1-24.

413-414. Mr. Olson offers evidence to support his changes to 20.6.7.15. *See* WCO Exhibit 3 at 11-13.

414-415. Amigos Bravos offers evidence to support its changes to 20.6.7.15. *See* Shields Direct at 3-5.

415-416. Freeport offers evidence to oppose the changes to 20.6.7.15 as proposed by the Attorney General, Mr. Olson, and Amigos Bravos. *See* Eastep Rebuttal at 11-12 and 16-18.

416-417. GRIP and TRP offer no alternative rule language for 20.6.7.15. *See* Kuipers, Attachment 2 at 11.

418. The Commission finds that there are at least two rounds of public notice provided ~~in~~ multiple forms and an opportunity to submit comments and request a public hearing under 20.6.2.3108 NMAC. As a result, thereby meaning that the public participation requirements are already met thorough and extensive through the continued applicability of 20.6.2.3108 to copper mine facilities. such that and additional public notice requirement would impose undue additional burdens on permit ~~application~~ applicants and NMED without any clear benefit. Also, the Commission finds that it is appropriate and efficient for NMED to have a single procedure for public notice for discharge permits for all types of facilities.

~~404-405.~~ Amigos Bravos objected to 20.6.7.14.E and requests new language; however, Amigos Bravos fails to present any evidence to support this new language. See AB Exhibit 1 at 14; Eastep Rebuttal at 18.

~~405-406.~~ The Attorney General, GRIP, TRP, and Mr. Olson do not offer alternative rule language for 20.6.7.14.E. See ~~NMAGAG~~ Exhibit 2 at 9; Kuipers, Attachment 2 at 11; and WCO Exhibit 3 at 11.

~~406.~~ Without any testimony explaining Amigos Bravos' proposal for 20.6.7.14.E, the Commission finds Freeport's evidence on 20.6.7.14.E to be more persuasive.

~~407.~~ The Commission further finds that copper mining companies need the ability to make minor changes in a quick and efficient manner while keeping the public informed, and 20.6.7.14.E as proposed by NMED accomplishes this objective.

~~407-408.~~ NMED made a nonsubstantive change to 20.6.7.14.E in the Proposed Final Rule regarding terminology. See Proposed Final Rule at 9.

~~408-409.~~ Relying primarily on the testimony of Mr. Eastep, and based on the weight of the evidence, the Commission adopts 20.6.7.14.E as set forth by NMED in the ~~Petitioned Rule, Amended Rule, and Proposed Final Rule.~~

20.6.7.15 – Reserved [Additional Public Notice Requirements]:

~~409-410.~~ In both the Petitioned Rule and Amended Rule, NMED ~~proposes~~proposed to reserve 20.6.7.15 for future amendments. See Petition, Attachment 1 at 9 and Amended Petition, Attachment 2 at 9.

~~410-411.~~ The Attorney General and Mr. Olson proposed to change 20.6.7.15 from a reserved section to a section implementing additional public notice requirements, and the

417-419. NMED made no changes to 20.6.7.15 in the Proposed Final Rule. See Proposed Final Rule at 9.

418-420. Relying primarily on the testimony of Mr. Eastep, and Bbased on the weight of the evidence, the Commission declines to adopt 20.6.7.15 as proposed by the Attorney General, Amigos Bravos, and Mr. Olson and adopts the 20.6.7.15 as reserved for future rule provisions as proposed by NMED in the Petitioned Rule, Amended Rule, and Final Proposed Final Rule.

20.6.7.16 - Reserved:

419-421. In both the Petitioned Rule and Amended Rule, NMED ~~proposes~~proposed to reserve 20.6.7.16 for future amendments. See Petition, Attachment 1 at 10 and Amended Petition, Attachment 2 at 19.

420-422. The Attorney General and Amigos Bravos opposed reserving 20.6.7.16 and, instead, propose procedures for requesting public hearings on permitting actions for copper mine facilities. See NMAGAG Exhibit 2 at 10 and AB Exhibit 1 at 14.

421-423. The Commission is unable to identify any evidence presented by the Attorney General to support its amendment to 20.6.7.16.

424. Amigos Bravos does not present any technical testimony in support of its proposed changes to 20.6.7.6 other than pointing out that such language was included in the August 17 discussion draft of the rule.

422-425. Amigos Bravos' proposed change was rebutted by Mr. Eastep on behalf of Freeport. See Eastep Rebuttal at 18.

426. The Commission finds a lack of substantial evidence to support the proposed changes to 20.6.7.16 set forth by the Attorney General and Amigos Bravos. They also appear unnecessary because subsection A as they propose simply references 20.6.2.3108.K NMAC, which applies as described in Mr. Eastep's testimony and by virtue of 20.6.7.8.C, and the language in subsection B appears to be addressed by a combination of sections 20.6.7.8, 20.6.7.10.I, and 20.6.2.3108.J and K NMAC.

~~423-427.~~ NMED made no changes to 20.6.7.16 in the Proposed Final Rule. See Proposed Final Rule at 9.

~~424-428.~~ Relying primarily on Mr. Eastep's testimony, and based on the weight of the evidence, the Commission declines to adopt changes to 20.6.7.16 as proposed by the Attorney General and Amigos Bravos and adopts the Section as reserved for future rule changes as proposed by NMED in its ~~Petitioned Rule, Amended Rule, and Final Proposed~~ Final Rule.

20.6.7.17 – General Engineering and Surveying Requirements:

Subsection A – Practice of Engineering

~~425-429.~~ NMED ~~proposes~~proposed 20.6.7.17.A in the Petitioned Rule which requires that plans, drawing, reports, and specifications requiring the practice of engineering shall bear the seal and signature of a licensed New Mexico professional engineer pursuant to the New Mexico Engineering and Surveying Act and its rules. See Petition, Attachment 1 at 10.

~~426-430.~~ Freeport testified regarding 20.6.7.17.A in the testimony of Michael Grass. See Michael Grass Direct Written Testimony at 4.

427-431. ~~___~~ NMED ~~makes~~made no changes to 20.6.7.17.A in the Amended Rule. *See* Amended Petition, Attachment 2 at 10.

428-432. ~~___~~ GRIP and TRP propose to add “qualified” before “licensed new Mexico professional engineer” in 20.6.7.17.A. *See* Kuipers, Attachment 2 at 11.

429-433. ~~___~~ Freeport provided rebuttal testimony to Mr. Kuipers’ proposal through Mr. Shelley’s testimony. *See* Shelley Rebuttal at 8-10.

430-434. ~~___~~ GRIP and TRP offer no testimony or evidence as to why their rule change is necessary. ~~See~~ Kuipers, Attachment 2 at 11. ~~Furthermore,~~The Commission finds that no testimony is offered regarding the proposed change ~~does not~~to explain what “qualified” would mean or who would determine when a licensed professional is “qualified.” Mr. Shelley’s testimony explains that an engineer’s qualifications are determined by the requirements of the Engineering and Surveying Practices Act.

431-435. ~~___~~ ~~The Commission finds that there is no evidence to support the rule proposal recommended by GRIP and TRP and that the proposal is rebutted by Mr. Shelley’s testimony.~~

432-436. ~~___~~ ~~The Commission finds that NMED made no changes to 20.6.7.17.A remained in the same in the Proposed Final Rule other than changes to citations form.~~ *See* Propsoed Final Rule at 9.

433-437. Relving primarily on the testimony of Mr. Shelley and Mr. Grass, and ~~D~~based on the weight of the evidence, the Commission adopts 20.6.7.17.A as set forth in the Proposed Final Rule.

Subsection B – Practice of Surveying

~~434-438.~~ 438. NMED ~~proposes~~proposed 20.6.7.17.B in the Petitioned Rule which requires that plans, drawing, reports, and specifications requiring the practice of surveying shall bear the seal and signature of a licensed New Mexico professional surveyor pursuant to the New Mexico Engineering and Surveying Act and its rules. *See* Petition, Attachment 1 at 10.

~~435-439.~~ 439. Freeport presented evidence to support 20.6.7.17.B in the testimony of Michael Grass. *See* Grass Direct at 4.

~~436-440.~~ 440. NMED ~~makes~~made no changes to 20.6.7.17.B in the Amended Rule. *See* Amended Petition, Attachment 2 at 10.

~~437-441.~~ 441. ~~The Commission finds that NMED made no changes to 20.6.7.17.B remained in the same in~~ the Proposed Final Rule other than changes to citations form. *See Proposed Final Rule at 10.*

~~438-442.~~ 442. Based on the weight of the evidence, the Commission adopts 20.6.7.17.B as set forth by NMED in the Proposed Final Rule.

Subsection C – Engineering Plans and Specification Requirements

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~~439-443.~~ 443. NMED ~~proposes~~proposed 20.6.7.17.C which sets forth requirements for engineering plans and specifications. *See* Petition, Attachment 1 at 10.

~~440-444.~~ 444. Freeport ~~presents~~presented testimony in support of 20.6.7.17.C, except as discussed below regarding 20.6.7.17.C(3). *See* Grass Direct at 4-10.

~~441-445.~~ 445. GRIP and TRP object to 20.6.7.17.C(1)(b) and argue that “qualified” should be inserted before “licensed New Mexico professional engineer.” *See* Kuipers, Attachment 2 at 11.

442-446. For the reasons set forth above dealings with 20.6.7.17.A, the Commission ~~finds~~
does not adopt that the proposal to amend 20.6.7.17.C(1)(b) by GRIP and TRP ~~is without~~
merit.

443. ~~Based on the weight of the evidence, the Commission adopts 20.6.7.17.C(1)(b) as set~~
forth by NMED in the Proposed Final Rule.

444-447. Freeport ~~objectsobjecteded~~ to and ~~proposesproposed~~ rule language for
20.6.7.17.C(3) which deals with process water or impacted stormwater treatment system
plans and specifications. See Freeport NOI at 4.

445-448. Freeport offered eds evidence to support its proposed rule language through
testimony by Mr. Thomas Shelley. See Shelley Direct at 50-51

446-449. NMED ~~does not make~~ made no changes to 20.6.7.17.C(3) in its Amended Rule.
See Amended Petition, Attachment 2 at 11.

447-450. The Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson offered no
alternative rule language for 20.6.7.17.C(3). See NMAGAG Exhibit 2 at 11-12; Kuipers,
Attachment 2 at 12; AB Exhibit 1 at 16; WCO Exhibit 3 at 14.

448-451. ~~The Commission finds~~ NMED ~~proposes~~ made changes to the language of
20.6.7.17.C(3) in its Proposed Final Rule in response to the changes requested by Freeport
through Mr. Shelley's testimony.

449-452. Based on the weight of the evidence, the Commission adopts 20.6.7.17.C(3) as
proposed in the Proposed Final Rule.

450-453. Amigos Bravos ~~objectsobjecteded~~ to 20.6.7.17.C(4)(a)(iii) in the Petitioned Rule,
~~proposesproposed~~ amendments to this provisions, requests the addition of a new

subparagraph (b), and argues that these changes are appropriate because they were in the August 17 Discussion Draft. *See* AB Exhibit 1 at 17.

451-454. ~~NMED makes~~made no changes to 20.6.7.17.C(4)(a)(iii) and does not add the requested subparagraph (b) in the Amended Rule. *See* Amended Petition, Attachment 2 at 11.

—Freeport ~~objecteds~~ to the changes to 20.6.7.17.C(4)(a)(iii) and the new subparagraph (b) proposed by Amigos Bravos and argues that Amigos Bravos does not present any technical testimony in support of its proposed changes other than pointing out that such language was included in the August 17 Discussion Draft. *See* Eastep Rebuttal at 18.

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455. ~~The Commission finds that the proposal by Amigos Bravos to change 20.6.7.17.C(4)(a)(iii) and add the new subparagraph (b) is without merit and further finds that mere reliance on the August 17 Discussion Draft is unpersuasive without additional evidence supporting the proposed change because it is based solely on the August 17 Discussion Draft.~~

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452-456. ~~Relying on the testimony of Mr. Eastep, and Based~~ based on the weight of the evidence, the Commission adopts 20.6.7.17.C(4)(a)(iii) and (b) as proposed by NMED in the Proposed Final Rule.

453-457. GRIP, TRP, and Amigos Bravos object to 20.6.7.17.C(4)(e) in the Petitioned Rule and propose to strike the phrase “where practicable.” GRIP and TRP argue that the phrase needs to be stricken because it is ambiguous, while Amigos Bravos argues that the change is appropriate because it was contained in the August 17 Discussion Draft. *See* Kuipers, Attachment 2 at 13 and AB Exhibit 1 at 17.

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its proposed changes other than pointing out that such language was included in the August 17 Discussion Draft. *See* Eastep Rebuttal at 18.

462-466. The Commission finds that mere reliance on the August 17 Discussion Draft is unpersuasive without additional evidence supporting the proposed change. Accordingly, ~~Accordingly,~~ the Commission declines to adopt the change to 20.6.7.17.C(5) as proposed by Amigos Bravos.

463-467. Based on the weight of the evidence, the Commission adopts 20.6.7.17.C(5) as proposed by NMED in the Proposed Final Rule.

464-468. Except as discussed above with regard to specific language that was disputed by one or more parties, the Commission finds that the remainder of 20.6.7.17.C as presented in the Petitioned Rule and the Amended Rule was not disputed.

465-469. For these reasons, the Commission adopts 20.6.7.17.C as set forth in NMED's Proposed Final Rule.

Subsection D – New Impoundment Engineering Design Requirements

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466-470. NMED ~~proposes~~proposed 20.6.7.17.D which sets forth requirements for new impoundment engineering design. *See* Petition, Attachment 1 at 10.

467-471. Freeport supported 20.6.7.17.D through the testimony of Michael Grass. *See* ~~Grass Written Direct Testimony~~ ~~stimony of Michael Grass~~ at 11-21.

468-472. Amigos Bravos ~~objects~~objected to 20.6.7.17.D and D(1)(a) in the Petitioned Rule, ~~proposes~~proposed rule language, and argues that such rule language is appropriate because it was included in the August 17 Discussion Draft. *See* AB Exhibit 1 at 17-18.

469-473. NMED ~~makes~~made no changes to 20.6.7.17.D and D(1) in the Amended Rule. *See* Amended Petition, Attachment 2 at 11-12.

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454.458. NMED ~~makes~~made no changes to 20.6.7.17.C(4)(e) in the Amended Rule. See Amended Petition, Attachment 2 at 11.

455.459. Freeport ~~objects~~ to the changes to 20.6.7.17.C(4)(e) proposed by Amigos Bravos and argues that Amigos Bravos does not present any technical testimony in support of its proposed changes other than pointing out that such language was included in the August 17 Discussion Draft. See Eastep Rebuttal at 18.

456.460. The Commission finds that NMED ~~proposes~~proposed revised language for 20.6.7.17.C(4)(e) in its Proposed Final Rule for clarity, although it does not address the proposed changes discussed above.

457.461. The Commission finds that 20.6.7.17.C(4)(e) is not ambiguous and that mere reliance on the August 17 Discussion Draft is unpersuasive without additional evidence supporting the proposed change. Accordingly, the Commission declines to adopt the change to 20.6.7.17.C(4)(e) as proposed by GRIP, TRP, and Amigos Bravos.

458.462. Based on the weight of the evidence, the Commission adopts 20.6.7.17.C(4)(e) as proposed by NMED in the Proposed Final Rule.

459.463. Amigos Bravos ~~objects~~objected-objected to 20.6.7.17.C(5) in the Petitioned Rule, ~~proposes~~proposed rule language, and argues that its rule language is appropriate because such language was included in the August 17 Discussion Draft. See AB Exhibit 1 at 17.

460.464. NMED ~~makes~~made no changes to 20.6.7.17.C(5) in the Amended Rule. See Amended Petition, Attachment 2 at 11-12.

461.465. Freeport ~~objects~~objected to the changes to 20.6.7.17.C(5) proposed by Amigos Bravos and argues that Amigos Bravos does not present any technical testimony in support of

~~477-481.~~ GRIP and TRP object to 20.6.7.17.D(2)(a) through (e), ~~propose~~proposed alternative rule language for (a) on grounds that a phrase is vague and for (a) through (e) to clarify sections and allow use of an open pit for secondary containment subject to Department approval. *See* Kuipers Attachment 2 at 14-15. The reasons for these proposed changes are not explained in Mr. Kuipers' testimony.

~~478-482.~~ The Attorney General ~~objects~~objected to 20.6.7.17.D(2)(a) and strikes some language without any supporting technical testimony. *See* Attorney General Exhibit 2 at 13.

~~479-483.~~ NMED ~~makes~~made changes to 20.6.7.17.D(2)(a), (b), (c), (d), and (e) in the Amended Rule. *See* Amended Petition, Attachment 2 at 11-12.

~~480-484.~~ NMED ~~presents~~presented testimony through Mr. Adrian Brown to support 20.6.7.17.D(2). *See* Brown Direct at 14.

~~481-485.~~ Freeport ~~objects~~objected to the changes to 20.6.7.17.D(2) proposed by Amigos Bravos and argues that Amigos Bravos does not present any technical testimony in support of its proposed changes other than pointing out that such language was included in the August 17 Discussion Draft. *See* Eastep Rebuttal at 18. Freeport further explained the basis for NMED's version of 20.6.7.17.D(2) in the testimony of Mr. Grass as discussed above.

~~482-486.~~ Mr. Olson does not offer alternative rule language for 20.6.7.17.D(2). *See* WCO Exhibit 3 at 15.

~~483-487.~~ The Commission ~~finds that the evidence presented by~~ Relying primarily on the evidence presented by NMED and Freeport, is more persuasive to support the rule provisions of 20.6.7.17.D(2); therefore, the Commission declines to adopt the rule proposals suggested by the Attorney General, GRIP, TRP, and Amigos Bravos for the rule provisions of 20.6.7.17.D(2).

~~470-474.~~ 470-474. ~~_____~~ NMED ~~presents~~presented testimony through Mr. Adrian Brown to support 20.6.7.17.D(1)(a). *See* Brown Direct at 15.

~~471-475.~~ 471-475. ~~_____~~ Freeport ~~objecteds~~objected to the changes to 20.6.7.17.D and D(1)(a) proposed by Amigos Bravos and argues that Amigos Bravos does not present any technical testimony in support of its proposed changes other than pointing out that such language was included in the August 17 Discussion Draft. *See* Eastep Rebuttal at 18.

~~472-476.~~ 472-476. ~~_____~~ The Attorney General, GRIP, TRP, and Mr. Olson do not offer alternative rule language for 20.6.7.17.D and D(1)(a). *See* ~~NMAGAG~~NMAGAG Exhibit 2 at 11-12; Kuipers, Attachment 2 at 13; and WCO Exhibit 3 at 15.

~~473-477.~~ 473-477. ~~_____~~ The Commission ~~finds that mere reliance on the August 17 Discussion Draft is unpersuasive without additional evidence supporting the proposed change. In addition, t~~finds NMED's evidence on 20.6.7.17.D(1)(a) to be persuasive. Accordingly, the Commission declines to adopt the change to 20.6.7.17.D and D(1)(a) as proposed by Amigos Bravos.

~~474-478.~~ 474-478. ~~_____~~ The Commission ~~finds that NMED made no changes to 20.6.7.17.D and D(1)(a) remained unchanged in the Proposed Final Rule. See Proposed Final Rule at 12-15.~~

~~475-479.~~ 475-479. ~~_____~~ Based on the weight of the evidence, the Commission adopts 20.6.7.17.D and D(1)(a) as proposed by NMED in the Proposed Final Rule.

~~476-480.~~ 476-480. ~~_____~~ Amigos Bravos ~~objectes~~objected to 20.6.7.17.D(2)(a), (b) and (f) in the Petitioned Rule, ~~proposes~~proposed rule language or to strike language, and argues that such rule language is appropriate because it was included or not included in the August 17 Discussion Draft. *See* AB Exhibit 1 at 17-18.

~~17 Discussion Draft.~~ See Eastep Rebuttal at 18. Freeport further explained the basis for NMED's version of 20.6.7.17.D(3) in the testimony of Mr. Grass as discussed above.

493-497. The Commission finds that the changes to 20.6.7.17.D(3) as proposed by GRIP and TRP are unwarranted because the open pit surface drainage area is a key element of the Copper Mine Rule.

494-498. The Commission finds that Amigos Bravos changes to 20.6.7.17.D(3)(a) are unsupported by technical testimony.

495-499. The Commission finds that 20.6.7.17.D(3) remained unchanged in the Proposed Final Rule.

496. ~~The Commission finds that any rule provisions not specifically discussed in 20.6.7.17(D)(3) is undisputed because no alternative rule language was proposed.~~

497-500. Based on the weight of the evidence, the Commission adopts 20.6.7.17.D(3) in its entirety as set forth in the Proposed Final Rule.

498-501. GRIP and TRP propose a change to 20.6.7.17.D(4) to delete an exception from the requirements for impoundments constructed within an open pit surface drainage area. See Kuipers Attachment 2 at 16.

499-502. Amigos Bravos ~~proposes~~ proposed to strike 20.6.7.17.D(4)(e) on the grounds that it was not in the August 17 Draft. AB Exhibit 1 at 21.

500-503. The Attorney General and Mr. Olson propose no changes to 20.6.7.17.D(4), except for an Attorney General change to a cross-reference that does not appear to be correct. See AG Exhibit 2 at 14-15; WCO Exhibit 3 at 16-17.

484-488. ____ The Commission finds that the changes to 20.6.7.17.D(2)(a), (b), (c), (d), and (e) as proposed by NMED in the Amended Rule are changes for consistency and clarity. *See* Amended Petition at 1.

485-489. ____ The Commission finds that the changes to the provisions 20.6.7.17.D(2) as proposed by NMED in the Proposed Final Rule are non-substantive.

486-490. ____ Based on the weight of the evidence, the Commission adopts 20.6.7.17.D(2) as set forth in the Proposed Final Rule.

487-491. ____ GRIP and TRP propose a change to 20.6.7.17.D(3) to delete an exception from the requirements for impoundments constructed within an open pit surface drainage area. *See* Kuipers Attachment 2 at 15.

488-492. ____ Amigos Bravos ~~propose~~proposes changes to 20.6.7.17.D(3)(a) based solely on the August 17 Discussion Draft. *See* AB Exhibit 1 at 20.

489-493. ____ The Attorney General and Mr. Olson propose no changes to 20.6.7.17.D(3), except for an Attorney General change to a cross-reference that does not appear to be correct. *See* AG Exhibit 2 at 14-15; WCO Exhibit 3 at 16-17.

490-494. ____ NMED ~~makes~~made no changes to 20.6.7.17.D(3) in the Amended Rule. *See* Amended Rule at 13-14.

491-495. ____ NMED ~~presents~~presented testimony through Mr. ~~Adrian~~-Brown to support 20.6.7.17.D(3). *See* Brown Direct at 14.

492-496. ____ Freeport ~~objects~~objected to the changes to 20.6.7.17.D(3) proposed by Amigos Bravos and argues that Amigos Bravos does not present any technical testimony in support of its proposed changes other than pointing out that such language was included in the August

~~501-504.~~ NMED ~~makes~~made changes to 20.6.7.17.D(4) in the Amended Rule for purposes of clarity and consistency. *See* Amended Petition at 1 and Amended Petition, Attachment 2 at 14.

~~502-505.~~ Freeport ~~objects~~objected to the changes to 20.6.7.17.D(4) proposed by Amigos Bravos and argues that Amigos Bravos does not present any technical testimony in support of its proposed changes other than pointing out that such language was included in the August 17 Discussion Draft. *See* Eastep Rebuttal at 18. Freeport further explained the basis for NMED's version of 20.6.7.17.D(4) in the testimony of Mr. Grass as discussed above.

~~503-506.~~ The Commission finds that the evidence presented by Freeport on 20.6.7.17.D(4) is persuasive and ~~provides a sufficient basis to deny~~and does not adopt amendments to this rule provision as proposed by GRIP, TRP, and Amigos Bravos.

~~504-507.~~ The Commission ~~finds that~~ NMED ~~makes~~made no substantive changes to 20.6.7.17.D(4) in the Proposed Final Rule.

~~505-508.~~ Based on the weight of the evidence, the Commission adopts 20.6.7.17.D(4) in its entirety as set forth in the Proposed Final Rule.

~~506-509.~~ Freeport-McMoRan ~~presents~~presented testimony in support of 20.6.17.D(5), (6) and (7). *See* Grass Direct at 20-21.

~~507-510.~~ NMED ~~makes~~made changes to 20.6.7.17.D(5) in the Amended Rule for clarity and consistency, and NMED made no changes to 20.6.7.17.D(6) and (7) in the Amended Rule. *See* Amended Petition, Attachment 2 Rule at 13-14.

~~508-511.~~ The Commission finds that 20.6.7.17(D)(5), (6), and (7) are undisputed because the Attorney General, GRIP/TRP, Amigos Bravos and William Olson propose no changes to

20.6.7.17.D(5), (6) and (7). See AG Exhibit 2 at 15; AB Exhibit 1 at 21-22; Kuipers

Attachment 2 at 16; WCO Exhibit 3 at 18.

~~509-512.~~ The Commission finds that NMED ~~makes~~made no changes to 20.6.7.17.D(5), (6) and (7) in the Proposed Final Rule.

513. Based on the weight of the evidence, the Commission finds that 20.6.7.17.D(5), (6) and (7) are undisputed and adopts these provisions as set forth in the Proposed Final Rule.

~~510-514.~~ To the extent not specifically addressed above, the Commission adopts all of 20.6.7.17.D as set forth in the Proposed Final Rule.

20.6.7.18 – General Operational Requirements:

Subsection A—~~Planning for Closure~~

515. NMED proposes 20.6.7.18.A in the Petitioned Rule which contains requirements to plan for closure. *See* Petition, Attachment 1 at 15.
516. NMED does not make changes to 20.6.7.18.A in the Amended Rule. *See* Amended Petition, Attachment 2 at 15.
517. 20.6.7.18.A requires units to be designed and operated in a manner that considers implementation of the closure plan submitted pursuant to 20.6.7.33, and NMED presents evidence on closure issues through Adrian Brown. *See* Brown Direct at 32-44.
518. ~~The Commission finds that the~~ Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson do not dispute 20.6.7.18.A because none propose alternative rule language. *See* Freeport NOI at 3-6; AG Exhibit 2 at 15; AB Exhibit 1 at 22; Kuipers Attachment 2 at 16-17; WCO Exhibit 3 at 18.
519. NMED makes a change in subsection A in the Proposed Final Rule to add the words “copper mine” before “facility,” consistent with changes to other provisions as discussed above.
520. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.18.A in its entirety as set forth by NMED in the Proposed Final Rule.

Subsection B—~~Construction Requirements~~

521. NMED proposes 20.6.7.18.B in the Petitioned Rule which sets forth the requirements for construction of a liner system for the containment of water contaminants, including repair or relining of a liner system. *See* Petition, Attachment 1 at 15.

522. NMED ~~does~~ not make changes to the Amended Rule to include Amigos Bravos proposal set forth at 20.6.7.18.B. *See* Amended Petition, Attachment 2 at 15.

523. GRIP and TRP object to 20.6.7.18.B(2) in the Petitioned Rule and proposed alternative language to insert “qualified” before “licensed New Mexico professional engineer.” *See* Kuipers, Attachment 2 at 17.

524. GRIP and TRP provide no testimony as to why such a change is necessary. *See* Kuipers, Attachment 2 at 17.

525. Freeport presents rebuttal testimony regarding the additional of the term “qualified” as it relates to licensed professionals. *See* Shelley Rebuttal at 8-10.

~~526. The Commission finds that there is no evidence to support why 20.6.7.18.B(2) needs to be adopted as proposed by GRIP and TRP.~~

~~527-526.~~ Based on the weight of the evidence, the Commission declines to adopt this rule change 20.6.7.18.B(2) as proposed by GRIP and TRP.

~~528-527.~~ Amigos Bravos request insertion of a new provision as 20.6.7.18.B(4) which deals with low impact development and green infrastructure development approaches. *See* AB Exhibit 1 at 22.

~~529-528.~~ In support of the new language for 20.6.7.18.B(4), Amigos Bravos offers testimony from Brian Shield. *See* Shields Direct at 2-3.

~~530-529.~~ In response to this new proposal by Amigos Bravos, Freeport presents rebuttal testimony from Tim Eastep. *See* Eastep Rebuttal at 16-17.

~~531-530.~~ The Commission finds that Freeport’s evidence against a requirement on low impact development and green infrastructure development approaches to be persuasive and

that the change proposed by Amigos Bravos would be advisory only and not needed for the Copper Mine Rule.

~~532-531.~~ Based on the weight of the evidence, the Commission hereby declines to adopt 20.6.7.18.B(4) as proposed by Amigos Bravos.

~~533.~~ The Commission finds that ~~20.6.7.18.B(1) and (3)~~ of the Petitioned Rule and Amended Rule are undisputed because the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson do not provide alternative rule language.

~~534-532.~~ NMED makes no changes to 20.6.7.17.B in the Proposed Final Rule. See Proposed Final Rule at 15.

~~535-533.~~ Based on the weight of the evidence, the Commission hereby adopts 20.6.7.18.B in its entirety as set forth by NMED in the Proposed Final Rule.

~~Subsection C—Notice of Mining Operations and Discharge~~

~~536-534.~~ NMED proposes 20.6.7.18.C in the Petitioned Rule which contains requirements regarding notices for mining operations and discharge. See Petition, Attachment 1 at 15.

~~537-535.~~ NMED does not make changes to 20.6.7.18.C in the Amended Rule. See Amended Petition, Attachment 2 at 15.

~~538-536.~~ The Commission finds that Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson do not dispute 20.6.7.18.C because none propose alternative rule language. See Freeport NOI at 3-6; AG Exhibit 2 at 16; AB Exhibit 1 at 22-23; Kuipers Attachment 2 at 17; WCO Exhibit 3 at 18-19.

~~539-537.~~ NMED makes non-substantive changes to 20.6.7.18.C in the Proposed Final Rule replacing the word “facilities” with “unit” in 20.6.7.18.C(1)(a) and (2)(b), and replacing the

word "facility" with "impoundment" in 20.6.7.18.C(1)(b) and (2)(a). See Proposed Final Rule at 15.

~~540-538.~~ Based on the weight of the evidence, the Commission hereby adopts 20.6.7.18.C as set forth by NMED in the Proposed Final Rule.

Subsection D—Stormwater Management

~~541-539.~~ NMED proposes 20.6.7.18.D in the Petitioned Rule which contains requirements for stormwater management. See Petition, Attachment 1 at 15-16.

~~542-540.~~ Mr. Brown summarized the stormwater requirements set forth in 20.6.7.18.D in his direct testimony. See Brown Direct at 6.

~~543-541.~~ Mr. Brown testified that based on his review of mining regulations and guidance from other states, the stormwater requirements in the Copper Mine Rule are functionally the same as Arizona's requirements. In addition, Mr. Brown summarized such requirements for Nevada to allow for a comparison. See Brown Direct at 6.

~~544-542.~~ Mr. Brown testified that the stormwater requirements of the Copper Mine Rule, set forth at 20.6.7.18.D, protect ground water by minimizing the mobilization of contaminants by precipitation and by maximizing the availability of unimpacted stormwater for infiltration to groundwater in uncontaminated locations. See Brown Direct at p. 6 (~~5.1.3~~).

~~545-543.~~ NMED makes no changes to 20.6.7.18.D in the Amended Rule. See Amended Petition, Attachment 2 at 15.

~~546-544.~~ The Commission finds that Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson do not dispute 20.6.7.18.D because none propose alternative rule language. See Freeport NOI at 3-6; AG Exhibit 2 at 16; AB Exhibit 1 at 23; Kuipers Attachment 2 at 17; and 17; WCO Exhibit 3 at 19.

~~547-545.~~ ___ NMED makes no changes to 20.6.7.18.D in the Proposed Final Rule.

~~548-546.~~ ___ Based on the weight of the evidence, the Commission hereby adopts 20.6.7.18.D as set forth by NMED in the Proposed Final Rule.

Subsection E—Flow Meters

~~549-547.~~ ___ NMED proposes 20.6.7.18.E regarding flow meter requirements in the Petitioned Rule. *See* Petitioned Rule at 16.

~~550-548.~~ ___ NMED makes no changes to 20.6.7.18.E in the Amended Rule.

~~551-549.~~ ___ The Commission finds that Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson do not dispute 20.6.7.18.E because none propose alternative rule language. *See* Freeport NOI at 3-6; AG Exhibit 2 at 16-17; AB Exhibit 1 at 23-24; Kuipers Attachment 2 at 17-18; WCO Exhibit 3 at 19.

~~552-550.~~ ___ NMED makes no changes to 20.6.7.18.E in the Proposed Final Rule.

~~553-551.~~ ___ Based on the weight of the evidence, the Commission hereby adopts 20.6.7.18.E as set forth by NMED in the Proposed Final Rule.

Subsection F—Impoundments

~~554-552.~~ ___ NMED proposes 20.6.7.18.F in the Petitioned Rule. *See* Petition, Attachment 1 at 16-17.

~~555-553.~~ ___ NMED changes 20.6.7.18.F(2)(a) in its Amended Rule. *See* Amended Petition, Attachment 2 at 16.

~~556-554.~~ ___ Freeport proposes no changes to 20.6.7.18.F. *See* Freeport NOI at 3-6.

~~557-555.~~ ___ The Attorney General, GRIP, TRP, and Amigo Bravos propose alternative rule language for 20.6.7.18.F(2) which addresses continued operation of existing impoundments;

they propose to strike the phrase "or the impoundment is located within the open pit surface drainage area." See AG Exhibit 2 at 17; AB Exhibit 1 at 24; and Kuipers Attachment 2 at 18.

~~558-556.~~ The Commission is unable to find where the Attorney General no offers specific evidence to support its proposed change to 20.6.7.18.F(2). See AG Exhibit 2 at 17.

~~559-557.~~ GRIP and TRP argue that their change to 20.6.7.18.F(2) is appropriate because the reference to open pit surface drainage area provides relaxed requirements as opposed to areas outside this boundary. See Kuipers, Attachment 2 at 18.

~~560-558.~~ Amigos Bravos argues that the change to 20.6.7.18.F(2) is appropriate because it was included in the August 17 Draft Rule. See AB Exhibit 1 at 24.

~~561-559.~~ On behalf of NMED, ~~Adrian~~ Mr. Brown testifies regarding the function of the Open Pit Surface Drainage Area to capture and contain various materials. See Brown Direct at 11-12.

~~562-560.~~ ~~Lynn~~ Ms. Lande and ~~Neil~~ Mr. Blandford testified for Freeport regarding the function of open pits and the lack of evidence that plumes of contaminated ground water migrate from open pits. See Lande Rebuttal at 5; Blandford Direct at 20-21; and Blandford Rebuttal at 6.

~~563-561.~~ The Commission finds that it is appropriate to have different requirements for existing impoundments within the open pit surface drainage area relative to the requirement of 20.6.7.18.F(2) for continued operation of existing impoundments.

~~564-562.~~ The Commission finds that ~~NMED made no changes to~~ 20.6.7.18.F(2) ~~did not~~ change in the Proposed Final Rule.

~~565-563.~~ Based on the weight of the evidence, the Commission adopts 20.6.7.18.F(2) as set forth by NMED in the Proposed Final Rule.

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566-564. GRIP, TRP, and Amigos Bravos object to 20.6.7.18.F(2)(a) and propose alternative rule language. See Kuipers, Attachment 2 at 18 and AB Exhibit 1 at 24.

567-565. GRIP and TRP argue that its amendment to 20.6.7.18.F(2)(a) is necessary because the existing language is ambiguous and the appropriate language is from the August 17 Draft Rule, while Amigo Bravos indicates that the proposed changes to the rule provision should be taken from the August 17 Draft Rule. See Kuipers, Attachment 2 at 18 and AB Exhibit 1 at 24.

568-566. NMED makes changes in the Proposed Final Rule to address the comments of GRIP, TRP, and Amigos Bravos. To eliminate the double negative, NMED proposes that 20.6.7.18.F(2)(a) read: "Ground water monitoring data from monitoring wells downgradient of the impoundment indicates that the impoundment is functioning as designed." Proposed Final Rule at 16.

569-567. The Commission finds that 20.6.7.18.F(2)(a) as set forth in the Proposed Final Rule adequately addresses the comments of GRIP, TRP and Amigos Bravos.

568. Based on the weight of the evidence, the Commission adopts 20.6.7.18.F(2)(a) as set forth in the Proposed Final Rule.

570-569. Mr. Olson objects to 20.6.7.18.F(2)(c) in the Petitioned Rule and Amended Rule and proposes alternative rule language that deals with variance issues. See WCO Exhibit 3 at 19-20.

571.—For the reasons set forth herein dealing with variance issues, the Commission declines to adopt Mr. Olson's proposed rule change to 20.6.7.18(F)(+2)(c). See Amended Petition, Attachment 2 at 11-12 and Subsections 31 and 32 set forth herein. ~~Cross-reference to NOR on variances~~

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~~572-570.~~ NMED proposes 20.6.7.18.F(3) in the Petitioned Rule which deals with impoundment inspection and maintenance. *See* Petition, Attachment 1 at 16.

~~573-571.~~ GRIP and TRP object to 20.6.7.18.F(3) in the Petitioned Rule and proposes to delete the phrase “during active operations” because it is ambiguous. *See* Kuipers, Attachment 2 at 18.

~~574-572.~~ Based on the weight of the evidence, the Commission finds that the objection by GRIP to TRP to 20.6.7.18.F(3) is without merit and declines to adopt the proposed change.

~~575-573.~~ Amigos Bravos objects to 20.6.7.18.F(3) in the Petitioned Rule and proposes rule changes based solely on the August 17 Discussion Draft.

~~576-574.~~ For the reasons set forth herein dealing with the August 17 Discussion Draft, the Commission declines to adopt the change to 20.6.7.18.F(3) proposed by Amigos Bravos.

~~577-575.~~ GRIP, TRP, and Amigos Bravos propose various changes to 20.6.7.18.F(5)(a), including a proposal to insert a requirement where an automatically activated pump must be used within the context of 20.6.7.18.F(5)(a) in the Petitioned Rule. GRIP and TRP do not provide evidence as to why such a requirement is necessary, and Amigos Bravos proposes such a requirement because it was in the August 17 Discussion Draft. *See* Kuipers, Attachment 2 at 18 and AB Exhibit 1 at 25.

~~576.~~ In the Proposed Final Rule, NMED modifies 20.6.7.18.F(5)(a) to address the comments of GRIP, TRIP and Amigos Bravos.

~~578-577.~~ Based on the weight of the evidence, the Commission adopts 20.6.7.18.F(5)(a) as proposed by NMED in the Proposed Final Rule.

~~579-578.~~ GRIP, TRP, and Amigos Bravos object to 20.6.7.18.F(5)(b) in the Petitioned Rule and propose to strike language. GRIP and TRP argue that deletion of the language is

necessary to give meaning to the 30-day requirement, while Amigos Bravos relies on the August 17 Discussion Draft for the proposed deletion. *See* Kuipers, Attachment 2 at 18-19 and AB Exhibit 1 at 25.

~~580-579.~~ ____ The Commission finds that the 30-day requirement has meaning contrary to the assertion of GRIP and TRP.

~~581.~~ ____ The Commission finds that the changes proposed by Amigos Bravos based solely on the August 17 Discussion Draft are without merit because no supporting technical evidence is presented.

~~582-580.~~ ____ Based on the weight of the evidence, the Commission declines to adopt the proposed changes to 20.6.7.18.F(5)(b) as proposed by GRIP, TRP, and Amigos Bravos.

~~583-581.~~ ____ Based on the weight of the evidence, and for the reasons discussed above, the Commission adopts 20.6.7.18.F as set forth in the Proposed Final Rule.

20.6.7.19 – Setback Requirements for a Copper Mine Facility Applying for a Discharge Permit:

Subsection A

~~584-582.~~ ____ NMED proposes 20.6.7.19.A in the Petitioned Rule which makes the setback requirements applicable to a new copper mine facility for which an application for a discharge permit is received by the NMED after the effective date of the copper mine rule. *See* Petition, Attachment 1 at 17.

~~585-583.~~ ____ NMED does not make changes to 20.6.7.19.A in the Amended Rule. *See* Amended Petition, Attachment 2 at 17.

~~586-584.~~ ____ NMED presents evidence in support of 20.6.7.19.A in the testimony of Adrian Brown. For example, Mr. Brown indicates that the setback requirements are an important

3732997v1/25000-0382

feature of new tailings impoundments at 20.6.7.22(A)(4) and new dry stack tailing piles at 20.6.7.22(A)(5). *See* Brown Direct at 25.

~~587-585.~~ Freeport ~~support~~testifies regarding 20.6.7.19 generally through the testimony of Timothy Eastep. *See* Eastep Direct at 38-39.

~~588-586.~~ Amigos Bravos objects to 20.6.7.19.A, proposes alternative rule language, and supports such language by relying on the fact it was included in the August 17 Discussion Draft. *See* AB Exhibit 1 at 25-26.

~~589-587.~~ Freeport ~~objects~~presented ~~rebuttal~~ to the changes to 20.6.7.19.A proposed by Amigos Bravos and ~~argues that Amigos Bravos does not present any technical testimony in support of its proposed changes other than pointing out that such language was included in the August 17 Discussion Draft.~~ *See* Eastep Rebuttal at 18.

~~590-588.~~ The Attorney General, GRIP, TRP, and Mr. Olson do not offer alternative rule language to 20.6.7.19.A. *See* AG Exhibit 2 at 17-18; Kuipers, Attachment 2 at 19; and WCO Exhibit 3 at 20.

~~591-589.~~ NMED proposes no changes to 20.6.7.19.A in the Proposed Final Rule. *See* Proposed Final Rule at 17.

~~592-590.~~ Based on the weight of the evidence, the Commission declines to adopt the changes to 20.6.7.19.A as proposed by Amigos Bravos and adopts 20.6.7.19.A as set forth in the Proposed Final Rule.

Undisputed Subsections B, C, and D

~~593-591.~~ NMED proposes various setback requirements for a copper mine facility applying for a discharge permit at 20.6.7.19.B, C, and D in the Petitioned Rule. *See* Petition, Attachment 1 at 17.

3732967v1/25000-0382

~~594-592.~~ NMED makes no changes to 20.6.7.19.B, C, and D in the Amended Rule. *See* Amended Petition, Attachment 2 at 17.

~~595-593.~~ Freeport, the Attorney General, Amigos Bravos, GRIP, TRP and William Olson propose no changes to 20.6.7.19.B, C and D. *See* AG Exhibit 2 at 17-18; Kuipers Attachment 2 at 19; AB Exhibit 1 at 25; and WCO Exhibit 3 at 20.

~~596-594.~~ NMED makes no changes to 20.6.7.19.B, C and D in the Proposed Final Rule.

~~597-595.~~ Based on the weight of the evidence, the Commission finds that 20.6.7.19.B, C and D are undisputed and adopts those provisions as set forth by NMED in the Proposed Final Rule.

Subsection E

~~598-596.~~ NMED proposes 20.6.7.19.E in the Petitioned Rule which proposes leach stockpile, waste rock stockpile, tailings impoundment, process water impoundment, and impacted stormwater impoundment setback requirements. *See* Petition, Attachment 1 at 17.

~~599-597.~~ NMED does not make changes to 20.6.7.19.E in the Amended Rule. *See* Amended Petition, Attachment 2 at 17.

~~600-598.~~ Brown testifies regarding 20.6.7.19.E. *See* Brown Direct at 15, 17, 21, and 25.

~~601-599.~~ GRIP and TRP propose to delete 20.6.7.19.E(2) because there is no basis for excluding all onsite water supply wells from protection. GRIP and TRP further argue that any such exclusion should be done on a site-by-site basis through a variance process. *See* Kuipers, Attachment 2 at 19.

~~602-600.~~ Freeport opposes the changes to the Proposed Rule sought by GRIP. *See* Eastep Rebuttal at 16.

~~603-601.~~ The Attorney General, Amigos Bravos, and Mr. Olson do not offer alternative rule language to 20.6.7.19.E. See NMAG Exhibit 2 at 17-18; AB Exhibit 1 at 25-26; and WCO Exhibit 3 at 20.

~~604-602.~~ NMED makes no changes to 20.6.7.19.E in the Proposed Final Rule.

~~605-603.~~ Based on the weight of the evidence and for the reasons stated herein dealing with variances, the Commission declines to adopt the changes to 20.6.7.19.E(2) as proposed by GRIP and TRP and adopts 20.6.7.19.E as set forth in the Proposed Final Rule.

20.6.7.20 – Requirements for Leach Stockpiles:

Subsection A – Engineering Design Requirements

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~~606-604.~~ NMED proposes 20.6.7.20.A in the Petitioned Rule which sets forth the engineering design requirements for leach stockpiles at copper mine facilities. See Petition, Attachment 1 at 17.

~~607-605.~~ NMED does not change 20.6.7.20.A in the Amended Rule. See Amended Petition, Attachment 2 at 17.

~~608-606.~~ Freeport supports 20.6.7.20.A in the Petitioned Rule and offers evidence to support this rule provision. See Grass Direct at 21-23.

~~609-607.~~ The Attorney General, GRIP, and TRP object to 20.6.7.20.A, and while their proposed rule language somewhat varies in wording, the intent of the proposed language is to have an express statement that leach stockpiles shall comply with applicable standards. See AG Exhibit 2 at 18; Kuipers, Attachment 2 at 19.

~~610-608.~~ Amigos Bravos proposes to amend 20.6.7.20.A by inserting a new sentence allowing NMED to impose additional requirements for a leach stockpile in certain circumstances. See AB Exhibit 1 at 26.

3732597v1/25000-0382

609. The Attorney General, GRIP, TRP, and Amigos Bravos present no technical evidence to support changing 20.6.7.20.A. The Attorney General relies on a September 7, 2012 internal draft of the copper mine rule for proposing the change and provides no additional explanation. See Travers Direct at 21. GRIP and TRP assert a legal argument that their proposed language should be adopted because it is repeated in several places and tracks the requirements comply with of the Water Quality Act. See Kuipers, Attachment 2 at 19. Finally, Amigos Bravos proposed rule language is based on the August 17 Discussion Draft without any technical testimony to support the changes. See Eastep Rebuttal at 18.

~~611-610.~~ NMED does not change 20.6.7.20.A in the Proposed Final Rule.

~~612-611.~~ Relying primarily on the testimony of Mr. Grass, and ~~B~~based on the weight of the evidence, the Commission declines to adopt the changes to 20.6.7.20.A as proposed by the Attorney General, GRIP, TRP, and Amigos Bravos and adopts 20.6.7.20.A as set forth by NMED in the Petitioned Rule, Amended Rule, and Final in the Proposed Final Rule. The Attorney General and Amigos Bravos present no technical evidence to support their request. In turn, the proposed changes by GRIP and TRP to 20.6.7.20.A are unnecessary because the relationship between the measures specified in the Copper Mine Rule and meeting and monitoring compliance with standards are addressed more specifically elsewhere. ~~Consider cross-reference to discussion of 10.1 and 3.109.C.~~

~~613-612.~~ NMED supports and presents evidence in support of 20.6.7.20.A(1) as set forth in the Petitioned Rule. ~~Adrian Mr.~~ Brown states that the general design and operation requirements for all new leach stockpiles facilities under 20.6.7.20.A(1)(b), (c), and (d), combined with the setback requirements of 20.6.7.19.E(1), prevent or limit escape of pregnant leach solution. See Brown Direct at 17.

614-613. ____ With respect to 20.6.7.20.A(1) as set forth in the Petitioned Rule, ~~Adrian~~ Mr.

Brown provides a detailed technical evaluation of the requirements for leach stockpiles. Mr. Brown notes that groundwater protection is provided for new leach stockpiles by a 60 mil HDPE liner laid directly over a 12 inch compacted clay liner with minimum hydraulic conductivity of 1×10^{-6} centimeters per second. In Table 2, Mr. Brown provides representative seepage from leach stockpiles in operations through such a system for a range of conditions. Based on his calculations, Mr. Brown concludes that the liner system required by the Rule provides excellent groundwater protections if there are no defects in the liner, transmitting the equivalent of 0.03 inches per year of high concentration leachate solution through the liner system to the underlying material. For one square ~~mile~~ mile of leachate stockpile, this scenario is equivalent to a leakage rate of approximately 1 gallon per minute. This leakage will blend with natural groundwater under the pile, and the resulting groundwater concentrations will likely not be in excess of the standards set forth in 20.6.2.3103 NMAC when monitored at the downgradient toe of the leach stockpile. *See* Brown Direct at 17-18.

615-614. ____ With respect to 20.6.7.20.A(1) as set forth in the Petitioned Rule, Adrian Brown testifies that liners have defects, even with the construction quality assurance requirements of 20.6.7.17(C)(1)(b). Assuming that such defects increase the hydraulic conductivity of the liner to the upper end of the literature range, the leakage rate will blend with water present and flowing beneath the leach stockpile under certain assumptions and still meet the standards of 20.6.2.3103 NMAC when monitored at the downgradient toe of the leach stockpile. *See* Brown Direct at 18.

~~616-615.~~ With respect to 20.6.7.20.A(1) as set forth in the Petitioned Rule, Adrian Brown testifies that if the HDPE liner fails, the flow through liner system (now reduced to just the clay liner) increases towards a limit of about 12 inches per year for total failure, releasing approximately 400 gallons per minute of leach solution to the substrate underlying each square mile of leach stockpile. Under this scenario, it would be rapidly evident to the operator of the leach system due to the loss of product solution. It would also be rapidly evident as exceedances at the downgradient monitor wells, thereby triggering contingency actions likely including repair, containment, abatement, and possibly removal of the leach stockpile from service. *See* Brown Direct at 19.

~~617-616.~~ With respect to 20.6.7.20.A(1) as set forth in the Petitioned Rule, Adrian Brown testifies on how the containment approach for new leach stockpiles under the Rule compares to other jurisdictions. The Arizona regulations closely parallel the requirements and approach of the Rule. Likewise, the Nevada regulations closely parallel the requirements and approach of the Rule. Finally, the requirements of the Rule are more restrictive and provide a greater degree of containment than the current permitting of leach stockpiles in New Mexico. *See* Brown Direct at 19-20.

~~618-617.~~ Freeport supports and presents evidence with respect to 20.6.7.20.A(1) as set forth in the Petitioned Rule, whereby Michael Grass testifies that the design requirements are consistent with new copper leach facility requirements in Arizona and Nevada. Mr. Grass further testifies that double liner systems are rarely feasible for copper leach facilities. *See* Grass Direct at 23.

619-618. Amigos Bravos objects to 20.6.7.20.A(1)(b) in the Petitioned Rule and proposes alternative rule language for this rule provision based solely on the fact that such language was include in the August 17 Discussion Draft. *See* AB Exhibit 1 at 26.

620-619. Freeport refutes the alternative rule language proposed by Amigos Bravos by noting that Amigos Bravos does not present any technical testimony in support of the changes other than that they were included in the August 17 Discussion Draft. *See* Eastep Rebuttal at 18.

621-620. Relying primarily on the testimonies of Mr. Brown and Mr. Grass, and ~~based~~ based on the weight of the evidence, the Commission declines to adopt the alternative rule language for 20.6.7.20.A(1)(b) in the Petitioned Rule as proposed by Amigos Bravos.

622-621. Amigos Bravos objects to 20.6.7.20.A(1)(c) in the Petitioned Rule and proposes to replace “subgrade” with “foundation.” ~~It appears that~~ Amigos Bravos presents no technical evidence to support such a change. *See* AB Exhibit 1 at 26.

623-622. Relying primarily on the testimonies of Mr. Brown and Mr. Grass, and ~~based~~ based on the weight of the evidence, the Commission declines to adopt the alternative rule language for 20.6.7.20.A(1)(c) in the Petitioned Rule as proposed by Amigos Bravos.

624-623. NMED changes 20.6.7.20.A(1)(c)(v) in the Amended Rule. *See* Amended Petition, Attachment 2 at 18. ~~However, there appears to be no specific technical evidence from NMED to support the change to 20.6.7.20.A(1)(e)(v) as set forth in the in the Amended Rule. See Brown Rebuttal at 1-14.~~

625-624. Freeport objects to 20.6.7.20.A(1)(c)(v) in the Amended Rule and proposes that the stricken language be returned to “operational life” as set forth in the Petitioned Rule. *See*

Freeport NOI at 3. As support, Freeport offers testimony from Michael Grass. *See* Grass Rebuttal at 2.

~~626. Based on the weight of the evidence, the Commission declines to adopt changes 20.6.7.20.A(1)(e)(v) proposed by NMED in the Amended Rule and adopts the language of 20.6.7.20.A(1)(e)(v) as set forth in the Petitioned Rule by NMED.~~

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~~627-625.~~ The Attorney General, Amigos Bravos, and Mr. Olson object to 20.6.7.20.A(1)(f) in the Petitioned Rule and propose certain amendments. *See* NMAG Exhibit 2 at 19; AB Exhibit 1 at 27; and WCO Exhibit 3 at 21. NMED makes no changes to 20.6.7.20.A(1)(f) in the Amended Rule. *See* Amended Petition, Attachment 2 at 18.

~~628-626.~~ Both the Attorney General and Amigos Bravos propose to delete 20.6.7.20.A(1)(f) as set forth in the Petitioned Rule and Amended rule. The Attorney General offers no technical evidence to support the proposed change, while Amigos Bravos relies on the fact that the change was included in the August 17 Discussion Draft. *See* NMAG Exhibit 2 at 19 and AB Exhibit 1 at 27.

~~629-627.~~ Freeport ~~rebut~~ ~~refutes~~ the alternative rule language at 20.6.7.20.A(1)(f) proposed by Amigos Bravos by ~~noting that Amigos Bravos does not present any technical testimony in support of the changes other than that they were included in the August 17 Discussion Draft.~~ *See* Eastep Rebuttal at 18.

~~630-628.~~ Mr. Olson ~~objected~~ to 20.6.7.20.A(1)(f) in the Petitioned Rule and Amended Rule and proposes new language for this provision. Mr. Olson sets forth reasons for his proposed rule changes, ~~but does not present technical testimony in support which are largely based on his legal interpretation of the Water Quality Act.~~ *See* WCO Exhibit 3 at 21-22.

3732597v1/25000-0382

629. ~~Freeport refutes Mr. Olson's proposed changes to 20.6.7.20.A(1)(f) because they rest on his legal interpretation of the Water Quality Act and such arguments are addressed in legal pleadings filed by Freeport. See Eastep Rebuttal at 18.~~

631-630. ~~NMED does not make changes to 20.6.7.20.A(1)(f) in the Proposed Final Rule. See Proposed Final Rule at 18.~~

632-631. ~~Based Relying primarily on the testimony of Mr. Brown, and based on the weight of the evidence, the Commission declines to adopt changes 20.6.7.20.A(1)(f) as proposed by the Attorney General, Amigos Bravos, and Mr. Olson and adopts the language of 20.6.7.20.A(1)(f) as set forth in the Petitioned Rule, Amended Rule, and Final Proposed Final Rule.~~

633-632. ~~NMED presents evidence in support of 20.6.7.20.A(2), and Mr. Brown testifies that 20.6.7.20.A(2) sets forth the engineering design requirements for SX/EW units. See Brown Direct at 12-13.~~

634-633. ~~With respect to 20.6.7.20.A(2), Mr. Brown testifies that groundwater protection scheme for SX/EW units is to locate the component equipment, pipes, and tanks on impermeable or low permeability surfaces. The protectiveness of this approach can be checked by consideration of the fluid losses that are possible through the low permeability surfaces that form the base of typically sized units. See Brown Direct at 13.~~

635-634. ~~With respect to 20.6.7.20.A(2), Mr. Brown provides in Table 1 representative seepage from a SX/EW unit. Mr. Brown concludes that the representative seepage is not likely to create an exceedance of standards at any present or potential future use as domestic and agricultural water supply and surface water recharge. See Brown Direct at 14.~~

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~~636-635.~~ ____ With respect to 20.6.7.20.A(2), Mr. Grass testifies that the requirements are consistent with good engineering practice for design and construction of SX/EW facilities.

See Grass Direct at 23.

~~637-636.~~ ____ The Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson do not propose alternative rule language to 20.6.7.20.A(2) as set forth in the Petitioned Rule and unchanged in the Amended Rule. See AG Exhibit 2 at 19, AB Exhibit 1 at 18, Kuipers Attachment 2 at 20, WCO Exhibit 3 at 22.

~~638-637.~~ ____ NMED does not change 20.6.7.20.A(2) in the Amended Rule. See Amended Petition, Attachment 2 at 18.

~~639-638.~~ ____ NMED makes non-substantive changes to 20.6.7.20.A(2) in the Proposed Final Rule. See Proposed Final Rule at 18, changes the terminology in the Proposed Final Rule from "SX/EW facilities" to "SX/EW plants." This appears to be a nonsubstantive change.

~~640-639.~~ ____ Based on the weight of the evidence, the Commission finds that 20.6.7.20.A(2) is undisputed and supported by evidence and hereby adopts 20.6.7.20.A(2) as set forth in the Proposed Final Rule.

Subsection B - Construction

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~~641-640.~~ ____ NMED proposes 20.6.7.20.B in the Petitioned Rule which sets forth construction requirements for leach stockpile facilities. See Petition, Attachment 1 at 18.

~~642-641.~~ ____ Freeport presents evidence to support 20.6.7.20.B(1) in the Amended Rule. See Grass Direct at 23-24.

~~643-642.~~ ____ Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson do not propose changes to 20.6.7.20.B(1) in the Petitioned Rule. See Freeport NOI at 3-6;

Kuipers, Attachment 2 at 20; NMAG Exhibit 2 at 19; AB Exhibit 1 at 27; and WCO Exhibit 3 at 23.

643. NMED does not change 20.6.7.20.B(1) in the Amended Rule. *See* Amended Petition, Attachment 2 at 18.

644. NMED makes non-substantive changes to 20.6.7.20.B(1) in the Proposed Final Rule for purposes of clarity and consistency. *See* Proposed Final Rule at 18.

645. Based on the weight of the evidence, the Commission ~~finds that 20.6.7.20.B(1) is undisputed and supported by evidence and hereby adopts 20.6.7.20.BA(12) as set forth by NMED in the Petitioned Rule, Amended Rule, and Proposed Final Rule.~~

646. Freeport presents evidence to support 20.6.7.20.B(2) in the Petitioned Rule and maintains that this provision allows existing leach stockpiles to continue to operate as currently permitted because it is impracticable to require removal of millions of tons of leach material so existing systems can be replaced with lines systems. *See* Grass Direct at 23-24.

647. The Attorney General, GRIP, TRP, and Mr. Olson object to and present evidence on 20.6.7.20.B(2) in the Petitioned Rule, and the proposed language for all three essentially requires a mine to get a variance for existing leach stockpiles. *See* NMAG Exhibit 2 at 19; Kuipers, Attachment 2 at 20; AB Exhibit 1 at 27; and WCO Exhibit 3 at 23.

648. NMED does not change 20.6.7.20.B(2) in the Amended Rule. *See* Amended Petition, Attachment 2 at 18.

649. Mr. Olson presents alternative rule language 20.6.7.20.B(2) in sur-rebuttal testimony during the hearing. *See* WCO Sur-Rebuttal Exhibit 2.

650. NMED refutes this notion of the need to get a variance for such an existing facility. *See* Brown Rebuttal at 6-7. ~~In addition, to the extent legal issues, the Parties have submitted~~

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~~pleadings on this legal topic of a variance requirement. Cross-reference to variance discussion~~

651. In the Proposed Final Rule for 20.6.7.20.B(1), NMED proposes a change in the terminology from “SX/EW facilities” to “SX/EW plants,” a non-substantive change. NMED also proposes to add a cross-reference to subsection I of 20.6.7.10 NMAC, which references “additional conditions.”

652. Relying primarily on the testimony of Mr. Brown and Mr. Grass, and Bbased on the weight of the evidence, the Commission declines to adopt the changes to 20.6.7.20.B(2) as proposed by the Attorney General, GRIP, TRP, and Mr. Olson and adopts the rule language for 20.6.7.20.B(2) as set forth in the Proposed Final Rule.

Subsection C – Operational Requirements

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653. NMED proposes 20.6.7.20.C in the Petitioned Rule which sets forth operational requirements for SX/EW facilities. *See* Petition, Attachment 1 at 18-19.

654. Freeport presents evidence in support of all provisions of 20.6.7.20.C in the Petitioned Rule. *See* Grass Direct at 24-25.

655. Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson do not propose changes to 20.6.7.20.C(1) and C(1)(a) through (h) in the Petitioned Rule. *See* Freeport NOI at 3-6; NMAG Exhibit 2 at 19; Kuipers, Attachment 2 at 20-21; AB Exhibit 1 at 27-28; and WCO Exhibit 3 at 24.

656. Out of all the provisions in 20.6.7.20.C(1)(a) through (c), NMED proposes changes only to 20.6.7.20.C(1)(c) in the Amended Rule, and it~~to~~ adds a non-substantive cross-reference to 20.6.7.30.I. *See* Amended Petition, Attachment 2 at 18.

657. Freeport objects to NMED's changes to 20.6.7.20.C(1)(c) in the Amended Rule, while none of the others object. *See* Freeport NOI Rebuttal at 3. Freeport presented evidence to support its opposition indicating that the change resulted in an ambiguity. *See* Grass Rebuttal at 2.

658. Based on the weight of the evidence, the Commission adopts NMED's minor changes to 20.6.7.20.C(1)(c) in the Amended Rule.

659. Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson do not propose changes to 20.6.7.20.C(2) and C(2)(a) and (b) in the Petitioned Rule. *See* Freeport NOI at 3-6; NMAG Exhibit 2 at 19; Kuipers, Attachment 2 at 20-21; AB Exhibit 1 at 28; and WCO Exhibit 3 at 24.

~~659-660.~~ In the Amended Rule, NMED makes non-substantive changes to the wording of 20.6.7.20.C(2) for purposes of clarity. *See* Amended Petition, Attachment 2 at 19.

~~660-661.~~ In the Proposed Final Rule, NMED makes non-substantive changes to the terminology in 20.6.7.20.C(2) and 20.6.7.20.C(2)(b).

662. Based on the weight of the evidence, the Commission ~~finds that changes to~~ hereby adopts 20.6.7.20.C in its entirety as set forth in the Proposed Final Rule.

~~661-663.~~ To the extent not specifically addressed above, the Commission adopts 20.6.7.20.C as set forth in the Proposed Final Rule.

20.6.7.21 – Requirements for Copper Mine Waste Rock Stockpiles:

Section Overview

~~662-664.~~ Mine waste rock stockpiles are created when material is extracted from the mine that does not contain sufficient material value to warrant processing through the mill or leaching. Under 20.6.7.21, this waste rock is placed in one or more waste rock stockpiles,

which may be unlined provided the permittee can demonstrate that the groundwater will be protected for present and potential future use as domestic and agricultural water supply and surface water recharge. *See* Brown Direct at 20.

663-665. The design, construction, and operation of copper mine waste rock stockpiles are controlled by two factors: (1) rock type, and (2) location. *See* Brown Direct at 20.

664-666. An applicant's demonstration of the effectiveness of the rRule-required capture methods using rRule-specified hydrogeology and geochemical investigation data, and accepted engineering analyses must be met, and in the event that such a demonstration cannot be made, then the applicant is required to consider alternate capture methods, including lining, and propose a capture method that can be shown to be effective. TRV 3 at 598, l. 3-9.

Subsection A—Material Characterization Requirements

665-667. NMED proposed 20.6.7.21.A in the Petitioned Rule which sets forth material characterization requirements. *See* Petition, Attachment 1 at 19-20.

666-668. In support of its proposed section 20.6.7.21(A)(1) in the Petitioned Rule, NMED presented evidence that the determination as to whether waste rock may generate acid and/or release water contaminants at levels in excess of the standards of 20.6.2.3103 NMAC is conducted using the following types of sampling and testing of waste rock: (1) geologic, mineralogical, physical, and geochemical characterization; (2) representative sampling of the waste rock material; (3) static testing using acid/base accounting or equal to determine acid generating potential; and meteoric water mobility procedure or equal to determine water contaminant leaching potential; and (4) kinetic testing to evaluate acidification, neutralization, and drainage quality. This characterization will identify whether waste rock

may generate acid or release regulated groundwater contaminants when placed in a stockpile.

See Brown Direct at 20.

667-669. Freeport presented additional evidence in support of section 20.6.7.21.A(1) in the Petitioned Rule through testimony of Jim Finley. Some of the important points by Mr. Finley include, but are not limited to: (1) the requirements proposed by NMED for material characterization are appropriate based upon his academic training and professional experience; (2) there is a need to characterize the geochemical properties of waste rock to determine the types and potential concentrations of constituents that could be released during chemical weathering of waste rock; and (3) development of a waste rock characterization plan is a component of any copper mine plan and essential for evaluating and predicting the geochemical composition of leachate. *See Finley Direct* at 3-9.

668-670. NMED proposed no changes to section 20.6.7.21.A(1) in the Amended Rule. *See Amended Petition, Attachment 2* at 18.

669-671. GRIP and TRP objected to 20.6.7.21.A(1) and propose alternative rule language; however, no specific technical evidence is presented to support the proposed changes with the rule change. *See Kuipers, Attachment 2* at 21; *Kuipers Direct* at 6.

670-672. Amigos Bravos objects to 20.6.7.21.A(1)(d), proposes alternative rule language, and asserts that the changes are appropriate because the language needs to reflect the August 17 Discussion Draft. *See AB Exhibit 1* at 29. Freeport refutes this issue of the August 17 Discussion Draft through testimony of Mr. Eastep. *See Eastep Rebuttal* at 18.

671-673. Mr. Olson objects to 20.6.7.21.A(1)(d), proposes alternative rule language, and argues that the change is appropriate due to his changes to 20.6.7.21.B. *See WCO Exhibit 3* at 25.

3732964v1/25000-0382

672-674. In the Proposed Final Rule NMED changes 20.6.7.21.A(1) to correct grammatical errors and to reorganize the language for clarity by placing the last sentence of subparagraph (d) in a new subparagraph (f) and moving language contained in subparagraph (2)(e) to a new subparagraph (1)(e). NMED's change also eliminates the language "monitored, large scale field testing program".

673-675. Relying primarily on the testimony of Mr. Brown and Mr. Finley, and based on the weight of the evidence, the Commission adopts the rule language proposed by NMED and supported by Freeport, and the Commission declines to adopt changes to 20.6.7.21.A(1) as proposed by GRIP and TRP and 20.6.7.21.A(1)(d) as proposed by Amigos Bravos and Mr. Olson. Accordingly, the Commission adopts 20.6.7.21.A(1), including A(1)(a) through (d), as set forth in the ~~Petitioned Rule, Amended Rule, and~~ Proposed Final Rule.

674-676. With respect to 20.6.7.21.A(2) in the Petitioned Rule, Freeport presents evidence in support through Mr. Finley. For example, Mr. Finley notes that a copper mining operation will generate waste rock and waste rock generated will have to be place in a stockpile and become part of the environment. Identification of waste rock properties provides basic information necessary to develop a plan to limit the potential for leachate draining from a waste rock stockpile to impact groundwater quality. Mr. Finley concludes that 20.6.7.21.A(2) is appropriate and reasonable. See Finley Direct at 9.

675-677. The Attorney General objected to section 20.6.7.21.A(2)(f) in the Petitioned Rule and proposed alternative rule language; however, the Attorney General provided no specific technical evidence to support the rule changes for section 20.6.7.21.A(2)(f). See NMAG Exhibit 2 at 20.

~~676-678.~~ ____ GRIP and TRP objected to section 20.6.7.21.A(2)(f) in the Petitioned Rule and propose alternative rule language. *See* Kuipers, Attachment 2 at 22. GRIP and TRP provide technical testimony from James Kuipers to support their proposed rule language. *See* Kuipers Direct at 6. Freeport refutes the testimony of Mr. Kuipers through rebuttal testimony of Lynn Lande. *See* Lande Rebuttal at 8.

~~677-679.~~ ____ Amigos Bravos objected to section 20.6.7.21.A(2)(f) in the Petitioned Rule, propose alternative rule language, and argue that such changes to this provision are appropriate because they were in the August 17 Discussion Draft. *See* AB Exhibit 1 at 29. ~~Freeport refuted reliance on the August 17 Discussion Draft through testimony of Mr. Eastep. *See* Eastep Rebuttal at 18.~~

~~678-680.~~ ____ Mr. Olson objected to section 20.6.7.21.A(2)(f) in the Petitioned Rule, proposes alternative rule language, and provides several reasons as to why he believes his changes are appropriate. *See* WCO Exhibit 3 at 25-26.

~~679-681.~~ ____ NMED makes changes to section 20.6.7.21.A(2) in the Amended Rule. *See* Amended Petition, Attachment 2 at 18. ~~Adrian~~ Mr. Brown presented testimony in support of the changes. *See* Brown Rebuttal at 11.

~~680-682.~~ ____ In the Proposed Final Rule, NMED adds a new subparagraph (e) which requires a description of any proposed containment system in accordance with 20.6.7.21.B and which strikes former subparagraph (e); and moved to subsection A for purposes of clarity.

~~681-683.~~ ____ Relving primarily on the testimony of Mr. Brown and Mr. Finley, and Bbased on the weight of the evidence, Commission adopts section 20.6.7.21.A(2) as set forth in the Final Proposed Rule and declines to adopt changes to 20.6.7.21.A(2) as proposed by the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson. .

Subsection B—Engineering Design Requirements for New Waste Rock Stockpiles

~~682-684.~~ NMED proposed section 20.6.7.21.B in the Petitioned Rule which sets forth the engineering design requirements for new waste rock stockpiles. See Petition, Attachment 1 at 19-20.

~~683-685.~~ NMED supported section 20.6.7.21.B through evidence presented by ~~Adrian Mr.~~ Brown. In support of section 20.6.7.21.B, Mr. Brown testified that the minimum groundwater protection requirements for waste rock stockpile that may generate water contaminants causing an exceedance of applicable standards are: (1) stormwater diversion; (2) seepage capture; (3) groundwater capture; and (4) setbacks. See Brown Direct at 21-25.

~~684-686.~~ Mr. Brown compared the containment approach to waste rock stockpiles under the Rule compared to other similar jurisdictions that regulate copper mines. The Arizona guidelines are less protective than the requirements and approach of the Rule dealing with waste rock stockpiles. Meanwhile, the Nevada regulations are less specific and, therefore, likely less protective than the requirements and approach of the Rule. See Brown Direct at 25.

~~685-687.~~ Freeport supports ~~section~~ 20.6.7.21.B in the Petitioned Rule and offered evidence from Michael Grass. In summary, Mr. Grass made the following points: (1) the proposed requirements for waste rock stockpiles are consistent with and, overall, more specific than other copper producing states; (2) NMED has never required a lined waste rock stockpile in a discharge permit; (3) waste rock stockpiles associated with copper mines are rarely, if ever, constructed with liner systems; (4) groundwater interceptor systems are rarely needed for waste rock stockpiles associated with copper mines; (5) engineering design requirements need to be read in conjunction with material characterization and material

handling plan requirements; the engineering design requirements in the Petitioned Rule are consistent with good engineering practice and experience with the design of waste rock stockpiles to protect ground water quality. *See* Grass Direct at 25-26.

~~686-688.~~ In addition, Freeport supported ~~section~~ 20.6.7.21.B through the testimony of Mr. Finley. *See* Finley Direct at 10-14.

~~687-689.~~ NMED ~~makes~~ made changes to 20.6.7.21.B in the Amended Rule and supports the changes with testimony from Adrian Brown. *See* Amended Petition, Attachment 2 at 20-21 and Brown Rebuttal at 11. The changes address three components of managing impacts to ground water from waste rock stockpiles including: (1) stormwater management, (2) seepage collection, and (3) capture and containment of impacted groundwater.

~~688-690.~~ The Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson object to 20.6.7.21.B as proposed by NMED and propose extensive alternative rule language which would require liner systems for new waste rock stockpiles that are acid-generating or may generate contaminants in leachate at levels that exceed the numerical standards of ~~section~~ 20.6.3103 NMAC. *See* NMAG Exhibit 2 at 20-22; Kuipers, Attachment 2 at 22-23; AB Exhibit 1 at 29-31; and WCO Exhibit 3 at 26-29.

~~689-691.~~ The Attorney General presented evidence through Connie Travers to support its alternative rule language for section 20.6.7.21.B. *See* Travers Direct at 21-22. Ms. Travers, however, did not identify an example of a lined waste rock stockpile and did not testify regarding whether the engineering design specified in the Attorney General's proposed rule language is practicable for copper mines or consistent with good engineering practices. *See id.*

~~690-692.~~ GRIP and TRP presented evidence through James Kuipers to support their alternative rule language for section 20.6.7.21.B. *See* Kuipers Direct at 6-7. Mr. Kuipers' testimony did not identify an example of a lined waste rock stockpile and he did not testify regarding whether the engineering design specified in the proposed rule language is practicable for copper mines or consistent with good engineering practice.

~~694-693.~~ Mr. Kuipers' testimony was rebutted by Freeport witnesses Michael Grass. *See* Grass Rebuttal at 3-4. Mr. Kuipers' testimony also was rebutted by Freeport witness Thomas Shelley. *See* Shelley Rebuttal at 10-13.

~~692-694.~~ Mr. Kuipers identifies only two specific examples of lined waste rock stockpiles in his rebuttal testimony and does not address the key technical points of Mr. Grass's and Mr. Finley's testimony. *See* Kuipers Rebuttal at 2-3. During cross-examination, Mr. Kuipers conceded that his examples of lined waste rock stockpiles were not at copper mines and were at much smaller-scale mines. ~~CIT to Transcript~~ *See* TRV 10 at 2392, L. 24-24; 2393, L. 1-25; 2394, L. 1-11.

~~693-695.~~ Amigos Bravos ~~does~~ not present technical evidence in support of its alternative rule language for ~~section~~ 20.6.7.21.B and ~~relies~~ on the fact that it was in the August 17 Discussion Draft. *See* AB Exhibit 1 at 29-31.

~~694-696.~~ Mr. Olson ~~present~~ evidence to support his alternative rule language for section 20.6.7.21.B. *See* WCO Exhibit 3 at 26-29.

~~695-697.~~ The Commission finds that the Attorney General, GRIP, TRP, Amigos Bravos and Mr. Olson contend that ~~section~~ 20.6.7.21.B should require a liner system for waste rock stockpiles in order to prevent ground water from exceeding the standards of section 20.6.2.3103 NMAC at a place of withdrawal of water for present or reasonably foreseeable

future use. They contend that ~~section 20.6.7.21.B~~ as proposed by the Department would allow leachate containing contaminants in excess of the standards to infiltrate into ground water and that, as a result, ground water could exceed standards. These parties contends that ground water could be allowed to exceed standards up to the point where ground water quality would be measured by a monitoring well as specified by ~~section 20.6.7.28~~.

~~696-698.~~ The Commission finds that these parties further contend that a variance would be required under the Water Quality Act in order for NMED to issue a permit for a waste rock stockpile if the waste rock stockpile could cause the standards to be exceeded and that a site-specific determination would be required regarding the locations of any "place of withdrawal of water for present or reasonably foreseeable future use." These parties further would not differentiate between waste rock stockpiles to be constructed within an "open pit surface drainage area" or outside such an area. *See, e.g., [redacted]* WCO Direct at 26-29.

~~697-699.~~ Mr. Brown testified that, during mining operations, water use within the mine area would be controlled by the mine operator and that water produced would be used for mining purposes. ~~[redacted]~~ Consequently, during the period of mine operation, ground water within the mine area, including the area of a waste rock stockpile, would not be available for domestic or agricultural use. ~~[redacted]~~ ~~[address these measures in context with closure]~~ Mr. Brown further testified that, following closure, the area around and under a waste rock stockpile could become a place of withdrawal of water for domestic or agricultural use. See Brown Direct at 20-25. ~~[redacted]~~

~~698-700.~~ Mr. Brown testified that any water contaminants generated by a waste rock stockpile located inside an open pit surface drainage area will be contained within that area.

See Brown Direct at 20-25. [~~need to address OPSIDA as a POW by cross-reference to open pit-section]~~]

699. Mr. Brown testified regarding the anticipated leakage rates from various liner designs and stated that all liners leak to some degree. The Commission finds that Mr. Brown's testimony in this regard was un rebutted by any party. Mr. Brown testified regarding the anticipated rate of discharge from a typical new waste rock stockpile at a copper mine designed in accordance with the requirements of section 20.6.7.21.A and -B and testified that it would not typically result in ground water contamination. See Brown Direct at 20-25. [~~cite]. This~~The Commission finds that this testimony was un rebutted by any party.

700-701. Mr. Brown further testified that lining is potentially problematic for waste rock stockpiles because liners can leak, ~~protection of a liner is difficult~~can be damaged during placement of waste rock, placement of liners on steep slopes where waste rock often is placed is difficult, and use of a liner can create a plane of weakness beneath a waste rock stockpile, resulting in reduced stability. See Brown Rebuttal at 2-3.

701-702. The Commission finds that none of the witnesses for the Attorney General, GRIP, TRP, Amigos Bravos and Mr. Olson presented technical testimony regarding the practicability of lining waste rock stockpiles at copper mines or whether the prescriptive liner design they propose is consistent with good engineering practices. [~~cite].~~ These witnesses also do not rebut the technical testimony on behalf of Freeport or explain why NMED has never required lined waste rock stockpiles in existing discharge permits for copper mines issued under the existing regulations and the Water Quality Act.

702-703. The Commission finds that none of the parties who proposed the alternative version of 20.6.7.21.B presented technical evidence, including engineering evidence, in

support of the specific liner requirements they advocated. With the exception of Mr. Kuipers, none of their witnesses were engineers or appeared to be experienced in designing liners. Mr. Kuipers did not present technical evidence on the practicability of the proposed liner design, whether such a design has been used for waste rock stockpiles at copper mines, and whether such a design is consistent with good engineering practices for waste rock stockpiles. ~~{eheel}~~

703-704. Testimony by an NMED witness in a prior proceeding, Ms. Mary Ann Menetrey, included with Mr. Olson's rebuttal testimony, describes these discharge permits. *See* WCO Rebuttal, Exhibit 2. That testimony describes the permit conditions that NMED imposed to ensure that ground water quality is protected. *See id.* at 2. This exhibit indicates that in the identified discharge permits, NMED imposed conditions requiring collection of seepage in lined impoundments and waste rock handling plans, but the testimony does not identify any requirements for lined waste rock stockpiles. *See id.* at 9-11, particularly items numbered 7 and 8. The testimony also does not identify any permit conditions requiring lined leach stockpiles, as is required by Section 20 of the Copper Mine Rule. *See id.* at 7-11.

704-705. The Commission finds that the Attorney General, GRIP, TRP, Amigos Bravos and Mr. Olson did not present technical evidence that the engineering requirements in section 20.6.7.21.B, in combination with the material characterization requirements and material handling plan requirements, will not protect ground water quality during mining operations. The Commission further finds that the requirements of 20.6.7.21.B improves upon the requirements for waste rock stockpiles contained in discharge permit conditions previously included by NMED in discharge permits for waste rock stockpiles.

~~705-706.~~ The Commission finds that allowing the construction of unlined stockpiles is consistent with past permitting practices of the Department for permits issued under the existing Commission regulations and the Water Quality Act. The Commission further finds that the material handling plan requirements in 20.6.7.21.A combined with the engineering requirements in 20.6.7.21.B are at least as stringent, if not more stringent, than the measures required by NMED~~the Department~~ through past permit conditions, and that NMED witnesses have testified in the past that these measures are protective of ground water under the Water Quality Act.

~~706-707.~~ The Commission finds that the testimony presented by the Attorney General, GRIP, TRP, Amigos Bravos and Mr. Olson does not show that lining waste rock stockpiles is typical, practical or consistent with good engineering practices or industry practices.

~~707-708.~~ The Commission finds that, based on the testimony of Mr. Brown, a site-specific determination regarding locations that are “places of withdrawal of water for present or reasonably foreseeable use,” as might be made during a variance proceeding, is not necessary or required for the Rule. Based on Mr. Brown’s testimony, unlined waste rock stockpiles are not expected to cause ground water to exceed standards at a “place of withdrawal of water for present or reasonably foreseeable use” during mining operations or after closure. If NMED concludes that a permit applicant has not demonstrated that is the case, then NMED can require additional measures, including a liner.

~~708-709.~~ The Commission finds that Copper Mine Rule requires the Department to comply with the Water Quality Act’s mandate that a permit cannot be issued if it would result in an exceedance of applicable standards at a “place of withdrawal.” *See 20.6.7.10.J infra.* Any persons who believe that the statutory mandate has been violated with regard to any permit

issued under the Rule will have an opportunity to comment on permit applications and draft permits, to request a hearing before the ~~NMED Department~~, to appeal a final permit to the Commission, and to appeal the Commission's decision to the Court of Appeals. ~~CHS~~
709-710. In the Proposed Final Rule, NMED adds language to Subsection B, as proposed by Mr. Olson, for consistency with other sections. The language is moved from 20.6.7.21.B(1) as presented in the Petitioned Rule. NMED also moves language from the first part of Subsection B to 20.6.7.21.B(1). This change appears to be non-substantive.

710-711. Relying primarily on the testimony of Mr. Brown and Mr. Grass, and ~~based~~ on the weight of the evidence, the Commission adopts 20.6.7.21.B, including paragraph (1), as set forth by NMED ~~shown~~ in the Proposed Final Rule.

Subsection C—Construction

711-712. NMED proposed 20.6.7.21.C in the Petitioned Rule. See Petition, Attachment 1 at 22.

712-713. The Attorney General objected to 20.6.7.21.C(2) in the Petitioned Rule and proposed alternative rule language. See AG Exhibit 22. The Attorney General provides testimony in support of the changes, and the primary reason appears to be a contention alleging that NMED's approach would allow an exceedance of standards without a variance. See Travers Direct at 22.

713-714. Amigos Bravos objected to 20.6.7.21.C(2) in the Petitioned Rule and proposed alternative rule language. See AB Exhibit 1 at 31-32. The only grounds for the change indicated is inclusion in the August 17 Discussion Draft ~~8/17 draft~~.

714-715. Mr. Olson objected to 20.6.7.21.C(2) in the Petitioned Rule and proposed alternative rule language. See WCO Exhibit 3 at 29-30. Mr. Olson also testified that

variances should be required for continued operation of existing waste rock stockpiles that have caused ground water contamination and cites to the Tyrone Settlement. *See id.*

715-716. Freeport rebutted the Attorney General's and Mr. Olson's testimony in support of changes to the requirements for continued operation of existing waste rock stockpiles. *See Shelley Rebuttal at 17.*

716-717. GRIP and TRP do not propose alternative rule language for 20.6.7.21.C, C(1), and C(2) in the Petitioned Rule. *See Kuipers, Attachment 2 at 23.*

717-718. In the Proposed Final Rule, NMED changes 20.6.7.21.C to change "permitted" to "authorized" for clarity and to add language regarding additional conditions in response to Mr. Olson's comment that this language should be included in additional sections (see comment regarding 20.6.7.10.J).

718-719. Based on the weight of the evidence, the Commission adopts 20.6.7.21.C as set forth in the Proposed Final Rule.

Subsection D – Operational Requirements

719-720. ~~Petitioned Rule and Amended Rule~~ NMED proposes 20.6.7.21.D which deals with operational requirements. *See Petition, Attachment 1 at 22.*

720-721. The Attorney General does not propose alternative rule language for 20.6.7.21.D in the Petitioned Rule. *See NMAG Exhibit 2 at 22.*

721-722. GRIP and TRP proposed alternative rule language for 20.6.7.21.D(3) in the Petitioned Rule. *See Kuipers, Attachment 2 at 23-24.* The reason is that this language was included in to revert to language from the August 17 Discussion Draft 8/17 draft.

~~722-723.~~ Amigos Bravos proposed to add new paragraphs to 20.6.7.21.D in the Petitioned Rule. See AB Exhibit 1 at 32. The sole testimony is that these paragraphs were included in the August 17 Discussion Draft~~8/17 draft~~.

~~723-724.~~ Mr. Olson proposes a new paragraph (6) to require a record and reporting of the volume of fluid generated in a solution collection system to provide information on how such a system is functioning. See WCO Exhibit 3 at 30.

~~724-725.~~ NMED makes several changes to 20.6.7.21.D in the Amended Rule, including a more specific cross-reference in paragraph (1), a reference to corrective action in paragraph ~~(32)~~, striking language in paragraph (5), and three new paragraphs (6), (7) and (8), which in part respond to Mr. Olson's comment.

~~725-726.~~ NMED supports these changes in the Amended Rule through the testimony of Mr. Brown. See Brown Direct at 11. ~~His rebuttal testimony was not rebutted during the hearing.~~
[heek]

~~726-727.~~ In the Proposed Final Rule, NMED changes 20.6.7.21.D(2) by striking "facilities;" for purposes of clarity.

~~727-728.~~ Based on the weight of the evidence the Commission adopts 20.6.7.21.D as set forth in the Proposed Final Rule.

20.6.7.22 – Requirements for Copper Crushing, Milling, Concentrator, Smelting and Tailings Impoundment Facilities:

Section Overview

~~728-729.~~ The proposed rule specifies engineering design, construction and operational requirements for new crushing and milling facilities, new concentrator facilities, new smelting facilities and new tailings impoundments.

~~729-730.~~ ____ The proposed engineering design requirements for tailings impoundments have been a major issue in the hearing. The proposed rule requirements specify detailed engineering designed requirements and requirements for capture of seepage [drainage] and any impacted ground water using an interceptor system. The Attorney General, GRIP_fTRP, Amigos Bravos and Mr. Olson counter that the Copper Mine Rule should require the use of a liner system.

~~730-731.~~ ____ Under the proposed rule, a permit applicant must demonstrate the effectiveness of the Rule-required capture methods using Rule-specified hydrogeology and geochemical investigation data, and accepted engineering analyses must be met. In the event that such a demonstration cannot be made, then the applicant is required to consider alternate capture methods, including lining, and propose a capture method that can be shown to be effective.

See TRV 3 at 598, l. 3-9.

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Subsection A—Engineering Design Requirements

~~731-732.~~ ____ 20.6.7.22.A(1), (2), and (3) in the Petitioned Rule sets forth the engineering design requirements for the following processing systems: new crushing and milling units, new concentrator units, and new smelter units. *See* Brown Direct at 12-13.

~~732-733.~~ ____ NMED presented evidence through Adrian Brown to support 20.6.7.22.A and A(1) through (3) as set forth in the Petitioned Rule. *See* Brown Direct at 13-14.

~~733-734.~~ ____ Freeport presented evidence in support of 20.6.7.22.A, particularly the requirements for new tailings impoundments, through James Scott. Mr. Scott is an engineer with many years of experience as an engineer of record designing and overseeing operation of tailings impoundments in New Mexico and elsewhere. *See* Written Testimony of James C. Scott [Pleadings #50] (hereinafter “Scott Direct”).

~~734-735.~~ Mr. Olson proposes no changes to 20.6.7.22.A and -A(1). See WCO Exhibit 3 at 30.

~~735-736.~~ The Attorney General, GRIP, TRP, and Amigos Bravos propose changes to 20.6.7.22.A and A(1) as set forth in the Petitioned Rule. See NMAG Exhibit 2 at 22; Kuipers, Attachment 2 at 24; and AB Exhibit 1 at 32-33.

~~736-737.~~ With respect to 20.6.7.22.A, the Attorney General, GRIP, and ~~GRIP/~~TRP propose language to expressly require copper crushing, milling, concentrator, smelting, and tailings impoundment facilities to meet applicable standards. See NMAG Exhibit 2 at 22; Kuipers, Attachment 2 at 24; and AB Exhibit 1 at 32-33.

~~737-738.~~ Amigos Bravos proposes to strike the language allowing an applicant to show that an alternative design provides an equal or greater level of containment because this language was in the 8/17 draft. See AB Exhibit 1 at 32.

~~738-739.~~ With respect to 20.6.7.22.A(1), they propose language to remove the exception provision dealing with the open pit surface drainage area. See NMAG Exhibit 2 at 22; and Kuipers, Attachment 2 at 24.

~~739-740.~~ The Attorney General, GRIP, TRP, and Amigos Bravos do not present technical evidence specific as to why its proposed rule changes to 20.6.7.22.A and A(1) are necessary, although the Attorney General, GRIP, and TRP generally have issues with respect to applying relaxed requirements for certain activities occurring in the open pit surface drainage area. See NMAG Exhibit 2 at 22; Kuipers, Attachment 2 at 24; and AB Exhibit 1 at 32-33.
[need-to-address-Kuipers-and-Travers-direct]

~~740-741.~~ The Commission does not adopt the language proposed by the Attorney General, GRIP, and TRP and ~~GRIP/~~TRP to 20.6.7.22.A relating to compliance with standards because

the language would appear to require a separate demonstration relating to compliance with standards, and the Commission has not accepted that approach, and the proposed language is silent and therefore vague as to where standards must be met. *See* findings regarding 20.6.7.10.J *infra*.

741-742. The Commission does not adopt the change proposed by Amigos Bravos because inclusion of language in the August 18 Discussion Draft~~8/17 draft~~ is not sufficient to overcome the technical testimony provided by NMED and Freeport in support of the proposed rule.

742-743. NMED makes no substantive changes to 20.6.7.22.A(1), (2), and (3) in the Amended Rule except for a typographical error. *See* Amended Petition, Attachment 2 at 22.

743-744. In the Proposed Final Rule, NMED replaces the word “facilities” with “impoundments units,” consistent with its change in terminology elsewhere.

744-745. The Commission finds that 20.6.7.22.A(2) and A(3) are undisputed because Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson do not propose alternative ~~rule language~~ language. *See* Freeport NOI at 3-6; AG Exhibit 2 at 22; AB Exhibit 1 at 32-33; Kuipers Attachment 2 at 24; WCO Exhibit 3 at 30-31.

745-746. Relying primarily on the testimony of Mr. Brown and Mr. Scott, and Bbased on the weight of the evidence, the Commission hereby adopts 20.6.7.22.A in its entirety, ~~A(1), A(2), and A(3)~~ as proposed by NMED in the ~~Amended Rule and~~ Proposed Final Rule.

746-747. Turning to 20.6.7.24.A(4) in the Petitioned Rule, NMED proposes engineering design requirements for new tailings impoundments. *See* Petition, Attachment 1 at 21-22.

747-748. NMED presents evidence that this provision sets forth requirements for new tailing impoundments including: (1) stormwater run-on shall be diverted and/or contained to

minimize contact between stormwater and tailings; (2) basal seepage shall be captured and contained through the construction of headwall, impoundments, and/or diversion structured; and (3) groundwater impacted by tailings seepage in excess of applicable standards will be captured and contained by interceptor systems. These requirements must be considered in conjunction with the setback provisions, dam safety requirements set forth in 20.6.7.17.C(1)(d), and monitoring requirements set forth in 20.6.7.28.B(2) and (5) in order to technically evaluate the Rule requirements for new tailing impoundments. Adrian Brown provides a comprehensive technical evaluation of 20.6.7.24.A(4). *See* Brown Direct at 25-31.

~~748-749.~~ Mr. Brown testified that, during mining operations, water use within the mine area would be controlled by the mine operator and that water produced would be used for mining purposes. ~~feite~~ Consequently, during the period of mine operation, ground water within the mine area, including the area of a tailings impoundment, would not be available for domestic or agricultural use. ~~feite~~ ~~[address these measures in context with closure]~~ Mr. Brown further testified that, following closure, the area around and under a tailings impoundment could become a place of withdrawal of water for domestic or agricultural use. ~~feite~~ See Brown Direct at 25-31.

~~749-750.~~ Mr. Brown testified regarding the anticipated leakage rates from various liner designs and stated that all liners leak to some degree. Mr. Brown's testimony in this regard was un rebutted by any party. Mr. Brown testified regarding the anticipated rate of discharge from a typical new tailings impoundment at a copper mine designed in accordance with the requirements of section 20.6.7.22.A. ~~feite~~ See Brown Direct at 25-31. This testimony was un rebutted by any party.

750-751. Mr. Brown testified that any water contaminants generated by a tailings impoundment located inside an open pit surface drainage area will be contained within that area. ~~need to address OPSDA as a POW by cross-reference to open pit section]~~ See Brown Direct at 25-31.

751-752. Freeport presents evidence in support of 20.6.7.22.A(4) through Neil Blandford and James Scott. *See* Blandford Direct at 25-28 and Scott Direct at 3-13.

752-753. Mr. Scott explained the requirements of the New Mexico Office of the State Engineer that apply to tailings impoundments for dam safety and stability. Mr. Scott explained that proper drainage of fluids is crucial to maintaining stability of a tailings impoundment. He testified that there are no synthetically-lined tailings impoundments at copper mines in the western United States, including New Mexico. He attributed the lack of liners to the impracticability of designing and successfully operating drainage systems for large scale tailings impoundments that would provide sufficient drainage to maintain stability and that would dependably operate over a long period of time. Mr. Scott questioned whether it would be possible to design a large synthetically-lined tailings impoundment with a drainage system that would meet OSE's requirements. Mr. Scott described the interceptor well system successfully used to contain drainage from the Chino tailings impoundment. *See* Scott Direct at 3-13.

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753-754. In addition to Mr. Scott, Freeport presented the testimony of a hydrologist, Mr. Neil Blandford, in support of 20.6.7.22.A(4). Mr. Blandford is responsible for the abatement plan for the Tyrone Mine. Mr. Blandford testified regarding the performance of the unlined tailings impoundments at the Tyrone Mine and provided evidence that the standards of 20.6.2.3103 NMAC generally were not exceeded during operation of the tailings

impoundments and that ground water quality is improving and the standards of 20.6.2.3103 NMAC are met in nearly all of the monitoring wells around the tailings impoundments at present, a few years after completion of closure and reclamation. Mr. Blandford attributed exceedance of standards in one or two monitoring wells to stormwater management practices during operations. Mr. Blandford described how an interceptor well system can be successfully designed and operated to contain drainage from an unlined tailings

impoundment, when necessary, during and after operation. *See* Blandford Direct at 25-28.

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754-755. The Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson oppose 20.6.7.22.A(4) and propose alternative rule language. At its most basic level, the alternative rule language proposes that new tailing impoundments must be lined. See NMAG Exhibit 2 at 22-24; Kuipers, Attachment 2 at 24-25; AB Exhibit 1 at 33-34; and WCO Exhibit 3 at 31-33.

755-756. The Attorney General presented technical evidence in support of its changes to 20.6.7.22.A(4) through Connie Travers, while GRIP and TRP present evidence in support of their changes to 20.6.7.22.A(4) through James Kuipers. *See* Travers Direct at 22 and Kuipers Direct at 7-8. Amigos Bravos presented no technical evidence in support of its changes. *See* AB Exhibit 1 at 33-34. Mr. Olson presented his technical evidence within his proposed rule changes. *See* WCO Exhibit 3 at 31-33.

756-757. Ms. Travers, Mr. Kuipers and Mr. Olson testify, in general, that allowing unlined tailings impoundments would result in contamination of ground water underlying and in the vicinity of such a tailings impoundment. They contend that, as a result 20.6.7.21.A(4) as proposed by NMED would allow ground water quality standards to be exceeded in violation of the Water Quality Act. These witnesses further contend that a variance would be required

under the Water Quality Act in order for NMED to issue a permit for an unlined tailings impoundment if ~~it the waste rock stockpile~~ could cause the standards to be exceeded and that a site-specific determination would be required regarding the locations of any "place of withdrawal of water for present or reasonably foreseeable future use." These parties further would not differentiate between tailings impoundments to be constructed within an "open pit surface drainage area" or outside such an area. *See* Travers Direct at 22; Kuipers Direct at 7-8; WCO Exhibit 3 at 32-33.

757-758. Mr. Olson testified that this approach is not consistent with the Tyrone Settlement. He also testifies that it is feasible to construct a lined tailings impoundment because such an impoundment is being proposed by New Mexico Copper Company. WCO Exhibit 3 at 32-33.

758-759. None of Ms. Travers, Mr. Kuipers or Mr. Olson gave specific examples of lined tailings impoundments that have been successfully constructed and operated and whether the design in their proposed rule language to addresses the stability and drainage issues identified by Mr. Scott. None of them rebutted the technical testimony of Mr. Brown or Mr. Scott regarding tailings impoundment engineering design principles or experience. Nor did they present any technical evidence regarding the specific engineering design. *See* Travers Direct at 22; Kuipers Direct at 7-8.

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759-760. NMED rebutted the testimony of Mr. Kuipers and Ms. Travers through the testimony of Mr. Brown. *See* Brown Rebuttal at 1-2. This rebuttal also addresses testimony of Mr. Olson. Mr. Brown testified that liners leak and there would be significant leakage volumes from a large tailings impoundment, that a liner would reduce or eliminate drainage of interstitial water resulting in reduced stability with the potential to create widespread

impact to New Mexico waters, and use of a liner would require longer-term collection and treatment of impacted water compared to an unlined tailings impoundment. *See* Brown Rebuttal at 2.

~~760-761.~~ Freeport rebutted the testimony of Mr. Kuipers, Ms. Travers and Mr. Olson through the testimony of Mr. Eastep. *See* Eastep Rebuttal at 5-7, 10, and 18-22. Mr. Eastep gives a specific example of a discharge permit signed by Mr. Olson, DP-484, for an unlined tailings impoundment. *See* Eastep Rebuttal at 19-20.

~~761-762.~~ Freeport also rebutted the testimony of Mr. Kuipers, Ms. Travers and Mr. Olson through the testimony of Mr. Shelley. *See* Shelley Rebuttal at 10-13.

~~762-763.~~ Freeport also rebutted the testimony of Mr. Kuipers, Ms. Travers and Mr. Olson through the testimony of Mr. Blandford. *See* Blandford Rebuttal at 2-7, 20-25, and 30-36.

~~763-764.~~ Freeport also rebutted the testimony of Mr. Kuipers, Ms. Travers and Mr. Olson through the testimony of Mr. Scott. *See* Scott Rebuttal at 2-8.

~~764-765.~~ The Commission finds that none of the parties who proposed the alternative version of 20.6.7.22.A presented technical evidence, including engineering evidence, in support of the specific liner requirements they advocated. With the exception of Mr. Kuipers, none of their witnesses were engineers or appeared to be experienced in designing liners.

Mr. Kuipers did not present technical evidence in support of the liner design for large tailings impoundments. {ekek}

~~765-766.~~ The Commission finds that allowing the construction of unlined tailing impoundments is consistent with past permitting practices of NMED the Department. The evidence presented at the hearing indicated that none of the tailings impoundments at the Tyrone and Chino Mines were lined. The Commission further finds that the engineering

requirements in 20.6.7.22.A are at least as stringent, if not more stringent, than the measures required by the Department through past permit conditions. As an example, during the testimony of Mr. Olson, Freeport presented as an exhibit ~~[eite]~~ a copy of the discharge permit issued for Tailings Pond 7, Discharge Permit DP-484. This discharge permit was issued in 1987 for the tailings impoundment when it was new. The permit was issued under the existing discharge permit regulations and the Water Quality Act. It authorized operation of the new unlined tailings impoundment and relied upon interceptor wells to contain drainage and seepage from the tailings impoundment. Correspondence also introduced as exhibits provided information on the expected rate of drainage or seepage to ground water that would have to be collected and contained by the interceptor well system. See TRV 9 at 2276-2303.~~[eite]~~

~~766-767.~~ The Commission finds that the testimony presented by the Attorney General, GRIP, TRP, Amigos Bravos and Mr. Olson does not show that lining tailings impoundments used for copper mines is typical, practical or consistent with good engineering practices or industry practices.

~~767.~~ The Commission finds that, based on the testimony of Mr. Brown, a site-specific determination regarding locations that are "places of withdrawal of water for present or reasonably foreseeable use," as might be made during a variance proceeding, is not necessary or required for the Rule. ~~The Commission went through such an exercise in the Tyrone case, and that exercise took a tremendous amount of time and resources, yet the parties to the Tyrone case ultimately reached a settlement that did not follow the Commission's directives to use the determinations made regarding locations that were "places of withdrawal" in order to conduct further technical evaluations of the performance of the closure plan at issue in that~~

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ease. Moreover, Mr. Olson testified that, in his opinion, it would largely be futile to seek a determination that particularly locations at a mine are not "places of withdrawal," because in his opinion it would be very rare to reach a determination that any particular location overlying ground water with a total dissolved solids concentration less than 10,000 parts per million is not a "place of withdrawal." Based on the Tyrone case, the Commission believes that a determination regarding a "place of withdrawal" should rarely be needed and should be discouraged as a means of permitting facilities under the Water Quality Act. Nevertheless, the Rule requires the Department to comply with the Water Quality Act's mandate that a permit cannot be issued if it would result in an exceedance of applicable standards at a "place of withdrawal." The Department will have to make findings to that effect when it issues a permit, as it has in issuing permits under the existing discharge permit rules, and parties who believe that the statutory mandate has been violated with regard to any permit issued under the Rule will have an opportunity to contest and appeal that finding requirements contained in their proposed rule language.

768. The Commission finds that it is reasonable to expect that a new unlined tailings impoundment can be designed and operated with an effective interceptor system.

769. NMED makes changes to 20.6.7.22.A(4) in the Amended Rule. See Amended Petition, Attachment 2 at 22-23. ~~NEED A SUMMARY OF CHANGES AND EVIDENCE FROM BROWN SUPPORTING THE CHANGES. SEE BROWN REBUTTAL AT 11.~~

770. The Commission finds that the Parties presented rebuttal testimony on 20.6.7.22.A(4) and extensively discussed this topic during the hearing. ~~NEED SUMMARY OF KEY REBUTTAL POINTS.~~

771. The Commission finds that the state-of-the-practice for large conventional copper mine tailings impounds is they are unlined to enhance stability and safety. See Scott Rebuttal at 6.

772. In the Proposed Final Rule, NMED makes several changes to 20.6.7.22.A(4) to clarify subparagraph (c) regarding the requirements for interceptor system design, to subparagraph (d)(vii) and (viii) to emphasize the importance and requirements for the aquifer evaluation, to clarify the timing of a final construction report in subparagraph (d)(ix), and to clarify that if the applicant's technical demonstration is insufficient, NMED shall require additional controls. The latter change is in response to some of the comments made by the various parties.

773. Relving primarily on the testimony of Mr. Brown, Mr. Scott and Mr. Blandford, and based on the weight of the evidence, the Commission hereby adopts 20.6.7.22.A(4) as set forth by NMED in the Proposed Final Rule. See Petition, Attachment 1 at 22.

774. With respect to 20.6.7.22.A(5) in the Petitioned Rule, NMED sets forth the engineering design requirements for new dry stack tailings piles. See Petition, Attachment 1 at 22.

775. NMED makes no changes to 20.6.7.22.A(5) in the Amended Rule. See Amended Petition, Attachment 2 at 23.

776. NMED provides evidence that tailings may also be handled "dry", whereby the excess water is removed at the mill and the resulting moist tailings (at either paste or solid constituency) are transported by truck to the tailings facility and deposited. See Brown Direct at 25.

777. The Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson object to 20.6.7.22.A(5) and propose alternative rule language. The Attorney General eliminates the provision, while GRIP, TRP, Amigos Bravos, and Mr. Olson request that the language

dealing with open pit surface drainage area be removed. See NMAG Exhibit 2 at 24; Kuipers, Attachment 2 at 25; AB Exhibit 1 at 34; and WCO Exhibit 3 at 33. GRIP and TRP provide evidence for their rule changes through testimony from James Kuipers. See Kuipers Direct at 8.

~~778.~~—The Commission finds that the Copper Mine Rule needs to set forth engineering design requirements for new dry stack tailings piles and declines to adopt the proposal by the Attorney General.

~~779.~~—~~The Commission finds that provision dealing with open pit surface draining areas relative to dry stack tailings is necessary because _____.~~

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~~780.~~ The Commission finds that _____.

~~781-778.~~ Based on the weight of the evidence, the Commission hereby adopts 20.6.7.22.A(5) as set forth by NMED in the ~~Petitioned Rule, Amended Rule, and Proposed~~ Final Rule.

Subsection B—Construction

~~782-779.~~ NMED proposes 20.6.7.22.B in the Petitioned Rule which proposes construction requirements for new and existing crushing, milling, concentrating, smelting, and tailings impoundment facilities. See Petition, Attachment 1 at 22.

~~783-780.~~ Freeport supports 20.6.7.22.B in the Petitioned Rule and presents evidence in support of the rule provisions through the testimony of James Scott. See Scott Direct at 13-16.

~~784-781.~~ NMED did not make changes to 20.6.7.22.B(1) in the Amended Rule. See Amended Petition, Attachment 2 at 23.

~~785-782.~~ The Commission finds that 20.6.7.22.B(1) is undisputed because the Parties did not propose alternative rule language.

~~786-783.~~ The Attorney General objects to 20.6.7.22.B(2) and proposes alternative rule language that basically requires existing crushing, milling, concentrating, smelting, and tailings impoundment facilities to getobtain a variance. See NMAG Exhibit 2 at 24. The Attorney General provides no specific evidence why this alternative rule language should be adopted.

~~787-784.~~ GRIP and TRP object to 20.6.7.22.B(2) as set forth in the Petitioned Rule and propose alternative rule language that basically requires existing crushing, milling, concentrating, smelting, and tailings impoundment facilities to get a variance. See Kuipers, Attachment 2 at 25-26. They present technical testimony from James Kuipers to support the rule changes. See Kuipers Direct at 8-9.

~~788-785.~~ Amigos Bravos objects to 20.6.7.22.B(2) as set forth the Petitioned Rule and proposes alternative rule language that basically requires existing crushing, milling, concentrating, smelting, and tailings impoundment facilities to getobtain a variance; however, Amigos Bravos provide no technical evidence to support the changes other than to rely on the August 17 Discussion Draft. AB Exhibit 1 at 34-35.

~~789-786.~~ Mr. Olson objects to 20.6.7.22.B(2) as set forth in the Petitioned Rule and proposes alternative rule language with his technical testimony in support of the changes. Similar to the other parties objecting to this rule provision, Mr. Olson's proposal basically requires existing crushing, milling, concentrating, smelting, and tailings impoundment facilities to getobtain a variance. See WCO Exhibit 3 at 33.

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~~790-787.~~ ____ NMED makes changes to 20.6.7.22.B(2) in the Amended Rule, but the changes do not get to the underlying issue of whether such facilities need to ~~get~~obtain a variance. See Amended Petition, Attachment 2 at 23.

~~791-788.~~ ____ Mr. Olson presents alternative rule language again during the course of the hearing as sur-rebuttal. See WCO Sur-Rebuttal Exhibit 2.

~~792. NEED A SERIES OF "THE COMMISSION FINDS" SUPPORTING OUR CASE WITH RESEPCT TO CONTRUCTION REQUIREMENTS FOR EXISTING CRUSHING, MILLING, CONCENTRATING, SMELTING, AND TAILINGS IMPOUNDS.~~

~~789.~~ NMED makes changes to 20.6.7.22.B(2) in the Proposed Final Rule for purposes of clarity and consistency.

~~793-790.~~ ____ Based on the weight of the evidence and for the reasons set forth herein dealing with variances, the Commission hereby adopts 20.6.7.22.B, B(1), and B(2) in its entirety as set forth by NMED in the Amended Rule and Final Proposed Final Rule.

Subsection C—Operational Requirements

~~794-791.~~ ____ NMED proposes 20.6.7.22.C in the Petitioned Rule which sets forth operational requirements for tailings impoundments and smelting, crushing, milling, and concentrating facilities. See Petition, Attachment 1 at 22-23.

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~~795-792.~~ ____ Freeport presents evidence in support of 20.6.7.22.C in the Petitioned Rule through the testimony of James Scott. See Scott Direct at 16-18.

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~~796-793.~~ ____ Amigos Bravos objects to 20.6.7.22.C(1) and (2) in the Petitioned Rule and proposes alternative rule language based solely on the August 17 Discussion Draft. See AB Exhibit 1 at 35-36.

~~797-794.~~ GRIP and TRP object to 20.6.7.22.C(2) in the Petitioned Rule and propose alternative rule language. *See* Kuipers Direct at 26. They provide no specific technical evidence for the changes.

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~~798-795.~~ NMED makes changes to 20.6.7.22.C(1) in the Amended Rule. *See* Amended Petition, Attachment 2 at 23. Adrian Brown provides technical evidence in support of the changes. See Brown Rebuttal at 11.

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~~The Commission finds that Amigos Bravos reliance on the August 17 Discussion Draft, without more, is insufficient to justify changing the rule.~~

~~799-796.~~ The Commission finds that NMED made changes to 20.6.7.22.C in the Proposed Final Rule for purposes of clarity and consistency.

~~800.~~ The Commission finds that the objection by GRIP and TRP to 20.6.7.22.C(2) in the Petitioned Rule is _____.

~~801.~~ The Commission finds that NMED's changes to 20.6.7.22.C(1) in the Amended Rule are warranted because _____.

~~802-797.~~ Based on the weight of the evidence, the Commission hereby adopts 20.6.7.22.C in its entirety as set forth in the Amended Rule and Proposed Final Rule.

20.6.7.23 – Requirements for New Pipelines and Tanks:

~~803-798.~~ NMED proposes 20.6.7.23 in the Petitioned Rule which sets forth engineering design requirements, construction requirements, and operational requirements for new pipelines and tanks. *See* Petition, Attachment 1 at 23.

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~~804-799.~~ Freeport presents technical evidence in support of 20.6.7.23 as set forth in the Petitioned Rule through testimony of Tim Eastep. With the exception of 20.6.7.23.A(1)(c) in the Petitioned Rule, Mr. Eastep supported the provisions of 20.6.7.23. Pipe and tank breaks

are disruptive so it is in the best interest of the operator to maintain functional integrity. The provisions allow for alternative designs if operator can demonstrate that the alternative design will provide equal or greater containment, which allows for site-specific flexibility. Pipelines outside the open pit have integrity monitoring and secondary containment systems. The proposed rule allows for reduced monitoring or no secondary containment systems if the pipelines are located inside the open pit surface drainage area and inside areas authorized for discharge of processed water, which is allowed because the open pit acts as a secondary containment system for all solutions. ~~NMED's current practice doesn't not generally require engineering design requirements for pipelines, but they do review some engineering designs.~~ *See Eastep Direct at 39-43.*

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Subsection A—Engineering Design Requirements

~~805-800.~~ 20.6.7.23.A in the Petitioned Rule provides for engineering design requirements for new pipelines and tanks. *See Petition, Attachment 1 at 23.*

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~~806-801.~~ The Attorney General and GRIP propose similar amendments to 20.6.7.23.A as set forth in the Petition Rule, whereby the proposed new language makes reference to the standards of 20.6.2.3.3013 NMAC. See NMAG Exhibit 2 at 25; Kuipers, Attachment 2 at 26-27. Neither the Attorney General nor GRIP provide specific technical reasons as to why the changes to 20.6.7.23.A are needed. *See, e.g., Kuipers Rebuttal at 9.*

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~~807-802.~~ The Commission finds that the reference to compliance with standards as suggested by the Attorney General is unnecessary for the 20.6.7.23.A.

~~808-803.~~ GRIP, Amigos Bravos, and Mr. Olson propose the same amendments to 20.6.7.23.A(1)(b) as set forth in the Petitioned Rule, whereby the phrase “located outside of the open pit surface drainage area” is deleted. *See Kuipers, Attachment 2 at 27; AB Exhibit*

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I at 36; and WCO Exhibit 3 at 35-36. GRIP and Amigos Bravos do not provide specific technical reasons as to why the changes to 20.6.7.23.A are needed. *See, e.g., Kuipers Rebuttal at 9.* Mr. Olson argues that the amendment to 20.6.7.23.A(1)(b) is necessary because ~~routine~~routine inspection and maintenance of pipelines that contain water contaminants should be standard operating practice at any facility regardless of where it is located to minimize discharges. *See WCO Exhibit 3 at 36.*

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~~809-804.~~ GRIP and Amigos Bravos propose the same amendment to 20.6.7.23.A(1)(c) as set forth in the Petitioned Rule, whereby the phrase "located outside of the open pit surface drainage area" is deleted. *See Kuipers, Attachment 2 at 27; AB Exhibit 1 at 36.* GRIP and Amigos Bravos do not provide specific technical reasons as to why the changes to 20.6.7.23.A are needed. *See, e.g., Kuipers Rebuttal at 9.*

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~~810-805.~~ The Commission finds that the pipelines and tanks outside the open pit are required to have integrity monitoring and secondary containment systems, while the open pit surface drainage area acts as a secondary containment system for pipelines and tanks within this areas. Therefore, the alternative rule language proposals to 20.6.7.23.A(1)(b) and (c) are without merit.

~~814-806.~~ Freeport objects to 20.6.7.23.A(1)(c) as set forth in the Petitioned Rule and proposes alternative language. Mr. Eastep provides technical evidence as to why such language is necessary. See Eastep Direct at 43.

~~812-807.~~ Freeport's technical witness, Tim Eastep, provides testimony to support 20.6.7.23.A(2) which mandates that requirements for new tanks must be compatible with tank contents. These requirements represent standard practices and are similar to SPCC

1113. NMED ~~makes~~made changes to 20.6.7.30.J in the Amended Rule by proposing to delete the second to the last sentence: "The schedule shall propose completion within one year from the submittal date of the initial corrective action plan." *See* Amended Petition, Attachment 2 at 36. This amendment partially addresses Freeport's objection to the Petitioned Rule.

1114. The Commission finds that the Attorney General, GRIP, TRP, and Mr. Olson do not object to 20.6.7.30.J, because they do not propose alternative rule language. *See* AG ~~NMAGAG~~ Exhibit 2 at 35; AB Exhibit 1 at 51-52; Kuipers Attachment 2 at 38; WCO Exhibit 3 at 47-49.

1115. NMED ~~makes~~made no changes to 20.6.7.30.J in the Proposed Final Rule, except to renumber it as 20.6.7.30.I.

1116. Based on the weight of the evidence, the Commission hereby 20.6.7.30.J, renumbered as 20.6.7.30.I, as set forth in the Proposed Final Rule.

Subsection K

1117. NMED ~~proposes~~proposed 20.6.7.30.K in the Petitioned Rule which ~~deals with~~sets forth contingency requirements for water management and water treatment system failures. *See* Petition, Attachment 1 at 34.

1118. NMED ~~supports~~supported 20.6.7.30.K through evidence and testimony ~~from~~of ~~Adrian~~Mr. Brown. *See* Brown Direct at 9-10.

1119. Freeport ~~objects~~objected to 20.6.7.30.K in the Petitioned Rule and ~~proposes~~proposed alternative language. *See* Freeport NOI at 5-6.

1120. Freeport ~~presents~~presented evidence through Thomas Shelley to support its alternative language. *See* Shelley Direct at 48-49.

1121. NMED ~~makes~~made changes to 20.6.7.30.K in the Amended Rule by deleting the following sentence: "The schedule shall propose completion within one year from the submittal date of the initial corrective action plan." *See* Amended Petition, Attachment 2 at 37. This amendment partially addresses Freeport's objection to the Petitioned Rule.

1122. The Commission finds that the Attorney General, GRIP, TRP, and Mr. Olson do not object to 20.6.7.30.K, because they do not propose alternative rule language. *See* AG ~~NMAGAG~~ Exhibit 2 at 35-36; AB Exhibit 1 at 52; Kuipers Attachment 2 at 38; WCO Exhibit 3 at 47.

1123. NMED ~~makes~~made no changes to 20.6.7.30.K in the Proposed Final Rule, except to renumber it as 20.6.7.30.J.

1124. Based on the weight of the evidence, the Commission hereby adopts Freeport's proposed changes to 20.6.7.30.K, renumbered as 20.6.7.30.J, as set forth in the Proposed Final Rule.

Subsection L

1125. NMED ~~proposes~~proposed 20.6.7.30.L in the Petitioned Rule which ~~deals~~ with addresses contingency requirements for interim emergency water management. *See* Petition, Attachment 1 at 33.

1126. NMED ~~makes~~made no changes to 20.6.7.30.L in the Amended Rule. *See* Amended Petition, Attachment 2 at 37.

1127. NMED ~~supports~~supported 20.6.7.30.L through evidence and testimony ~~from~~ of ~~Adrian~~ Mr. Brown. *See* Brown Direct at 9-10.

1128. The Commission finds that 20.6.7.30.L is undisputed because Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson do not propose alternative rule

language. See Freeport NOI; ~~AG-NMAGAG~~ Exhibit 2 at 36; AB Exhibit 1 at 52; Kuipers Attachment 2 at 38; WCO Exhibit 3 at 47.

1129. NMED ~~makes~~made no changes to 20.6.7.30.L in the Proposed Final Rule, except to renumber it as 20.6.7.30.K.

1130. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.30.L, renumbered as 20.6.7.30.K, as set forth by NMED in the Proposed Final Rule.

20.6.7.31 – Reserved [Alternatively Proposed as “Variance Petitions”]:

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1131. NMED proposed to reserve 20.6.7.31 for future rulemaking changes. See Petition, Attachment 1 at 34; ~~and~~ Amended Petition, Attachment 2 at 37.

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~~1132.~~ Mr. Olson objected~~s~~ to reserving 20.6.7.31 and, instead, proposed~~s~~ an entire new subsection dealing with variance petitions. See WCO Exhibit 3 at 47-50. ~~The issue of the extent to which the Water Quality Act requires a variance to address potential exceedances of the standards of 20.6.2.3103 within copper mine units is one of the key issues, if not the key issue, in this rulemaking. Consequently, this issue is addressed in detail here.~~

~~1133.~~ 1132. In summary, Mr. Olson maintained~~s~~ that ~~the~~ new subsection dealing with variance petitions is needed because the approach taken by the ~~Copper Mine~~ Petitioned Rule: (1) violates the ~~WQA~~ Water Quality Act; (2) is inconsistent with the history of ~~the~~ Commission's ground water protection rules; (3) is inconsistent with other existing Commission rules; (4) is inconsistent with the Commission's Decision and Order on Remand in the Tyrone Mine Hearings; (5) is inconsistent with the Tyrone Agreement approved by the Commission; and (5) does not give consideration to site-specific engineering or technological controls that could prevent water pollution. See WCO Exhibit 3 at 49-50.

~~1134-1133.~~ The Attorney General proposed the same new subsection dealing with variance petitions. See ~~NMAGAG-NMAGAG~~ Exhibit 2 at 36-38.

~~1135.~~ GRIP/ TRP, and Amigos Bravos, while not proposing section 31 as a variance section, contend that the ~~Copper Mine~~ Petitioned Rule is flawed because it would not require variances for certain types of facilities and allegedly would allow the standards of 20.6.2.3103 to be exceeded without requiring a variance on a site-specific basis. ~~This position is addressed in this discussion.~~

~~1136-1134.~~ Mr. Olson argued~~s~~ that many regulations within the ~~Environment~~ Department include variance provisions. One rule in 20.6.2.4103 ~~NMAC~~ allows a method for seeking alternative abatement standards that can exceed the Commission's numeric standards under 20.6.2.3103 ~~NMAC~~ under certain circumstances. ~~In order to obtain alternative abatement standards, the discharger must be in the process of abatement, then petition the Commission, and the petition may be granted only after a public hearing.~~ In a second rule, there is a mechanism for considering site-specific variances to Commission rules in 20.6.2.1210 ~~NMAC~~ that contains provisions for individual variances in accordance with Section 74-6-4.H NMSA 1978 of the ~~WQA~~ Water Quality Act. In these cases, the Commission may only grant variances after a public hearing and the variance terms are limited to five-year period. In addition, in a third ~~ease~~ rule, the recently approved Dairy Rule, in 20.6.6.18 ~~NMAC~~, the Commission adopted a new variance rule for dairy facilities that allows for alternate discharge designs consistent with the ~~WQA~~ Water Quality Act. This variance rule offers some expanded criteria for consideration, allows variances to be granted for the useful life of the feature and provides for 5-year review of the effectiveness of the variance. Mr. Olson claimed~~s~~ that these provisions are consistent with the ~~WQA~~ Water Quality Act. See WCO Direct at 10-11.

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~~1137.1135.~~ Mr. Olsen further testified that a variance process is necessary to ensure continued public input and encourage transparency. ~~The variance process would allow~~ engineering and technical input on a site-specific basis, while allowing for economic considerations. Mr. Olson further alleged that this process will increase ground water protection, but provides no concrete evidence in support of this contention. See WCO Exhibit 3 at 47-50.

~~1138.1136.~~ On behalf of the Attorney General, Ms. Travers asserted that the current regulatory framework for ground water protection in New Mexico requires a variance for degradation of ground water quality above standards during mine operations and that variances require a showing of an "unreasonable burden," are based upon site-specific information, and are routinely granted. Ms. Travers ~~did not identify~~ is any no particularly variance proceeding in support of this contention ~~or indicate~~ and testifies that she did not reviewed the record of any variance proceeding. See Travers Direct at 3.

~~1139.1137.~~ On behalf of GRIP and TRP, Mr. Kuipers testified that pollution of ~~groundwater~~ ground water above standards at some sites may be unavoidable, but the decision to do it and conditions necessary to limit and control it should be made on a site-specific basis and not through ~~Copper Mine~~ the Petitioned Rule. See Kuipers Direct at 3.

~~1140.1138.~~ Ms. Travers testified that allowing ground water to become degraded beneath and downgradient of facilities without consideration of site-specific factors that may make it difficult to intercept and detect contamination migrating off site is not best practice, and allowing widespread contamination is not best practice. Mr. Travers further testified that the ~~Copper Mine~~ Petitioned Rule does not require that site-specific conditions be considered as

would be required in determination of a variance under the existing rules, and site-specific review would provide for additional ground water protections. *See* Travers Direct at 15-16.

~~H41-1139.~~ NMED rebuts the testimony of Mr. Kuipers, Ms. Travers, and Mr. Olson through the rebuttal testimony of ~~Mr. Adrian~~ Mr. Brown. Mr. Brown testifies that requiring a variance versus approving proven technologies by rule is a distinction without a difference, and that the ~~proposed-Petitioned #R~~Rule recognizes the limits of existing technology, particularly with respect to waste rock stockpiles and tailings impoundments. *See* Brown Rebuttal at 6-7.

~~H42-1140.~~ On behalf of Freeport, Timothy Eastep rebutted Ms. Travers and Messrs. Kuipers and Olson stating that although exceedances of ground water quality standards have been measured at monitoring well locations associated with most of ~~these~~Freeport's discharge permits, the Department has never required a variance to renew any of the discharge permits for existing facilities. Over the thirty plus years of discharge permit history for these have been issued for Freeport's copper mines, he wasMr. Eastep is aware of only two very recent variance petitions, both of which were for unlined leach stockpiles located within open pit areas. ~~The first of these variance petitions was filed in 2007 and the second in 2011. Both of these variance petitions required several months of negotiations with NMED to substantiate the technical basis for variances and design requirements acceptable to NMED. Based on Mr. Eastep's experience, and the very limited history of variance petitions for copper mines, the evidence clearly shows that the Commission does not "routinely" grant variance petitions. The "unreasonable burden" standard that must be met to convince the Commission to grant a variance is vague and subjective and would create another layer of bureaucracy.~~*See* Eastep Rebuttal at 6.

~~H43-1141.~~ On behalf of Freeport, ~~Mr. Neil~~Mr. Mr. Blandford testified that while GRIP and TRP seem to be favoring the variance approach, yet the variance approach is based on

a subjective standard of "unreasonable burden," not necessarily any detailed site-specific evaluation. From the ~~standpoint as~~ perspective of a technical professional involved in mine permitting, it is ~~much more~~ preferable to have a specific set of requirements for permitting, and Mr. Blandford believed ~~s~~ that the approach in the ~~Copper Mine~~ Petitioned Rule ~~will~~ would result in improved technical evaluations and permit applications that will significantly improve pollution prevention at future copper mines. *See* Blandford Rebuttal at 33.

~~1144, 1142.~~ On behalf of Freeport, Mr. Brack testified ~~s~~ that rules that rely on the extensive use of variances ~~is~~ are not an effective way to provide certainty and foster long-term investment by mining companies. *See* Brack Direct at 19-20; *see also* Easteo Rebuttal at 10.

~~1145.~~ On behalf of Freeport, Mr. Eastep further testified ~~s~~ that the variance approach ~~would not allow for any level of industry certainty and would discourage~~ future investment. These investment exploration costs can reach hundreds of millions of dollars, the expenditure of which is not warranted without some level of certainty. *See* Eastep Rebuttal at p. 10.

~~1146, 1143.~~ Mr. Eastep further testified ~~s~~ that, ~~despite assertions to the contrary,~~ the proposed variance approach has not been required as a standard operating procedure in the past and ~~would defeat the purpose for promulgating a copper rule~~ the Petitioned Rule ~~provides~~ additional testimony regarding the variance approach in his rebuttal testimony in response to the testimony of Ms. Travers and Mr. Olson. *See* Eastep Rebuttal at 6-11-12 and 18-21.

~~1147.~~ Mr. Eastep testified ~~s~~ that the proposed variance approach would also hamstring NMED and require a never-ending string of variance hearings. ~~The agency costs would be prohibitive, and the staff time required to implement the procedures are untenable.~~ *See* Eastep Rebuttal at 11-12.

~~1148. Mr. Eastep testified that NMED has required only two variances in the past — one in 2007 and the second in 2011, and both took many months to negotiate and process. Exceedances have been shown in some permits, and but NMED has never required a variance to renew a discharge permit. The approach proposed by Ms. Travers would discourage exploration for minerals and the development of future copper mines in New Mexico. Moreover, while Ms. Travers' proposed approach likely would require variances for virtually all new and existing copper mines, Mr. Eastep testified that this approach has not been the practice under the existing regulatory program, under which variances have rarely been required, even for permitting of unlined copper mine facilities. Indeed, requiring variances in virtually all circumstances would defeat the purpose of adopting rules with very detailed and specific requirements, as the variance process would eliminate the relative certainty provided by those rules, and, nNumerous variance proceedings also would drain NMED resources as it negotiating variance conditions and preparing for and participating in hearings. Moreover, while Mr. Eastep disagreed with Ms. Travers' testimony that variances are routinely granted by the Commission, Mr. Eastep argued that if Ms. Travers is correct, then the variance approach she proposes proposed would merely add new process burdens while not affecting the ground water protection requirements that would be imposed under the Copper Mine Petitioned Rule without the need for variances. Furthermore, nothing in Ms. Travers' testimony indicates that she investigated industry practices or considered the feasibility of requiring liner systems for waste rock stockpiles and tailings impoundments or requiring compliance with ground water quality standards inside an open pit in recommending changes. See Eastep Rebuttal at 6.~~

~~1149.1144. On behalf of Freeport, James Scott testified that certain technical issues are better made addressed through the Copper Mine Petitioned Rule than on an ad hoc basis.~~

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through a variance procedure subject to personal preferences. The conditions necessary to limit and control seepage contamination are well understood and established based on modern industry practices. *See* Scott Rebuttal at 4.

~~1150-1145.~~ Mr. Scott disagrees with Ms. Travers' assertion that the ~~proposed~~Petitioned ~~Rule~~ does not require consideration of site-specific conditions. The ~~Copper Mine~~Petitioned Rule requires consideration of site-specific conditions by an engineer designing the facility, ~~in~~ evaluating and selecting monitoring well locations, and ~~in~~ designing seepage collection and interceptor well systems as required. *See* Scott Rebuttal at 4.

~~1151-1146.~~ Mr. Blandford also ~~refuted~~refuted Mr. Travers' testimony regarding site specific conditions (~~Travers' Direct at 15-16~~) and ~~stated~~testifies that the ~~Copper Mine~~Petitioned Rule requires consideration of site-specific conditions by an engineer designing the facility, ~~in the~~ determination of appropriate monitoring well locations, and ~~in the~~ design of seepage collection and interceptor well systems. *See* Blandford Rebuttal at 20.

~~1152.~~ Mr. Eastep ~~refuted~~refuted Ms. Travers' ~~testimony~~ that the current regulatory framework for ground water protection in New Mexico requires a variance for degradation of ground water quality above standards during mine operations and that variances require a showing of an "unreasonable burden," are based upon site specific information, and are routinely granted. Ms. Travers ~~did~~does not identify any particularly variance proceeding or indicate that she reviewed the record of any variance proceeding. Mr. Eastep was familiar with the discharge permits issued by the Department for Freeport's New Mexico copper mines. Although exceedances of ground water quality standards have been measured at monitoring well locations associated with most of these discharge permits, the Department has never required a variance to renew any of the discharge permits for existing facilities. Over the thirty plus years of discharge