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STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION

IN THE MATTER OF:
PROPOSED AMENDMENTS TO
STANDARDS FOR INTERSTATE
AND INTRASTATE SURFACE
WATERS, § 20.6.4 NMAC **No. WQCC 14-05(R)**

FREEPORT-MCMORAN CHINO MINES COMPANY'S PROPOSED STATEMENT OF REASONS AND CLOSING ARGUMENT

THIS MATTER comes before the New Mexico Water Quality Control Commission ("Commission" or "WQCC") upon a petition from the Surface Water Quality Bureau ("SWQB") of the New Mexico Environment Department ("NMED") to initiate the matter of triennial review of Standards for Interstate and Intrastate Surface Waters, 20.6.4 NMAC, commonly referred to as "the triennial review." NMED's Petition to Amend Surface Water Quality Standards ("SWQS") was filed with the Administrator on June 25, 2014. On October 20, 2014, NMED filed an Amended Petition to Revise the SWQS and on September 4, 2015, NMED filed a Notice of Changes to its Petition (together with the originally filed petition, NMED's Petition).

Additionally, in accordance with the Scheduling Order and the Procedural Order issued in this matter on July 10, 2014, on September 30, 2014, Freeport-McMoRan Chino Mines Company ("Chino") filed a petition with the Commission to amend the SWQS. The proposed amendment proposed to add site-specific criteria for copper for certain surface waters located within the Mimbres River Closed Basin (hydrologic unit code HUC8-13030202) near the towns of Bayard and Hurley, New Mexico and also located within an area known as the Chino Mines Site Smelter Tailings Soil Investigation Unit ("STSIU" waters).

On July 8, 2014, the Commission voted to hold a triennial review of these matters and designated Chris Saucedo as the Hearing Officer to conduct the hearing, handle related tasks, and

submit a report. On April 16, 2015, the Commission designated Morris Chaves as the substitute Hearing Officer to conduct the hearing, handle related tasks, and submit a report.

The hearing on these matters began on the 13th day of October, 2015 at the State Capitol Building, Room 307, 490 Old Santa Fe Trail, Santa Fe, NM and ended Friday, October 16, 2015. There have been no outstanding procedural or notice defects in this proceeding. The Public has been afforded an adequate opportunity to participate in the hearing process and to submit public comments; moreover, members of the public did in fact submit public comments in this proceeding. *See generally, e.g.,* **Tr. at 8, 170, 172, 283, 288, 292, 295, 429, 540, 545, 548, 551, 554, 737, 740, 745, 746, 747, 749, 750, 753, 754, 755, 756.**

After public notice and hearing, which included technical testimony as well as public comment, the Commission heard evidence and asked the parties to submit a statement of reasons and closing arguments. In accordance with the Procedural Order and the Commission's and Hearing Officer's directions, Chino hereby submits the following proposed statement of reasons and closing legal argument, as set forth in more detail below.

I. NMED'S PETITION

Standard of Review: As a preliminary matter, the Commission has discretion to hear scientific or technical evidence and all other relevant evidence and to give any testimony the weight it deems proper under the circumstances in carrying out its statutory duties. Specifically, the Commission may enact new standards in accordance with federal water quality regulations as specified in 40 CFR 131 et seq. and with Section 74-6-4 of the Water Quality Act, which authorizes this Commission to adopt water quality standards based on credible scientific data and other appropriate evidence. *See* NMSA 1978, §74-6-4.

The Commission is required to adopt water quality standards based on credible scientific

data and other appropriate evidence. *See* NMSA 1978, §74-6-4 (C). Once the Commission reaches its decision and adopts regulatory changes, those revisions are subject to EPA review and approval. *See* 33 U.S.C.A. § 1313(c)(2)(A). As part of its analysis, the Commission should also recognize the Surface Water Quality Bureau's high degree of expertise in regard to the highly technical issues in these proceedings. Due and substantial weight must be given to the Environment Department Surface Water Quality Bureau witnesses' knowledge and expertise in all applicable legal and factual issues. *See Morningstar Water Users Ass'n v. New Mexico Pub. Util. Comm'n*, 1995-NMSC-062, 120 N.M. 579, 583, 904 P.2d 28, 32.

NMED's petition proposed the following modifications to the SWQS:

i) adoption of a new provision under § 20.6.4.10(F) NMAC and revision of § 20.6.4.12(H), which would enable the WQCC to adopt temporary water quality standards of limited duration for qualifying surface waters of the state, **Pintado Direct, SWQB EX. 13 at 7**;

ii) revision to § 20.6.4.16 NMAC to streamline the piscicide use process for more efficient use of governmental resources and to enhance fishery management and conservation activities in New Mexico, **Pintado Direct, SWQB EX. 13 at 36**;

iii) technical revisions to §§ 20.6.4.101, 102, 110, 116, 124, 305, 317, and 900 NMAC, **Pintado Direct, SWQB EX. 13 at 77-83**;

iv) amendments to §§ 20.6.4.103, 206, 207, 213, 219, 308 NMAC; regarding recreation uses for certain streams segments, **Pintado Direct, SWQB EX. 13 at 77-82**;

v) amendments to § 20.6.4.900 NMAC consistent with EPA's updated methods for monitoring, assessment and reporting bacteria levels in ambient water, **Pintado Direct, SWQB EX. 13 at 83**;

vi) designation of five unclassified stream segments in the Mimbres River closed basin as ephemeral waters utilizing the hydrology protocol procedures adopted as part of the last triennial review, **Pintado Direct, SWQB EX. 13 at 87**;

vii) designation of twenty unclassified stream segments associated with thirteen NPDES permitted facilities located in the Rio Grande Basin, Pecos River Basin, Canadian River Basin, San Juan River Basin and the Little Colorado River Basin as ephemeral waters utilizing the hydrology protocol procedures adopted as part of the last triennial review, **Kougioulis Direct, SWQB EX. 39 at 5-7**;

viii) designation of four unclassified stream segments in the Pecos River Basin and in delineated closed basins as ephemeral waters utilizing the hydrology protocol procedures adopted as part of the last triennial review, **Sarabia Direct, SWQB EX. 46 at 1-3**;

ix) revisions to §§ 20.6.4.900 and 901 NMAC consistent with EPA's application of hardness-based criteria for aluminum, **Pintado Direct, SWQB EX. 13 at 89** and;

x) revisions to 20.6.4.403 and 404 refining aquatic life uses in two stream segments in the San Juan River, **Sarabia Direct, SWQB EX. 46 at 10**.

Chino does not oppose any of these proposals and specifically supports NMED's Petition as follows:

A. CHINO SUPPORTS NMED'S TEMPORARY STANDARDS PROPOSAL:

Proposed Order Language: The Commission adopts NMED's proposed changes to 20.6.4.10.F NMAC Temporary Standards and Section H of 20.6.4.12 NMAC Compliance with Water Quality Standards. These changes create a procedure enabling applicants to petition the Commission to adopt a temporary standard that provides for interim water quality criteria without downgrading the original designated use while requiring that progress towards achieving the original criterion be made over time. Approval of a specific temporary standard safeguards the public interest because it is subject to state and federal requirements, subject to hearing and public comment, and, once adopted by the WQCC, will not be effective unless approved by the EPA.

Chino's Statement of Reasons

Chino supports SWQB's proposal to add a new provision under § 20.6.4.10(F) NMAC and to revise § 20.6.4.12(H). If adopted by the Commission, these changes would create a procedure enabling applicants to petition the Commission to adopt a temporary standard that provides for interim adjustments to water quality criteria without downgrading the original designated use. **Tr. at 42. l. 5-8.** *See also* **SWQB EX. 2 at 14**. The temporary standards proposal submitted by the Department, **SWQB EX. 2 at 14**, § 20.6.4.10.F NMAC, is fully consistent with federal water quality regulations as specified in 40 CFR 131.13-14 (authorizing states to adopt temporary standards) and with Section 74-6-4 of the Water Quality Act (authorizing this Commission to adopt water quality standards based on credible scientific data and other appropriate evidence). NMSA 1978, § 74-6-4, 40 CFR 131.13-14. *See also* **Tr. 44-45.**

SWQB explained that "the central principle of the temporary standard is that the underlying designated use and criteria are not changed, modified or replaced. The designated CWA use remains in place while providing a defined period of time to document and evaluate improvements aimed towards achieving the original water quality standard." **SWQB Ex. 2 at 17**. Thus, the temporary standard proposed by SWQB represents the highest degree of protection

feasible in the short term where its adoption would cause neither further impairment nor loss of an existing use. ***See, e.g.,*** **Tr. at 42**.

While this Commission has already adopted certain regulatory tools that help achieve these goals, including Use Attainability Analyses (UAAs) and site-specific criteria, SWQB explained that there are situations in New Mexico where temporary standards would be a better regulatory tool to achieve environmental protection without downgrading ultimate water uses. ***See*** **Tr. at 43**. SWQB established that its temporary standards proposal is a long-standing effort by the Environment Department and that a failure to adopt time-limited temporary standards as proposed by SWQB would result in negative consequences for the environment and the State of New Mexico. **Tr. 44; Tr. 48**. Specifically, if temporary standards are not adopted, the implementation of water quality improvement or restoration projects may not be feasible, which would in turn result in surface waters that could otherwise have improved water quality over time remaining unimproved. **Tr. 44**. Further, SWQB established that if temporary standards are not adopted, SWQB may be forced to deny a Clean Water Act Section 401 certification of a section 404 or dredge and fill permit in situations where it should otherwise be granted. SWQB also established that such actions would be highly counter-productive and detrimental to water body restoration efforts, as well as economic conditions in affected watershed communities. **Tr. 44**.

SWQB's testimony appropriately demonstrates that temporary standards are consistent with federal water quality regulations as specified in 40 CFR 131.13-14 (authorizing states to adopt temporary standards) and with Section 74-6-4 of the Water Quality Act (authorizing this Commission to adopt water quality standards based on credible scientific data and other appropriate evidence). NMSA 1978, § 74-6-4; 40 CFR 131.13-14. *See also* **Tr. 44-45**. Thus,

contrary to Amigos Bravos' unsupported contentions that the adoption of Temporary Standards would run afoul of existing state and federal law, the adoption of Temporary Standards, as proposed by SWQB, would be consistent with state and federal laws, would be protective of the environment, and would serve the purposes of the Water Quality Act. *See* **Tr. 44; Tr. 922.**

The temporary standards procedure as outlined by the Bureau in Pintado Direct, **SWQB EX. 13 at 14-15**, provides a public process that is consistent with the requirements of EPA regulations to provide the data and evidence necessary for the Commission to adopt a temporary standard. **Tr. at 45**. Additionally, it is instructive that, as reported by the EPA, to date at least 42 states have adopted temporary water quality standards procedures. **Tr. 45**.

The changes proposed by NMED are the product of adequate public participation, including contributions from public comments made by the EPA, Amigos Bravos, and the San Juan Water Commission. **Tr. 48**. Chino rejects Amigos Bravos' contentions and encourages the Commission to find that that the adoption of NMED's proposed Temporary Standards provision would not, as maintained by Amigos Bravos, result in the weakening of standards, increased pollution, or worsening impairment of water rights. In fact, water quality would be improved due to greater ability to control pollutants and due to antidegradation being a key component of the review process for adoption of temporary standards. **Tr. 918-19**. More specifically, as Dr. Dail testified in his surrebuttal, "[f]or new or more stringent water quality standards, if the permittee has not [previously] had [a limit]...and it's now incorporated, then that pollutant would be controlled, whereas it wasn't before, and you would expect [the pollution] to go down;" *Id.* And further, any given temporary standard would be safe for the environment because "as a water quality standard...[the temporary standard] would be subject to antideg [antidegredation] review." *Id.*

Nor would the adoption of temporary standards "reward" polluters, as Amigos Bravos is attempting to argue. To the contrary, any petition for the adoption of a temporary water quality standard must contain a work plan with controls and/or other limitations on pollution resulting in documented progress towards achieving the original water quality criterion. Such a temporary standard, if adopted, would also be limited in duration and would still be subject to state and federal requirements. Contrary to Amigos Bravos' arguments, the standard would not "reward" polluters, but rather, would ensure stringent environmental protection based on site-specific characteristics of a given area. Finally, once adopted by the WQCC, the new temporary standards language will not be effective unless it is also approved by the EPA (40 C.F.R. 131.21(c)). **Pintado Direct, SWQB EX. 13 at 9**.

Amigos Bravos appears to argue that, because temporary site-specific standards are a different tool from permanent standards, they are contrary to law and public policy. While New Mexico has not yet adopted the temporary standards language, Amigos Bravos' concerns are unfounded. Rather, as the record firmly establishes, temporary standards are just another tool in the EPA-approved toolbox, and have been successfully implemented in at least 42 states. *See* **Tr. at 45.** Contrary to Amigos Bravos' conclusory argument, there is absolutely no evidence in the record that adoption of temporary standards would encourage pollution. *See, e.g.,* **Tr. 918-19** (discussing reasons why adoption of Temporary Standards would not encourage pollution).

In summary, Amigos Bravos' opposition to SWQB's proposal consists of several conclusory arguments that are characterized by unsound premises and lack the weight of supporting expert testimony. On the other hand, SWQB's proposal is well-supported by technical expert testimony that amply explains the legal and factual basis for why adoption of temporary standards is beneficial and, indeed, necessary for the advancement of statutory goals.

The Commission, while having great discretion in weighing evidence and testimony, (including discretion to entirely disregard Amigos Bravos' arguments that are not adequately supported by technical testimony) isn't permitted to disregard SWQB's expert testimony that is either uncontradicted or contradicted only by legal counsel's arguments (which are not evidence) and lay testimony. *See, e.g., Bokum Resources Corp. v. New Mexico Water Quality Control Comm'n,* 1979-NMSC-090, 93 N.M. 546, 554, 603 P.2d 285, 293; *see also generally City of Albuquerque v. Browner,* 865 F. Supp. 733, 737 (D. NM. 1993). Furthermore, the adoption of SWQB's Temporary Standards proposal, being supported by expert testimony, is clearly supported by "substantial evidence," which is the legal standard for these proceedings. *E.g., New Mexico Indus. Energy Consumers v. PRC*, 2007-NMSC-053, 142 N.M. 533, 541, 168 P.3d 105, 113 (upholding the established principle that substantial evidence is such evidence as a reasonable mind might accept as adequate to support a conclusion). Thus, the Commission should exercise its discretion by disregarding Amigos Bravos' conclusory objections, relying on SWQB's expert testimony, and adopting SWQB's proposed Temporary Standards provisions as first articulated in SWQB EX. 1.

B. CHINO SUPPORTS NMED'S HYDROLOGY PROTOCOL FOR THE STSIU

Proposed Order Language: The Commission adopts NMED's proposed changes to 20.6.4.97 Ephemeral Waters as follows:
20.6.4.97 EPHEMERAL WATERS – Ephemeral ~~unclassified~~ surface waters of the state as identified on the department's water quality standards website pursuant to Subsection C of 20.6.4.15 NMAC.
A. Designated Uses: livestock watering, wildlife habitat, limited aquatic life and secondary contact.
B. Criteria: the use-specific criteria in 20.6.4.900 NMAC are applicable to the designated uses.
C. Waters: ...

(6) the following waters are designated in the closed basins:
(b) in the Mimbres river closed basin:

(ii) Chino mines property Subwatershed Drainage A and tributaries thereof;

(iii) Chino mines property Subwatershed Drainage B and tributaries thereof (excluding the northwest tributary containing Ash Spring);

(iv) Chino mines property Subwatershed Drainage C and tributaries thereof (excluding reaches containing Bolton spring, the Chiracahua Leopard Frog critical habitat transect, and all reaches in Subwatershed C that are upstream of the Chiracahua Leopard Frog critical habitat);

(v) Chino mines property Subwatershed Drainage D and tributaries thereof (Drainages D-1, D-2 and D-3, excluding the southeast tributary in drainage D1 that contains Brown Spring); and,

(vi) Subwatershed Drainage E and tributaries thereof (Drainages E-1, E-2 and E-3).

[20.6.4.97 NMAC – N, 05-23-05; A, 12-01-10; A, XX-XX-XX]
~~[NOTE: Effective 12-01-10, no waters are yet approved for listing in Subsection C of this section.]~~

The Commission finds in accordance with the UAA process for the five ephemeral stream segments listed above that:

- **The recreational use that is currently being achieved is that of secondary contact;**
- **The aquatic life use currently being achieved is limited aquatic life;**
- **The aquatic life use of marginal warmwater is not attainable due to naturally ephemeral conditions; and**
- **The highest attainable aquatic life use is limited aquatic life.**

The Commission finds that, given the extensive UAA process that has been performed, and the results of the HP, there is sufficient evidence to assign ephemeral uses and criteria to support the Department's proposal as described in Section 20.6.4.97 NMAC. Therefore, the Commission hereby adopts the Department's proposal for Section 20.6.4.97 as specified in NMED's Petition. As such, these stream segments should be subject to 20.6.4.97 NMAC as ephemeral waters, with the attainable uses designated as limited aquatic life use and secondary contact. The Commission requests the SWQB to submit supporting documentation to EPA for final approval under Section 303(c) of the CWA.

Chino's Statement of Reasons

The CWA section 101(a)(2) and section 20.6.4.6 NMAC require that, wherever attainable, water quality must provide for the protection and propagation of fish, shellfish, and wildlife, and for recreation in and on the water. Federal regulations also require protection for

"attainable" uses, where an "attainable" use is one that is feasible to achieve through practical measures. 40 C.F.R. § 131.10. The EPA interprets federal regulations as establishing a "rebuttable presumption" that fishable/swimmable uses are attainable in all waters unless a Use Attainability Analysis, or UAA, demonstrates otherwise. Specifically, according to established EPA interpretation, 40 C.F.R. 131.2 requires states to adopt standards that serve the purposes of the Clean Water Act, and, where attainable, these standards must support the fishable/swimmable goals. **Tr. at 30, l. 14-18.** *See also generally* 40 CFR 131.2. Consequently, in order to remove any fishable/swimmable designation, this Commission must have evidence, through a valid UAA, that the fishable/swimmable uses are not attainable and less stringent uses are scientifically supported. **Tr. at 32, l. 1-5.**

Revisions of section 20.6.4.15 NMAC, adopted by the Commission in 2009, clarified that UAAs are necessary in order to remove a Section 101(a)(2) designated use, and developed a specific process known as the Hydrology Protocol, or HP, for conducting UAAs in this state. These amendments were approved and adopted by the Commission effective December 1, 2010 and approved by the EPA on April 12, 2011. The process for implementing the HP was approved as an appendix to the SWQB's Water Quality Management Plan/Continuing Planning Process on May 10, 2011, and by the EPA on December 23, 2011.

Utilizing the HP process, Chino conducted a UAA pursuant to subsections C and D of section 20.6.4.15 NMAC to determine the attainable water quality standards for unclassified streams in the five watersheds listed above. *See* **Final UAA Report, SWQB EX 31.** As established by Ms. Pintado's testimony, Chino complied with all applicable procedures in regard to the implementation of the Hydrology Protocol. **Pintado Direct, SWQB EX. 13 at 41-43.** As a result, the SWQB concluded that Chino's UAA report and HP results "demonstrated that the

attainable uses for these streams were documented in accordance with the HP, that the streams are naturally ephemeral and should be subject to designated uses and criteria in § 20.6.4.97 NMAC." **Pintado Direct, SWQB EX. 13 at 43-44**. The SWQB also determined that "[a]ttainment of the CWA Section 101(a)(2) uses for these ephemeral waters is not feasible due to the factor identified in 40 C.F.R. § 131.10(g)(2): 'Natural, ephemeral, intermittent, or low flow conditions or water levels prevent the attainment of the use…'" **Pintado Direct, SWQB EX. 13 at 44**.

The HP results and the draft UAA was published for a 30-day review period from January 15, 2013 through February 14, 2014. The UAA report was revised based on public comments received during this period and the final UAA report was published on October 2014. **Tr. at 52**. In accordance with section 20.6.4.15.D NMAC, the report, along with all comments and the SWQB's response to comments was submitted to the EPA for technical approval on June 28, 2013. Chino subsequently revised its report to address concerns received by the EPA, and the revised report was provided to NMED for review on October 23, 2014. Chino also submitted an additional response to comments document that addresses issues raised by the EPA about reclamation activities that are outside the scope of the HP application. *See* **Response to Comments, SWQB EX. 36**. Ms. Pintado's testimony specifies that NMED has reviewed both the revised report and response to comments and has concluded that these documents provide "sufficient clarification and information to address the EPA's concerns." *See* **Pintado Direct, SWQB EX. 13 at 46**. NMED's petition of the HP for STSIU waters during the hearing process was unopposed. For these reasons, Chino supports the Commission's adoption of NMED's proposal to assign ephemeral uses and criteria to the STSIU waters.

II. CHINO OPPOSES AMIGOS BRAVOS' PROPOSAL TO REVERT THE REGULATORY CRITERIA FOR ALUMINUM BACK TO A PRE-2009 STATE.

<u>Proposed Order Language</u>: The Commission rejects Amigos Bravos' proposed changes to § 20.6.4.900 Regarding Criteria Applicable to Existing, Designated or Attainable Uses Unless Otherwise Specified in 20.6.4.97 through 20.6.4.899 NMAC. In particular, Amigos Bravos' proposal to change the current hardness-based criteria for Aluminum back to pre-2009 levels is unsupported by substantial evidence. First, Amigos Bravos' argument based solely on the criticism of existing science is improper because it shifts the burden of proof away from the Petitioner and fails to present new scientific or technical evidence in favor of the proposal. Moreover, to the extent the technical testimony of Amigos Bravos' technical witness, Dr. Gundersen, provided evidence in support of Amigos Bravos' proposal, that evidence was conclusively refuted through the Rebuttal Testimony of the Department's witness, Dr. Bryan Dail. In particular, the Commission finds that the mitigating effects of hardness have been amply and scientifically demonstrated to afford protection to aquatic life, and further, that there's a substantial body of peer-reviewed evidence to support this conclusion, including a scientific investigation by Amigos Bravos' own witness.

<u>Chino's Statement of Reasons</u>

The current hardness-based criteria for Aluminum was adopted during the prior triennial review and implemented in 2010. *See* **AMIGOS BRAVOS PROPOSED CHANGES AND STATEMENT OF BASIS at 8**. Amigos Bravos is arguing, in effect, that the scientific evidence that was relied on by the Commission during the last triennial review should be disregarded and thrown out. *See id.* Yet, in making this argument, Amigos Bravos does not provide the Commission with any *new* scientific evidence or analysis that would contradict or invalidate the evidence that was previously presented before the Commission.

The only evidence Amigos Bravos presents in support of the removal of hardness-based criteria for Aluminum is the testimony of Dr. Deke Gundersen, who testified, in effect, that the current hardness-based criteria is based on "flawed science and incomplete data." **Tr. 594 l. 2-4.** However, Dr. Gundersen's testimony did not provide any *new* scientific evidence in support of Amigos Bravos' proposal. Instead, Dr. Gundersen based his testimony on the argument that "…if

there's all these new studies, I didn't at least see in any of the reports where they said, well, here's a few studies here that demonstrates that the existing criteria are well overprotective." **Tr. 604 l. 22-25.**

Dr. Gundersen's argument falls short of the mark because it improperly shifts the burden away from Amigos Bravos as the Petitioner. Put simply, neither the Commission nor any party to these proceedings must "demonstrate" anything regarding the *existing rule* because the current criteria for Aluminum have already been adopted and approved by the EPA. In order to change the existing regulations, the burden is on Amigos Bravos to present *new* scientific or technical evidence or analysis in favor of their proposal – merely criticizing past scientific studies does not meet this burden. *See generally, e.g., Int'l Minerals & Chem. Corp. v. New Mexico Pub. Serv. Comm'n*, 1970-NMSC-032, 81 N.M. 280, 283, 466 P.2d 557, 560 ("the courts have uniformly imposed customary common-law rules regarding burden of proof to administrative proceedings").

Moreover, the Environment Department's witnesses, and particularly the rebuttal testimony of Dr. Bryan Dail, refuted Dr. Gundersen's criticisms of the science behind the existing rule. In particular, Dr. Dail testified that "the mitigating effects of hardness…are certainly demonstrated to afford some protections to aquatic life, and there's a substantial body of peer-reviewed evidence to support this, including a scientific investigation by Amigos Bravos' own witness." **Tr. 904 l. 18-17.** *See also* SWQB REBUTTAL EX. 14. Because Dr. Gundersen's criticisms of the existing rule are insufficient and because they have been refuted by the testimony of Dr. Dail, Chino urges the Commission to reject Amigos Bravos' proposal seeking to change regulatory Aluminum criteria back to pre-2009 levels.

III. IN ACCORDANCE WITH 20.6.4.10(D)(3) NMAC, CHINO REQUESTS ADOPTION OF ITS PROPOSAL TO ADD SITE-SPECIFIC CRITERIA FOR COPPER FOR CERTAIN SURFACE WATERS LOCATED WITHIN THE MIMBRES CLOSED RIVER BASIN WITHIN THE STSIU

Proposed Order Language: For reasons presented by Chino's Witnesses, Dr. Joseph Meyer and Mr. Barry Fulton, and in accordance with 20.6.4.10(D) NMAC, the Commission hereby adopts the site-specific criteria set forth in CHINO EX. I to Chino's NOI and incorporates it into 20.6.4 NMAC. Tr. 400 l. 24-25. Pursuant to the uncontroverted technical testimony of Barry Fulton and Dr. Joseph Meyer, as well as Rebuttal Testimony of Dr. Bryan Dail, the Commission finds that the toxicological study performed on STSIU waters, the results of which were published in a peer-reviewed publication and explained at the triennial review hearing, scientifically supports the adoption of the equation and language set forth in Chino's EX. I. Moreover, the Commission finds that stakeholder meetings have taken place and that public notice and comment have occurred such that the public was informed and had an adequate opportunity for participation with respect to the Commission's adoption of the proposed rule language. Further, the Commission finds that NMED does not oppose Chino's petition and is in agreement over the rule language proposed by Chino in CHINO EX. I. The Commission finds that adopting the proposal in Chino's CHINO EX. I is based on credible scientific evidence, would be consistent with the goals of the Water Quality Act, would be consistent with EPA guidance, and would not result in diminished protection for aquatic organisms.

Chino's Statement of Reasons

As a preliminary matter, the SWQB does not oppose Chino's petition and is in agreement over the rule language proposed by Chino in **CHINO EX. I. Tr. 402. l. 4-18.** Dr Dail testified in his rebuttal testimony that, while the Department wanted some clarifications from Chino, "those clarifications were made to the satisfaction of the Department" and the Department "support[s] [Chino's] proposal without reservation. **Tr. 402. l. 4-18.** *See also* NMED Rebuttal Exhibit 14.

A. Background, the AOC and STSIU

Chino's petition was filed in accordance with section 20.6.4.10(D)(3) NMAC to adopt site-specific aquatic life criteria for copper for waters in a limited geographic area referred to as the Chino Mines Smelter Tailings and Soil Investigation Unit ("STSIU"). *See* **CHINO PETITION; CHINO EX. I.**

The portions of the waters identified above are within a study area known as the Chino STSIU and are the subject of investigation under an Administrative Order on Consent between Chino and the New Mexico Environment Department ("NMED") dated December 23, 1994 ("AOC").[1] *See generally* **Revised Site-Specific Copper Toxicity Model Report, CHINO EX. B.** The investigation identified elevated copper in soils as the primary contaminant of concern in this area, some of which may be from a combination of historic smelter emissions and blowing copper mill tailings. ***See* Tr. at 306.** Surface-water sampling conducted as part of the investigation indicated exceedances of the current hardness-based aquatic life criteria for copper in drainages located in this area. Under the AOC, NMED has conducted an ecological risk assessment with respect to copper in the soils and has issued "pre-Feasibility Study Remedial Action Criteria" ("pre-FS RAC") with respect to the soils and surface waters, including potential impacts on aquatic life in the ephemeral and non-ephemeral surface waters. *See generally* **Revised Site-Specific Copper Toxicity Model Report, CHINO EX. B.** The pre-FS RAC for surface waters requires compliance with the State of New Mexico Standards for Interstate and Intrastate Surface Waters, 20.6.4 NMAC, for risk to aquatic life in the drainages of the STSIU including all approaches and tools listed in the Code which provide options for site-specific application. *See generally* **Revised Site-Specific Copper Toxicity Model Report, CHINO EX. B.**

The STSIU site has mountainous terrain, especially in the northeastern quadrant where the majority of the sampling took place. The drainages are numerous, small, and ephemeral that mainly have flashy flow in response to monsoonal moisture during the July to September monsoonal season. There are also some isolated bedrock pools. **Tr. 347 l. 1-10.**

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[1] As noted elsewhere, the waters subject to this petition are within the Mimbres Closed Basin. These waters have not been the subject of a determination that they constitute "waters of the United States," and Chino does not concede that is the case.

Chino's petition for site-specific aquatic life criteria for copper is proposed to apply only to certain surface waters located in the Mimbres River Closed Basin and also within an area known as the Chino Mines Site STSIU and described as follows:

(a) the mainstem of Lampbright Draw beginning at the confluence of Lampbright Draw with Rustler Canyon to the intersection of Lambright Draw with the southern STSIU boundary and all tributaries thereof that originate west of Lampbright Draw, including Rustler Canyon and Martin Canyon;
(b) Lucky Bill Canyon and all tributaries thereof;
(c) Chino Mines property Subwatershed Drainages A, B, C, D-1, D-2, D-3 and all tributaries thereof; and
(d) Chino Mines property Subwatershed Drainages E-1, E-2, and E-3.

These surface waters are shown on the map attached to Chino's Petition and adopted into the record as **CHONO EX. A**. Pursuant to Mr. Fulton's uncontroverted technical testimony, the Commission should find that the STSIU is a geographically limited area with certain hydrological and chemical characteristics that are conducive to the development of site-specific criteria for copper toxicity. **Tr. 306. l. 7-17.** *See also* **CHINO EX. G.**

In connection with the AOC investigation, Chino proposed to evaluate potential site-specific criteria for copper for surface waters in the STSIU. All of the surface waters which are the subject of Chino's petition are "unclassified" waters subject to use designations under sections 20.6.4.97, .98 or .99 NMAC. Those waters subject to section 20.6.4.98 NMAC (intermittent waters) will have the relevant designated use of "marginal aquatic life", and those waters subject to section 20.6.4.99 NMAC (perennial waters) will have the relevant designated use of "warmwater aquatic life." Some of the waters to which the site-specific copper criteria adjustment proposed in Chino's petition would apply are proposed to be treated as "ephemeral" under SWQB's proposed amendments to section 20.6.4.97 NMAC, as set forth in more detail in SWQB's petition. If the Commission adopts SWQB's proposed amendments to section 20.6.4.97 NMAC, then the waters covered by that amendment will have the designated use of

"limited aquatic life." The applicable use designations under sections 20.6.4.97, .98 and .99 NMAC are not affected by Chino's petition. The proposed site-specific WER adjustment, however, is intended to apply regardless of the particular aquatic life use designation under sections 20.6.4.97, .98 or .99 NMAC.

B. Structure of Chino's Petition

Chino's Petition, as stated in its NOI and at the hearing, contains two versions of proposed rule language, adopted into the record as CHINO Exhibit H and **CHINO EX. I**. *See* **Tr. 400 l. 24-25.** Chino provided two options in order to provide NMED with greater flexibility in selecting preferred rule language. Pursuant to discussions and agreement with NMED, Chino conditionally accepted NMED's preferred language in CHINO EX. **CHINO EX. I**. The reason for Chino's *conditional* approval of the language in **CHINO EX. I** is that **CHINO EX. I** tracks the approval of the Hydrology Protocol in NMED's petition. Thus, without approval of the HP in NMED's Petition, and NMED's proposed language for section 20.6.4.97 NMAC, which Chino fully supports, it would be necessary for the Commission to modify the language in **CHINO EX. I** before adopting Chino's proposal. *See* **Tr. at 300 l. 22-25.** However, should the Commission approve Chino's final UAA and use of the HP in ephemeral waters as proposed in NMED's petition for section 20.6.4.97, changes to language in **CHINO EX. I** would not be necessary prior to adoption of Chino's Petition. *See* **Tr. at 300-301.**

C. Description of Public Participation, the Stakeholder Process

Chino's witnesses provided surrebuttal evidence regarding sufficiency of the public participation criteria for the adoption of site-specific toxicity criteria for copper in the STSIU. *See generally* CHINO EX. E, G. Chino implemented a public participation process according to a Community Relations Plan under the AOC. The process included public meetings with a

Community Working Group (CWG) at which NMED and Chino present and discuss activities conducted under the AOC. *See* **Community Work Group Minutes, Chino EX. K, L. and M.** The CWG holds regular meetings, in Bayard or Hurley, New Mexico and is composed of interested public stakeholders. Participation in CWG is open to all interested community members. Starting in 2011, NMED informed the CWG of Chino's efforts to develop site-specific copper criteria in drainages associated with the STSIU, and this is documented in NMED's AOC document status handouts and CWG meeting minutes. *See* **Community Work Group Minutes, Chino EX. K, L. and M.**

Chino provided public notice of the September 16, 2014 CWG meeting in the local newspaper of record (Silver City Daily Press) in both English and Spanish on September 2, 2014 and September 15, 2014. *See* **Community Work Group Minutes, Chino EX. J.** The public notice included information about the site-specific copper criteria presentation and the web address for Chino's online document website repository. The website contains a link to the October 2013 Revised Site Specific Copper Toxicity Model Report. *See id.* NMED included copies of the same report in the Chino AOC document physical repositories located in Silver City, Bayard and Santa Fe prior to the September 16, 2014 CWG meeting. *See id.* On September 11, 2014, Chino provided email notification of the CWG meeting to CWG members and NMED. At the September 16, 2014, CWG meeting held at the Bayard Community Center, Bayard, New Mexico, Chino's technical expert and consultant Barry A. Fulton of ARCADIS provided a detailed presentation to the CWG on the development of the Site-Specific Copper Toxicity Model for the STSIU drainages. *See* **Community Work Group Minutes, Chino EX. K.** At that meeting, NMED and Chino answered questions from the public, and invited public comment on the model report and proposed criteria. *See id.*

Additionally, ample public and NMED participation was solicited in connection with the STSIU toxicity study itself. The initial results from the toxicity study were reported in 2012 in the form of a draft interim report, and comments were received from NMED. **Tr. 308. l. 1-2.** In the wake of NMED comments regarding the interim report, a revised interim report and copper toxicity model report were submitted to NMED in 2013. The report and the underlying scientific study were both authored by Dr. Meyer and Mr. Fulton. **Tr. 308. l. 2-5;** *See also* CHINO EX. B. The results of the study were published in peer-reviewed scientific literature in 2014, which provided the public – including other scientists – to evaluate and provide public comment regarding the proposal. The publication of the report also roughly coincided with the submittal of the original petition for site-specific copper toxicity criteria, which eventually resulted in these proceedings. **Tr. 308. l. 6-10.**

D. Sufficiency of Petition

Amigos Bravos misconstrues section 20.6.4.10 NMAC and asserts in the Technical Testimony of Rachel Conn that Chino's Petition is deficient because it did not provide enough detail regarding Chino's public participation process: Ms. Conn agreed with counsel for Amigos Bravos in live testimony that the petition requirements in 20.6.4.10D(3)(c) contains two separate parts:

> Q. This provision contains two separate parts, correct? First, that the petition must describe methods to notify and solicit input from stakeholders and the public?
> A. Yes. That's the first part.
> Q. And second, that the petition must specifically present and respond to the public input received?
> A. Yes. That the petitioner must present and respond, yes. That's the second part.

Tr. 808-809, l. 25-10. Ms. Conn further stated that Chino failed to "indicate how many members of the public or other stakeholders attended this meeting and does not disclose, let

alone present and respond to the public input received in their petition." **Technical Testimony of Rachel Conn (Conn Testimony), at 10.**

As a result, Amigos Bravos erroneously concludes that the "adoption of Chino's proposed change, ..., risks the exclusion of local voices and input, and, as a consequence, the arbitrary and capricious adoption of its proposed change by this Commission." *Id.* Further, in live testimony, Ms. Conn baselessly expanded this conclusion to state that "this lack of information compels the conclusion that Chino has not complied with 20.6.4.10D(3)(c) NMAC or demonstrated stakeholder engagement sufficient to justify the promulgation by this Commission of site-specific criteria." **Tr. 810, l. 13-18.**

Ms. Conn and Amigos Bravos impermissibly expand the requirements of section 20.6.4.10D(3)(c) NMAC to require notice to the public of proposed site-specific standards prior to the filing of a petition and require the petition to "demonstrate stakeholder engagement sufficient to justify promulgation" of the requested site-specific standards. In order to present to and respond to public input received in a petition, Ms. Conn's interpretation of section 20.6.4.10D(3)(c) NMAC would require that public notice of a petitioner's proposed site-specific standards occur prior to the filing of a petition. However, there are no statutory or regulatory requirements to do so:

Public notice requirements for petitioners of site-specific water quality standards are provided by NMSA 1978, section 74-6-6 and do not require notice or public involvement prior to the filing of a petition. To the contrary, public notice is required after a petition is filed and after determination by the Commission that it will accept the petition and hold a hearing on the petition. *See id.*, § 74-6-6(B). Once the Commission accepts the petition and sets a hearing, public notice of the hearing is required 30 days prior to the hearing:

> At least thirty days prior to the hearing date, notice of the hearing shall be published in the New Mexico register and a newspaper of general circulation in the area affected and mailed to all persons who have made a written request to the commission for advance notice of hearings and who have provided the commission with a mailing address. The notice shall state the subject, the time and the place of the hearing and the manner in which interested persons may present their views. The notice shall also state where interested persons may secure copies of any proposed regulation or water quality standard.

NMSA 1978, § 74-6-6-(C). Likewise, neither 20.6.4.10 nor the Procedural Order in this matter require notice or public involvement occur prior to the filing of a petition.

The requirements of section 20.6.4.10D(3)(c) NMAC do not create notice obligations different than section 74-6-6 and instead occurs in a list of items that must be included in a petition: "(c) describe the methods used to notify and solicit input from potential stakeholders and from the general public in the affected area, and present and respond to the public input received." Because these two clauses are contained in one sentence, common rules of construction necessitate that the two clauses have some commonality. In this case, the introductory clause "describe the methods used" applies to both clauses. Construction of the sentence in this way is also consistent with the applicable statute and regulations, which do not require a petitioner to present and respond to public input received that it may or may not have at the time a petitioner files a petition. This construction is also consistent with how the Department imparts public participation information in its petitions.

Chino provided extensive surrebuttal testimony on the subject of public participation (as discussed in subsection C above), and SWQB's witness, Dr. Dail expressly testified that Chino's petition was sufficient and, additionally, that Chino's community involvement process was also sufficient. **Tr. 316—338.** *See also* **NMED Rebuttal EX. 14.** The fact that local stakeholders chose not to provide written comment or participate in the hearing on Chino's Petition, does not require the Commission to reject Chino's Petition. To the contrary, particularly since local

stakeholders have previously provided written comment and participated in other hearings involving Chino, the more appropriate conclusion is that Chino's pre-petition public involvement actions satisfied concerns local stakeholders had with Chino's proposed site-specific standards. With Amigos Bravos' sole objection being conclusively refuted by means of the above analysis and testimony, and with the Environmental Department's concurrence, the record fully supports the Commission's rejection of Amigos Bravos' contention that Chino's Petition should be rejected on the basis of a showing of adequate public involvement in Chino's Petition.

E. Scientific Investigation by Dr. Meyer and Mr. Fulton

In support of its petition, Chino presented two technical witnesses, Mr. Barry Fulton and Dr. Joseph Meyer. *See* **CHINO EX. E, G.** *See also* **Tr. 401.** Dr. Joseph Meyer and Mr. Fulton were directly responsible for both performing the toxicity study on STSIU waters and developing the formula for copper toxicity used in **CHINO EX. ICHINO EX. I** in accordance with EPA guidance on the development of site-specific criteria. *See generally* **CHINO EX. E, I.**

During the scientific investigation, the STSIU study area was divided into nine sub-watersheds that provided a wide range of water chemistries, including everything from low water hardness to high water hardness, low alkalinity to high alkalinity, and low dissolved organic carbon to high dissolved organic carbon concentrations. **Tr. 347. l. 11-17.** The work plan for the toxicity study was submitted for comment to NMED and the EPA Region 6 in 2011; subsequently, field sampling and laboratory testing was conducted by Dr. Meyer and Mr. Fulton. **Tr. 307. l. 23-25.** The objective of the study was to develop site-specific copper toxicity criteria for STSIU surface waters based on the concept of bioavailability, consistent with EPA guidelines. *See* **Tr. 307. l. 18-21.** The study used 12 sampling locations that were mostly ephemeral flow drainages primarily in the northeastern quadrant of the site. *See* **Tr. 307. l. 22-**

25. The reason why water sampling could not have taken place in the lower elevation southern quadrants was due to the fact that Dr. Meyer and Mr. Fulton were unable to locate any water flowing in that area during the study period. **Tr. 348. l. 1-2.** Dr. Meyer and Mr. Fulton collected the water where it could be found during the monsoonal season, which attests to the flashy nature of the flow within the STSIU area. **Tr. 348. l. 3-5.**

The scientific study performed by Dr. Meyer and Mr. Fulton support the adoption of site-specific copper toxicity criteria for the STSIU. The scientific model resulting from the study, which is represented in Chino's **CHINO EX. I**, works at any time of the year with any water chemistry in the STSIU and with any range of aquatic organisms that may be found in the STSIU; the model is not limited in usefulness to the time the samples were originally collected. **Tr. 348. l. 15-20.** The toxicity study calculated an effect ratio, which is a concept that compares metal toxicity in purely hardness-based laboratory water with site water containing dissolved organic carbon and other water chemistry parameters not present in laboratory water. **Tr. 348-49.**

In the study, samples were collected in August and September of 2011, and then laboratory waters were analyzed side by side with the site waters. Specifically, the toxicity portion of the study measured comparative mortality of aquatic organisms that resulted from exposure to copper in site and laboratory water. The study had two rounds of sampling. In the first sampling round, water was collected from all 12 sites, while in the second round, which occurred later in the monsoonal period, water was collected from 6 sites – a subset of the original 12. The samples were split between an analytical chemistry lab and the toxicity analysis so that the toxicity results could be linked to water chemistry. **Tr. 348. l. 6-15.**

Per EPA guidelines for such studies, two aquatic species, an aquatic invertebrate and a fish, were exposed to varying copper concentrations in both site water and laboratory water.

Although these particular species are not necessarily found in the STSIU, the species are sensitive to water toxicity, and the EPA considers them a good generic substitute for the sensitivity of organisms that may live in the field. *See* **Tr. 349. l. 13-18.**

The results of the toxicity study suggest sufficient support exists for the proposition that certain chemical properties in the site waters – including, without limitation, the dissolved organic carbon, or DOC – have a protective effect on aquatic life that reduces the toxicity of the site waters as compared to laboratory waters, which track hardness alone. The STSIU toxicity study found sufficient differences in toxicity to support site-specific criteria proposed by Chino in **CHINO EX. I**. *See* **Tr. 351-54.**

The current water quality criteria in New Mexico are based on hardness alone; however, according to the STSIU study, hardness alone is not a sufficiently accurate predictor of toxicity because it does not take into account alkalinity and dissolved organic carbon, or DOC. **Tr. 345, 351-54.** A model that does take into account DOC and alkalinity in addition to hardness, which form the basis of Chino's proposal in **CHINO EX. I**, would be a far more accurate predictor of toxicity. *See* **Tr. 351-54.** Moreover, when site-specific criteria are derived in accordance with the process used in the STSIU scientific study, the intended level of protection for aquatic life is not diminished, which is in accordance with the EPA Water Quality Standards Handbook. **Tr. at 244. l. 1-5.** Therefore, Chino's proposal in **CHINO EX. I** meets EPA Guidelines for development of site-specific toxicity criteria, and its adoption will not result in diminished protection for aquatic organisms. **Tr. at 244. l. 1-5; 351-54.**

F. Explanation For the Proposed Criteria

The Commission may adopt site-specific numeric criteria applicable to all or a part of a surface water of the state based upon relevant site-specific conditions under section

20.6.4.10(D)(1) NMAC. The relevant site-specific conditions include "physical or chemical characteristics at a site such as pH or hardness alter the biological availability and/or toxicity of the chemical." § 20.6.4.10(D)(1)(b) NMAC. Site-specific criteria must fully protect the designated use to which they apply. § 20.6.4.10(D)(2) NMAC. A derivation of site-specific criteria shall rely on a scientifically defensible method, such as one of those listed in section 20.6.4.10(D)(4)(a)-(e) NMAC.

Under the relevant criteria specified in section 20.6.4.900 NMAC, numerical aquatic life criteria for copper are derived using a formula that considers the hardness of the water. However, according to the uncontroverted technical testimony of Chino's expert witnesses, a variety of other physical and non-hardness chemical characteristics of the water and the metal can influence metal bioavailability and toxicity to aquatic organisms. These parameters include suspended and dissolved solids, pH, alkalinity, organic carbon compounds, ionic strength and other characteristics, which can have equal or greater effects on copper toxicity than hardness alone. *See, e.g.,* U.S. EPA Water Quality Standards Handbook, EPA-823-B-94-005a, 2nd ed., August 1994. The formula proposed in Chino's **CHINO EX. I** includes such factors and, therefore, it represents the more predictive and accurate toxicity equation.

G. Lack of Objections or Technical Opposition to Chino's Testimony

The live testimony of Dr. Meyer and Mr. Fulton, together with their pre-submitted written direct testimony, the **Revised Site-Specific Copper Toxicity Report, CHINO EX. B;** and the peer-reviewed article, **CHINO EX. C**, constitute substantial evidence in support of adoption of Chino's proposal as outlined in **CHINO EX. I**.No substantial evidence exists in the record to deny Chino's proposal, which is based on sound scientific principles.

The only objection to adopting Chino's petition was raised by Ms. Rachel Conn of

Amigos Bravos. Amigos Bravos presented no technical testimony rebutting the testimony of Chino's expert witnesses and, indeed, conceded that the proposal is technically sound. Amigos Bravos asserted that Chino's petition is deficient because it did not provide enough detail regarding Chino's public participation process. However, as discussed above, this was conclusively refuted through the live surrebuttal testimony of Chino's witnesses as well as through the rebuttal testimony of SWQB's witness, Dr. Dail. Chino provided extensive surrebuttal testimony on the subject of public participation (as discussed in subsection C above), and SWQB's witness, Dr. Dail expressly testified that Chino's petition was sufficient and, additionally, that Chino's community involvement process was also sufficient. **Tr. 316—338.** *See also* **NMED Rebuttal EX. 14.** With Amigos Bravos' sole objection being conclusively refuted by means of the above testimony, and with the Environmental Department's concurrence, the record fully supports the Commission's adoption of **CHINO EX. I** of Chino's Petition.

IV. CHINO'S CLOSING ARGUMENT AND CONCLUSION

The Commission should adopt the rule language proposed in Freeport's NOI **CHINO EX. I** for three main reasons. First, Chino's proposal provides for a scientifically more accurate and reliable framework than the current hardness-based criteria for copper toxicity. Second, the methodology used by Chino's witnesses is consistent with both EPA and New Mexico regulations. And third, Chino's technical testimony is unopposed.

First, the proposed toxicity framework in Chino's **CHINO EX. I** is much more accurate and reliable than criteria based entirely on aquatic hardness. As Dr. Meyer testified, a purely hardness-based analysis, which is currently in use in New Mexico, accounts for only 10% of the toxicity variation, while the analysis proposed by Chino, which also incorporates alkalinity and dissolved organic carbon, is a much better toxicity predictor and can account for over 85% of the

data variation. The difference between 10% versus 85% represents a monumental improvement in the quality of measurement, and it appears clear that the approach proposed by Chino is the more effective approach that provides for much better predictive capabilities. To re-emphasize, the STSIU site is both geographically isolated and somewhat unique. As Dr. Meyer testified, this site has a very wide range of water chemistries and, because water chemistry varies so widely from stream to stream, one size simply does not fit all when it comes to setting a copper toxicity standard. Instead, what the State needs in the STSIU is a theoretical model of copper toxicity that the Environment Department can effectively use with the *entire range* of water chemistries: a rule that would work in high hardness water and low hardness water; in high alkalinity or low alkalinity water; in tea-colored water with high dissolved organic carbon or in clearer water with low carbon content. As the undisputed evidence shows, Chino's proposed rule provides a model of toxicity that can accomplish these goals – it is particularly well-suited for the STSIU, where one size does not fit all and it is necessary to have a more flexible standard due to the wide range of water chemistries found on site.

Second, the method used in the development of the proposed rule provided for adequate public participation and is consistent with both EPA's and NMED's regulations. As seen from the testimonies of Mr. Fulton and Dr. Meyer, the proposed rule language was developed through communication and collaboration with both the EPA and NMED going back as far as 2010. As Dr. Meyer and SWQB's witness, Dr. Dail, both testified, the WER approach that was used in Chino's toxicological testing for the proposed rule is not only considered acceptable by the EPA and NMED regulations, but, in fact, provides the objectively best approach for this specific site because it involves testing *real* water from the STSIU rather than just testing artificial laboratory water that is chemically different from the water found on site. Furthermore, Dr. Meyer and Mr.

Fulton's research was published in a respected peer-reviewed journal, which enabled comments not only from the public at large, but also from scientists who are experts in the toxicological field. The research underpinning Chino's proposed rule has been validated and is not contested in this proceeding.

Lastly, Chino's proposal is virtually unopposed in this hearing because no technical testimony has been submitted to even dispute, let alone refute, Chino's scientific case that is the basis for the proposed rule language in **CHINO EX. I**. In fact, both Chino's scientific method and the proposed rule language in **CHINO EX. I** have been approved and agreed to by the Environment Department – and Dr. Dail expressly testified to this fact in his rebuttal testimony.

While Amigos Bravos noted concerns about insufficient public participation, this Chino established that it provided ample opportunity for public participation, which was addressed in Chino's Surrebuttal and SWQB's rebuttal testimony. As Dr. Dail's rebuttal testimony clearly acknowledges, Chino presented its proposal at a Community Working Group meeting in September 2014, and a presentation of that proposal was presented to the Commission by Mr. Fulton and Dr. Meyer. Freeport has taken other steps to solicit public comment and criticism of the proposal, including subjecting the underlying science to vigorous peer review. The fact that there is no technical testimony in opposition to Freeport's proposal is telling, because the science behind Freeport's proposal is solid.

Sound science is critically important in this case. The STSIU is a geographically isolated area with some very specific characteristics – such as a very wide range of water chemistries throughout the site. Because of that wide range of water chemistries, one size does not fit all when it comes to predicting copper toxicity. Therefore, the STSIU is the perfect area to apply

temporary standards that are able to take into account those different water chemistries and still provide an accurate and easily enforceable result.

Chino respectfully requests that the Commission adopt Chino's proposed rule language as articulated in **CHINO EX. I** of the NOI as set forth above.

Respectfully Submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Freeport-McMoRan Chino Mines Company's Proposed Statement of Reasons and Closing Argument was served on the following parties of record on this the 15th day of January, 2016:

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