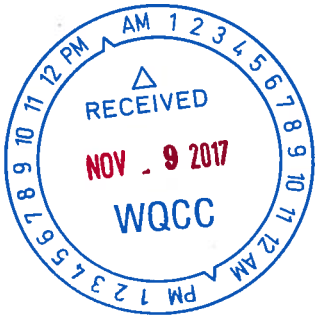

STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION

IN THE MATTER OF PROPOSED AMENDMENTS TO GROUND AND SURFACE WATER PROTECTION REGULATIONS, 20.6.2 NMAC

WQCC 17-03(R)

UNITED STATES AIR FORCE, DEPARTMENT OF DEFENSE'S NOTICE OF FILING OF WRITTEN SUR-REBUTTAL TECHNICAL TESTIMONY

The United States Air Force, Department of Defense ("USAF/DoD") submits the attached Written Sur-Rebuttal Technical Testimony of Samuel Brock.

DATED this 9th day of November 2017.

Respectfully submitted,

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United States Air Force, Department of Defense Written Sur-Rebuttal Technical Testimony of Samuel Brock

STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION

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UNITED STATES AIR FORCE, DEPARTMENT OF DEFENSE

WRITTEN SUR-REBUTTAL TECHNICAL TESTIMONY OF

SAMUEL BROCK

NMED claims the Commission should reject USAF/DoD's proposed amendments to the toxic pollutant narrative standard. *See* McQuillan Rebuttal at p. 3, lns 19-20. This Sur-Rebuttal Testimony is reserved to responding to NMED's attacks on our proposed comments on the narrative standard, and to a lesser extent Mr. William C. Olson's comments on this issue in his rebuttal testimony.

At bottom, it appears that NMED simply doesn't want changes that would affect their unfettered discretion on the implementation of the narrative standard. Oddly, one of its primary basis for opposing changing the language in the Rules is the length of time such language has been in the Rules. *See* McQuillan Rebuttal Testimony at p. 2, lns 5-10. By NMED's own account, the disputed language has been in the Rules for three and half decades. *Id.* While it is laudable that the State of New Mexico has pioneered environmental protection, the length of time a statute or regulations have been in effect does not mean that certain provisions within that statute or regulation do not need updating. To claim that a statute or regulation should not be changed simply because of its age fails to account for the changing times, which is exactly the point I make in my direct testimony. *See* Corrected Direct Technical Testimony of Samuel Brock at p. 7-8, lns 15-5. It would seem that the Commission would want to welcome changes that would improve upon the Rules, especially considering that NMED's amendments seek to add new contaminants to the list of toxic pollutants and any biased or pseudo-scientific article on the internet could be used to satisfy the current standard. In the decades that have passed since the Water Quality Act was first adopted many state and federal statutes have been adopted, amended, repealed and replaced.

The language we propose to amend the narrative standard is based on methodologies enumerated in the federal Safe Drinking Water Act (42 U.S.C. § 300g-1(b))(3)(A)[1]) and the recently amended federal Toxic Substances Control Act. These statutes require Federal agencies to not only limit their consideration to "best available science" but to also consider the weight of this scientific evidence. *See* Corrected Direct Testimony of Samuel Brock at p. 5, lns. 8-12. Specifically, the language we propose is derived from substantive amendments to the federal Safe Drinking Water Act in 1996. *See* Safe Drinking Water Amendments of 1996, Pub. L. No. 104-182, 110 Stat. 1621, codified as amended at 42 U.S.C. 300f – 300j-26 ("1996 Amendments to federal Safe Drinking Water Act"). There were several stated findings for the 1996 Amendments to federal Safe Drinking Water Act, notably: "the existing process for the assessment and selection of additional drinking water contaminants needs to be revised and improved to ensure that there is a sound scientific basis for setting priorities in establishing drinking water regulations"; "procedures for assessing the health effects of contaminants establishing drinking water standards should be revised to provide greater opportunity for public education and participation"; and "in considering the appropriate level of regulation for contaminants in drinking water, risk assessment, based on sound and objective science." *See* Sec. 3, Findings of 1996 Amendments to federal Safe Drinking Water Act, 110 Stat. 1615. Congressional Committee Reports prepared in advance of these amendments also found that "the quality of the science supporting drinking water standards needs improvement. S. Rep. No. 104-

[1] Subsection (b)(3)(A) of Section 300g-1 of Title 42 the United States Code, entitled "use of science in decision making" directs the U.S. EPA that when agency action is based on science, the U.S. EPA is to use: (i) best available, peer-reviewed science and supporting studies conducted in accordance with sound and objective scientific practices; (ii) data collected by accepted methods or best available methods (if the reliability of the method and nature of the decision justifies use of the data). These provisions were added in the 1996 amendments to the federal Safe Drinking Water Act. 42 U.S.C. § 300g-1(b)(A)(i)-(ii).

169 at 17 (1995). These findings illustrate that Congress saw a need to improve upon the federal law and ensure best science is applied in decision-making. We believe the Commission could reach the same or similar findings here. We refer to the federal laws to illustrate to the Commission how a more vigorous scientific process and transparent decision-making for the implementation of the narrative standard would look like in the Rules. After all, what's the use of transparency in this rulemaking process, if NMED can be less than transparent in its decisions on the narrative standard?

Mr. McQuillan would have the Commission believe that USAF/DoD doesn't understand what changes are being proposed, what law the Rules implement and the authority of the Commission and Petition under that law. This is simply not true. Specifically, Mr. McQuillan argues that USAF/DoD doesn't understand that the narrative standard is moved, not proposed for the first time. *See* McQuillan Rebuttal at p. 2, lns 5-10. I anticipated such an argument in my rebuttal, and I think I adequately addressed that issue my rebuttal testimony that the narrative standard a logical outgrowth to NMED's proposed changes. *See* Rebuttal Testimony of Samuel Brock at p. 3, lns 12-14.

Mr. McQuillan also argues that the groundwater standards adopted by the Commission are not drinking water standards; the Commission doesn't adopt drinking water standards; and New Mexico's voluntary participation in wellhead protection program under the federal Safe Drinking Water Act was approved by U.S. EPA approved New Mexico's program in 1989 with the same language that USAF/DoD now challenges. *See* McQuillan Rebuttal Testimony at p. 2, lns 11-22. Mr. McQuillan's arguments on this issue miss the mark. New Mexico's participation in the wellhead protection program is not the issue here, and as such, U.S. EPA approval of that program has no bearing on our comments here. Also, as I indicated in my prior testimony, we

understand and acknowledge NMED's authority and support the promulgation of toxic pollutant standards by the Commission. *See* Rebuttal Testimony of Samuel Brock at p. 2, lns. 13-14. In addition, we acknowledge, understand and respect the Commission's authority both to set numeric standards under the Water Quality Act and Commission's authority to promulgate rules for the narrative standard authorized under the Water Quality Act. We understand that the Commission's setting of numeric standards and the narrative standard are not drinking water standards. Setting MCLs under the federal Safe Drinking Water Act, promulgating numeric standards under the Rules and NMED implementation of standards under the narrative standard of the Rules are all different processes. But, the interplay between the federal Safe Drinking Water Act and the standards under the Rules is illustrated by Mr. McQuillan's very testimony, which uses MCLs as the primarily justification for changes to the most numeric standards in the Petition. NMED's considers all groundwater with acceptable dissolved solids and sufficient volume as potential drinking water, and as such, sets standards on discharges into potential drinking water at standards protective of human health.

Mr. McQuillan's rebuttal testimony also claims that NMED has not faced a legal challenge to its administering the narrative standard. *See* McQuillan Rebuttal Testimony at p. 3, lns 7-10. I do not claim to know how many times NMED created a narrative standard under the toxic pollutant definition or how often NMED has faced a legal challenge for implementing the narrative standard. But, as discussed in more detail below, since NMED is proposing to add to the list of toxic pollutants, and several of those proposed to be added are controversial, the past has no bearing on what future challenges may arise. As noted in my direct testimony, U.S. EPA has faced multiple challenges when it has adopted a scientifically unsupportable standards in its decision-making process. *See* Corrected Direct Testimony of Samuel Brock at p. 5, lns. 2-4.

Chlorine Chemistry Council v. EPA, 206 F.3d 1286 (D.C. Cir. 2000) is an example of a case where U.S. EPA was successfully challenged because its decision-making on Chloroform violated the "best available science" requirement in the federal Safe Drinking Water Act by its use of default assumptions. "Best available science" is a term that is not reserved to the federal Safe Drinking Water Act – that term is included in other federal statutes and regulations that seek to include a check to ensure that agency decisions are scientifically sound. For instance, in a 2006, a Federal Court vacated the Forest Service's approval of a project for failing to consider "best available science" pursuant to the relevant regulations. *See Ecology Center, Inc. v. U.S. Forest Serv.*, 451 F.3d 1183 (10th Cir. 2006). That case included an overview of various federal laws containing the phrase "best available science" to assist the Forest Service on remand. *Id.* at 1195 n. 4. This analysis examined the requirements for "best available science" under those federal laws and found commonalities of what constitutes good science as a basis for agency decision-making such as, ensuring that the data and analysis is reliable, peer reviewed, or otherwise complying with valid scientific methods. The benefits of including the language we propose is to ensure that NMED adheres to certain accepted and appropriate elements and principles in its decision-making on the narrative standard.

Mr. McQuillan's Rebuttal claims that the Water Quality Act includes the term "credible scientific data and other evidence appropriate under the Water Quality Act," not the term "best available, peer reviewed science." Mr. William C. Olson asserts a similar argument in his rebuttal testimony – he claims that the USAF/DoD proposed language is reasonable, but not consistent with the relevant provision of the Water Quality Act. *See* William C. Olson Rebuttal Testimony at pgs. 4-5. Mr. Olson also claims that "due to politicization and suppression of science at the federal level," the Commission should not limit appropriate science to United

States federal agency toxicology information. *Id.* Again, these arguments miss the mark. The issue here is not the authority upon which the Rules or the Commission are derived or who holds political office. We believe actual phrase used in the Rule is not as important as providing more clarity and certainty on what is appropriate for NMED is to consider as part of its scientific decision-making under the narrative standard. Also, our proposed language does not seek to make federal standards the only way under the Rules – they serve as a serve as a good example for the Commission to apply on this issue.

After his attacks and claims that our proposals concerning the narrative standard should be rejected by the Commission, Mr. McQuillan offers to change the language of the narrative standard to match this language in the Water Quality Act. *See* McQuillan Rebuttal Testimony at p. 3, lns 20-22; & p. 6, lns 21-22. While we appreciate NMED's willingness to be open to changes to the narrative standard, NMED's proposed changes do not address our concerns. First, while I am not a lawyer, I understand that matching the language in the statute with the Rules has no legal effect. Second, by their very nature, promulgating regulations are usually designed to illuminate or further explain how statutes are to be implemented. Both "credible scientific data" and "other evidence appropriate under the Water Quality Act" are not defined either in the Water Quality Act or the Rules. So, such a change doesn't illuminate or further explain how NMED will make narrative standard decisions - NMED's unfettered discretion remains. Third, while Mr. McQuillan states in his rebuttal testimony what NMED must use in administering the narrative standard (McQuillan Rebuttal at p. 5, lns. 13-16), as I understand it, NMED does not have published guidance on how they select narrative standards or how a prospective permittee would propose a narrative standard be selected. Mr. McQuillan points to what NMED uses in administering the narrative standard in his testimony, but such language does not assuage our

concerns about the use of science in its decision-making and transparency in its decisions. Fourth, the narrative standard for toxic pollutants language proposed by USAF/DoD and discussed in my prior testimony focuses on human health risk, whereas, NMED's revised language on the narrative standard still addresses effects to plants. As I understand it, NMED consideration of effects to plants and animals involves an analysis of economic impacts. USAF/DoD's proposed language provides clarity about the basis for any standard NMED implements under the narrative standard language.

Mr. Olson proposes a change to the language of the narrative standard aligned with his comments on my direct testimony. *See* Olson Rebuttal Testimony at p. 5. We believe Mr. Olson's proposed language is better than the current, existing language, but it falls short of addressing our concerns because it fails to illuminate the meaning of credible and does not include a peer-review element. But, with that in mind, we may support Mr. Olson's proposed revision to the narrative standard, if it also included an accompanying definition of "credible science" (in 20.6.2.7.C(8) NMAC), which we propose to be as follows: "means, science that is reliable and unbiased. Use of credible science involves the use of supporting studies conducted in accordance with sound and objective science practices, including, when available, peer reviewed science and supporting studies and data collected by accepted methods or best available methods (if the reliability of the method and the nature of the decision justifies use of the data). Additionally, NMED will consider as applicable: (1) The extent to which the scientific information, technical procedures, measures, methods, protocols, methodologies, or models employed to generate the information are reasonable for and consistent with the intended use of the information; (2) The extent to which the information is relevant for NMED's use in making a decision about a toxic pollutant or combination of toxic pollutants; (3) The degree of clarity and

completeness with which the data, assumptions, methods, quality assurance, and analyses employed to generate the information are documented; (4) The extent to which the variability and uncertainty in the information, or in the procedures, measures, methods, protocols, methodologies, or models, are evaluated and characterized; and (5) The extent of independent verification or peer review of the information or of the procedures, measures, methods, protocols, methodologies or models."

This proposed language is derived from the implementing regulations (40 C.F.R. § 702.33) for the federal Toxic Substances Control Act, which admittedly is not the Water Quality Act. The goal of my proposed language above is to provide needed illumination on what is to be considered "credible science" or "credible scientific information," which as stated above, is missing from the statute or the Rules. As we stated in the past, and it bears repeating, we are flexible on the exact wording of the language adopted.

The chemicals that NMED seeks to add to the list of toxic pollutants without a corresponding numeric standard serves as an illustration of the current level of uncertainty by the regulated community. NMED asserts that U.S. EPA does not have a comprehensive program to prevent and abate groundwater pollution and states have had to develop groundwater protection programs on their own, and New Mexico is a pioneer in this area. *See* McQuillan Direct Testimony at p. 4, lns. 10-12. NMED also indicates that it selected contaminants to add to the numerical and narrative standards under the Rules on the basis of either being known pollutants in New Mexico or presenting "a credible threat to polluting groundwater in New Mexico at concentrations of concern to human health." *See* McQuillan Direct Testimony at p. 5, lns 3-6. NMED provides a comparison chart (NMED Exhibit 7 to its Direct Testimony) that it claims compares existing and proposed WQCC groundwater standards, both narrative and numerical,

with NMED tap water screening levels, MCLs and EPA drinking water health advisories with groundwater quality standards and criteria that have been adopted by the States of New Jersey, Wisconsin and Washington. *See* McQuillan Direct Testimony at p. 4, lns 18-22.

As I noted in my rebuttal testimony, 8 of the 13 chemicals that NMED seeks to add to the list of toxic pollutants do not have a corresponding numeric standard proposed. At least four of the 8 can be characterized as "emerging contaminants:" 1,4-dioxane (1,4-D), three Perfluorinated Chemicals (PFCs): perfluorohexane sulfonic acid (PFHxS), perfluoroctane sulfonate (PFOS) and perfluorooctanic acid (PFOA). 1-4-D is being analyzed in the IRIS system. *See* U.S. EPA, Technical Fact Sheet – 1,4-Dioxane (January 2014); [IRIS] Chemical Assessment Summary, 1,4-Dioxane; both available at www.epa.gov/iris. Also, by its own account, 1,4-D has been detected in the groundwater at multiple sites in New Mexico. See McQuillan Direct Testimony at p. 14, lns. 4-5.

The justification for including 1,4-D in the narrative standard for toxic pollutants and the available science that could be relied upon for setting a standard for 1,4-D is more clearly established than for PFCs. Unlike 1,4-D, IRIS analysis of PFCs is not yet available. In addition, NMED claims that PFCs have not been detected in New Mexico groundwater, but it believes "there is a reasonable probability it will be detected in the future." *See* McQuillan Direct Testimony at p. 15, lns. 7-8. NMED's Exhibit 7 references a NMED's non-enforceable, risk-based screening level for tap water based on non-cancer risk for each of the three PFCs it seeks to add to the definition of toxic pollutants. NMED's Exhibit 7 also references the non-enforceable and non-regulatory U.S. EPA health advisory levels for PFOA and PFOS that are calculated to offer a margin of protection against adverse health effects to the most sensitive

populations. *See* https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos.

In our experience, states are widely divergent on their approaches to standards for PFCs. Some states are proposing standards at or below the U.S. EPA health advisory, even though that the health advisories are non-enforceable and non-regulatory in nature. There is a relatively high degree of uncertainty of what will be used by NMED to set a narrative standard for PFCs. The risk is real that under the disputed language in the narrative standard, NMED could establish a narrative standard for PFCs based on an unsubstantiated, non-peer reviewed, or otherwise not credible or reliable scientific data or use a report that presents unsupported conclusions.

The current Rules, and as proposed to be changed by NMED and Mr. Olson lack adequate safeguards with respect to NMED's use of science in its decision-making in implementing the narrative standard, especially with regard to emerging contaminants. Part of this risk could be abated if the PFCs were removed from the list of added toxic pollutants. But, we believe that the provisions relating to the use of science in NMED decision-making under the narrative standard must to be updated and revised to provide the type of detail we seek. So in sum, contrary to NMED's allegations, we believe our views are reasonable, prudent and very worthy of consideration by the Commission.

CERTIFICATE OF SERVICE

I hereby certify that on November 9, 2017, a true and correct copy of the Notice of Filing of Sur-Rebuttal Technical Testimony were served via electronic mail to the following:

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