

Subsection H

1021. NMED proposed 20.6.7.29.G in the Petitioned Rule which requires an interceptor well system monitoring and evaluation report. *See* Petition, Attachment 1 at 31.

1022. GRIP and TRP proposed to delete 20.6.7.29.G in its . *See* GRIP Kuipers Direct, Attachment 2 at 35.

1023. NMED changed 20.6.7.29.G in the Petitioned Rule to 20.6.7.29.H in the Amended Rule and made changes to the title, the body of 20.6.7.29.H, and language of 20.6.7.29.H(1), (2), (3), and (7)(a).

1024. NMED supported the changes through the rebuttal testimony of Mr. Brown. *See* Brown Rebuttal at 12-13.

1025. The Commission finds that the proposal by GRIP and TRP is inappropriate because the Commission accepts the use of interceptor systems in other parts of the Copper Mine Rule and monitoring of these systems is important.

1026. NMED made no changes to 20.6.7.29.H in the Proposed Final Rule.

1027. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.29.H in its entirety as proposed by NMED in the Proposed Final Rule.

20.6.7.30 – Contingency Requirements for Copper Mine Facilities:

Section Overview

1028. NMED presented evidence to support 20.6.7.30 in the Petitioned Rule through Mr. Brown. Mr. Brown testified that 20.6.7.30 includes contingencies for each requirement in the event that it fails. Contingency requirements are triggered when performance of the unit is observed to fail or approaches failure of the requirements of the Petitioned Rule. Mr. Brown

noted that contingencies in each case comprise some or all of the following actions: notify, confirm, repair, correct, and abate. *See* NMED Brown Direct at 9.

1029. Mr. Brown testified that the contingencies in the Petitioned Rule cover the full range of failures and compliance exceedances of the mandated ground water protections. The range of options for contingency response and actions are comprehensive with response times commensurate with the severity of the potential impacts to ground water. Abatement is included in the contingency actions for those failures and exceedances where remedial damage results, and the selection of abatement opportunities are appropriate and comprehensive. *See* NMED Brown Direct at 10.

1030. Mr. Brown testified 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. Further, if water with the potential to cause an exceedance escapes the containment system of any unit, Mr. Brown testified that the Petitioned Rule allows the Department to mandate abatement procedures. TRV 3 at 565, L. 8-19.

1031. Mr. Brown testified that, in his personal experience, mining companies self-report spills and other upsets and rectify the problem before any impact is identified by the monitoring wells. TRV 4 at 736, L. 15-23.

Subsection A

1032. NMED proposed 20.6.7.30.A in the Petitioned Rule which deals with contingency requirements of ground water standards for all monitoring wells except impoundment monitoring wells. *See* Petition, Attachment 1 at 31.

1033. NMED made no changes to 20.6.7.30.A in the Amended Rule. *See* Amended Petition, Attachment 2 at 34.

1034. NMED supported 20.6.7.30.A through evidence and testimony of Mr. Brown. *See* NMED Brown Direct at 9-10.

1035. The Attorney General objected to 20.6.7.30.A and A(2) and proposed alternative rule language. With respect to 20.6.7.30.A, the Attorney General struck the language excluding monitoring wells for impoundments from subsection A, which NMED addresses in subsection B. The effect of the Attorney General's proposal was to combine subsection A with subsection B. With respect to 20.6.7.30.A(2), the Attorney General proposed tying this provision to Section 20.6.2.4103 NMAC. *See* AG Exhibit 2 at 33.

1036. GRIP and TRP objected to 20.6.7.30.A and proposed that 20.6.7.20.H be moved to the front as 20.6.7.30.A. GRIP and TRP argued that this sequential change in the subsections is necessary to assure that the permittee is alerted to the reporting requirements regarding unauthorized discharges. *See* GRIP Kuipers Direct, Attachment 2 at 35.

1037. The Commission finds that a change in the order of 20.6.7.30.A is unnecessary, as the permittee will need to be aware of and comply with all provisions of the Copper Mine Rule.

1038. With respect to 20.6.7.30.A (labeled as 20.6.7.30.C by GRIP and TRP), GRIP and TRP also suggest combining subsection A with subsection B and adding several other language changes. *See* GRIP Kuipers Direct, Attachment 2 at 35.

1039. Amigos Bravos proposed new language for 20.6.7.30.A based solely on the August 17 Discussion Draft. *See* AB Exhibit 1 at 48.

1040. Freeport rebutted the testimony by the Attorney General and Mr. GRIP Kuipers Direct through the testimony of Mr. Blandford, *See* Freeport Blandford Rebuttal at 16-17.

1041. The Commission finds that the changes to 20.6.7.30.A proposed by Amigos Bravos based solely on the August 17 Discussion Draft are insufficient to justify changing the Copper Mine Rule because no technical evidence is presented to support such changes.

1042. The Commission finds that Freeport and Mr. Olson did not object to 20.6.7.30.A because they proposed no alternative rule language.

1043. In the Proposed Final Rule, NMED combined subsection A with subsection B in response to the Attorney General and GRIP/TRP recommendations, which simplify and clarify the Petitioned Rule.

1044. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.30.A as set forth by NMED in the Proposed Final Rule.

Subsection B

1045. NMED proposed 20.6.7.30.B in the Petitioned Rule which addresses contingency requirements for exceedances of ground water standards for impoundment monitoring wells. *See* Petition, Attachment 1 at 32.

1046. NMED made no changes to 20.6.7.30.B in the Amended Rule. *See* Amended Petition, Attachment 2 at 35.

1047. NMED supported 20.6.7.30.B through evidence and testimony of Mr. Brown. *See* NMED Brown Direct at 9-10.

1048. The Attorney General objected to 20.6.7.30.B and proposed to delete the entire subsection, thereby making exceedances of ground water standards for impoundment monitoring wells subject to the contingency requirements set forth in 20.6.7.30.A. *See* AG Exhibit 2 at 34.

1049. GRIP and TRP objected to 20.6.7.30.B and argued that this subsection should only contain contingency requirements for abatement plans or other corrective actions that are located in other provisions of 20.6.7.30. *See* GRIP Kuipers Direct, Attachment 2 at 35.

1050. With respect to 20.6.7.30.B (as labeled by NMED), GRIP and TRP proposed to delete and changed several provisions and have it labeled as 20.6.7.30.C. *See* GRIP Kuipers Direct, Attachment 2 at 36.

1051. Amigos Bravos proposed new language for 20.6.7.30.B and B(1) based solely on the August 17 Discussion Draft. *See* AB Exhibit 1 at 49.

1052. The Commission finds that the changes to 20.6.7.30.B and B(1) proposed by Amigos Bravos based solely on the August 17 Discussion Draft are insufficient to justify changing the Petitioned Rule because no technical evidence supported such changes.

1053. The Commission finds that Freeport and Mr. Olson did not object to 20.6.7.30.B because they did not propose alternative rule language.

1054. Based on the weight of the evidence, the Commission does not adopt a separate 20.6.7.30.B. Instead, it adopts 20.6.7.30.A, the combined subsection, as discussed above.

Subsection C

1055. NMED proposed 20.6.7.30.C in the Petitioned Rule which outlines contingency requirements for monitoring well replacement. *See* Petition, Attachment 1 at 32.

1056. NMED made no changes to 20.6.7.30.C in the Amended Rule. *See* Amended Petition, Attachment 2 at 33.

1057. NMED supported 20.6.7.30.C through evidence and testimony of Mr. Brown. *See* NMED Brown Direct at 9-10.

1058. GRIP and TRP proposed to delete 20.6.7.30.C and move it to another section of the Copper Mine Rule. *See* GRIP Kuipers Direct, Attachment 2 at 36. They have no substantive objections to the subsection.

1059. The Commission finds GRIP's and TRP's proposal to move 20.6.7.30.C is unnecessary.

1060. Amigos Bravos proposed new language for 20.6.7.30.C based solely on the August 17 Discussion Draft. *See* AB Exhibit 1 at 50.

1061. The Commission finds that the changes to 20.6.7.30.C proposed by Amigos Bravos based solely on the August 17 Discussion Draft are insufficient to justify changing the Petitioned Rule, because no technical evidence is presented to support the proposed changes.

1062. The Commission finds that Freeport, the Attorney General, and Mr. Olson did not object to 20.6.7.30.C, because they did not propose alternative rule language.

1063. NMED made no changes to 20.6.7.30.C in the Proposed Final Rule except for renumbering it as Subsection B.

1064. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.30.C, renumbered as 20.6.7.30.B, as set forth by NMED in the Proposed Final Rule.

Subsection D

1065. NMED proposed 20.6.7.30.D in the Petitioned Rule which addresses with contingency requirements for exceedances of permitted maximum daily discharge volumes. *See* Petition, Attachment 1 at 32.

1066. NMED made no changes to 20.6.7.30.D in the Amended Rule. *See* Amended Petition, Attachment 2 at 35.

1067. NMED supported 20.6.7.30.D through evidence and testimony of Mr. Brown. *See* NMED Brown Direct at 9-10.

1068. The Commission finds that 20.6.7.30.D is undisputed because Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson did not propose alternative rule language. *See* AG Exhibit 2 at 34; AB Exhibit 1 at 50; GRIP Kuipers Direct Attachment 2 at 37; WCO Exhibit 3 at 46.

1069. NMED made no changes to 20.6.7.30.D in the Proposed Final Rule, except to renumber it as 20.6.7.30.C.

1070. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.30.D, renumbered as 20.6.7.30.C, as set forth by NMED in the Proposed Final Rule.

Subsection E

1071. NMED proposed 20.6.7.30.E in the Petitioned Rule which details contingency requirements for insufficient impoundment capacity. *See* Petition, Attachment 1 at 32-33.

1072. NMED made no changes to 20.6.7.30.E in the Amended Rule. *See* Amended Petition, Attachment 2 at 35-36.

1073. NMED supported 20.6.7.30.E through evidence and testimony of Mr. Brown. *See* NMED Brown Direct at 9-10.

1074. The Commission finds that 20.6.7.30.E is undisputed because Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson do not propose alternative rule language. *See* Freeport NOI; AG Exhibit 2 at 34-35; AB Exhibit 1 at 50; GRIP Kuipers Direct Attachment 2 at 37; WCO Exhibit 3 at 46.

1075. NMED made no changes to 20.6.7.30.E in the Proposed Final Rule except to renumber it as 20.6.7.30.D.

1076. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.30.E, renumbered as 20.6.7.30.D, as set forth by NMED in the Petitioned Rule, Amended Rule, and Proposed Final Rule.

Subsection F

1077. NMED proposed 20.6.7.30.F in the Petitioned Rule which outlines contingency requirements for inability to preserve required freeboard. *See* Petition, Attachment 1 at 33.

1078. NMED made no changes to 20.6.7.30.F in the Amended Rule. *See* Amended Petition, Attachment 2 at 36.

1079. NMED supported 20.6.7.30.F through evidence and testimony of Mr. Brown. *See* NMED Brown Direct at 9-10.

1080. The Commission finds that 20.6.7.30.F is undisputed because Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson did not propose alternative rule language. *See* Freeport NOI; AG Exhibit 2 at 35; AB Exhibit 1 at 50-51; GRIP Kuipers Direct Attachment 2 at 37; WCO Exhibit 3 at 46.

1081. NMED made no changes to 20.6.7.30.F in the Proposed Final Rule, except to renumber it as 20.6.7.30.E.

1082. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.30.F, renumbered as 20.6.7.30.E, as set forth by NMED in the Proposed Final Rule.

Subsection G

1083. NMED proposed 20.6.7.30.G in the Petitioned Rule which addresses contingency requirements for impounds with structural integrity compromised. *See* Petition, Attachment 1 at 33.

1084. NMED made no changes to 20.6.7.30.G in the Amended Rule. *See* Amended Petition, Attachment 2 at 36.

1085. NMED supported 20.6.7.30.G through evidence and testimony of Mr. Brown. *See* NMED Brown Direct at 9-10.

1086. Amigos Bravos proposed new language for 20.6.7.30.G based solely on the August 17 Discussion Draft. *See* AB Exhibit 1 at 51.

1087. The Commission finds that the changes to 20.6.7.30.G proposed by Amigos Bravos based solely on the August 17 Discussion Draft are insufficient to justify changing the Petitioned Rule because no technical evidence is presented to support these changes.

1088. The Commission finds that Freeport, the Attorney General, GRIP, TRP, and Mr. Olson did not object to 20.6.7.30.G, because they do not propose alternative rule language. *See* Freeport NOI; AG Exhibit 2 at 35; GRIP Kuipers Direct Attachment 2 at 37; WCO Exhibit 3 at 46.

1089. NMED made no changes to 20.6.7.30.G in the Proposed Final Rule, except to renumber it as 20.6.7.30.F.

1090. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.30.G, renumbered as 20.6.7.30.F, as set forth by NMED in the Proposed Final Rule.

Subsection H

1091. NMED proposed 20.6.7.30.H in the Petitioned Rule which sets forth contingency requirements for reporting and correction of unauthorized discharges. *See* Petition, Attachment 1 at 33.

1092. NMED made no changes to 20.6.7.30.H in the Amended Rule. *See* Amended Petition, Attachment 2 at 36.

1093. NMED supported 20.6.7.30.H through evidence and testimony of Mr. Brown. *See* NMED Brown Direct at 9-10.

1094. GRIP and TRP have no substantive objections to 20.6.7.30.H as labeled by NMED, but they did propose to move it to the front as 20.6.7.30.A.

1095. For the reasons set forth above, the Commission finds that the proposal to move 20.6.7.30.H as proposed by GRIP and TRP is unnecessary.

1096. The Commission finds that Freeport, the Attorney General, Amigos Bravos, and Mr. Olson did not object to 20.6.7.30.H, because they did not propose alternative rule language. *See* Freeport NOI; AG Exhibit 2 at 35; AB Exhibit 1 at 51; WCO Exhibit 3 at 46.

1097. NMED made no changes to 20.6.7.30.H in the Proposed Final Rule, except to renumber it as 20.6.7.30.G.

1098. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.30.H, renumbered as 20.6.7.30.G, as set forth by NMED in the Proposed Final Rule.

Subsection I

1099. NMED proposed 20.6.7.30.I in the Petitioned Rule which addresses contingency requirements for impounds with unstable slopes for leach stockpiles, tailings impoundments, or waste rock stockpiles. *See* Petition, Attachment 1 at 33.

1100. NMED made no changes to 20.6.7.30.I in the Amended Rule. *See* Amended Petition, Attachment 2 at 34.

1101. NMED supported 20.6.7.30.I through evidence and testimony I Mr. Brown. *See* NMED Brown Direct at 9-10.

1102. Amigos Bravos proposed new language for 20.6.7.30.I based solely on the August 17 Discussion Draft. *See* AB Exhibit 1 at 51.

1103. The Commission finds that the changes to 20.6.7.30.I proposed by Amigos Bravos based solely on the August 17 Discussion Draft are insufficient to justify changing the Petitioned Rule because no technical evidence is presented to support these changes.

1104. The Commission finds that Freeport, the Attorney General, GRIP, TRP, and Mr. Olson did not object to 20.6.7.30.I, because they did not propose alternative rule language. *See* Freeport NOI; AG Exhibit 2 at 35-36; GRIP Kuipers Direct Attachment 2 at 38; WCO Exhibit 3 at 46-47.

1105. NMED made no changes to 20.6.7.30.I in the Proposed Final Rule, except to renumber it as 20.6.7.30.H.

1106. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.30.I, renumbered as 20.6.7.30.H, as set forth by NMED in the Petitioned Rule, Amended Rule, and Proposed Final Rule.

Subsection J

1107. NMED proposed 20.6.7.30.J in the Petitioned Rule which outlines contingency requirements for erosion of cover systems or compromised stormwater conveyance structures, ponding of stormwater, or other conditions. *See* Petition, Attachment 1 at 33-34.

1108. NMED supported 20.6.7.30.J through evidence and testimony of Mr. Brown. *See* NMED Brown Direct at 9-10.

1109. Freeport objected to 20.6.7.30.J in the Petitioned Rule and proposed alternative language. *See* Freeport NOI at 6.

1110. Freeport presented evidence through Thomas Shelley to support its alternative language. Mr. Shelley maintained that the last two sentence of 20.6.7.30.J in the Petitioned Rule should be deleted because, in summary, they are not appropriate or even possible for some

corrective actions and may conflict with the approved schedule that is required for every corrective action plan. *See* Freeport Shelley Direct at 48-49.

1111. NMED made changes to 20.6.7.30.J in the Amended Rule by proposing to delete the second to the last sentence: “The schedule shall propose completion within one year from the submittal date of the initial corrective action plan.” *See* Amended Petition, Attachment 2 at 36. This amendment partially addresses Freeport’s objection to the Petitioned Rule.

1112. The Commission finds that the Attorney General, GRIP, TRP, and Mr. Olson did not object to 20.6.7.30.J, because they did not propose alternative rule language. *See* AG Exhibit 2 at 35; AB Exhibit 1 at 51-52; GRIP Kuipers Direct Attachment 2 at 38; WCO Exhibit 3 at 49.

1113. NMED made no changes to 20.6.7.30.J in the Proposed Final Rule, except to renumber it as 20.6.7.30.I.

1114. Based on the weight of the evidence, the Commission hereby 20.6.7.30.J, renumbered as 20.6.7.30.I, as set forth in the Proposed Final Rule.

Subsection K

1115. NMED proposed 20.6.7.30.K in the Petitioned Rule which sets forth contingency requirements for water management and water treatment system failures. *See* Petition, Attachment 1 at 34.

1116. NMED supported 20.6.7.30.K through evidence and testimony of Mr. Brown. *See* NMED Brown Direct at 9-10.

1117. Freeport objected to 20.6.7.30.K in the Petitioned Rule and proposed alternative language. *See* Freeport NOI at 6.

1118. Freeport presented evidence through Thomas Shelley to support its alternative language. *See* Shelley Direct at 49.

1119. NMED made changes to 20.6.7.30.K in the Amended Rule by deleting the following sentence: “The schedule shall propose completion within one year from the submittal date of the initial corrective action plan.” *See* Amended Petition, Attachment 2 at 37. This amendment partially addresses Freeport’s objection to the Petitioned Rule.

1120. The Commission finds that the Attorney General, GRIP, TRP, and Mr. Olson did not object to 20.6.7.30.K, because they did not propose alternative rule language. *See* AG Exhibit 2 at 36; AB Exhibit 1 at 52; GRIP Kuipers Direct Attachment 2 at 38; WCO Exhibit 3 at 47.

1121. NMED made no changes to 20.6.7.30.K in the Proposed Final Rule, except to renumber it as 20.6.7.30.J.

1122. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.30.K, renumbered as 20.6.7.30.J, as set forth in the Proposed Final Rule.

Subsection L

1123. NMED proposed 20.6.7.30.L in the Petitioned Rule which addresses contingency requirements for interim emergency water management. *See* Petition, Attachment 1 at 33.

1124. NMED made no changes to 20.6.7.30.L in the Amended Rule. *See* Amended Petition, Attachment 2 at 37.

1125. NMED supported 20.6.7.30.L through evidence and testimony of Mr. Brown. *See* NMED Brown Direct at 9-10.

1126. The Commission finds that 20.6.7.30.L is undisputed because Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson did not propose alternative rule language. *See* Freeport NOI; AG Exhibit 2 at 36; AB Exhibit 1 at 52; GRIP Kuipers Direct Attachment 2 at 38; WCO Exhibit 3 at 47.

1127. NMED made no changes to 20.6.7.30.L in the Proposed Final Rule, except to renumber it as 20.6.7.30.K.

1128. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.30.L, renumbered as 20.6.7.30.K, as set forth by NMED in the Proposed Final Rule.

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

1129. NMED proposed to reserve 20.6.7.31 for future rulemaking changes. *See* Petition, Attachment 1 at 34; Amended Petition, Attachment 2 at 37.

1130. Mr. Olson objects to reserving 20.6.7.31 and, instead, proposes an entire new subsection dealing with variance petitions. *See* WCO Exhibit 3 at 47-50. In summary, Mr. Olson maintains that a new subsection dealing with variance petitions is needed because the approach taken by the Petitioned Rule: (1) violates the WQA; (2) is inconsistent with the history of the Commission’s ground water protection rules; (3) is inconsistent with other existing Commission rules; (4) is inconsistent with the Commission’s Decision and Order on Remand in the Tyrone Mine Hearings; (5) is inconsistent with the Tyrone Agreement approved by the Commission; and (5) does not give consideration to site-specific engineering or technological controls that could prevent water pollution. *See* WCO Exhibit 3 at 49-50.

1131. The Attorney General proposed the same new subsection dealing with variance petitions. *See* AGAG Exhibit 2 at 36-38.

1132. GRIP, TRP, and Amigos Bravos, while not proposing section 31 as a variance section, contended that the Petitioned Rule is flawed because it would not require variances for certain types of facilities and allegedly would allow the standards of 20.6.2.3103 to be exceeded without requiring a variance on a site-specific basis.

1133. Mr. Olson argued that many regulations within the Department include variance provisions. One rule in 20.6.2.4103 allows a method for seeking alternative abatement standards that can exceed the Commission's numeric standards under 20.6.2.3103 under certain circumstances. In a second rule, there is a mechanism for considering site-specific variances to Commission rules in 20.6.2.1210 that contains provisions for individual variances in accordance with Section 74-6-4.H NMSA 1978 of the WQA. In these cases, the Commission may only grant variances after a public hearing and the variance terms are limited to five-year period. In addition, in a third rule, the recently approved Dairy Rule, in 20.6.6.18, the Commission adopted a new variance rule for dairy facilities that allows for alternate discharge designs consistent with the WQA. This variance rule offers some expanded criteria for consideration, allows variances to be granted for the useful life of the feature and provides for 5-year review of the effectiveness of the variance. Mr. Olson claimed that these provisions are consistent with the WQA. *See* WCO Direct at 10-11.

1134. Mr. Olsen further testified that a variance process is necessary to ensure continued public input and encourage transparency. Mr. Olson further alleged that this process will increase ground water protection, but provided no concrete evidence in support of this contention. *See* WCO Exhibit 3 at 47-50.

1135. On behalf of the Attorney General, Ms. Travers asserted that the current regulatory framework for ground water protection in New Mexico requires a variance for degradation of ground water quality above standards during mine operations and that variances require a showing of an "unreasonable burden," are based upon site-specific information, and are routinely granted. Ms. Travers identified no particular variance proceeding in support of this

contention and testified that she did not review the record of any variance proceeding. *See* AG Travers Direct at 3.

1136. On behalf of GRIP and TRP, Mr. GRIP Kuipers Direct testified that pollution of ground water above standards at some sites may be unavoidable, but the decision to do it and conditions necessary to limit and control it should be made on a site-specific basis and not through the Copper Mine Rule. *See* GRIP Kuipers Direct at 3.

1137. Ms. Travers testifies that allowing ground water to become degraded beneath and downgradient of facilities without consideration of site-specific factors that may make it difficult to intercept and detect contamination migrating off site is not best practice, and allowing widespread contamination is not best practice. Ms. Travers further testifies that the Copper Mine Rule does not require that site-specific conditions be considered as would be required in determination of a variance under the existing rules, and site-specific review would provide for additional ground water protections. *See* AG Travers Direct at 15-16.

1138. NMED rebutted the testimony of Mr. GRIP Kuipers Direct, Ms. Travers, and Mr. Olson through the rebuttal testimony of Mr. Brown. Mr. Brown testified that requiring a variance versus approving proven technologies by rule is a distinction without a difference, and that the Petitioned Rule recognizes the limits of existing technology, particularly with respect to waste rock stockpiles and tailings impoundments. *See* Brown Rebuttal at 6-7.

1139. On behalf of Freeport, Timothy Eastep rebutted Ms. Travers and Messrs. Kuipers and Olson stating that although exceedances of ground water quality standards have been measured at monitoring well locations associated with most of Freeport's discharge permits, the Department has never required a variance to renew any of the discharge permits for existing facilities. Over the thirty plus years discharge permit have been issued for Freeport's copper

mines, Mr. Eastep was aware of only two very recent variance petitions, both of which were for unlined leach stockpiles located within open pit areas. *See* Freeport Eastep Rebuttal at 6.

1140. On behalf of Freeport, Mr. Blandford testified that the variance approach is based on a subjective standard of “unreasonable burden,” not necessarily any detailed site-specific evaluation. From the perspective of a technical professional involved in mine permitting, it is preferable to have a specific set of requirements for permitting, and Mr. Blandford believed that the approach in the Copper Mine Rule would result in improved technical evaluations and permit applications that will significantly improve pollution prevention at future copper mines. *See* Freeport Blandford Rebuttal at 33.

1141. On behalf of Freeport, Mr. Brack testified that rules that rely on the extensive use of variances are not an effective way to provide certainty and foster long-term investment by mining companies. *See* Brack Direct at 19-20; *see also* Freeport Eastep Rebuttal at 10.

1142. Mr. Eastep provides additional testimony regarding the variance approach in his rebuttal testimony in response to the testimony of Ms. Travers and Mr. Olson. *See* Freeport Eastep Rebuttal at 6-12 and 18-21.

1143. On behalf of Freeport, Mr. Scott testified that certain technical issues are better addressed through the Petitioned Rule than on an *ad hoc* basis through a variance procedure subject to personal preferences. The conditions necessary to limit and control seepage contamination are well understood and established based on modern industry practices. *See* Freeport Scott Rebuttal at 4.

1144. Mr. Scott disagreed with Ms. Travers’ assertion that the Petitioned Rule does not require consideration of site-specific conditions. The Copper Mine Rule requires consideration of site-specific conditions by an engineer designing the facility, evaluating and selecting monitoring

well locations, and designing seepage collection and interceptor well systems as required. *See* Freeport Scott Rebuttal at 4.

1145. Mr. Blandford also refuted Mr. Travers' testimony regarding site specific conditions and testified that the Copper Mine Rule requires consideration of site-specific conditions by an engineer designing the facility, determination of appropriate monitoring well locations, and design of seepage collection and interceptor well systems. *See* Freeport Blandford Rebuttal at 20.

1146. Mr. Eastep also refuted Ms. Travers's recommendation of using an alternative approach to the Proposed Rule, including requiring variances for any exceedance of ground water quality standards at a place of withdrawal of water for present or reasonably foreseeable future use. Ms. Travers asserted that her approach would not impose overly burdensome restrictions on industry. Mr. Eastep testified that the copper mining industry needs reasonable certainty regarding permitting requirements to justify the high level of investment in exploration and mine development costs. Requiring variances in virtually all circumstances would defeat the purpose of adopting rules with very detailed and specific requirements. Numerous variance proceedings also would drain the Department's resources. Furthermore, Ms. Travers' did not investigate industry practices or consider the feasibility of requiring liner systems for waste rock stockpiles and tailings impoundments or requiring compliance with ground water quality standards inside an open pit in recommending changes to the Petition Rule. *See* Freeport Eastep Rebuttal at 10-11.

1147. Mr. Grass also refuted Ms. Travers's testimony that the Proposed Rule does not require that site specific conditions be considered in determining a variance, and that site specific review provides additional ground water protections. The Petitioned Rule requires consideration

of site specific conditions in a number of locations, including by an engineer designing the facility, in determining monitoring well locations, and in designing seepage collection and interceptor well systems, if required. The Petitioned Rule specifically states that site specific conditions must be evaluated as part of any design. No design can be strictly prescriptive as site conditions change even within a single mining facility. *See* Freeport Grass Rebuttal at 6-7.

1148. Mr. Scott rebutted Ms. Travers's testimony regarding the Petitioned Rule's consideration of site-specific conditions to provide additional ground water protections. Mr. Scott testified that the Proposed Rules required consideration of site-specific conditions by an engineer designing the facility, evaluating and selecting monitoring well locations, and designing seepage collection and interceptor well systems as required. Mr. Scott testified Site-specific evaluations are best left to the design engineer, who must also comply with NMOSE regulations when designing tailing impoundments. *See* Freeport Scott Rebuttal at 4.

1149. The Commission finds that the WQA authorizes the Commission to grant a variance from the Commission's regulations following a public hearing. The Act does not allow the Commission to grant a variance from the WQA. Variances sought in the past have been from the Commission's existing regulations. Following the adoption of the Copper Mine Rule, to the extent that the Copper Mine Rule supersedes the existing regulations, most variances for copper mines are expected to seek relief from the requirements of these Rules, and to a lesser extent from the existing regulations. These Copper Mine Rules establish clearer guidance, compared to the existing regulations, regarding the application of and measurement of compliance with the standards of 20.6.2.3103. The Copper Mine Rules also contemplate the possibility of variances, but would utilize the existing regulations, 20.6.2.1210, for variance petitions.

1150. The Commission finds that the Copper Mine Rules allow for a public process regarding permits issued under the Rules. Under 20.6.7.10 and 20.6.7.3108, the public will receive at least two public notices regarding permit applications and draft permits. The public can comment on the applications and draft permits, can request a hearing, and can present evidence. The public can appeal a permit to the Commission. As discussed above with regard to 20.6.7.10.J, the Copper Mines Rules acknowledge the prohibition in section 74-6-5(E), and a contention that a permit has been issued in violation of this prohibition could be raised in comments, at a hearing, and in an appeal to this Commission. Consequently, the Commission finds that the opportunity for the public to be heard will not be sacrificed if the Commission does not adopt the proposed variance section.

1151. The Commission finds that the variance proceedings demand substantial resources from the Department and permit applicants, and the testimony as a whole does not identify the likelihood of a different outcome if a variance process is used versus application of the Copper Mine Rules.

1152. The Commission finds that the terms of the Tyrone Settlement do not preclude adoption of the Copper Mine Rules without the variance provision.

1153. The Commission finds that it has the authority to adopt the Copper Mine Rule as proposed by NMED with provisions clarifying how the standards of 20.6.2.3103 apply with respect to copper mine facilities, and that the Commission is not precluded from adopting these rules as argued by the Attorney General, GRIP/TRP, Amigos Bravos, and Mr. Olson.

1154. NMED made no changes to 20.6.7.31 NMAC in the Proposed Final Rule.

1155. Based on the weight of the evidence, the Commission hereby declines to adopt the variance provisions proposed by Mr. Olson and the Attorney General and, instead, adopts 20.6.7.31 as reserved that is proposed by NMED in the Proposed Final Rule.

20.6.7.32 – Reserved [Variance Hearings]:

1156. NMED proposed to reserve 20.6.7.32 for future rulemaking changes. *See* Petition, Attachment 1 at 34; Amended Petition, Attachment 2 at 37.

1157. Mr. Olson objected to reserving 20.6.7.32 and, instead, proposed an entire new subsection dealing with variance hearings. *See* WCO Exhibit 3 at 50.

1158. The Attorney General proposed the same new subsection dealing with variance hearings. *See* AG Exhibit 2 at 38.

1159. For the reasons set forth above regarding 20.6.7.31, the Commission finds that 20.6.7.32 is unnecessary.

1160. Based on the weight of the evidence, the Commission hereby declines to adopt the provisions on variance hearings proposed by Mr. Olson and the Attorney General and, instead, adopt 20.6.7.32 as reserved that is proposed by NMED in the Petitioned Rule, Amended Rule, and Proposed Final Rule.

20.6.7.33 – Closure Requirements for All Copper Mine Facilities:

Section Overview

1161. Under the Copper Mine Rule, all leached rock, waste rock, and tailings stockpiles will be closed consistent with requirements for slope stability, surface re-grading, cover systems, closure water management and treatment, and closure monitoring and maintenance. *See* NMED Brown Direct at 39-40.

1162. Seepage control is at the heart of the Copper Mine Rule's post-closure ground water protection system. It limits discharge from the closed mine facilities to rates that protect ground water of the state for potential future use as domestic and agriculture water supply and surface water recharge. *See* NMED Brown Direct at 32.

1163. Store-and-release cover systems achieve seepage control by storing infiltrating precipitation water and releasing the stored water over time to the atmosphere by evaporation and plant evapotranspiration. *See* NMED Brown Direct at 32.

1164. 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 ground water quality standards of 26.6.2.3103 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 into ground water 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 ground water standards or the open pit must be pumped in order to create an area of open pit hydrologic containment. *See* NMED Brown Direct at 43.

1165. Post-closure protection of ground water is achieved by making the closed open pit a ground water sink, either by evaporation or by pumping. This protection will be effective. *See* NMED Brown Direct at 43.

1166. 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* NMED Brown Direct at 33.

1167. Approximately 21 inches of material no coarser than silty sand and gravel is needed to provide the required water storage for typical New Mexico copper mine covers. The cover also requires some admixture of coarser material to ensure erosion protection. The combined material is consistent with the Rule's minimum requirement for 36 includes minimum of total cover thickness. *See* NMED Brown Direct at 33-34.

1168. Store-and-release covers applied to the top and sides of waste rock stockpiles provide good protection against infiltration in arid and semi-arid environments. When constructed in New Mexico in accordance with the Rule, store-and-release covers will limit flow through waste rock piles to less than 0.2 inches per year. *See* NMED Brown Direct at 34-38.

1169. Under 20.6.7.33(K), all other copper mine units except leach stockpiles, waste rock stockpiles, tailings piles, and open pits will be closed by site cleanup and cover, if applicable. Closure of the remaining copper mine units by removal or covering of materials containing materials with the potential to cause ground water exceedances of standards will be protective of ground water. *See* NMED Brown Direct at 43.

20.6.7.33 – Closure Requirements for All Copper Mine Facilities:

Undisputed Subsections A, E, G, H, K, L, and M

1170. NMED proposed 20.6.7.33.A, E, G, H, K, L, and M in the Petitioned Rule which sets forth closure requirements for copper mine facilities. *See* Petition, Attachment 1 at 34-37.

1171. NMED presented evidence to support 20.6.7.33 through the testimony of Mr. Brown, wherein he discuss the effectiveness of post-operational ground water protection. *See* NMED Brown Direct at 32-44.

1172. Freeport supported 20.6.7.33.A, E, G, H, K, L, and M in the Petitioned Rule through testimony of Thomas Shelley. *See* Shelley Direct at 11-37.

1173. NMED made no changes to 20.6.7.33.E, G, K, L, and M in the Amended Rule. *See* Amended Petition, Attachment 2 at 38-40.

1174. NMED made changes to 20.6.7.33.A and H in the Amended Rule. *See* Amended Petition, Attachment 2 at 37-39.

1175. The Commission finds that 20.6.7.33.A, E, G, H, K, L, and M in the Petitioned Rule and Amended Rule are undisputed because Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson did not propose alternative rule language. *See* Freeport NOI; AG Exhibit 2 at 38-41; AB Exhibit 1 at 52-57; GRIP Kuipers Direct Attachment 2 at 38-42; WCO Exhibit 3 at 50-54.

1176. In the Proposed Final Rule, NMED made 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.

1177. 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

1178. NMED proposed 20.6.7.33.B in the Petitioned Rule which addresses closure requirements for slope stability. *See* Petition, Attachment 1 at 34.

1179. Freeport proposes changes to 20.6.7.33.B in the Petitioned Rule and presents two different approaches to remedy the problems with 20.6.7.33.B through testimony of Mr. Shelley and Mr. Scott. *See* Freeport NOI at 6; Freeport Shelley Direct at 15-17; and Freeport Scott Direct at 19 and 24.

1180. Mr. Shelley's testimony states that if the subsection is retained the Rule, slope requirements meet or exceed general engineering practice standards and, in some instances, are overly conservative and protective. *See* Freeport Shelley Direct at 15-17.

1181. According to Mr. Scott, this subsection requires tailing impoundments be constructed to ensure stability and safe performance, and the Petitioned Rule takes into consideration embankment strength, pore pressure/ phreatic considerations, slope materials etc. The Rule works in conjunction with NMOSE, which has jurisdiction over tailings dams. The NMOSE criteria includes liquefaction evaluations, however, due to granular composition in the western United States this is not really a factor. *See* Freeport Scott Direct at 19.

1182. NMED refuted the proposed changes by Freeport to 20.6.7.33.B through Mr. Brown's testimony. *See* NMED Brown Rebuttal at 7-10.

1183. NMED made no changes to 20.6.7.33.B in the Amended Rule other than to correct a typographical error. *See* Amended Petition, Attachment 2 at 37.

1184. In the Proposed Final Rule, NMED made no substantive changes, but it did change the terminology regarding "copper mine facility" and units.

1185. 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

1186. NMED proposed 20.6.7.33.C in the Petitioned Rule which set forth closure requirements for surface re-grading. *See* Petition, Attachment 1 at 34-35.

1187. NMED made no changes to 20.6.7.33.C in the Amended Rule. *See* Amended Petition, Attachment 2 at 37-38.

1188. NMED presented evidence to support 20.6.7.33 through the testimony of Mr. Brown, wherein he discussed the effectiveness of post-operational ground water protection. *See* NMED Brown Direct at 32-44.

1189. Freeport supported 20.6.7.33.C in the Amended Rule through testimony from Mr. Shelley and Mr. Munk. *See* Freeport Shelley Direct at 17-22; Freeport Munk Direct at 4-9.

1190. The Attorney General proposed alternative language for 20.6.7.33.C(3)(b). *See* AG Exhibit 2 at 38-39, which replaced language stating that slopes within the open pit surface drainage area do not require re-grading with a provision allowing the Department to approve alternative slopes. There is no specific technical testimony supporting this change, and the Attorney General's proposal does not overcome the testimony presented in support of the Petitioned Rule as proposed by NMED.

1191. GRIP and TRP proposed to delete 20.6.7.33.C(3)(b), but they provided no explanation as to why such a change is necessary. *See* GRIP Kuipers Direct, Attachment 2 at 39.

1192. In the Proposed Final Rule, NMED made no changes other than to the terminology regarding facilities and units. *See* Proposed Final Rule at 36-37.

1193. Based on the weight of the evidence, the Commission hereby 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

1194. NMED proposed 20.6.7.33.D in the Petitioned Rule which mandates closure requirements for open pits. *See* Petition, Attachment 1 at 35.

1195. NMED presented evidence to support 20.6.7.33 through testimony of Mr. Brown, wherein he discusses the effectiveness of post-operational ground water protection. *See* NMED Brown Direct at 32-44.

1196. 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 ground water 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 into ground water 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 ground water standards or the open pit must be pumped in order to create an area of open pit hydrologic containment. *See* NMED Brown Direct at 43.

1197. Freeport supported 20.6.7.33.D in the Amended Rule through testimony from Thomas Shelley and Mr. Blandford. *See* Freeport Shelley Direct at 22-26; Freeport Blandford Direct at 21-23.

1198. 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* AG Exhibit 2 at 39.

1199. GRIP and TRP proposed changes to 20.6.7.33.D, and this change essentially deleted 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* GRIP Kuipers Direct, Attachment 2 at 39.

1200. 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.

1201. 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 replace it with "open pit surface drainage areas." With respect to 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.

1202. 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 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.

1203. The Commission finds that Amigos Bravos's proposed changes to 20.6.7.33.D(2) are without merit because no supporting technical evidence was presented.

1204. In the Proposed Final Rule, NMED made 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. NMED also made clarifying edits to 20.6.7.33.D and D(2).

1205. 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

1206. NMED proposed 20.6.7.33.F in the Petitioned Rule which deals with closure requirements for cover systems. *See* Petition, Attachment 1 at 35-36.

1207. NMED presented evidence to support 20.6.7.33 through testimony from Mr. Brown, wherein he discussed the effectiveness of post-operational ground water protection. *See* NMED Brown Direct at 32-44.

1208. 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* NMED Brown Direct at 33.

1209. Freeport supported 20.6.7.33.F through testimony from Thomas Shelley and Lewis Munk. *See* Freeport Shelley Direct at 26-30 and Freeport Munk Direct at 8-11.

1210. 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 Tyrone Appeal . The second change eliminated the provision for leach and waste rock stockpiles inside the open pit surface drainage area of an existing copper mine facility that a 36 inch cover is only required on top surfaces; however, they provided no technical evidence as to why this change is necessary. *See* GRIP Kuipers Direct, Attachment 2 at 40.

1211. Amigos Bravos proposed 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 54-55.

1212. Mr. Olson proposed to delete the phrase “at a designated monitoring well location” from 20.6.7.33.F because he maintained that it improperly creates a point of compliance concept. *See* WCO Exhibit 3 at 52.

1213. NMED made changes to 20.6.7.33.F in the Amended Rule. NMED removed the “designed monitoring well” language objected to by some parties and cross-references section 20.6.7.28 instead. NMED also struck “of an existing copper mine facility” in the last sentence of 20.6.7.28.F. *See* Amended Petition, Attachment 2 at 38-39.

1214. The Commission finds that Amigos Bravos’ proposed changes to 20.6.7.33.F, F(1), and F(2) are without merit because they presented no technical evidence to support such changes.

1215. In the Proposed Final Rule, NMED proposed a change to 20.6.7.33.F to reflect the terminology change regarding facilities to units.

1216. 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

1217. NMED proposed 20.6.7.33.I in the Petitioned Rule which set forth closure requirements for impoundments. *See* Petition, Attachment 1 at 36-37.

1218. NMED presented evidence to support 20.6.7.33 through testimony from Mr. Brown, wherein he discussed the effectiveness of post-operational ground water protection. *See* NMED Brown Direct at 32-44.

1219. Freeport supported 20.6.7.33.I through testimony from Thomas Shelley. *See* Freeport Shelley Direct at 32-34.

1220. Mr. Shelley's testimony supported 20.6.7.33(I), which addresses large water impoundments, that are inevitable in copper mining, but unnecessary post closure. These impoundments require 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* Freeport Shelley Direct at pp. 33-34.

1221. The Attorney General proposed changes to 20.6.7.33.I(4) and (6) which removed references to "the open pit surface drainage areas." *See* AG Exhibit 2 at 40.

1222. GRIP and TRP proposed changes to 20.6.7.33.I(4) and (6). The intent of these changes was to eliminate differential treatment for impoundments located inside the open pit surface drainage areas. *See* GRIP Kuipers Direct, Attachment 2 at 41.

1223. 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.

1224. 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.

1225. 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.

1226. NMED made no changes to 20.6.7.33.I in the Proposed Final Rule.

1227. 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

1228. NMED proposed 20.6.7.33.J in the Petitioned Rule which provides closure requirements for pipelines, tanks, and sumps. *See* Petition, Attachment 1 at 37.

1229. NMED made no changes to 20.6.7.33.J in the Amended Rule. *See* Amended Petition, Attachment 2 at 40.

1230. Freeport supported 20.6.7.33.J through testimony from Thomas Shelley. Mr. Shelley testified that these requirements reflect current practices approved by the State. *See* Freeport Shelley Direct at 35.

1231. 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 56-57.

1232. 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.

1233. NMED made no changes to 20.6.7.33.J in the Proposed Final Rule.

1234. 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

1235. Amigos Bravos proposed a new 20.6.7.33.G dealing with interim emergency water management. This new subsection was taken from the August 17 Discussion Draft. *See* AB Exhibit 1 at 55.

1236. The Commission finds that Amigos Bravos failed to present technical evidence to explain why 20.6.7.33.G was needed in this section, as this issue is addressed in the contingency section by 20.6.7.30.L.

1237. 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

1238. NMED proposed 20.6.7.34.A, B, C, D, E, and G which addresses 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.

1239. NMED did 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.

1240. NMED made a change to 20.6.7.34.E in the Amended Rule. *See* Amended Petition, Attachment 2 at 41.

1241. Freeport supported 20.6.7.34.A, B, C, D, E, and G through the testimony of Thomas Shelley. *See* Freeport Shelley Direct at 37-42.

1242. 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.

1243. NMED made 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.

1244. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.34.A, B, C, D, E, and G as proposed by NMED in the Proposed Final Rule.

Subsection F

1245. NMED proposed 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.

1246. NMED made no changes to 20.6.7.34.F in the Amended Rule. *See* Amended Petition, Attachment 2 at 41.

1247. Freeport offered evidence to support 20.6.7.34.F through the testimony of Thomas Shelley, wherein he stated that these measures ensure closure measures are installed correctly and approved in accordance with regulatory requirements. *See* Freeport Shelley Direct at 40-41.

1248. Amigos Bravos proposed inserting language in 20.6.7.34.F titled “Final Design,” and providing “and shall, where possible, consider low impact development and green infrastructure development components” (hereinafter, “GI/LID”). *See* AB Exhibit 1 at 58.

1249. Amigos Bravos provided testimony in support of their amended language through the technical testimony of Brian Shields. Mr. Shields contended that GI/LID technologies have been embraced by many regulatory agencies and present economic and ecological benefits. Amigos Bravos also asserted that the EPA considers GI/LID technologies to be the best technology for controlling stormwater. *See* AB Shields Direct at 2-3.

1250. Amigos Bravos further provided support for GI/LID technologies through a report proffered through Brian Shields titled “The Economics of Low-Impact Development,” which sets forth the benefits of implementation of these technologies. *See* AB Shields Direct, Exhibit 3.

1251. Freeport offered evidence to support retaining NMED’s proposed language in the Amended Petition and refutes Amigos Bravos suggests to insert new language referencing low impact development and green infrastructure development components through Tim Eastep’s testimony. Mr. Eastep testified that stormwater pollution prevention is governed primarily through the Clean Water Act and administered by the EPA, thus, NMED should be guided by the governing federal agency and its regulations. *See* Freeport Eastep Rebuttal at 16-17.

1252. 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. It determines that there is no need to include such provisions in the Petitioned Rule.

1253. NMED made no changes to 20.6.7.34.F in the Proposed Final Rule.

1254. 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:

1255. NMED proposed 20.6.7.35 in the Petitioned Rule which sets forth post-closure requirements. *See* Petition, Attachment 1 at 38-40.

1256. NMED provided 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 re-grading, 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 treatment plan; and post-closure contingencies. *See* NMED Brown Direct at 39-40.

1257. NMED provided evidence indicating that minimization of 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* NMED Brown Direct at 41.

1258. NMED provided evidence indicating that post-closure ground water 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 ground water, even in the most sensitive location at the downgradient toe of the stockpile. *See* NMED Brown Direct at 43.

Undisputed Subsections A, D, and E

1259. NMED proposed 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.

1260. Freeport supported 20.6.7.35.A, D, and E through evidence and testimony from Thomas Shelley. *See* Freeport Shelley Direct at 42-46.

1261. NMED made 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.

1262. 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.

1263. NMED made no changes to 20.6.7.35.D and E in the Amended Rule. *See* Petition, Attachment 1 at 40.

1264. 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.

1265. NMED made no changes to 20.6.7.35.A, D and E in the Proposed Final Rule other than non-substantive changes to terminology.

1266. Based on the weight of the evidence, the Commission adopts 20.6.7.35.A, D, and E as proposed by NMED in the Proposed Final Rule.

Subsection B

1267. 20.6.7.35.B in the Petitioned Rule deals with water quality monitoring. It 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.

1268. Freeport supported 20.6.7.35.B through the testimony of Thomas Shelley, who asserted that it is protective of human health and the environment. *See* Shelley Direct at 43.

1269. GRIP, TRP, and Amigos Bravos proposed 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* GRIP Kuipers Direct, Attachment 2 at 43; AB Exhibit 1 at 59.

1270. GRIP and TRP argued through the testimony of James GRIP Kuipers Direct 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. They believed that longer monitoring periods are appropriate and would be consistent with 20.6.2.4103.D. *See* GRIP Kuipers Direct at 10.

1271. Freeport refuted the change to 20.6.7.35.B through testimony from Thomas Shelley, wherein he indicated 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* Freeport Shelley Rebuttal at 15.

1272. The Commission finds that the testimony on 20.6.7.35.B by Thomas Shelley to be more persuasive due to the consistency with the abatement regulations.

1273. NMED proposed 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 remain. *See* Amended Petition, Attachment 2 at 42.

1274. 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.

1275. NMED made no changes to 20.6.7.35.B in the Proposed Final Rule.

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

1277. 20.6.7.35.C in the Petitioned Rule set forth post-closure requirements for reclamation, monitoring, maintenance, and inspections. *See* Petition, Attachment 1 at 40-41.

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

1279. NMED provided evidence for 20.6.7.35.C as set forth above.

1280. Freeport supported 20.6.7.35.C through the testimony of Thomas Shelley. *See* Freeport Shelley Direct at 43-45.

1281. GRIP and TRP objected to 20.6.7.35.C(2) and proposed that the phrase “excessive erosion” should be changed to just “erosion.” *See* GRIP Kuipers Direct, Attachment 2 at 43.

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

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

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

1285. NMED made no changes to 20.6.7.35.C in the Proposed Final Rule other than non-substantive changes to terminology.

1286. 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:

1287. NMED proposed to reserve 20.6.7.36 for future rule amendments in the Petitioned Rule. *See* Petition, Attachment 1 at 40.

1288. NMED did not make changes to 20.6.7.36 in the Amended Rule. *See* Amended Petition, Attachment 2 at 43.

1289. The Commission finds that 20.6.7.36 is undisputed because Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson did not provide alternative rule language.

1290. NMED made no changes to 20.6.7.36 in the Proposed Final Rule.

1291. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.36 as reserved as proposed by NMED in the Proposed Final Rule.

20.6.7.37 – Record Retention Requirements for All Copper Mine Facilities:

1292. NMED proposed 20.6.7.37 in the Petitioned Rule which sets forth requirements for record retention. *See* Petition, Attachment 1 at 40.

1293. NMED did not make changes to 20.6.7.37 in the Amended Rule. *See* Amended Petition, Attachment 2 at 43.

1294. 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.

1295. NMED made no changes to 20.6.7.37 in the Proposed Final Rule.

1296. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.37 as proposed by NMED in the Proposed Final Rule.

20.6.7.38 – Transfer of Copper Mine Discharge Permits:

1297. NMED proposed 20.6.7.38 in the Petitioned Rule which sets forth requirements for transfer of copper mine discharge permits. *See* Petition, Attachment 1 at 40.

1298. NMED did not make changes to 20.6.7.38 in the Amended Rule. *See* Amended Petition, Attachment 2 at 43-44.

1299. The Commission finds that 20.6.7.38 is undisputed because Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson did not provide alternative rule language.

1300. NMED made no changes to 20.6.7.38 in the Proposed Final Rule.

1301. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.38 as proposed by NMED in the Proposed Final Rule.

20.6.7.39 – Continuing Effect of Prior Actions During Transition:

1302. NMED proposed 20.6.7.39 in the Petitioned Rule which sets forth the continuing effect of prior actions during transition. *See* Petition, Attachment 1 at 40.

1303. NMED did not make changes to 20.6.7.39 in the Amended Rule. *See* Amended Petition, Attachment 2 at 43-44.

1304. The Commission finds that 20.6.7.39 is undisputed because Freeport, the Attorney General, GRIP, TRP, Amigos Bravos, and Mr. Olson did not provide alternative rule language.

1305. NMED made no changes to 20.6.7.39 in the Proposed Final Rule.

1306. Based on the weight of the evidence, the Commission hereby adopts 20.6.7.39 as proposed by NMED in the Proposed Final Rule.

ADDITIONAL ISSUES

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

1307. In the Hearing Officer's Order on "Attorney General's Motion to Admit Record from Tyrone Permit Appeal into Record Proper," which ruled on arguments in the Attorney General's motion, the Hearing Officer stated: "To the extent that the Petition in this rulemaking presented 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.” Order on Attorney General’s Motion to Admit Tyrone Record, filed February 6, 2013, (Pleading 40).

1308. The “Tyrone Permit Appeal” referenced in the above-referenced Order was an appeal of a discharge permit, DP-1341, in which NMED prescribed permit conditions for closure of the Tyrone Mine. The appeal was made pursuant to the NMSA 1978, sections 74-6-1 to 74-6-17 and 20.6.2 NMAC and the Commission’s rule for adjudication of permit disputes.

1309. 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 Tyrone. *See* Attorney General’s Motion to Remand the Proposed Copper Mine Rule to NMED (hereinafter, “AG Motion to Remand”) at 9, filed December 14, 2012 (Pleading 16).

1310. 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.*

1311. 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”).

1312. The 2006 decision of the Court of Appeals expressly recognized the difficulties of applying the phrase “places of withdrawal of water for present or reasonably future use” in the context of a large copper mining operation such as the Tyrone Mine, and its remand granted the

Commission substantial latitude in determining how that phrase should be interpreted for purposes of identifying the locations at which ground water quality compliance is to be determined.

1313. 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 (hereinafter the “Tyrone Remand Order”). *See* AG Motion to Remand at 9-10.

1314. The Tyrone Remand Order made certain findings and conclusions relating, among other things, to factors to be considered by NMED in identifying “places of withdrawal,” and ordered the parties to the adjudication to perform certain actions by certain dates in applying the factors to the Tyrone Mine site as a means of identifying the locations where compliance with groundwater standards would be measured under Tyrone’s discharge permit for closure, DP-1341.

1315. Following the Tyrone Remand Order, Tyrone initiated a further appeal to the Court of Appeals on March 9, 2009, and during the pendency of that appeal, three of the four parties to the adjudication, including NMED and Tyrone, sought the Commission’s permission to depart from the Tyrone Remand Order so that certain regulatory solutions could be pursued to avoid further protracted litigation over “places of withdrawal.”

1316. The Commission granted the parties relief from the directives of the Tyrone Remand Order to allow for implementation of a settlement through various regulatory actions and processes. One of the regulatory processes this Commission’s relief allowed to go forward was this Copper Mine Rule proceeding, which is a proceeding that was also contemplated by directives of the New Mexico Legislature under its 2009 amendments to the WQA.

1317. The administrative and judicial proceedings starting with challenge of the 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."

1318. 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.

1319. The Commission finds that the Tyrone Permit Adjudications occurred prior to the amendments to the WQA in 2009 and decisions were made based on the Commission's existing regulations and the WQA as it existed before 2009.

1320. The 2009 amendments to the WQA, which were enacted after the Tyrone Remand Order, implemented a new regulatory paradigm by requiring this Commission to enact by rule previously unauthorized specifications of the appropriate discharge control technologies for the copper mining industry as a whole. *Freeport Consolidated Response at 15.*

1321. The Commission finds that the new regulatory paradigm implemented through the 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.

1322. 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.

1323. The Commission finds that subsequent to the 2009 amendments to the WQA, the Commission (as opposed to the Department) 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.

1324. The Commission finds that the circumstances which have transpired since the Tyrone Remand Order, including but not limited to the Commission's prior grant of relief from the directives of that Order, the Legislature's 2009 amendments to the WQA, the opportunities for public input and stakeholder negotiations that ensued, the development of draft regulations forming the basis of this rulemaking proceeding, and the extensive testimony presented in these Copper Mine Rule proceedings, justify the Commission's departure from certain aspects of the Tyrone Remand Order.

1325. The Commission finds that, at least within the copper mining industry, the factors based approach of the Tyrone Remand Order for identifying "places of withdrawal" where compliance is determined under the WQA requires certain adjustments to allow for consistency with industry practices, with past *de facto* NMED practices (albeit not policies) in permitting copper mining units in New Mexico, and with the continued ability of existing and future copper mining to conduct their operations in a manner which is protective of ground water resources, as addressed in the evidence presented in this proceeding.

1326. The Commission finds that the necessary adjustments to the Tyrone Remand Order represented by the Copper Mine Rules that the Commission adopts in this proceeding fully comport with letter and spirit of the 2006 decision of the New Mexico Court of Appeals, and are well within the substantial latitude afforded by that Court in determining how the "place of

withdrawal” phrase should be interpreted and applied, particularly recognizing the 2009 amendments subsequently enacted by the New Mexico Legislature.

1327. One of the adjustments to the Tyrone Remand Order the Commission finds it appropriate to make is to allow for the various containment and treatment methodologies specified in these Copper Mine Rules as reasonable and prudent means of ensuring a copper mine’s protection of groundwater resources. To the extent that application of the Tyrone Remand Order and its factors would not accommodate employment of these specified methods of discharge control technologies, this Commission expressly intends to supersede effectiveness of the Order.

1328. Another adjustment to the Tyrone Remand Order the Commission finds it appropriate to make is to allow for the specification of the places where compliance with ground water standards is to be determined in relation to particular mine-related units addressed by these Copper Mining Rules. To the extent that application of the Tyrone Remand Order and its factors would not allow for determining compliance at the specified locations, or might otherwise lead to characterizing the mine unit areas interior to those places as including “places of withdrawal,” this Commission expressly intends to supersede the effectiveness of the Order.

1329. Another adjustment to the Tyrone Remand Order the Commission finds it appropriate to make is to allow for the employment of containment, pump-back, pump and treat or dewatering wells associated with mining or mine closure without having those wells and the associated water withdrawals be deemed present or future uses water for purposes of the phrase “place of withdrawal of water for present or reasonably foreseeable future use” as that language or language like it is used in the WQA and this Commission’s regulations. To the extent that the Tyrone Remand Order and its factors would result in such wells being deemed as “places of

withdrawal” where compliance with groundwater standards must be met, this Commission expressly intends to supersede the effectiveness of the Order.

1330. The Commission’s bases for superseding the Tyrone Remand Order in these respects, and in any other respects that are incompatible with the Copper Mine Rules adopted herein, are as explained above, and are further supported by the Commission’s belief that these Copper Mine Rules strike an appropriate policy balance of protecting the State’s groundwater resources and allowing for the continued ability of the copper mining industry to positively support state and local economies.

1331. 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 this 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 need not follow prior adjudicatory precedents, particularly if the reasons for any departure are explained, as they are in this document.

1332. 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 during mine operations.

1333. Mr. Brown’s testimony supported a conclusion that, during mine operations, these areas are not available as “places of withdrawal” within the meaning of the WQA.

Public Comments

1334. The Commission received many public comments during the hearing and in the hearing session held in Silver City. There were approximately the same number of public commenters who spoke in favor of the Copper Mine Rule as those who spoke in opposition.

1335. The Commission appreciates the number of public comments made and the public interest in this rulemaking and have considered all comments in ruling.

State Comparatives

1336. 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. *See* NMED, Brown, Direct Testimony.

1337. The Department's proposed rule was compared with other state regulations in the Southwest region and determined to be comprehensive, robust, and proscriptive in the areas that it needs to specify. (TRV 3, P. 564, L. 17-25).

ANALYSIS OF RULEMAKING FACTORS

Best Available Scientific Information

1338. 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.

1339. 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.

1340. 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.

1341. The Department heard from various experts regarding the available scientific information regarding copper mines and water quality protection during the Advisory Committee process. NMED Skibitski Direct at 9-11.

1342. 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. *See, generally*, Notices of Intent filed by NMED, AG, Freeport, GRIP, TRP, AB, and WCO.

1343. 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. In addition to the information discussed above with respect to specific sections, the Commission relied upon the following evidence.

1344. The WQA does not require "state-of-the-art" method to be applied, rather, the WQA requires that "ground water protection" be met at the place of withdrawal regardless of how that is achieved. *See Brown Rebuttal*; 20.6.7.6 ; TRV 3, at 566, L. 1-13.

1345. Open pits of a sufficient size will penetrate the water table, causing an in-mine lake with evaporative water loss causing inflow, or requiring pumping of water from the pit to maintain dry mining conditions, but either way, containment will be maintained. TRV. 3 at 564-565, L. 22-10).

1346. A liner may not be the best solution for every situation 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 at 19.

1347. 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. TRV 10 at 2372, L. 8-10).

1348. Liner failure has the potential to create widespread impact to the water resources of New Mexico, both surface water and ground water. NMED Brown Rebuttal at 2, TRV 10 at 2554, L. 21-24).

1349. 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 ground water. NMED Brown Rebuttal at 3.

1350. 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 WQA clearly does not intend. Brown Rebuttal at 3.

Water Resources and Conservation Issues

1351. The Attorney General and Amigos Bravos presented witnesses who testified regarding water conservation issues and the usage of water by copper mines.

1352. On behalf of the Attorney General, Dr. Bruce Thomson testified regarding the water resources of Grant County, its uses, and its importance to communities in the county. He testified regarding declining water levels and that copper mines in Grant County constitute a large fraction of total withdrawals. *See* AG Direct Testimony of Bruce Thomson, Ph.D, P.E., (hereinafter “Thompson Direct”) at 4-7 and 9.

1353. Dr. Thomson, although admittedly not a climatologist, also testified regarding the predicted effect of climate change on New Mexico’s water resources. Thomson Direct at 7-9.

1354. Dr. Thomson discussed the factors related to copper mines that can result in water contamination and discussed the different types of pollutants that can be generated. He also presented information on treatment methods and costs. *See* Thomson Direct at 10-11.

1355. Dr. Thomson testified that he is concerned about establishing a “point of compliance regulatory structure” in light of potential ground water contamination from mines, and gave as an example a uranium mine. *See* Thomson Direct at 11-12. He gave a general recommendation that the Commission “adopt standards that will protect our most vital resource to the maximum extent possible,” but he did not relate his testimony to specific provision of the Copper Mine Rule or identify any specific changes that he recommended. *See* AG Thomson Direct at 12-13.

1356. Freeport presented rebuttal to Dr. Thomson’s testimony through Messrs. Eastep, Shelley, and Blandford. *See* Freeport Eastep Rebuttal at 12-13; Freeport Shelley Rebuttal at 4-8; and Freeport Blandford Rebuttal at 27-32.

1357. Because Dr. Thomson's testimony is not tied to any specific provision of the Copper Mine Rule, it is addressed separately here. The Commission has considered the testimony of Dr. Thomson and the rebuttal testimony. For the reasons discussed elsewhere in this Statement of Reasons, the Commission believes that the Copper Mine Rule is consistent with the recommendation of Dr. Thomson to protect New Mexico's water resources to the maximum extent possible using feasible, practicable and available technologies.

1358. Amigos Bravos presented testimony through Kathleen A. Garland, PhD relating to water technologies. Written Rebuttal Testimony of Kathleen A. Garland, PhD (Pleading 66) (hereinafter "AB Garland Rebuttal").

1359. Dr. Garland testified regarding a project she did in the late 1990s in South America where she observed certain technologies in use at various mines, including liner technologies. The testimony does not provide any specific examples or indicate the nature of the liner designs. *See* AB Garland 1-2. Dr. Garland's testimony regarding South American operations was rebutted through the testimony of Mr. Brack. TRV 1 at 98 L. 21 to 102 L. 12.

1360. Dr. Garland also identified a project in South America involving treatment of sea water for use at mines and mentioned the need for water conservation. *See* Garland Rebuttal at 3.

1361. Dr. Garland testified that the Copper Mine Rule does not require certain potential technologies, although she does not address those technologies with respect to particular rule provisions and does not identify specific descriptions of technologies that she recommends for inclusion in the rule or address their feasibility or practicability for copper mines. *See* AB Garland Rebuttal at 3-4.

1362. In conclusion, Dr. Garland urges the Commission to consider water conservation requirements. *See* AB Garland Rebuttal at 5.

1363. The Commission has considered Dr. Garland's testimony, as it has also reviewed and addressed the parties' proposals and evaluations of the specific technologies for prevention of water pollution as introduced by the parties and their experts. Without more specific information from Dr. Garland, does not have sufficient information to evaluate or to include the additional technologies that she lists into the Copper Mine Rule.

1364. To the extent that Dr. Garland's testimony specifically advocates water conservation requirements, the Commission finds that this topic is not specifically addressed in the WQA, that the WQA does not provide guidance on how water use or conservation would be considered by the Commission, and that is a topic more appropriately addressed to the Legislature and the Office of the State Engineer.

Other Factors the Commission Must Consider:

1365. In Subsection E of NMSA 1978, § 74-6-4 (2009), the WQA requires the commission to consider: "(1) character and degree of injury to or interference with health, welfare, environment and property."

1366. 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. (TRV 3, P. 236, L. 20-23), (TRV 2, P. 257, L. 10-18), (TRV 3, P. 507, L. 17-20), (TRV. Vol. 3, P. 576-577, L. 23-1), (TRV 3, P. 577, L. 5-7), (TRV 3, P. 588, L. 16-22), TRV 3, P. 590, L. 9-17), (TRV 5, P. 1036, L. 19-24).

1367. The Copper Rule contains specific requirements to contain these three potential sources of contamination. (TRV 4, P. 736, L. 15-23), (TRV 4, P. 741-742, L. 22-5), (TRV 4, P. 746, L. 16-22).

1368. In Subsection E of NMSA 1978, § 74-6-4 (2009), the WQA requires the commission to consider: “(2) the public interest, including the social and economic value of the sources of water contaminants.”

1369. Copper mines have a social and economic value. They provide jobs and a source of income for almost two thousand New Mexicans. TRV 1 at 91, L. 8-20.

1370. The Copper Mine Rule proposed by the Department is intended to assure that ground water contamination is prevented or minimized to the extent practicable. TRV 1 at 15, L. 17-25.

1371. The existing ground water rules already require remediation of contamination if it should occur. TRV 1 at 23, L. 14-20.

1372. 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. TRV 2 at 421, L. 14-22.

1373. 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. TRV 2 at 441, L. 14-17).

1374. In Subsection E of NMSA 1978, § 74-6-4 (2009), the WQA 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.”

1375. The construction and operation requirements called for in the Department's proposed Copper Mine Rule are technically practical and economically reasonable. TRV 2 at 398, L. 3-18.

1376. Prevention or containment of ground water contamination at copper mines is achievable through available control technologies and proper operating methods. TRV at 567, L. 19-22.

1377. None of the prevention and monitoring practices called for in the Department's proposal are novel or technically impractical. TRV 3 at 569-570, L. 25-25.

1378. In Subsection E of NMSA 1978, § 74-6-4 (2009), the WQA requires the commission to consider: “(4) successive uses, including but not limited to domestic, commercial, industrial, pastoral, agricultural, wildlife and recreational uses.”

1379. 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. TRV 1 at 16, L. 1-22.

1380. In Subsection E of NMSA 1978, § 74-6-4 (2009), the WQA requires the commission to consider: “(5) feasibility of a user or a subsequent user treating the water before a subsequent use.”

1381. 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. TRV 3 at 709, L. 12-16.

1382. In addition, it could shift the costs of the contamination from those who caused the contamination to the public or future generations. TRV 3 at 711-712, L. 23-1.

1383. The Commission's water quality regulations require abatement of contaminated water by the responsible party, rather than requiring treatment of water by subsequent users. TRV 3 at 527, L. 11-18.

1384. In Subsection E of NMSA 1978, § 74-6-4 (2009), the WQA requires the commission to consider: “(6) property rights and accustomed uses.”

1385. Freeport-McMoRan currently operates three mines in New Mexico. TRV 1 at 81, L. 17-24. Freeport’s Chino Mine has been in operation for over one hundred years. TRV 1 at 160, L. 7-11.

1386. In Subsection E of NMSA 1978, § 74-6-4 (2009), the WQA requires the commission to consider: “(7) federal water quality requirements.”

1387. The Department’s proposed regulations recognize that stormwater 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. TRV at 16, L. 1-22, TRV at 751, L. 14-20.

Language Added by the Commission During Deliberations:

1388. During deliberations, the Commission voted unanimously to add the phrase “seeps and springs” to the body of paragraph “N” in Section 28 of the Department’s Proposed Final Rule. The Commission finds that since the phrase appears in the title of this paragraph, it follows that the term should be included in the body of the paragraph as well, and that the Department’s failure to include this phrase in its Proposed Final Rule was most likely an oversight.

ORDER

For the reasons stated above, the Commission hereby adopts the Department's Proposed Final Rule with the addition of the phrase "seeps and springs" as described in paragraph 1388, above, and with any non-substantive amendments necessary for filing with the State Records Center, to be effective in accordance with applicable State Records Center procedures.

Butch Tongate

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Date: 9-25-13