
**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

# WRITTEN REBUTTAL TECHNICAL TESTIMONY OF SAMUEL BROCK

My name is Samuel L. Brock and I am the Subject Matter Expert for Toxicology for the Environmental Management Directorate, Technical Support Division of the United States Air Force Civil Engineer Center, located in San Antonio, Texas. My direct testimony submitted in this matter, USAF/DoD Exhibit 1 to our Notice of Intent to Present Technical Testimony, focused on USAF/DoD concerns and issues related to the narrative standard for toxic pollutants in proposed changes to Title 20, Chapter 6, Part 2 of the NMAC, titled the Ground and Surface Water Protection Rules" ("Rules"). My rebuttal testimony is organized into three substantive categories: (I) Party testimony and/or proposed changes to the Rules that involve the same or similar issues raised in my direct testimony; (II) Party testimony and/or proposed changes to the Rules we support; (III) Party testimony and/or proposed changes to the Rules that we oppose.

## I. Other Party Proposed Changes that Involve the Same or Similar Issues Raised in USAF/DoD Direct Testimony

I acknowledge NMED's authority to regulate toxic pollutants and I support the promulgation and adoption of adequately supported new toxic pollutant standards. As I indicated in my direct testimony, I seek to make sure that standards are based on sound science, decisions on standards are transparent and I seek to reduce the strain on both the regulator and regulated community. USAF/DoD is concerned about the Petitioner's proposed changes to the narrative standard in Section 20.6.2.3103(A)(2) NMAC. Petitioner proposes to add 13 constituents to the list of toxic pollutants in the narrative standard. *See* NMED Notice of Intent to Present Technical Testimony ("NOI"), Exhibit ("Exh.") 5 at 20-21, lns 21-11. NMED proposes a numeric standard for 5 of these, leaving the remaining 8 proposed to be added without a proposed corresponding numeric standard. These changes call into question the process under the Rules that allow Petitioner to set performance standards that will be directly

applicable to the regulated community performing remedial action. As Petitioner notes in its direct testimony, the toxic pollutant standard provides authority "to protect groundwater from contaminants for which numerical groundwater standards do not exist" and "regulate combinations of contaminants where the toxic effects of the combined contaminants may be worse than that of the individual contaminants." NMED NOI, Exh. 5, p. 5 lns 7-11. Petitioner explains that once on the list, "NMED must perform an evaluation of the concentration at which a contaminant becomes a Toxic Pollutant in groundwater." NMED NOI, Exh. 5, p. 5, lns. 8-9. Where multiple constituents are present, which may be more toxic in combination, NMED must perform a case-by-case evaluation and make a determination relating to the specific constituents and concentrations involved. NMED NOI, Exh. 5, p. 20, lns 15-18.

Petitioner does not substantively discuss the process outlined in the narrative standard. NMED explains that the Petition proposes to merely move the narrative standard within the Rules, and that the list of toxic pollutants is not new, just proposed to be revised with respect to some of the numerical standards for toxic pollutants. NMED NOI, Exh. 5, p. 20 lns. 3-6. But, by seeking to add to the list of toxic pollutants without also proposing a numeric standard for such constituents, Petitioner seeks to empower itself to use the arbitrary narrative standard process to determine performance standards for toxic pollutants that do not have a corresponding numeric standard. Also, the ability to set a standard based on the presence of multiple toxic pollutants is expanded regardless of whether a numeric standard is also set. So, the narrative standard triggers review of NMED's proposed changes. Also, from a practical perspective, when a member of the regulated community seeks a permit or is otherwise performing a remedial response that involves a toxic pollutant without a numeric standard or multiple contaminants are present, the narrative standard does not provide clear guidance to the regulated community for

the content of a proposal to adequately respond to such identified toxic pollutant(s) and what the regulator will ultimately determine. The narrative standard provides vast discretion to the regulator to make determination on standards, and is relatively unrestricted on its basis for making such a determination.

My direct testimony offers alternative narrative standard language which alleviates some of that uncertainty of the regulated community, avoids unnecessary conflicts and litigation on standards that may not be based on the best available science, follows federal statutory guidance, and would improve the rules. NMED's testimony references federal Safe Drinking Water Act primary standards or Maximum Containment Levels ("MCLs") throughout its testimony, and proposes to adjust most standards to be equal to MCLs. *See e,g.* NMED NOI, Exh. 5 p.6, lns. 22-23. Our proposed changes to the 20.6.2.3103(A)(2) NMAC are based on the process employed by U.S. EPA to set MCLs. We believe that if NMED is going to set a standard that is not based on a MCL, it is incongruous to not require NMED to employ a similar process for setting such standards.

NMED proposes to remove the term "numerical" from the definition of "hazard to public health." NMED explains that they proposed this change "to reflect the proposed changes to the standards of 20.6.2.3103 NMAC which now include a narrative standard for toxic pollutants." *See* NMED's July 27, 2017 Notice of Amended Petition at p. 2. For the reasons stated above we oppose the change. This proposed change would enable a "hazard to human health determination" be made pursuant to the narrative standard that USAF/DOD opposes. The proposed change to the definition is not consistent with the underlying statutory process for setting human health standards; does not present a valid means of determining a human health risk; does not require rigorous scientific methods addressing quality, objectivity, utility and

integrity of information, and the proposed definition does not require a transparent discussion of how decision about toxic pollutants are made. NMED should develop a numerical standard following a process as described for all regulated chemicals. As such, this proposed change is directly linked to USAF/DoD's comments on the narrative standard and; therefore, I oppose this proposed change to the definition of "hazard to the public health."

The Environmental Quality Association Subsection, New Mexico Municipal League ("NMML") asserts that although state programs can be more stringent than the U.S. EPA, the EPA process for evaluating unregulated contaminants by nomination for study on the Contaminant Candidate Lists "CCL" should be considered by the Commission as these are regulatory factors that must be considered when setting drinking water standards protective of groundwater sources. NMML NOI, Exh. 4, lns. 32-43. NMML further asserts that pollutants should only be added to list if there is an approved analytical method that is widely available. NMML NOI, Exh. 4 lns. 44-52. NMML explains that in order to support a regulatory determination, U.S. EPA must utilize a method that is suitable for the drinking water matrix and robust enough to be used by many laboratories. Finally, NMML argues that standards promulgated outside the rulemaking process and without public participation, need to be peer reviewed. *See* NMML NOI, Exh. 1 lns. 38-39.

USAF/DOD agrees with the arguments forwarded by NMML. As an example, for the U.S. EPA to nominate an unregulated candidate for a regulatory determination it must first find that the contaminant occurs in drinking water sources with regular frequency, that the contaminant poses a definitive threat to human health, and that the contaminant is capable of being reduced from the water sources. To not take into consideration these factors would lead to regulatory standards which are neither economically practical nor technologically feasible. We

further agree that contaminants should only be added to the list if there is an approved analytical method available. The lack of an approved method of analysis would be expected to result in huge inconsistencies in results and a lack reliable data. Further, a lack of an approved method would open analytical data open to legal challenges based on error. NMML's argument that standards promulgated outside the rulemaking process and without participation need to be peer reviewed is consistent with the USAF/DOD position. State narrative standards promulgated for unregulated contaminants could directly conflict with MCL's later set by U.S. EPA. Because of the lack of scientific method in setting such standards they could be subject to challenge as scientifically unsupportable. The proposed changes and comments referenced above are aligned with USAF/DoD's proposed changes to the Rules and our previously filed Direct Testimony concerning the need to modify the language of the narrative standard in the Rules. As such, USAF/DoD supports the comments and proposed changes discussed above.

Dairy Producers of New Mexico and Dairy Industry Group for a Clean Environment ("Dairies") proposes to amend the definition of "discharge permit amendment" to apply to an increase in daily discharge greater than twenty percent, as opposed to the NMED proposed ten percent. *See* Dairies, NOI, Exh. 2, pgs. 2-3. USAF/DoD generally supports NMED's proposed changes relating to discharge permit modifications and discharge permit amendments with one exception. The limitation with respect to any increase in discharge volume for a facility conducting water abatement is too restrictive and does not align with clean-up sites that are already subject to regulatory oversight under other programs. NMED's Amended Petition explains that this provision is proposed to be added "to prevent a facility under abatement for an exceedance of groundwater standards from using the amendment process to increase the discharge volume." *See* NMED's Amended Petition at 2; *see also* NMED's NOI, Exh. 13, p. 11,

at lns 20-23. But, the underlying purpose of abatement programs subject to regulatory oversight is for more expedient and effective clean-up which is potentially frustrated by the limited exception and need to apply for a modification. Therefore, aligned with USAF/DoD's comments and testimony seeking exemptions to the Rule and to allow for NMED's goals of flexibility, limiting strain on resources, and effective protection of water quality for minor changes to a discharge permit, we believe that subsection (c) of the proposed 20.6.2.7.D(4) NMAC should be deleted.

Dairies propose a change to 20.6.2.4103.F(2)(d) NMAC that seeks to enable a party to seek alternative abatement standards without first submitting abatement plans. USAF/DOD agrees that if a regulated entity has completed action under contingency or closure provisions of the regulations, it should not also need to submit abatement plans. *See* Dairies NOI, Exh. A at pgs. 8-9.

## II. Other Party Proposed Changes USAF/DoD Supports

Los Alamos National Security, LLC (LANS) proposes to add the Chemical Abstract Service Registry Number ("CAS Number") both in the definitions and in 20.6.2.3103 NMAC. LANS Direct Testimony p. 3 lns. 19-23. LANS explains that this addition would provide "an unambiguous way to identify a chemical substance or molecular structure," eliminate confusion and serve to standardize references throughout the regulations. USAF/DOD agrees that the addition of CAS number in the definitions would add clarity in differentiating between chemical isomers configurations and would standardize the identification of chemical compounds which would eliminate any possible confusion.

NMML points out that NMED proposes to add two pollutants (Prometon and sulfolane (thiolane 1,1 dioxide) that are not currently regulated under the federal Safe Drinking Water Act

or Clean Water Act. *See* NMML NOI, Exh. 1, lns 24-31; Exh. 4, lns 20-23. NMML argues that NMED should propose numeric standards and provide specific reasons to justify the addition of each pollutant instead of merely adding them to the list of toxic pollutants. NMML NOI, Exh. 1, at lns 39-44, Exh. 4, lns 29-31. NMML claims that the numeric standards process allows for consistent regulation of contaminants not previously included in the rule. NMML NOI, Exh. 1, 41-44. USAF/DOD agrees that NMED should provide the technical basis and implementing guidance for chemicals they intend to regulate. Without a numerical standard the chemical is functionally regulated at the detection limit and water standards should be non-zero values base on health effects or they are otherwise unenforceable under CERCLA cleanup programs.

Both NMML and New Mexico Mining Association ("NMMA") assert similar arguments that numeric standards should match federal MCLs under the federal Safe Drinking Water Act. NMML NOI, Exh. 4, lns 65-84. NMML points out that NMED proposes some state standards be increased (barium, toluene, 1,1-dichloroethylene (1,1 DCE and vinyl chloride), and NMED proposes others pollutants remain the same (chromium, fluoride and total xylenes). *Id.* at lns 65-68. NMML argues that fluoride and total xylenes and total chromium be increased to match the federal MCLs. *Id.* at 68-82. NMMA similarly argues that the standards for chromium and fluoride should be consistent with the current MCL. NMMA NOI, Exh. A at p. 7. USAF/DOD agrees that setting the standards to match U.S. EPA promulgated MCLs would provide consistency. Standards set at the MCL would provide regulatory consistency for Federal facilities which have multi-state facilities and are subject to compliance with MCLs at multiple national locations.

NMED proposes to add subsection E to 20.6.2.1210 NMAC, providing a five-year compliance reports for variances granted for a period in excess of five years. *See* NMED's

Notice of Amended Petition at 2. This proposed additional subsection also includes a specified time period to request a hearing before the Commission concerning the Commission's consideration of variances that exceed five years. *Id.* In consideration of NMEDs proposed addition to 20.6.2.120, NMMA and Dairies propose a change to NMED's language that would add a materiality component to the circumstances where a party could request a hearing on a variance and limit those who have standing to appeal a permit decision. *See* NMMA NOI, Exh. A at p. 4-5; *see also* Dairies NOI, Exh. A at 4. NMMA and Dairies both argue that as proposed by NMED, changes of circumstance or newly discovered facts may give rise to a hearing request even though such circumstances or facts have nothing to do with the variance request. *Id.* Dairies and NMMA also assert that a materiality determination could be based on whether the Commissions' decision on the variance would have been substantially influenced by the change of facts or circumstances. *See* Dairies NOI, Exh. A at 4; *see also* NMMA, NOI, Exh. A at 5. On the issue of standing, Dairies and NMMA argue that there proposed changes would be aligned with the Act's limitations on who can appeal a permit decision under the Act. *Id.* USAF/DOD supports NMED's proposed additional provision 20.6.2.1210.E with the edits proposed by Dairies and NMMA. The proposed changes would substantially reduce the administrative burden placed on NMED associated with challenges posed by parties with no justiciable interest in the proceedings.

## III. Other Party Comments We Oppose

William C. Olson Proposes to add requirements that persons seeking an abatement standards variance provide an analysis of "present and foreseeable uses of water" that may be affected by the variance. *See* William C. Olson NOI, Exh. 1, at p. 8. Mr. Olson claims that the additional language is needed because ground water is a public resource extensively used for

drinking, agriculture and industrial uses and that this additional information is necessary for the Commission to "assess the effects of issuance of a requested variance on water resources, to minimize potential impacts of uses of water and meet the statutory requirements of the [Act]." Olson, NOI, Exh. 1, p. 8. Mr. Olson also seeks to insert similar language as part of an alternative abatement standards petition, claiming substantially the same justification for its inclusion. *See* Olson NOI, Exh. 1, p. 12. USAF/DOD opposes the inclusion of this language as future uses are speculative. Further, groundwater classification is already accounted for in determining the appropriate abatement standards.

W.C. Olson claims that all of NMED's proposed changes to 20.6.2.4103.F(1)(a) are redundant and should be deleted. *See* Olson NOI, Exh. 1, p. 12. USAF/DOD disagrees. Subsection (1)(a) relates to feasibility using commercially accepted abatement technology, and (1)(b) relates to cost considerations both of which are important factors.

In addition, NMED's Amended Petition proposes that 20.6.2.4103.F(1)(d) NMAC include a requirement that a technical infeasibility determination for an alternative abatement standard can only be made after the maximum use of commercially accepted abatement technology, and an extrapolation that over the next twenty years of use, the reduction would be less than 20 percent reduction of concentration of the pollutants. NMED explains that it included this change in its Amended Petition to clarify that a person must attempt a remedy before claiming this form of technical infeasibility. *See* Amended Petition at p. 3. USAF/DOD opposes this requirement because remedy implementation is not required to determine technical infeasibility. Robust site characterization and target technology demonstrations can be used to demonstrate whether standards can be met without and before expending costs to implement a full scale remedy. Also, placing a 20 year and 20 percent reduction requirement in a showing of

technical infeasibility sets an unduly rigid, economically burdensome, and unreasonable standard.

Thank you for your consideration. This concludes my written rebuttal testimony.