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STATE OF NEW MEXICO
WATER QUALITY CONTROL COMMISSION

IN THE MATTER OF PROPOSED AMENDMENTS
TO 20.6.2 NMAC, THE COPPER MINE RULE
No. WQCC 12-01 (R)

New Mexico Environment Department,
Petitioner.

NEW MEXICO ENVIRONMENT DEPARTMENT'S
PROPOSED STATEMENT OF REASONS

THIS MATTER comes before the Water Quality Control Commission (hereinafter, "Commission") pursuant to the Petition to Adopt 20.6.7 and 20.6.8 NMAC and Request for Hearing (hereinafter, "Petition") filed by the New Mexico Environment Department (hereinafter, "NMED" or "Department") on October 30, 2012. On February 18, 2013, NMED filed a Notice of Amended Petition (hereinafter, "Amended Petition") which: (1) withdrew proposed 20.6.8 NMAC in its entirety, and (2) revised certain portions of proposed 20.6.7 NMAC. As a result of NMED's withdrawal of proposed 20.6.8 NMAC, the Commission took no evidence on that portion of the Petition and does not adopt it.

NMED attached proposed rule provisions to both the Petition and Amended Petition. The Commission held a hearing on this matter over the course of ten days between April 9, 2013, and April 30, 2013. The Commission allowed all interested persons a reasonable opportunity to submit data, views, and arguments and to examine witnesses. Thus, the record containing pleadings, written testimony,

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exhibits, the hearing transcript, public comments, and hearing officer orders has been submitted to the Commission for review in compiling this Statement of Reasons.

Based upon the evidence and argument in the record, the following Statement of Reasons sets forth how the Commission considered and weighed the evidence presented and considered legal arguments in this matter with respect to adoption of the Copper Mine Rule.

BACKGROUND

1. The Commission is required by the Water Quality Act (hereinafter, "WQA") to "...adopt, promulgate and publish regulations to prevent or abate water pollution in the state or in any specific geographic area, aquifer or watershed of the state or in any part thereof, or for any class of waters..." Section 74-6-4(E) NMSA 1978.
2. The Commission has adopted mandate to prevent or abate water pollution has existed since 1976 and was initially satisfied in 1977 by the Commission when it adopted the Ground Water Discharge Regulations, now contained in sections 20.6.2.1 through 20.6.2.3114 NMAC. *See* Freeport-McMoRan's Consolidated Response to the Joint Motion to Dismiss Petition for Rulemaking and the Attorney General's Motion to Remand the Proposed Rule to NMED (hereinafter, "Freeport Consolidated Response"), filed ____, 2013, at 11.
3. The Commission has adopted amendments to the Ground Water Discharge Permit Regulations from time to time since they originally were adopted in 1977, including amendments to conform to amendments to the Water Quality Act. The Commission

Comment [DLM1]: May just want to cite to current regulations, Title 20, Chapter 6.

297. The Commission further finds that Freeport's evidence supporting 60 days is persuasive. [Alternatively, find that NMED presented enough through Eastep cross or elsewhere to get 90].

298. Based on the weight of the evidence, the Commission adopts 20.6.7.10.F as set forth in the Petitioned Rule. [Alternatively, adopt Amended Rule and Proposed Final Rule]

Subsection G

299. NMED proposes 20.6.7.10.G in the Petitioned Rule which sets forth requirements for dealing with a technically deficient application. *See* Petition, Attachment 1 at 5-6.

300. NMED makes no changes to 20.6.7.10.G, G(1), and G(2) in the Amended Rule; however, NMED does make changes to 20.6.7.10.G(3) in the Amended Rule. *See* Amended Petition, Attachment 2 at 5-6.

301. Freeport presents sed evidence to support 20.6.7.10.G through Mr. Eastep. *See* Eastep Direct at 20-25. No party presented evidence in rebuttal testimony or in the hearing objecting to NMED's change to 20.6.7.10.G(3).

302. The Commission finds that the Parties do not dispute 20.6.7.10.G, G(1), and G(2) in the Petitioned Rule and Amended Rule.

303. The Commission finds that the Parties do not dispute 20.6.7.10.G(3) as changed in the Amended Rule.

304. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.10.G, G(1), and G(2) as set forth in the Petitioned Rule, Amended Rule, and Proposed Final Rule.

Comment [DLM2]: This needs to go in Freeport's statement, and the Department should rewrite its own version for this subsection. Alternatively, Freeport would need to drop its comment.

312. The Commission finds that the extension of time as proposed by NMED is inconsistent with the goal of streamlining the permit process. [Alternatively, go to transcript of Eastep and NMED's cross-examination on this issue, and see if Brown or Skibitski addressed it in transcript].

313. Based on the weight of the evidence, the Commission hereby adopt 20.6.7.10.H as set forth in the Petitioned Rule. [Alternatively, find that NMED presented enough through Eastep cross to get 90 and modify the preceding language to adopt Amended Rule and Proposed Final Rule].

Subsection I

314. NMED proposes 20.6.7.10.I in the Petitioned Rule which contains certain requirements for imposing additional conditions on a discharge permit. *See* Petition, Attachment 1 at 6.

315. NMED made no changes to 20.6.7.10.I in the Amended Rule. *See* Amended Petition, Attachment 2 at 6.

316. Freeport supports 20.6.7.10.I as set forth in the Petitioned Rule and Amended Rule and offers evidence for this position. *See* Eastep Direct at 24-25.

317. Mr. Olson contests 20.6.7.10.I in the Petitioned Rule and proposes to add the following sentence to the end of the provision: "Permit conditions contained in an existing discharge permit may be included in a discharge permit issued under the copper mine rule, and such conditions shall not be considered to be 'additional conditions'." *See* WCO Exhibit 3 at 7-8.

Comment [DLM3]: Same as above. Either this goes in a Freeport statement and the Department drafts its own, or Freeport would have to drop its comment.

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)(c)(v) proposed by NMED in the Amended Rule and adopts the language of 20.6.7.20.A(1)(c)(v) as set forth in the Petitioned Rule by NMED.

627. 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. 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. Freeport 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. Mr. Olson objects 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 which are largely based on his legal interpretation of the Water Quality Act. *See* WCO Exhibit 3 at 21-22.

Comment [DLMS]: Based on the evidence, there is no real support for NMED's change. NMED keeps its language in the Proposed Final Rule, however. We need a decision whether to oppose NMED or not.

~~1184.1178.~~ In the Proposed Final Rule, NMED makes changes to 20.6.7.33.A, .E, .F, .G. and .H to change the terminology regarding facilities and units and to correct typographical errors.

~~1185.1179.~~ Based on the weight of the evidence, the Commission hereby adopts 20.6.7.33.A, E, G, H, K, L, and M as set forth in the Proposed Final Rule.

Subsection B

~~1186.1180.~~ NMED proposed 20.6.7.33.B in the Petitioned Rule which deals with closure requirements for slope stability. *See* Petition, Attachment I at 34.

~~1187.1181.~~ Freeport proposed changes to 20.6.7.33.B in the Petitioned Rule and presented two different approaches to remedy the problems with 20.6.7.33.B through testimony from Thomas Shelley and James Scott. *See* Freeport NOI at 6; Shelley Direct at 15-17; and Scott Direct at 19 and 24.

~~1188.1182.~~ Shelley's testimony states that if the section is retained the proposed rule slope requirements meet or exceed general engineering practice standards and in some instances are really overly conservative. *See* Shelley Direct at 15-17.

~~1189.1183.~~ According to Mr. Scott, this subsection requires tailing impoundments be constructed to ensure stability and safe performance, and the rule takes into consideration embankment strength, pore pressure/ phreatic considerations, slope materials etc. This rule works in conjunction with NMOSE who has jurisdiction over dams, the NMOSE criteria includes liquefaction evaluations, however due to granular composition in the western US this is not really a factor. *See* Scott Direct at 19.

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~~1190,1184.~~ NMED refuted the proposed changes by Freeport to 20.6.7.33.B through Adrian Brown's testimony. *See* Brown Rebuttal at 7-10.

~~1191,1185.~~ NMED made no changes to 20.6.7.33.B in the Amended Rule other than a typographical error. *See* Amended Petition, Attachment 2 at 37.

~~1192,1186.~~ In the Proposed Final Rule NMED makes no substantive changes but changes the terminology regarding "copper mine facility" and units.

~~1193,1187.~~ Based on the weight of the evidence, the Commission adopts 20.6.7.33.B as set forth in the Proposed Final Rule.

Subsection C

~~1194,1188.~~ NMED proposed 20.6.7.33.C in the Petitioned Rule which deals with closure requirements for surface re-grading. *See* Petition, Attachment 1 at 34-35.

~~1195,1189.~~ NMED made no changes to 20.6.7.33.C in the Amended Rule. *See* Amended Petition, Attachment 2 at 37-38.

~~1196,1190.~~ NMED presented evidence to support 20.6.7.33 through Adrian Brown, wherein he discussed the effectiveness of post-operational groundwater protection. *See* Brown Direct at 32-44.

~~1197,1191.~~ Freeport supported 20.6.7.33.C in the Amended Rule through testimony from Thomas Shelley and Lewis Munk. *See* Shelley Direct at 17-22 and Munk Direct at 5-9.

~~1198,1192.~~ The Attorney General proposed alternative language for 20.6.7.33.C(3)(b). *See* NMAG Exhibit 2 at 38-39, which replace language stating that slopes within the open pit surface drainage area do not require regrading with a provision allowing the

Department to approve alternative slopes. There is no specific technical testimony on this change, and the Attorney General's proposal does not overcome the testimony presented in support of the rule as proposed by NMED.

~~1199,1193.~~ GRIP and TRP proposed to delete 20.6.7.33.C(3)(b) but provided no explanation as to why such a change is necessary. *See* Kuipers, Attachment 2 at 39.

~~1200,1194.~~ In the Proposed Final Rule, NMED makes no changes other than to the terminology regarding facilities and units. *See* Proposed Final Rule at 36-37.

~~1201,1195.~~ Based on the weight of the evidence, the Commission here by adopts 20.6.7.33.C, C(1), C(2), C(3), C(3) and C(4) as proposed by NMED in the Proposed Final Rule.

Subsection D

~~1202,1196.~~ NMED proposed 20.6.7.33.D in the Petitioned Rule which deals with closure requirements for open pits. *See* Petition, Attachment 1 at 35.

~~1203,1197.~~ NMED presented evidence to support 20.6.7.33 through Adrian Brown, wherein he discussed the effectiveness of post-operational groundwater protection. *See* Brown Direct at 32-44.

~~1204,1198.~~ Mr. Brown testified that at closure, water management in open pits will minimize the potential to cause an exceedance of applicable water quality standards using the following methods: (1) under 20.6.7.33(D)(1), if the pit will form an evaporative sink after closure, the groundwater quality standards of 26.6.2.3103 NMAC do not apply within the areas of open pit hydrologic containment; and (2) under 20.6.7.33(D)(2), if water within the pit is predicted to flow from the open pit

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into groundwater and the discharge from an open pit may cause an exceedance of applicable standards at monitoring well locations, then the open pit shall be considered a flow-through pit and the open pit water quality must meet groundwater standards or the open pit must be pumped in order to create an area of open pit hydrologic containment. *See* Brown Direct at 43.

~~+205.1199.~~ Freeport supported 20.6.7.33.D in the Amended Rule through testimony from Thomas Shelley and Neil Blandford. *See* Shelley Direct at 22-25 and Blandford Direct at 21-23.

~~+206.1200.~~ The Attorney General proposed changes to 20.6.7.33.D, D(1), and D(2). The changes would generally require water in open pits to meet both the standards of 20.6.2.3103 NMAC unless alternative abatement standards were approved and to meet surface water quality standards. *See* NMAG Exhibit 2 at 39.

~~+207.1201.~~ GRIP and TRP proposed changes to 20.6.7.33.D, and these change essentially delete most of the subsection and require a closure plan for open pits that demonstrates that new pits will not contaminate ground water above applicable standards or obtain a variance. *See* Kuipers, Attachment 2 at 39.

~~+208.1202.~~ Amigos Bravos proposed changes to 20.6.7.33.D(2) based on the August 17 Discussion Draft without any supporting technical evidence. *See* AB Exhibit 1 at 54.

~~+209.1203.~~ Mr. Olson proposed changes to 20.6.7.33.D(1) and (2) in the Petitioned Rule. Mr. Olson's changes to 20.6.7.33.D(1) deleted the term "areas of hydrologic containment" and replaced it with "open pit surface drainage areas." With respect to

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20.6.7.33.D(2), Mr. Olson proposed that the language “at a designated monitoring well location” and the language “or be managed to mitigate exceedances of applicable standards outside the area of hydrologic containment” should be deleted because such language creates a point of compliance concept. *See* WCO Exhibit 3 at 51-52.

~~1210.1204.~~ NMED made changes to 20.6.7.33.D(1) and D(2) in the Amended Rule.

In 20.6.7.33.D(1), NMED changed “area of hydrologic containment” to “area of open pit hydrologic containment” to make the rule provision consistent with the definitional change. In 20.6.7.33.D(2), NMED clarified clarify where standard apply and when the open pit must be pumped in order to maintain an area of open pit hydrologic containment. *See* Amended Petition, Attachment 2 at 38.

~~1211.1205.~~ The Commission finds that Amigos Bravos proposed changes to

20.6.7.33.D(2) are without merit because no supporting technical evidence was presented.

~~1212.1206.~~ In the Proposed Final Rule, NMED makes further changes to the language

of 20.6.7.33.D(1) to address testimony presented during the hearing indicating that the exemption from standards could have unintended consequences. *NEED TRANSCRIPT CITE, BROWN Testimony.* NMED also makes clarifying edits to 20.6.7.33.D and .D(2).

~~1213.1207.~~ Based on the weight of the evidence, the Commission hereby adopts

20.6.7.33.D, D(1), and D(2) as proposed by NMED in the Proposed Final Rule.

Subsection F

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~~1214, 1208.~~ NMED proposed 20.6.7.33.F in the Petitioned Rule which deals with closure requirements for cover systems. *See* Petition, Attachment 1 at 35.

~~1215, 1209.~~ NMED presented evidence to support 20.6.7.33 through Adrian Brown, wherein he discussed the effectiveness of post-operational groundwater protection. *See* Brown Direct at 32-44.

~~1216, 1210.~~ Mr. Brown testified that the Copper Mine Rule requires the following design for all store-and-release covers: (1) the material for the cover must be earthen, sustain plant growth, and be erosion resistant pursuant to 20.6.7.33(F)(1); (2) the thickness of the cover must be a minimum of 36 inches pursuant to 20.6.7.33(F)(1); and (3) the cover must store water within the fine fraction within certain percentages of precipitation during certain periods. *See* Brown Direct at 33.

~~1217, 1211.~~ Freeport supported 20.6.7.33.F through testimony by Thomas Shelley and Lewis Munk. *See* Shelley Direct at 26-30 and Munk Direct at 8-9.

~~1218, 1212.~~ GRIP and TRP proposed changes to 20.6.7.33.F. They claimed that the first change is necessary to be consistent with the Commission's decision in the Tryone Appeal, ~~where it held that a point of compliance model is inconsistent with the WQA.~~ The second change eliminates the provision that for leach and waste rock stockpiles inside the open pit surface drainage area of an existing copper mine facility, a 36 inch cover is only required on top surfaces; however, they provide not technical evidence as to why this change is necessary. *See* Kuipers, Attachment 2 at 40.

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~~1219-1213.~~ Amigos Bravos proposes changes to 20.6.7.33.F, F(1), and F(2) based on the August 17 Discussion Draft without any supporting technical evidence. *See* AB Exhibit 1 at 54.

~~1220-1214.~~ Mr. Olson proposes to change 20.6.7.33.F to delete the phrase “at a designated monitoring well location” because he maintains that it improperly creates a point of compliance concept. *See* WCO Exhibit 3 at 52.

~~1221-1215.~~ NMED makes changes to 20.6.7.33.F in the Amended Rule. NMED removes the “designed monitoring well” language objected to by some parties and cross-references section 20.6.7.28 instead. NMED also strikes “of an existing copper mine facility” in the last sentence of .F. *See* Amended Petition, Attachment 2 at 38-39.

~~1222-1216.~~ The Commission finds that Amigos Bravos’ proposed changes to 20.6.7.33.F, F(1), and F(2) without merit because they presented no technical evidence to support such changes.

~~1223-1217.~~ In the Proposed Final Rule, NMED changes 20.6.7.33.F only to change the terminology regarding facilities to units.

~~1224-1218.~~ Based on the weight of the evidence, the Commission hereby adopts 20.6.7.33.F, F(1), F(2), F(3), and F(4) as proposed by NMED in the Proposed Final Rule.

Subsection I

~~1225-1219.~~ NMED proposed 20.6.7.33.I in the Petitioned Rule which deals with closure requirements for impoundments. *See* Petition, Attachment 1 at 36.

~~1226-1220.~~ NMED presented evidence to support 20.6.7.33 through Adrian Brown, wherein he discussed the effectiveness of post-operational groundwater protection. *See* Brown Direct at 32-44.

~~1227-1221.~~ Freeport supported 20.6.7.33.I through testimony by Thomas Shelley. *See* Shelley Direct at 33-34.

~~1228-1222.~~ Shelley's testimony supports 20.6.7.33(I)-which addresses large water impoundments, which are inevitable in copper mining, but unnecessary post closure. Requires management that is consistent with currently authorized practices and includes elimination or minimization of impacts, re-vegetation, abatement techniques and disposal. NMED can approve alternative closure measures if the level of protection is maintained. (*See* Shelley DPFT pp. 33-34)

~~1229-1223.~~ The Attorney General made changes to 20.6.7.33.I(4) and (6) which removed references to "the open pit surface drainage areas." *See* NMAG Exhibit 2 at 40.

~~1230-1224.~~ GRIP and TRP made changes to 20.6.7.33.I(4) and (6), and the basic intent of these changes was to eliminate differential treatment for impoundments located inside the open pit surface drainage areas. *See* Kuipers, Attachment 2 at 41.

~~1231-1225.~~ Amigos Bravos proposed changes to 20.6.7.33.I(4), (6), and (7) (re-labeled as 20.6.7.33.J by Amigos Bravos) based on the August 17 Discussion Draft without any supporting technical evidence. *See* AB Exhibit 1 at 54.

~~1232-1226.~~ NMED made a change to 20.6.7.33.I(6) in the Amended Rule by deleting the sentence: "Large reservoirs located in the open pit surface drainage area of an

existing copper mine facility are exempt from the requirement to establish positive drainage." *See* Amended Petition, Attachment 2 at 39-40.

~~1233-1227.~~ The Commission finds that Amigos Bravos' proposed changes to 20.6.7.33.I(4), (6), and (7) (re-labeled as 20.6.7.33.J by Amigos Bravos) are without merit because they presented no technical evidence to support such changes.

~~1234-1228.~~ NMED makes no changes to 20.6.7.33.I in the Proposed Final Rule.

~~1235-1229.~~ Based on the weight of the evidence, the Commission hereby adopts 20.6.7.33.I and I(1) through (7) as proposed by NMED in the Proposed Final Rule.

Subsection J

~~1236-1230.~~ NMED proposed 20.6.7.33.J in the Petitioned Rule which dealt with closure requirements for pipelines, tanks, and sumps. *See* Petition, Attachment 1 at 37.

~~1237-1231.~~ NMED made no changes to 20.6.7.33.J in the Amended Rule. *See* Amended Petition, Attachment 2 at 40.

~~1238-1232.~~ Freeport supported 20.6.7.33.J through testimony by Thomas Shelley. Mr. Shelley testified that these requirements reflect current practices approved by the State. *See* Shelley Direct at 35.

~~1239-1233.~~ Amigos Bravos proposed changes to 20.6.7.33.J (re-labeled as 20.6.7.33.K by Amigos Bravos) based on the August 17 Discussion Draft without any supporting technical evidence. *See* AB Exhibit 1 at 54.

~~1240.1234.~~ The Commission finds that Amigos Bravos' proposed changes to 20.6.7.33.J (re-labeled as 20.6.7.33.K by Amigos Bravos) are unwarranted because they did not present technical evidence to explain why such changes are necessary.

~~1241.1235.~~ NMED made no changes to 20.6.7.33.J in the Proposed Final Rule.

~~1242.1236.~~ Based on the weight of the evidence, the Commission adopts 20.6.33.J as set forth in the Proposed Final Rule.

Additional Section on Interim Emergency Water Management

~~1243.1237.~~ Amigos Bravos proposes a new 20.6.7.33.G dealing with interim emergency water management, and this new subsection is taken from the August 17 Discussion Draft. See AB Exhibit 1 at 55.

~~1244.1238.~~ The Commission finds that Amigos Bravos failed to present technical evidence to explain why 20.6.7.33.G dealing with interim emergency water management was needed in this section as this issue is addressed in the contingency section by 20.6.7.30.L.

~~1245.1239.~~ Based on the weight of the evidence, the Commission hereby declines to adopt 20.6.7.33.G as proposed by Amigos Bravos.

20.6.7.34 – Implementation of Closure:

Undisputed Subsections A, B, C, D, E, and G

~~1246.1240.~~ NMED proposes 20.6.7.34.A, B, C, D, E, and G which deals with implementation of closure requirements for notification of intent to close, initiation of closure, notification of change in operational status, department notice regarding

suspended operations and enforcement actions, deferral of closure, and CQA/CQC report. *See* Petition, Attachment 1 at 37-38.

~~1247-1241.~~ NMED does not make changes to 20.6.7.34.A, B, C, D, and G in the Amended Rule. *See* Amended Petition, Attachment 2 at 40-41.

~~1248-1242.~~ NMED makes a change to 20.6.7.34.E in the Amended Rule. *See* Amended Petition, Attachment 2 at 41.

~~1249-1243.~~ Freeport support 20.6.7.34.A, B, C, D, E, and G through the testimony of Thomas Shelley. *See* Shelley Direct at 37-42.

~~1250-1244.~~ The Commission finds that there are no objections to 20.6.7.34.A, B, C, D, E, and G in the Amended Rule because Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson do not provide alternative rule language. CITES

~~1251-1245.~~ NMED makes no changes to 20.6.7.34.A, B, C, D, E and G in the Proposed Final Rule other than changes in terminology regarding facilities and units.

~~1252-1246.~~ Based on the weight of the evidence, the Commission hereby adopts to 20.6.7.34.A, B, C, D, E, and G as proposed by NMED in the Proposed Final Rule.

Subsection F

~~1253-1247.~~ NMED proposes 20.6.7.34.F in the Petitioned Rule which sets forth the components of final design for closure. *See* Petition, Attachment 1 at 38.

~~1254-1248.~~ NMED makes no changes to 20.6.7.34.F in the Amended Rule. *See* Amended Petition, Attachment 2 at 41.

~~1255-1249.~~ Freeport offers evidence to support 20.6.7.34.F through the testimony of Thomas Shelley, wherein states that these measures ensure closure measures are

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installed correctly and approved in accordance with regulatory requirements. *See* Shelley Direct at 40-41.

~~+256:1250.~~ Amigos Bravos proposes inserting language in 20.6.7.34.F, “Final Design,” stating “and shall, where possible, consider low impact development and green infrastructure development components” (hereinafter, “GI/LID”). *See* AB Exhibit 1 at 58.

~~+257:1251.~~ Amigos Bravos provides testimony in support of their amended language through the technical testimony of Brian Shields. Mr. Shields contends that GI/LID technologies have been embraced by many regulatory agencies and present economic and ecological benefits. Amigos Bravos also asserts that the EPA considers GI/LID technologies to be the best technology for controlling stormwater. *See* Shields Direct at 2-3.

~~+258:1252.~~ Amigos Bravos Further provides support for GI/LID technologies through a report proffered through Brian Shields titled “The Economics of Low-Impact Development” setting forth the benefits of implementation of these technologies. *See* Shields Direct, Exhibit 3.

~~+259:1253.~~ Freeport offers evidence to support retaining NMED’s proposed language in the Amended Petition and refutes Amigos Bravos suggestion to insert new language referencing low impact development and green infrastructure development components through Tim Eastep’s testimony, which states that stormwater pollution prevention is governed primarily through the Clean Water Act and administered by

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the EPA. Thus, NMED should be guided by the governing federal agency and its regulations. *See* Eastep Rebuttal at 16-17.

~~+260.1254.~~ The Commission finds that the Amigos Bravos proposed language for 20.6.7.34.F is unwarranted because of the federal laws governing such issues, so there is no need to include such provisions in the Copper Mine Rule.

~~+261.1255.~~ NMED makes no changes to 20.6.7.34.F in the Proposed Final Rule.

~~+262.1256.~~ Based on the weight of the evidence, the Commission adopts 20.6.7.34.F as set forth in the Proposed Final Rule.

20.6.7.35 – Post-Closure Requirements:

~~+263.1257.~~ NMED proposes 20.6.7.35 in the Petitioned Rule which sets forth post-closure requirements. *See* Petition, Attachment 1 at 38-40.

~~+264.1258.~~ NMED provides evidence in support of 20.6.7.35 indicating that the post-closure period at a copper mine unit shall commence upon completion and approval of regarding, covering, seeding, and construction of unit closure elements. Pursuant to 20.6.7.35(A), (B), (C), and (E), these requirements include: seepage interceptor system inspections; water quality monitoring and reporting; reclamation monitoring, maintenance, and inspections; cover maintenance; other inspection and maintenance; implementation of water management and treat plan; and post-closure contingencies. *See* Brown Direct at 40.

~~+265.1259.~~ NMED provides evidence indicating that post-closure seepage from closed copper mine waste stockpiles achieved by use of the store-and-release covers is equal to or better than that achievable by any other demonstrated and available technology.

In addition, the store-and-release cover system is in general equal to or better than underliner systems in controlling seepage from closed copper mine waste material stockpiles. See Brown Direct at 41.

~~1266,1260.~~ NMED provides evidence indicating that post-closure groundwater protection requires upgradient underflow from an infiltration area on half of the area of the stockpile. This is almost always available, which demonstrates that the store-and-release closure technique is generally protective of groundwater, even in the most sensitive location at the downgradient toe of the stockpile. See Brown Direct at 43.

Undisputed Subsections A, D, and E

~~1267,1261.~~ NMED proposes 20.6.7.35.A, D, and E in the Petitioned Rule which establish post-closure requirements for seepage interceptor system inspections, reporting, and contingency. See Petition, Attachment 1 at 38-40.

~~1268,1262.~~ Freeport supports 20.6.7.35.A, D, and E through evidence from Thomas Shelley. See Shelley Direct at 42-46.

~~1269,1263.~~ NMED makes changes to 20.6.7.35.A in the Amended Rule by changing "seepage interceptor system" references to just "interceptor system." See Amended Petition, Attachment 2 at 42.

~~1270,1264.~~ The Commission finds that the changes to 20.6.7.35.A in the Amended Rule are undisputed because Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson did not propose alternative rule language for the provision.

~~1271,1265.~~ NMED made no changes to 20.6.7.35.D and E in the Amended Rule. See Petition, Attachment 1 at 38-40.

~~1272-1266.~~ The Commission finds that 20.6.7.35.D and E are undisputed because Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson did not propose alternative rule language for the provision.

~~1273-1267.~~ Based on the weight of the evidence, the Commission adopts 20.6.7.35.A, D, and E as proposed by NMED in the Amended Rule and Proposed Final Rule.

Subsection B

~~1274-1268.~~ 20.6.7.35.B in the Petitioned Rule deals with water quality monitoring and allows an operator the ability to request cessation or less frequent monitoring of wells if those monitoring wells show compliance with standards for eight consecutive quarters. See Petition, Attachment 1 at 39.

~~1275-1269.~~ Freeport supports 20.6.7.35.B and asserts that it is protective of human health and the environment. See Shelley Direct at 43.

~~1276-1270.~~ GRIP, TRP, and Amigos Bravos propose inserting language to 20.6.7.35.B stating "For facilities with discharges to process solution ponds or seepage interceptor systems following completion of reclamation activities, ground water monitoring associated with such facilities shall continue for a minimum of five years following cessation of active management of process solutions or seepage water". See Kuipers, Attachment 2 at 43 and AB Exhibit 1 at 59.

~~1277-1271.~~ GRIP and TRP argue through the testimony of James Kuipers that the insertion of this language is appropriate because many of these process solution ponds and seepage interceptor systems can achieve standards in the short-term, but can pose a potential discharge threat for the next hundred years; thus, they should have longer

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monitoring periods and would be consistent with 20.6.2.4103.D. See Kuipers Direct at 10.

~~1278,1272.~~ Freeport refutes the change to 20.6.7.35.B through testimony of Thomas Shelley, wherein he indicates that a requirement would arbitrarily make the current regulations inconsistent with the abatement regulation 20.6.2.4103.D which provide that abatement can be determined complete after a minimum of eight consecutive quarterly samples showing standards have been met. See Shelley Rebuttal at 15.

~~1279,1273.~~ The Commission finds that the testimony on 20.6.7.35.B by Thomas Shelley to be more persuasive due to the consistence with the abatement regulations.

~~1280,1274.~~ NMED proposes changes to 20.6.7.35.B in the Amended Rule. The changes retain the eight consecutive quarters as advocated by Freeport, but the changes add a requirement that an adequate monitoring well network remains. See Amended Petition, Attachment 2 at 42.

~~1281,1275.~~ The Commission finds that NMED's changes to 20.6.7.35.B appear to be a compromise between the positions of Freeport versus GRIP and TRP. With an adequate monitoring well network in place, the concerns raised by GRIP and TRP will be addressed.

~~1282,1276.~~ Based on the weight of the evidence, the Commission hereby adopts 20.6.7.35.B as proposed by NMED in the Amended Rule and Proposed Final Rule.

Subsection C

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~~1283~~.~~1277~~. 20.6.7.35.C in the Petitioned Rule sets forth post-closure requirements for reclamation, monitoring, maintenance, and inspections. See Petition, Attachment 1 at 39-40.

~~1284~~.~~1278~~. NMED makes no changes to 20.6.7.35.C in the Amended Rule. See Amended Petition, Attachment 2 at 42-43.

~~1285~~.~~1279~~. NMED provides evidence for 20.6.7.35.C as set forth above.

~~1286~~.~~1280~~. Freeport supports 20.6.7.35.C through the testimony of Thomas Shelley. See Shelley Direct at 43-44.

~~1287~~.~~1281~~. GRIP and TRP object to 20.6.7.35.C(2) and propose that the phrase "excessive erosion" should be changed to just "erosion." See Kuipers, Attachment 2 at 43.

~~1288~~.~~1282~~. The Commission finds that GRIP and TRP provided no specific evidence for the change to 20.6.7.35.C(2).

~~1289~~.~~1283~~. Amigos Bravos objects to 20.6.7.35.C(4) and propose to strike certain language based on the August 17 Discussion Draft.

~~1290~~.~~1284~~. The Commission finds that the amendment to 20.6.7.35.C(4) is unnecessary and not supported by any specific technical evidence.

~~1291~~.~~1285~~. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.35.B as proposed by NMED in the Amended Rule and Proposed Final Rule.

20.6.7.36 – Reserved:

~~1292~~.~~1286~~. NMED proposes to reserve 20.6.7.36 for future rule amendments in the Petitioned Rule. See Petition, Attachment 1 at 40.

~~1293.1287.~~ NMED does not make changes to 20.6.7.36 in the Amended Rule. See Amended Petition, Attachment 2 at 43.

~~1294.1288.~~ The Commission finds that 20.6.7.36 is undisputed because Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson do not provide alternative rule language.

~~1295.1289.~~ Based on the weight of the evidence, the Commission hereby adopts 20.6.7.36 as proposed by NMED in the Petitioned Rule, Amended Rule, and Proposed Final Rule.

20.6.7.37 – Record Retention Requirements for All Copper Mine Facilities:

~~1296.1290.~~ NMED proposes 20.6.7.37 in the Petitioned Rule which set forth requirements for record retention. See Petition, Attachment 1 at 40.

~~1297.1291.~~ NMED does not make changes to 20.6.7.37 in the Amended Rule. See Amended Petition, Attachment 2 at 43.

~~1298.1292.~~ The Commission finds that 20.6.7.37 is undisputed because Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson do not provide alternative rule language.

~~1299.1293.~~ Based on the weight of the evidence, the Commission hereby adopts 20.6.7.37 as proposed by NMED in the Petitioned Rule, Amended Rule, and Proposed Final Rule.

20.6.7.38 – Transfer of Copper Mine Discharge Permits:

~~1300.1294.~~ NMED proposes 20.6.7.38 in the Petitioned Rule which set forth requirements for record retention. See Petition, Attachment 1 at 40.

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~~1301.1295.~~ NMED does not make changes to 20.6.7.38 in the Amended Rule. See Amended Petition, Attachment 2 at 43-44.

~~1302.1296.~~ The Commission finds that 20.6.7.38 is undisputed because Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson do not provide alternative rule language.

~~1303.1297.~~ Based on the weight of the evidence, the Commission hereby adopts 20.6.7.38 as proposed by NMED in the Petitioned Rule, Amended Rule, and Proposed Final Rule.

20.6.7.39 – Continuing Effect of Prior Actions During Transition:

~~1304.1298.~~ NMED proposes 20.6.7.39 in the Petitioned Rule which set forth requirements for record retention. See Petition, Attachment 1 at 40.

~~1305.1299.~~ NMED does not make changes to 20.6.7.39 in the Amended Rule. See Amended Petition, Attachment 2 at 43-44.

~~1306.1300.~~ The Commission finds that 20.6.7.39 is undisputed because Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson do not provide alternative rule language.

~~1307.1301.~~ Based on the weight of the evidence, the Commission hereby adopts 20.6.7.39 as proposed by NMED in the Petitioned Rule, Amended Rule, and Proposed Final Rule.

ADDITIONAL ISSUES

The Commission's 2009 Decision and Order in the Tyrone Litigation

~~1308-1302.~~ ___ In the Hearing Officers's Order on "Attorney General's Motion to Admit Record from Tyrone Permit Appeal into Record Proper," which ruled on arguments the Attorney General's motion, she stated: "To the extent that the Petition in this rulemaking presents and invitation or opportunity for the Commission to reach different conclusions about "places of withdrawal of water for present or reasonably foreseeable future use" than it did in 2009, the Commission will have to confront that decision and articulate a basis for any significant change in course." [No. 40 on document list]

~~1309-1303.~~ ___ The "Tyrone Permit Appeal" referenced in the above Order was an appeal of a discharge permit, DP-1341, in which NMED prescribed permit conditions for closure of the Tyrone Mine, a copper mine. The appeal was made pursuant to the NMSA 1978, section 74-6-___ and the Commission's rule for adjudication of permit disputes, [NMAC cite].

~~1310-1304.~~ ___ Tyrone initially challenged NMED's draft closure permit during a 10-day evidentiary hearing in May of 2002 before NMED, and NMED issued the closure permit for Tryrone. See Attorney General's Motion to Remand the Proposed Copper Mine Rule to NMED (hereinafter, "AG Motion to Remand") at 9, filed _____.

~~1311-1305.~~ ___ Tyrone then challenged NMED's closure permit by filing an appeal petition with the Commission on July 3, 2003, and the Commission held a 10-day hearing on the matter in October and November of 2003 with the Commission eventually issuing a decision. See id.

~~1312~~.1306. Tyrone then appealed the Commission's decision to the New Mexico Court of Appeals, and in 2006, the Court issued a decision and remanded the matter to the Commission for further consideration on particular issues. See *id.*; see also *Phelps Dodge Tyrone, Inc. v. N.M. Water Quality Control Comm'n*, 2006-NMCA-115, ¶ 35, 140 N.M. 464, 143 P.3d 502 (hereinafter, "Tyrone Decision").

~~1313~~.1307. In 2007, the Commission held a 24-day hearing dealing with the Tyrone Decision on remand, and the Commission issued its decision on February 9, 2007. See AG Motion to Remand at 9-10.

~~1314~~.1308. The administrative and judicial proceedings starting with challenge of draft closure permit in 2002 through the Commission's decision dealing with the Tyrone Decision on remand shall be collectively referred to as the "Tyrone Permit Adjudications."

~~1315~~.1309. On March 9, 2009, Tyrone appealed the Commission's decision dealing with the Tyrone Decision on remand to the New Mexico Court of Appeals. See *id.*

~~1316~~.1310. In June of 2009, the WQA was amended to require, among other things, that the Commission adopt these Copper Mine Rules. The statutory amendments occurred subsequent to the Tyrone Permit Adjudications. See Freeport Consolidated Response at 11-12.

~~1317~~.1311. The Commission finds that the Tyrone Permit Adjudications occurred prior to the amendments to the WQA in 2009 and was made based on the Commission's existing regulations and the Water Quality Act as it existed before 2009.

~~1318-1312.~~ The Commission finds that the new regulatory paradigm implemented through 2009 Amendments to the WQA and these Copper Mine Rules render the Tyrone Permit Adjudications and any precedents, policies, and decisions interpreting such adjudications either obsolete or distinguishable. *See* Freeport Consolidated Response at 15.

~~1319-1313.~~ The Commission finds that prior to the 2009 amendments to the WQA, NMED had to determine and resolve the “place of withdrawal” concept before it could decide on appropriate discharge control technologies through permit conditions for the closure permit for the Tyrone Mine. *See* Freeport Consolidated Response at 15.

~~1320-1314.~~ The Commission finds that subsequent to the 2009 amendments to the WQA, the Commission (as opposed to NMED) is now required to specify appropriate discharge control technologies for the industry as a whole in the first instance by rule (as opposed to the previous system of NMED identifying appropriate discharge controls through permit conditions), although the rules may include variable requirements reflecting differences in site conditions. *See* Freeport Consolidated Response at 15.

~~1321-1315.~~ The Commission concludes as a matter of law that the Tyrone Permit Adjudications arose in the context of administrative adjudications under the existing regulations, while the matter before the Commission arises in the context of a rulemaking, thereby making the proceedings distinguishable. A rulemaking is a

quasi-legislative function, not an adjudicatory function, and results in new law that may change and need not follow prior adjudicatory precedents.

~~1322. The Commission concludes as a matter of law that wholesale adoption and reliance on alleged long-standing interpretations of the WQA and previous decisions dealing with the Tyrone Permit Adjudications are distinguishable unless reconciled with the 2009 amendments to the WQA. NEED CITE.~~

~~1323. The Commission finds as a matter of fact and concludes as a matter of law that the 2009 amendments to the WQA require the Commission to adopt regulations and such regulations have several advantage over case-by-case adjudication as demonstrated by the Tyrone Permit Adjudications. See Freeport McMoRan's Brief on the Commission's Authority to Conduct a Copper Industry Specific Rulemaking (hereinafter, "Freeport's Brief on Authority") at 3-12, filed _____.~~

~~1324. Related to the Tyrone Permit Adjudications, Mr. Olson testified, partly relying upon exhibits of testimony by other witnesses in the Tyrone Permit Adjudications, that there has been a 35-year history of consistent policy by NMED and practice in the issuance of discharge permits to require that the standards of 20.6.2.3103 NMAC must be met in ground water wherever it exists and has a total dissolved solids concentration less than 10,000 parts per million. [CITE AND COMPARE TO TESTIMONY LANGUAGE].~~

~~1325. While this may have been NMED's policy, as found in the Commission's 2009 Order in the Tyrone Permit Adjudications [CITE], substantial evidence was introduced in this matter indicating that NMED in fact issued discharge permits for~~

~~copper mine units under circumstances that acknowledged that ground water underlying and nearby the permitted facilities would be impacted above the standards of 20.6.2.3103 and that relied upon ground water capture systems to contain the impacted ground water. [CITE to DP 484 and other exhibits and to Olson cross-examination].~~

~~1326. NMED also issued discharge permits for unlined units at copper mines that would appear to impact underlying ground water and that relied upon leachate capture systems for containment. [CITE to DP 376 and related testimony]~~

~~1327. Mr. Blandford's testimony further describes permit actions taken by NMED that do not appear to be consistent with an unwavering policy to ensure that ground water met the standards of 20.6.2.3103 NMAC at all locations.~~

~~1328; 1316. In adopting these Copper Mine Rules, the Commission is mindful that the measures specified herein to prevent water pollution rely upon containment strategies, as described in the testimony of Mr. Brown, that may allow ground water underlying certain units to exceed the standards of 20.6.2.3103 NMAC during mine operations.~~

~~1329; 1317. Mr. Brown's testimony supports a conclusion that, during mine operations, these areas are simply unavailable as places of withdrawal.~~

~~1330. 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 case. 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.~~

Public Comments

~~1331-1318.~~ The Commission received many public comments during the hearing and in the hearing session held in Silver City. There was approximately the same number of public commenters who spoke in favor of the Copper Mine Rule as who spoke in opposition.

~~1332-1319.~~ The Commission appreciates the number of public comments made and the public interest in this rulemaking.

State Comparatives

~~1333-1320.~~ Evidence was presented in the testimony of Mr. Brown that New Mexico's proposed Copper Rule is as protective of ground water as the states of Arizona and Nevada, which are similar in terms of hard rock mining in desert environments. (NMED, Brown, Direct Testimony [Pleading #49], P. 6, 31, 44).

~~1334.1321.~~ ___ The Department's proposed rule was compared with other state regulation in the SW region and determined to be comprehensive, robust and proscriptive in the areas that it needs to specify. (TR. Vol. 3, P. 564, L. 17-25).

ANALYSIS OF RULEMAKING FACTORS

Best Available Scientific Information

~~1335.1322.~~ ... The WQA requires in §74-6-4(K) that the Commission must consider the "best available scientific information" in developing and proposing the Copper Mine Rule. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 12).

~~1336.1323.~~ ... In addition to the statutory criteria the Commission must consider, the WQA requires in §74-6-4(K) that the Commission must consider the "best available scientific information." (NMED, Skibitski, Direct Testimony [Pleading #49], P. 12).

~~1337.1324.~~ ... In developing and proposing the Copper Mine Rule, the Department has relied upon the best scientific information available to it as described in the testimony of the Department's technical expert witness. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 12).

~~1338.1325.~~ ... NMED heard from various experts regarding the available scientific information regarding copper mines and water quality protection during the Advisory Committee process. CITE

~~1339.1326.~~ ... The parties to this proceeding had the opportunity to, and did retain, expert witnesses to provide to the Commission the best available scientific information regarding copper mining and protection of water quality. CITE

~~1340-1327.~~ ___ As discussed above, the Commission received the scientific information provided during the hearing, sifted through the various testimony and evidence, evaluated the weight of the evidence, and relied upon the best available scientific information presented to it in adopting the Copper Mine Rule.

~~1341-1328.~~ ___ The WQA does not require “state-of-the-art” methods to be applied, rather, the WQA requires that “groundwater protection” be met at the place of withdrawal regardless of how that is achieved. Brown (rebuttal) (20.6.7.6 NMAC). (TR. Vol. 3, P. 566, L. 1-13).

~~1342-1329.~~ ___ Open pits of any size are going to penetrate the water table, causing an in-mine lake with evaporative water loss causing inflow, or pumping of water from the pit to maintain dry mining conditions, but either way, containment will be maintained. (TR. Vol. 3, P. 564-565, L. 22-10). [may move to open pits section 24]

~~1343-1330.~~ ___ A liner may not be a good idea for every situation every time because if the rule were to require a liner then other issues related to the environment in terms of long term discharge management and short term operability come into play. (NMED, Brown, Direct Testimony [Pleading #49], P. 19). [may move to waste rock and tailings sections 21 and 23]

~~1344-1331.~~ ___ Specific to tailings Impoundments, lining reduces or eliminates the drainage of interstitial water from the tailings, thereby increasing the porewater pressure in the tailings which reduces the static stability of the pile and the ability of the pile to withstand earthquake loading without liquefying. (TR. Vol. 10, P. 2372, L. 8-10). Move to tailings section

~~1345.1332.~~ Testimony was given that liner failure has the potential to create widespread impact to the water resources of New Mexico, both surface water and groundwater. (NMED, Brown, Rebuttal [Pleading #60], P. 2), (TR. Vol. 10, P. 2554, L. 21-24). Move to tailings section

~~1346.1333.~~ Testimony was provided that interceptor well systems are the same method used to deal with maintaining the long-term performance of liner systems in tailing piles. (NMED, Brown, Rebuttal [Pleading #60], P. 2). Move to Tailings section

~~1347.1334.~~ Specific to waste rock stockpiles, testimony was given that lining is potentially problematic, for the following reasons: (1) protection of the lining is difficult during Placement of the waste rock, due to the impact of the large rocks that are dumped; (2) placement of liner is difficult on steeply sloping areas that are often used for waste rock piles; and (3) the use of a liner frequently creates a plane of weakness beneath the pile, particularly where the pile is located on sloping ground or bedrock. This causes reduced stability, which threatens the integrity of the liner due to mass movement of the pile, and by material from a slope failure impacting groundwater. (NMED, Brown, Rebuttal [Pleading #60], P. 3). Move to waste rock section

~~1348.1335.~~ Testimony was provided that it is not possible to line an active mine pit, and to do so would be a de-facto banning of the mining of copper in New Mexico, which the Water Quality Act clearly does not intend. (NMED, Brown, Rebuttal [Pleading #60], P. 3). Move to front

Other Factors the Commission Must Consider:

~~1340~~1336. In Subsection E of NMSA 1978, §74-6-4 (2009) the Water Quality Act requires the commission to consider: “(1) character and degree of injury to or interference with health, welfare, environment and property.”

~~1350~~1337. Testimony was given that copper mines pose a high potential risk of ground water contamination if leachate, process water and impacted storm water are not stored and handled properly. (Tr. Vol. 3, P. 236, L. 20-23), (TR. Vol. 2, P. 257, L. 10-18), (TR. Vol. 3, P. 507, L. 17-20), (TR. Vol. 3, P. 576-577, L. 23-1), (TR. Vol. 3, P. 577, L. 5-7), (TR. Vol. 3, P. 588, L. 16-22), TR. Vol. 3, P. 590, L. 9-17), (TR. Vol. 5, P. 1036, L. 19-24).

~~1351~~1338. The Copper Rule contains specific requirements to contain these three potential sources of contamination. (TR. Vol. 4, P. 736, L. 15-23), (TR. Vol. 4, P. 741-742, L. 22-5), (TR. Vol. 4, P. 746, L. 16-22).

~~1352~~1339. The objective of the Copper Mine Rule is to contain any water contamination within the units so that they do not interfere with health, welfare, the environment or other property. CITE

~~1353~~1340. In Subsection E of NMSA 1978, §74-6-4 (2009) the Water Quality Act requires the commission to consider: “(2) the public interest, including the social and economic value of the sources of water contaminants.”

~~1354~~1341. Copper mines have a social and economic value - they provide jobs and a source of income for almost two thousand New Mexicans. (TR. Vol. 1, P. 91, L. 8-20).

~~1355~~1342. The Copper Mine Rule proposed by the Department is intended to assure that ground water contamination is prevented or minimized to the extent practicable. (TR. Vol. 1, P. 15, L. 17-25).

~~1356~~1343. The existing ground water rules already require remediation of contamination if it should occur. (TR. Vol. 1 P. 23, L. 14-20).

~~1357~~1344. Good prevention practices assure that costs are borne by the company responsible for the contamination, rather than creating the potential that the public or others will bear the cost of remediation. (TR. Vol. 2, P. 421, L. 14-22).

~~1358~~1345. The Department's proposed Copper Mine Rule strikes a fair balance between the interests of the state and public in maintaining uncontaminated ground and surface water, and the economic value of the industrial source of the water contaminants. (TR. Vol. 2, P. 441, L. 14-17).

~~1359~~1346. In Subsection E of NMSA 1978, §74-6-4 (2009) the Water Quality Act requires the commission to consider: "(3) technical practicability and economic reasonableness of reducing or eliminating water contaminants from the sources involved and previous experience with equipment and methods available to control the water contaminants involved."

~~1360~~1347. The construction and operation requirements called for in the Department's proposed Copper Mine Rule are technically practical and economically reasonable. (TR. Vol. 2, P. 398, L. 3-18).

~~1361~~1348. Prevention or containment of ground water contamination at copper mines is achievable through available control technologies and proper operating methods. (TR. Vol. 3, P. 567, L. 19-22).

~~1362~~1349. None of the prevention and monitoring practices called for in the Department's proposal are novel or technically impractical. (TR. Vol. 3, P. 569-570, L. 25-25).

~~1363~~1350. In Subsection E of NMSA 1978, §74-6-4 (2009) the Water Quality Act requires the commission to consider: "(4) successive uses, including but not limited to domestic, commercial, industrial, pastoral, agricultural, wildlife and recreational uses."

~~1364~~1351. The primary concern of the Department's proposed Copper Mine Rule is to prevent ground water contamination, and to monitor ground water to assure that it remains uncontaminated. (TR. Vol. 1 P. 16, L. 1-22).

~~1365~~1352. In Subsection E of NMSA 1978, §74-6-4 (2009) the Water Quality Act requires the commission to consider: "(5) feasibility of a user or a subsequent user treating the water before a subsequent use."

~~1366~~1353. Should ground water become contaminated by a copper mine, it is possible that users or subsequent users of the ground water could treat the water before use, but this is not a preferred alternative to prevention, and the costs likely would be much higher than prevention. (TR. Vol. 3, P. 709, L. 12-16).

~~1367-1354.~~ In addition, it could shift the costs of the contamination from those who caused the contamination to the public or future generations. (TR. Vol. 3, P. 711-712, L. 23-1).

~~1368-1355.~~ The Commission's water quality regulations require abatement of contaminated water by the responsible party, rather than requiring treatment of water by subsequent users. (TR. Vol. 3, P. 527, L. 11-18).

~~1369-1356.~~ In Subsection E of NMSA 1978, §74-6-4 (2009) the Water Quality Act requires the commission to consider: "(6) property rights and accustomed uses."

~~1370-1357.~~ Freeport-McMoRan currently operates three mines in New Mexico. (TR. Vol. 1, P. 81, L. 17-24). Freeport's Chino mine has been in operation for over one hundred years. (TR. Vol. 1, P. 160, L. 7-11).

~~1371.~~ There was testimony that the operation of the mine has been authorized by the land owner to use the property for the duration of the requested permit. (TR. Vol. 4, P. 733, L. 2-7).

~~1372.~~ Currently, the authorization to use the land for the duration of the permit necessarily includes the contamination that exists past the termination of the permit. (TR. Vol. 4, P. 734, L. 17-23).

~~1373-1358.~~ In Subsection E of NMSA 1978, §74-6-4 (2009) the Water Quality Act requires the commission to consider: "(7) federal water quality requirements."

~~1374-1359.~~ The Department's proposed regulations recognize that storm water is regulated by the Environmental Protection Agency, because New Mexico is one of five states that do not have primacy over surface water discharges. As a result, the

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Department's proposed regulations address storm water discharges only as they relate to possible contamination of ground water. (TR. Vol. 1, P. 16, L. 1-22), (TR. Vol. 4, P. 751, L. 14-20).

Respectfully submitted,

NEW MEXICO ENVIRONMENT DEPARTMENT

Andrew P. Knight
Kathryn S. Becker
Assistants General Counsel
Office of General Counsel
Post Office Box 5469
Santa Fe, New Mexico 87502-5469
Telephone: (505) 222-9540

CERTIFICATE OF SERVICE

I certify that a copy of the Department's Statement of Reasons was served by email on the following on this ___nd day of August, 2013:

Tannis L. Fox, Assistant Attorney General
Water, Environmental and Utilities Division
Office of the New Mexico Attorney General
P.O. Box 1508
Santa Fe, New Mexico 87504
Phone: 505-827-6695
E:mail: tfox@nmag.gov
For the New Mexico Attorney General

Bruce Frederick, Staff Attorney
Doug Meiklejohn
Jon Block
Eric Jantz
N.M. Environmental Law Center
1405 Luisa St. #5
Santa Fe, NM 87505-4074

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Phone: 505-989-9022
E:mail: bfrederick@nmelc.org
For the Gila Resources Information Project and
Turner Ranch Properties

Dalva Moellenberg
Anthony J. Trujillo
Gallagher and Kennedy P.A.
1233 Paseo de Peralta
Santa Fe, NM 87501-2758
Phone: 505-982-9523
E:mail: djm@gknet.com
E:mail: Trujillo, TJ <ajt@gknet.com>
For Freeport-McMoRan Chino Mines Company, Freeport-McMoRan Tyrone, Inc.
And Freeport-McMoRan Cobre Mining Company
Tracy Hughes
High Desert Energy and Environmental Law
P.O. Box 8201
Santa Fe, New Mexico 87504
Phone: 505.819.1710
E:mail: hughes@energyenvironmentlaw.com
For Amigos Bravos

Louis W. Rose
Montgomery & Andrews
P.O. Box 2307
Santa Fe, NM 87504-2307
Phone: 505-986-2506
E:mail: lrise@montand.com
For the New Mexico Mining Association

Jon Indall
Comeau, Maldegen, Templeman & Indall
P.O. Box 669
Santa Fe, New Mexico 87504-0669
Phone: 505-982-4611
E:mail: jindall@cmtisantafe.com
For the New Mexico Mining Association

William C. Olson
14 Cosmic Way
Lamy, New Mexico 87540
Phone: 505-466-2969
E:mail: billjeanie.olson@gmail.com

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Sean Cunniff, Assistant Attorney General
Civil Division
Office of the New Mexico Attorney General
P.O. Box 1508
Santa Fe, New Mexico 87504
Phone: 505-827-6469
E:mail: scunniff@nmag.gov
Commission Counsel

Kathryn S. Becker

3705513

STATE OF NEW MEXICO
WATER QUALITY CONTROL COMMISSION

IN THE MATTER OF PROPOSED AMENDMENTS
TO 20.6.2 NMAC, THE COPPER MINE RULE

No. WQCC 12-01 (R)

New Mexico Environment Department,
Petitioner.

NEW MEXICO ENVIRONMENT DEPARTMENT'S
STATEMENT OF REASONS

THIS MATTER came before the New Mexico Water Quality Control Commission in a multiday hearing held over the course of ten days between April 9 and April 30, 2013. For the stated reasons, the New Mexico Environment Department's proposed Copper Rule is adopted with the following changes formulated by the Department in response to testimony at the multiday hearing and filed exhibits.

The following list of the changes contains the numeric citation within the rule, a brief description of the change, the party who proposed the change and the associated comment field in the attached red-line strike out version of the Department's Amended Petition. The Department begins this Statement of Reasons with the changes made to identify the rule in its entirety, as finalized by the Department, and with consideration of all reason, as determined by the Department.

LIST OF CHANGES PPOST HHEARING

20.6.7.7.B(3) The term "existing concentration" is removed from the definition of applicable standards, as the term is already contained in Section 3103 language. (NMAG, Ex. 2 [Pleading #51], P. 2).

EXHIBIT I

20.6.7.7.B(10) Use of the word “facility” is clarified to consistently refer only to “copper mine facility”, as distinguished from an individual mine “unit”. This change is made throughout the rule. (TR. Vol. 3, P. 636, L. 6-14).

20.6.7.7.B(19) The term ground water is changed to read “surface and subsurface water”, consistent with existing WQCC language. (NMAG, Ex. 2 [Pleading #51], P. 2), (WCO, Ex. 3 [Pleading #54], P. 2).

20.6.7.7.B(52) The word “seep” is removed from the definition of “seepage”. (FMI, NOI [Pleading #61], P. 3).

20.6.7.10.I Language is added indicating permit conditions in existing discharge permits should not be considered “additional conditions” at the time of renewal of those permits. (GRIP, Kuipers, Ex. 2 [Pleading #53], P. 7), (WCO, Ex. 3 [Pleading #54], P. 8).

20.6.7.10.J(3) The word “the” is added to the beginning of this sentence to clarify that the statutory provision applies. (NMED edit for clarity).

20.6.7.11.C(2) Language is added to reference mining on public lands. (FMI, Eastep, Direct Testimony [Pleading #61], P. 28).

20.6.7.11.H(1) Clarifying language is added. (NMAG, Ex. 2 [Pleading #51], P. 7).

20.6.7.17.C(3) A reference to closure for treatment systems is removed. (FMI, Shelly, Direct Testimony [Pleading #61], P. 51).

20.6.7.17.C(4)(e) Language is clarified regarding stormwater diversion structures. (NMED edit for clarity).

20.6.7.17.D(6) Requirements for secondary containment impoundment construction are added. A compacted soil liner addresses FMI concerns about the difficulty of cleaning synthetic liners. As a result, NMED changed reporting requirements for releases from pipelines (23.C(4)). (FMI, Eastep, Direct Testimony [Pleading #61], P. 40).

20.6.7.18.F(2)(a) A double negative is removed. (AB, Ex. 1 [Pleading #52], P. 24).

20.6.7.18.F(5)(a) Language is added requiring that leak detection sumps use automated pump systems. (AB, Ex. 1 [Pleading #52], P. 25).

20.6.7.19.A Language is added requiring that new units at existing mines meet setback requirements. (AB, Ex. 1 [Pleading #52], P. 25).

20.6.7.20.B(2) Edits to language regarding continued operation of existing leach stockpiles. (WCO, Ex. 3 [Pleading #54], P. 21).

20.6.7.21.A(1)(d) The phrase “shall be proposed” is added to complete the sentence and interceptor system requirements are moved to 21.A(f). (NMED edit for clarity and consistency throughout).

20.6.7.21.A(1)(e) The requirement to evaluate potential impacts to water quality is moved from the material handling section (it was previously at 21.A(2)(e)) and language is changed for NMED to require additional controls. (NMED edit for clarity).

20.6.7.21.A(1)(f) Language is moved here from 21.A(1)(d). (NMED edit for clarity).

20.6.7.21.A(2)(e) is moved to 21.A(1)(e) as this language addresses material evaluation/characterization, not material handling. (NMED edit for clarity).

20.6.7.21.B A sentence is added from 21.B(1) for consistency. (WCO, Ex. 3 [Pleading #54], P. 26). Language is added explicitly recognizing that an alternate method for containment may be a liner system. (TR. Vol. 2, P. 416, L. 17-25).

20.6.7.21.B(1) Changes to language regarding when an interceptor system design must be submitted and when additional controls may be required, which was previously in the preceding paragraph. (WCO, Ex. 3 [Pleading #54], P. 26).

20.6.7.21.C(2) Edits to language regarding continued operation of existing waste rock stockpiles with minor edits. (WCO, Ex. 3 [Pleading #54], P. 29).

20.6.7.21.B(1)(d)(vi) and (vii) The intent and usage of aquifer evaluation is clarified. (NMED edit for clarity).

20.6.7.21.A(4)(e) Language regarding additional controls is clarified. (NMED edit for clarity).

20.6.7.22.A Language is added clarifying that a liner system may substitute for an interceptor system. (TR. Vol. 3, P. 553, L. 1-25).

20.6.7.22.A(4)(vii) and (viii) The intent and usage of aquifer evaluation is clarified. (NMED edit for consistency).

20.6.7.22.A(1)(e) Language regarding additional controls is clarified. (NMED edit for clarity).

20.6.7.22.A(5) The phrase “located outside an open pit surface drainage area” is removed because characterization of dry stack material should take place prior to any determination of its disposal location. (AB, Ex. 1 [Pleading #52], P. 35), (GRIP, Kuipers, Ex. 2 [Pleading #53], P. 25), (WCO, Ex. 3 [Pleading #54], P. 33).

20.6.7.22.B(2) Edits to language regarding continued operation of existing tailing impoundments and associated units. (WCO, Ex. 3 [Pleading #54], P. 33).

20.6.7.23.C(4) and (5) Spill reporting requirements are changed as noted above. (TR. Vol. 5, P. 1169-1171, L. 1-25).

20.6.7.23.C(5) The term “testing” is changed to “evaluation”. (FMI, Eastep, Direct Testimony [Pleading #61], P. 43).

20.6.7.24.A(5) Language is changed requiring facilities to be constructed to limit the size of the open pit surface drainage area. NMED change to address concerns expressed by FMI during the hearing regarding the intent of proposed language. (FMI, Lande, Rebuttal [Pleading #61], P. 4).

20.6.7.26.B(1) and (2) -Words are re-arranged for clarity of meaning. (FMI, Eastep, Direct Testimony [Pleading #61], P. 46).

20.6.7.28.B Language is edited to clarify that monitoring wells must be installed as close as practicable. (NMAG, Ex. 2 [Pleading #51], P. 27).

20.6.7.28.B(2) Language is edited to make this sentence consistent with 28B. (NMED edit for clarity).

20.6.7.28.H Language is added for a basis to reduce sampling. (FMI, Blandford, Rebuttal [Pleading #61], P. 4).

20.6.7.28.M Language is edited to clarify that the intent of surface water sampling in accordance with WQCC regulations. (AB, Ex. 1 [Pleading #52], P. 46), (WCO, Ex. 3 [Pleading #54] P. 43).

20.6.7.30.A and 30.B Language in these two sections is combined to create one section. (GRIP, Kuipers, Ex. 2 [Pleading #53], P. 35), (NMAG, Ex. 2 [Pleading #51], P. 33).

20.6.7.33.D(1) Language is added to limit the pit ground water standards exception to mining generated constituents only. (TR Vol. 3, P. 597, L. 10-22).

HISTORY OF SB 206

1. The New Mexico Water Quality Control Commission Regulations for Ground and Surface Water Protection are located at 20.6.2 NMAC. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 3).

2. The proposed Copper Mine Rule will be located at 20.6.7 NMAC.

3. The scope of 20.6.2 NMAC is for all persons subject to the Water Quality Act.

(NMED, Brown, Direct Testimony [Pleading #49], P. 2).

4. The Department’s Final Proposed Copper Mine Rule. (NMED, Ex. 6 [Pleading #49]).

5. The scope of 20.6.7 NMAC is for the permitting of copper mine facilities and regulation of copper mining operations. (NMED, Ex. 4 [Pleading #49], p. 5).

6. In early 2009, the dairy and copper industries lobbied the New Mexico legislature for a change to the Water Quality Act to provide specific rules for obtaining discharge permits. (TR. Vol. 1, P. 44, L. 24-25.)

7. The Department was tasked with developing industry specific rules in Senate Bill 206 in Regular Session 2009. (NMED, Ex. 4) (TR. Vol. 2, P. 241, L. 5-19).

REASON FOR WQA AMENDMENT

8. Prior to the Water Quality Act amendments of 2009, the Act did not allow for prescriptive measures and did not allow for industry specific rules. (TR. Vol. 1, P. 49, L. 16-23).

9. The Act stated that regulations of the Commission "...shall not specify the method to be used to prevent or abate water pollution" but may specify a "standard of performance" for new sources. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 4).

10. Phelps Dodge, the predecessor to Freeport McMoRan Chino Mines Company, appealed three permit conditions in Discharge Permit 1341 in 2002. (NMED, Ex. 3 [Pleading #49]).

11. The Commission upheld the discharge conditions imposed by the Department. (NMED, Ex. 3 [Pleading #49]).

12. Phelps Dodge appealed the Commission's decision to the NM Court of Appeals. *See Phelps Dodge Tyrone, Inc. v. NM Water Quality Control Comm'n*, 2006-NMCA-115, 140 N.M. 464, 143 P.3d502. (NMED, Ex. 3 [Pleading #49]).

13. In the *Phelps-Dodge* Opinion, the Court of Appeals expressly rejected the Commission's position that the entire mine site was a "place of withdrawal" and remanded the

matter to the Commission with direction to develop site-specific criteria to assist the Commission and the courts in determining whether any particular location is a “place of withdrawal” as used in the Water Quality Act. (NMED, Ex. 3 [Pleading #49]).

2009 WQA AMENDMENTS

14. The 2009 amendments inserted a new Subsection K of Section 74-6-4 of the Act which allows the Commission to adopt regulations specific to particular industries, and directs the Commission to promulgate industry specific rules for the dairy industry and the copper industry. (NMED, Ex. 4 [Pleading #49], P. 5).

15. The 2009 amendments inserted in new Subsection K of Section 74-6-4 of the WQA language stating that the Commission “*shall specify in regulations the measures to be taken to prevent water pollution and to monitor water quality*”. (NMED, Ex. 4 [Pleading #49], P. 5).

16. The WQA now places the onus on the Commission to promulgate dairy and copper mine industry rules that specify the methods for preventing water pollution and monitoring ground water quality. (NMED, Ex. 4 [Pleading #49], P. 5-6).

17. The 2009 amendments to the WQA placed new language in Subsection D of Section 74-6-5 stating that, “*after regulations have been adopted for a particular industry, permits for facilities in that industry shall be subject to conditions contained in the regulations.*” NMED Ex 4, Redline of 2009 WQA Amendments. (NMED, Ex. 4 [Pleading #49], P. 9).

FORMATION OF THE CRAC AND TECHNICAL COMMITTEE

18. The Department formulated an advisory body, as specified in the legislation, to develop ideas and draft language for a proposed rule. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 9).

19. The Copper Rule Advisory Committee met regularly over the course of seven months and reviewed draft language and different approaches to the regulation of copper mining activity in New Mexico. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 10).

20. Meetings were held monthly and comprised both a technical advisory group and a larger advisory committee. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 10).

21. The Department hired a facilitator to conduct the meetings, review concepts and evaluate scientific data for purposes of recommending language to the Department. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 10).

22. The Department received a draft rule from the Copper Rule Advisory Committee on August 17, 2012. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 10).

23. The Department edited the draft rule and submitted a proposed rule for public comment on September 13, 2012. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 10), (NMED, Ex. 6 [Pleading #49]).

24. The Department held two public meetings, one in Silver City and the other in Albuquerque, New Mexico to take public comments on the draft copper rule. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 10).

25. The Department finalized the proposed rule and filed it with a Petition before the Water Quality Control Commission on October 30, 2012. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 10).

26. The Commission voted to accept the petition at its November 2011 monthly meeting. The Commission voted to assign a hearing officer and schedule the matter for hearing for multiple days in December 2012. (Notice of Docketing [Pleading #2]).

27. The Department, in response to further reviews by Department staff and the expert engineer retained by the Department, edited the petitioned rule and filed an Amended Proposed Rule on February 18, 2013. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 11). See, Docket No. 52.

28. The Department's expert, Adrian Brown, testified that he has a Bachelor of Engineering in Civil Engineering, a Master of Science in Engineering, and a Master of Administration. (TR. Vol. 3, P. 547, L. 19-23).

29. Mr. Brown testified he had over 35 publications in groundwater and earth science, and has served as an adjunct professor in groundwater engineering at the Colorado School of Mines. (TR. Vol. 3, P. 548, L. 9-16).

30. Mr. Brown testified he has been admitted as an expert and have testified in more than 20 courts in the fields of geohydrology, geochemistry, mining, and geotechnical engineering. (NMED, Brown, Direct Testimony [Pleading #49], P. 1).

31. Mr. Brown is President of the International Mine Water Association, the global organization of mine water technologists. (TR. Vol. 3, P. 548, L. 18-21).

32. Mr. Brown testified that IMWA is an organization dedicated to research, dissemination, and implementation of sustainable and protective mine water management practices and he has led the charge on improving the reliability of mine water technology, so that the past water problems created by mining are not repeated, and the impacts of mines on water resources are eliminated. (TR. Vol. 3, P. 549, L. 1-12).

33. Mr. Brown testified that he has been principally involved in evaluating or supervising hundreds of mining projects, approximately 100 of the projects have been located in

the arid basin and range province of the southwestern US, and most of those involve water quality. (TR. Vol. 3, P. 550, L. 1-11).

34. Specific to New Mexico, Mr. Brown testified he has completed 15 projects in New Mexico, including hands on experience of pumping tests and water quality sampling in the Rio Grande Rift near Truth or Consequences, and investigation and reclamation of mine tailings at Silver City and Hanover. (NMED, Ex. 8 [Pleading #49]).

35. The Department's Amended Proposed Rule did not provide for substantial changes, rather the edits were to further clarify and make consistent the Rule as understood by Department staff and the Department's expert engineer. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 11).

36. The Commission's hearing notice requirements for rule-making state that "[a]t least thirty days prior to the hearing date, notice of the hearing shall be published in the New Mexico Register and a newspaper of general circulation in the area affected and mailed to all persons who have made a written request to the commission for advance notice of hearings and who have provided the commission with a mailing address". (NMSA 1978, Section 74-6-6(C)).

37. Notice of this hearing was published in the New Mexico Register, Albuquerque Journal and Silver City Daily Press sixty days prior to the hearing and sent to those persons on the Commission's interested party list and the Department's stakeholder list. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 10).

38. The hearing was held between April 8 and May 3 for a total period of ten days. (TR. Vol. 1, P. 7, L. 1), (TR. Vol. 11, P. 2678, L. 16).

39. During the course of the hearing there were multiple parties providing technical testimony and public comment offered during the day to those who appeared and at three

evening sessions. One of the public comment periods was held in Silver City, NM on May 3, 2013. (TR. Vol. 11, P. 2596, L. 13-17).

History of different versions

Proposed rule of August 17

40. Following an initial meeting on January 25, 2012, the Advisory Committee and the technical sub-committee met over a seven month period, developing and debating concepts, language, and structure of the proposed Copper Mine Rule. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 10).

41. These meetings resulted in the completion of a draft rule on August 17, 2012. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 10). The August 17, 2012 draft rule was developed by an independent contractor hired by the Department to facilitate the Advisory Committee meetings. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 10).

Published rule of Sept 13, 2012

42. The Department carefully evaluated the comments and recommendations of all of the Advisory Committee members, including the August 17, 2012, rule drafted by the Department's independent contractor, and formulated a proposed rule that was released for public comment on September 13, 2012. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 10), (NMED, Ex. 6 [Pleading #49]).

Petitioned rule of October 30

43. Based on comments received on the September 13, 2012 draft, the Department made changes to the draft and filed it with the Commission as part of the Department's rule-making petition on October 30, 2012. (NMED, Skibitski, Direct Testimony [Pleading #49], P.

10), (NMED, Petition to Adopt 20.6.7 and 20.6.8 NMAC and Request for Hearing [Pleading #4]).

Proposed rule- amended of February 18th

44. On February 18, 2013, the Department filed an Amended Petition containing edits to the proposed Copper Mine Rule including both a “clean” version as well as one containing redline strikeout to highlight changes to the Copper Mine Rule. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 11), (NMED, NMED’s Amended Petition [Pleading #45]).

Proposed rule- amended as of July 15th

45. Upon request by the Commission for parties to attempt to compromise on the proposed Copper Rule, NMED made several changes to the draft and indicated which parties advocated the particular changes in what is now the July 15th Amended Petition.

46. There was testimony that the proposed Copper Rule is beneficial to the resources of the State in that the process is proscriptive and the Department no longer has to go through reiterative versions of asking for more and better submittals and receiving data and plans that don’t meet the expectations of the Department. (TR. Vol. 2, P. 235, L. 4-17).

47. There was testimony that the proposed Copper Rule is beneficial because the Department will not have to seek concurrence on a case by case basis from the courts or the Commission to require what it needs to prove groundwater will be protected. (TR. Vol. 3, P. 561, L. 8-23).

48. There was testimony that the proposed Copper Rule is beneficial to the resources of the companies in the Copper industry in that the one-time evaluation of the effectiveness of the containment, not each and every time there is a new or expanding operation. (TR. Vol. 3, P. 561, L. 8-23).

REVIEW OF RULE IN A SECTION BY SECTION FORMAT

49. There was testimony that the purpose of the Copper Mine Rule is to control discharges of water contaminants specific to copper mine facilities and their operations to prevent water pollution so as to protect all ground water of the state of New Mexico for present and potential future use as domestic and agricultural water supply and surface water recharge. (TR. Vol. 3, P. 551, L. 7-14).

50. Evidence was presented that containment is achieved in the Copper Rule in one of three ways, by locating the materials in the unit in impermeable tanks, pipes and ponds, by locating a liner system beneath certain units, such as leach stockpiles, or by collecting impacted groundwater as close as practicable to the unit. (TR. Vol. 3, P. 552-553, L. 6-25).

51. The framework of the Copper Mine Rule is a unit by unit approach that evaluates the parameters of the effectiveness of groundwater protection as it relates to its operation. (TR. Vol. 3, P. 661, L. 17-19), (TR. Vol. 3, P. 682, L. 8-17), (TR. Vol. 4, P. 803-804, L. 17-4), (TR. Vol. 4, P. 816, L. 9-14), TR. Vol. 4, P. 824, L. 5-11).

52. The Department's proposed rule was technically reviewed to determine if the Rule was protective of New Mexico's ground water during and after copper mining activities and found to be protective. (TR. Vol. 3, P. 555, L. 10-16).

53. The primary method for protecting ground water during mine operation is through discharge control at each unit by the containment of ground water in excess of applicable standards. (TR. Vol. 3, P. 557, L. 3-7).

54. The basic regulatory tool for protecting and monitoring ground water quality at copper mine facilities is a valid and enforceable discharge permit. (TR. Vol. 3, P. 557, L. 3-7).

55. The Department's proposal creates a straightforward permitting process with improved regulatory certainty that results in discharge permits that are consistent between facilities and more readily enforceable. (TR. Vol. 3, P. 558, L. 6-12).

56. The Department Rule proposes efficient measures and clear provisions to prevent and contain ground water contamination. (TR. Vol. 3, P. 560-561, L. 19-5).

57. The Department also proposes comprehensive monitoring and detection methods in its proposed Copper Mine Rule. (TR. Vol. 3, P. 557, L. 12-20).

58. Evidence and testimony was provided at the hearing that containment is achieved in the Proposed Copper Rule in three ways: 1. By locating the materials in the unit in impermeable tanks, pipes and ponds. 2. By locating a liner system beneath certain units, such as leach stockpiles, and 3. By collecting impacted groundwater as close as practicable to the unit. (TR. Vol. 1, P. 15, L. 22-25).

THE DEPARTMENT PROVIDED BOTH POLICY REASONS AND SCIENTIFIC BASIS IN SUPPORT OF THE PROPOSED COPPER RULE.

59. There was testimony that the Copper Rule guarantees that groundwater standards will be met at locations of future use in advance of issuing the discharge permit by applicant demonstration. (TR. Vol. 3, P. 557, L. 3-7, 12-20).

60. There was testimony that the applicant's demonstration of the effectiveness of the Rule-required capture methods using Rule-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. (TR. Vol. 3, P. 598, L. 3-9).

61. There was testimony that the Department will know that the Rule-required containment system is working after it has been implemented because the Rule requires detailed unit by unit groundwater monitoring of the performance of the containment systems using monitor wells around the perimeter of each unit, located as close as possible to the unit. (TR. Vol. 3, P. 561, L. 1-23).

62. There was testimony that monitoring ensures that the Department is in control of the performance of the groundwater protection system mandated by the proposed Rule from project approval through completion of project closure. (TR. Vol. 3, P. 563-564, L. 1-12).

63. Mr. Brown testified that in his experience mining companies' self-report spills and other upsets and rectify the problem before any impact is identified by the monitoring wells. (TR. Vol. 4, P. 736, L. 15-23).

64. There was evidence provided that if a containment system for a unit is not working, the Copper Rule includes contingency requirements in the event that the containment system fails or is indicating incipient failure and if water with the potential to cause an exceedance escapes the containment system of any unit, the proposed Rule allows the Department to mandate abatement procedures. (TR. Vol. 3, P. 565, L. 8-19).

65. There was testimony that the Copper Rule requires the deposit of financial assurance that may be used if the mining company fails to implement the proposed Rule-required mitigation and abatement. (TR. Vol. 3, P. 558, L. 6-12).

66. There was evidence provided that the adoption of the Copper Rule will benefit the Department by no longer having the Department and applicant go through reiterative versions of asking for more and better submittals and receiving data and plans that don't meet the expectations of the Department. (TR. Vol. 3, P. 560-561, L. 19-5).

67. Testimony also supported the statement that the Department benefits from not having to seek concurrence on a case by case basis from the courts or the Commission to require what it needs to prove groundwater will be protected. (TR. Vol. 3, P. 560-561, L. 19-5).

68. The testimony also demonstrated that the permittee benefits by a one-time evaluation of the effectiveness of the containment, not each and every time there is a new or expanding operation. (TR. Vol. 3, P. 561, L. 8-17).

GROUNDWATER PROTECTION, NOT POINT OF COMPLIANCE

69. Testimony was provided that the Rule establishes a groundwater protection system at each unit of the facility, the effectiveness of that system is demonstrated by monitoring wells around the perimeter, down gradient and as close as practicable to each unit. (TR. Vol. 3, P. 558-559, L. 17-8).

70. Testimony was given that the monitoring wells are to ensure that the protections that are built in to each unit of the copper mine facility are effective, and if they are not, then to signal the need for implementation of contingency and abatement actions as needed to restore the protections required. (TR. Vol. 3, P. 557, L. 12-20).

VARIANCES

71. There was testimony that each requirement under the Copper Rule can be substituted by the permittee by demonstration that the protection requirements of the proposed Rule will be met. (TR. Vol. 3, P. 562, L. 1-21), (TR. Vol. 3, P. 581, L. 3-6).

72. The Copper Rule, to the extent it is a prescriptive rule is, in effect, a one-time variance procedure. (TR. Vol. 3, P. 564-565, L. 19-19).

BEST AVAILABLE SCIENTIFIC INFORMATION

73. Evidence was provided that the WQA requires in §74-6-4(K) that the Commission must consider the “best available scientific information” in developing and proposing the Copper Mine Rule. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 12).

74. Testimony was provided that the WQA does not require “state-of-the-art” method to be applied, the WQA requires that “groundwater protection” be met at the place of withdrawal regardless of how that is achieved. Brown (rebuttal) (20.6.7.6 NMAC). (TR. Vol. 3, P. 566, L. 1-13).

75. Testimony was provided that open pits of any size are going to penetrate the water table, causing an in-mine lake with evaporative water loss causing inflow, or pumping of water from the pit to maintain dry mining conditions, but either way, containment will be maintained. (TR. Vol. 3, P. 564-565, L. 22-10).

76. There was testimony that a liner may not be a good idea for every situation every time because if the rule were to require a liner then other issues related to the environment in terms of long term discharge management and short term operability come into play. (NMED, Brown, Direct Testimony [Pleading #49], P. 19).

77. Specific to tailings Impoundments, testimony was given that lining reduces or eliminates the drainage of interstitial water from the tailings, thereby increasing the porewater pressure in the tailings which reduces the static stability of the pile and the ability of the pile to withstand earthquake loading without liquefying. (TR. Vol. 10, P. 2372, L. 8-10).

78. Testimony was given that liner failure has the potential to create widespread impact to the water resources of New Mexico, both surface water and groundwater. (NMED, Brown, Rebuttal [Pleading #60], P. 2), (TR. Vol. 10, P. 2554, L. 21-24).

79. Testimony was provided that interceptor well systems are the same method used to deal with maintaining the long-term performance of liner systems in tailing piles. (NMED, Brown, Rebuttal [Pleading #60], P. 2).

80. Specific to waste rock stockpiles, testimony was given that lining is potentially problematic, for the following reasons:

- a. Protection of the lining is difficult during Placement of the waste rock, due to the impact of the large rocks that are dumped.
- b. Placement of liner is difficult on steeply sloping areas that are often used for waste rock piles.
- c. The use of a liner frequently creates a plane of weakness beneath the pile, particularly where the pile is located on sloping ground or bedrock. This causes reduced stability, which threatens the integrity of the liner due to mass movement of the pile, and by material from a slope failure impacting groundwater.

(NMED, Brown, Rebuttal [Pleading #60], P. 3).

81. Testimony was provided that it is not possible to line an active mine pit, and to do so would be a de-facto banning of the mining of copper in New Mexico, which the Water Quality Act clearly does not intend. (NMED, Brown, Rebuttal [Pleading #60], P. 3).

AGREEMENT ON CONTINUATION OF COPPER MINING IN NM

82. Throughout the hearing there was a collective agreement by all parties that open pit copper mining should not be prohibited in NM. (TR. Vol. 1, P. 20, L. 2-5), (TR. Vol. 1, P. 22, L. 6-11), (TR. Vol. 1, P. 30, L. 16-20), (TR. Vol. 1, P. 44, L. 11-17), (TR. Vol. 1, P. 58, L.

10-14), (TR. Vol. 1, P. 67, L. 1-4), (TR. Vol. 2, P. 239, L. 15-20), (TR. Vol. 3, P. 508, L. 2-7), (TR. Vol. 6, P. 150, L.9).

STATE COMPARATIVES

83. Evidence was presented in the testimony of Mr. Brown that New Mexico's proposed Copper Rule is as protective of ground water as the states of Arizona and Nevada, which are similar in terms of hard rock mining in desert environments. (NMED, Brown, Direct Testimony [Pleading #49], P. 6, 31, 44).

84. The Department's proposed rule was compared with other state regulation in the SW region and determined to be comprehensive, robust and proscriptive in the areas that it needs to specify. (TR. Vol. 3, P. 564, L. 17-25).

Commission Considerations

85. In Subsection E of NMSA 1978, §74-6-4 (2009) the Water Quality Act requires the commission to consider:

(1) *character and degree of injury to or interference with health, welfare, environment and property.*

86. Testimony was given that copper mines pose a high potential risk of ground water contamination if leachate, process water and impacted storm water are not stored and handled properly. (Tr. Vol. 3, P. 236, L. 20-23), (TR. Vol. 2, P. 257, L. 10-18), (TR. Vol. 3, P. 507, L. 17-20), (TR. Vol. 3, P. 576-577, L. 23-1), (TR. Vol. 3, P. 577, L. 5-7), (TR. Vol. 3, P. 588, L. 16-22), TR. Vol. 3, P. 590, L. 9-17), (TR. Vol. 5, P. 1036, L. 19-24),

87. Testimony was given that the Copper Rule contains specific requirements to contain these three potential sources of contamination. (TR. Vol. 4, P. 736, L. 15-23), (TR. Vol. 4, P. 741-742, L. 22-5), (TR. Vol. 4, P. 746, L. 16-22).

88. In Subsection E of NMSA 1978, §74-6-4 (2009) the Water Quality Act requires the commission to consider:

(2) *the public interest, including the social and economic value of the sources of water contaminants.*

89. Copper mines have a social and economic value - they provide jobs and a source of income for almost two thousand New Mexicans. (TR. Vol. 1, P. 91, L. 8-20).

90. The Copper Mine Rule proposed by the Department is intended to assure that ground water contamination is prevented or minimized to the extent practicable. (TR. Vol. 1, P. 15, L. 17-25).

91. The existing ground water rules already require remediation of contamination if it should occur. (TR. Vol. 1 P. 23, L. 14-20).

92. Good prevention practices assure that costs are borne by the company responsible for the contamination, rather than creating the potential that the public or others will bear the cost of remediation. (TR. Vol. 2, P. 421, L. 14-22).

93. The Department's proposed Copper Mine Rule strikes a fair balance between the interests of the state and public in maintaining uncontaminated ground and surface water, and the economic value of the industrial source of the water contaminants. (TR. Vol. 2, P. 441, L. 14-17).

94. In Subsection E of NMSA 1978, §74-6-4 (2009) the Water Quality Act requires the commission to consider:

(3) *technical practicability and economic reasonableness of reducing or eliminating water contaminants from the sources involved and previous experience with equipment and methods available to control the water contaminants involved.*

95. The construction and operation requirements called for in the Department's proposed Copper Mine Rule are technically practical and economically reasonable. (TR. Vol. 2, P. 398, L. 3-18).

96. Prevention or containment of ground water contamination at copper mines is achievable through available control technologies and proper operating methods. (TR. Vol. 3, P. 567, L. 19-22).

97. None of the prevention and monitoring practices called for in the Department's proposal are novel or technically impractical. (TR. Vol. 3, P. 569-570, L. 25-25).

98. In addition to the statutory criteria the Commission must consider, the WQA requires in §74-6-4(K) that the Commission must consider the "best available scientific information." (NMED, Skibitski, Direct Testimony [Pleading #49], P. 12).

99. In developing and proposing the Copper Mine Rule, the Department has relied upon the best scientific information available to it as described in the testimony of the Department's technical expert witness. (NMED, Skibitski, Direct Testimony [Pleading #49], P. 12).

100. In Subsection E of NMSA 1978, §74-6-4 (2009) the Water Quality Act requires the commission to consider:

(4) *successive uses, including but not limited to domestic, commercial, industrial, pastoral, agricultural, wildlife and recreational uses.*

101. The primary concern of the Department's proposed Copper Mine Rule is to prevent ground water contamination, and to monitor ground water to assure that it remains uncontaminated. (TR. Vol. 1 P. 16, L. 1-22).

102. In Subsection E of NMSA 1978, §74-6-4 (2009) the Water Quality Act requires the commission to consider:

(5) *feasibility of a user or a subsequent user treating the water before a subsequent use.*

103. Should ground water become contaminated by a copper mine, it is possible that users or subsequent users of the ground water could treat the water before use, but this is not a preferred alternative to prevention, and the costs likely would be much higher than prevention. (TR. Vol. 3, P. 709, L. 12-16).

104. In addition, it could shift the costs of the contamination from those who caused the contamination to the public or future generations. (TR. Vol. 3, P. 711-712, L. 23-1).

105. The Commission's water quality regulations require abatement of contaminated water by the responsible party, rather than requiring treatment of water by subsequent users. (TR. Vol. 3, P. 527, L. 11-18).

106. In Subsection E of NMSA 1978, §74-6-4 (2009) the Water Quality Act requires the commission to consider:

(6) *property rights and accustomed uses.*

107. Freeport-McMoRan currently operates three mines in New Mexico. (TR. Vol. 1, P. 81, L. 17-24). Freeport's Chino mine has been in operation for over one hundred years. (TR. Vol. 1, P. 160, L. 7-11). [Some testimony that Tyrone Phelps Dodge took the position that the place of withdrawal begins at the end of the property line—accustomed use, perhaps? (TR. Vol. 3, P. 604, L. 18-21)]. [No mention in the rule of a limit that the place of withdrawal be on the mine's property—rule reflects the accustomed uses (TR. Vol. 3, P. 627, L. 20-22).]

108. There was testimony that the operation of the mine has been authorized by the land owner to use the property for the duration of the requested permit. (TR. Vol. 4, P. 733, L. 2-7).

109. -Currently, the authorization to use the land for the duration of the permit necessarily includes the contamination that exists past the termination of the permit. (TR. Vol. 4, P. 734, L. 17-23).

1109. In Subsection E of NMSA 1978, §74-6-4 (2009) the Water Quality Act requires the commission to consider:

(7) *federal water quality requirements.*

1110. The Department's proposed regulations recognize that storm water is regulated by the Environmental Protection Agency, because New Mexico is one of five states that do not have primacy over surface water discharges. As a result, the Department's proposed regulations address storm water discharges only as they relate to possible contamination of ground water. (TR. Vol. 1, P. 16, L. 1-22), (TR. Vol. 4, P. 751, L. 14-20).

Respectfully submitted,

NEW MEXICO ENVIRONMENT DEPARTMENT

Andrew P. Knight
Kathryn S. Becker
Assistants General Counsel
Office of General Counsel
Post Office Box 5469
Santa Fe, New Mexico 87502-5469
Telephone: (505) 222-9540

CERTIFICATE OF SERVICE

I certify that a copy of the Department's Statement of Reasons was served by email on the following on this ndth day of August, 2013:

Tannis L. Fox, Assistant Attorney General
Water, Environmental and Utilities Division
Office of the New Mexico Attorney General
P.O. Box 1508
Santa Fe, New Mexico 87504
Phone: 505-827-6695
E:mail: tfox@nmag.gov
For the New Mexico Attorney General

Bruce Frederick, Staff Attorney
Doug Meiklejohn
Jon Block
Eric Jantz
N.M. Environmental Law Center
1405 Luisa St. #5
Santa Fe, NM 87505-4074
Phone: 505-989-9022
E:mail: bfrederick@nmelc.org
For the Gila Resources Information Project and
Turner Ranch Properties

Dalva Moellenberg
Anthony J. Trujillo
Gallagher and Kennedy P.A.
1233 Paseo de Peralta
Santa Fe, NM 87501-2758
Phone: 505-982-9523
E:mail: dln@gknet.com
E:mail: Trujillo, TJ <ajt@gknet.com>
For Freeport-McMoRan Chino Mines Company, Freeport-McMoRan Tyrone, Inc.
And Freeport-McMoRan Cobre Mining Company
Tracy Hughes
High Desert Energy and Environmental Law
P.O. Box 8201
Santa Fe, New Mexico 87504
Phone: 505.819.1710
E:mail: hughes@energyenvironmentlaw.com
For Amigos Bravos

Louis W. Rose
Montgomery & Andrews
P.O. Box 2307
Santa Fe, NM 87504-2307
Phone: 505-986-2506
E:mail: lrose@montand.com
For the New Mexico Mining Association

Jon Indall
Comeau, Maldegen, Templeman & Indall
P.O. Box 669
Santa Fe, New Mexico 87504-0669
Phone: 505-982-4611
E:mail: jindall@cmtisantafe.com
For the New Mexico Mining Association

William C. Olson
14 Cosmic Way
Lamy, New Mexico 87540
Phone: 505-466-2969
E:mail: billjeanie.olson@gmail.com

Sean Cunniff, Assistant Attorney General
Civil Division
Office of the New Mexico Attorney General
P.O. Box 1508
Santa Fe, New Mexico 87504
Phone: 505-827-6469
E:mail: scunniff@nmag.gov
Commission Counsel

Kathryn S. Becker

6. Adjacent natural springs that flow into these canyons provide added habitat for these species and are a critical hydrological component to the riparian system.

7. Ladder Ranch also depends on a consistent and clean ground water supply for its agricultural and other operations.

8. Ladder Ranch wells and springs adjacent to the Copper Flat Mine provide water for livestock (bison), irrigation activities, and a host of wildlife species.

9. Any significant adverse change in the water quality or quantity could seriously impact the current balance of life along these creeks and destroy and irreparably harm Ladder Ranch's livestock, irrigation activities, wildlife species, and habitat conservation programs, all of which depend on ground water and surface water.


Steve Dobrott