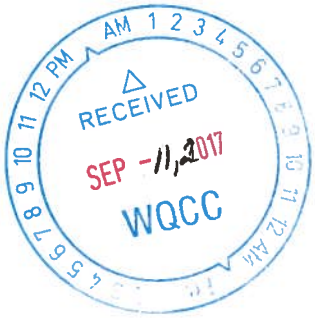
DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE LEGAL OPERATIONS AGENCY

7 September 2017



HQ AFLOA/JACE
1500 W. Perimeter Road, Suite 1500
Joint Base Andrews, MD 20762

VIA FEDERAL EXPRESS
Ms. Pam Castaneda
Administrator for Boards and Commissions
Water Quality Control Commission
1190 St. Francis Dr.
Santa Fe, NM 87505

Re: WQCC 17-03(R): In the Matter of: Proposed Amendments to Ground and Surface Water Protection Regulations, 20.6.2 NMAC: DoD Pleadings.

Dear Ms. Castaneda:

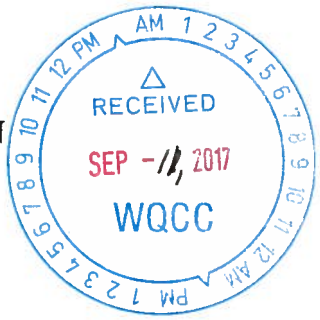
I have enclosed an original, two (2) hard copies and ten (10) electronic copies on compact discs (cds) of the following documents: (1) Notice of Intent to Present Technical Testimony on behalf of the United States Air Force, Department of Defense; (2) USAF/DoD Exhibit 1 – Written Testimony of Samuel Brock and his Proposed Reasons for Amendments to 20.6.2 NMAC; (3) USAF/DoD Exhibit 2 – Resume of Dr. Samuel Brock; (4) USAF/DoD Exhibit 3 - Written Testimony of Scott Clark and his Proposed Reasons for Amendments to 20.6.2 NMAC; (5) USAF/DoD Exhibit 4 - Resume of Scott Clark; and (6) Certificate of Service. We would greatly appreciate it if these documents were added to the pleadings for the above referenced case. Thank you very much for your attention to this matter.

Sincerely,

Michael L. Casillo
Litigation Attorney

Encl.

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)

NOTICE OF INTENT TO PRESENT TECHNICAL TESTIMONY ON BEHALF OF THE UNITED STATES AIR FORCE, DEPARTMENT OF DEFENSE

The United States Air Force, Department of Defense hereby submits this Notice of Intent to Present Technical Testimony on behalf of USAF, DoD.

1. **Identify the person for whom the witness(es) will testify:**

   The witnesses identified below will testify for USAF, DoD.

2. **Identify each technical witness the person intends to present and state the qualifications of that witness including a description of their educational and work background:**

   a. Samuel Brock is a technical witness who will testify regarding toxicity standards. Dr. Brock has served as a Subject Matter Expert for Toxicology for the United States Air Force Civil Engineer Center, Environmental Management Directorate, Technical Support Division, in San Antonio, Texas for nearly 10 years. Prior to this Dr. Brock served: as a Toxicologist for six years at the Air Force Center for Engineering and the Environment (AFCEE), as a Toxicologist for WPI for seven years, and as an Epidemiologist at the Texas Department of Health. Dr. Brock has a Doctor of Veterinary Medicine from Purdue University (1970) and a Master of Public Health from University of North Carolina Chapel Hill (1976).

b. Scott Clark is a technical witness who will testify on permitting and dual regulation. Mr. Clark is the Remedial Project Manager for Kirtland Air Force Base (AFB) and the Senior Restoration Lead for the New Mexico Air Force Installations. He has worked as a federal employee with the Air Force since 2006, and prior to that worked as a contractor at Kirtland AFB for Engineering/ Environmental Management. He has a B.S. in Environmental Management from Northeastern Oklahoma State University and over 15 years of experience in New Mexico working with environmental compliance and environmental restoration issues for the Air Force.

3. **Summarize, or include a copy of, the direct testimony each technical witness:**

Copies of each technical witness' direct testimony is attached, as well as their resumes, and the proposed amendments to 20.6.2 NMAC. Both Dr. Brock and Mr. Clark will provide testimony that will last approximately one and one-half hours, depending on the duration of cross-examination and any response to rebuttal testimony.

USAF/ DoD Exhibit 1	Written Testimony of Samuel Brock and his Proposed Reasons for Amendments to 20.6.2 NMAC
USAF/ DoD Exhibit 2	Resume of Dr. Samuel Brock
USAF/ DoD Exhibit 3	Written Testimony of Scott Clark and his Proposed Reasons for Amendments to 20.6.2 NMAC
USAF/ DoD Exhibit 4	Resume of Scott Clark

4. **Include the text of any recommend modifications to the proposed regulatory change:**

DoD believes that toxic standards in the Rules should protect the health of the residents of New Mexico by using the highest quality, verifiable scientific data. Accordingly, we

recommend that WQCC change 20.6.2.3103(A)(2) NMAC from what is proposed by Petitioner to the following:

(2) *Standards for Toxic Pollutants. A concentration upon exposure, ingestion, or assimilation either directly from the environment or indirectly by ingestion through food chains: (1) shown by human health risk assessments to warrant actions to reduce or prevent direct or indirect injury to human health, (2) creates a lifetime risk of more than one cancer per 100,000 exposed persons, or (3) produces harmful effects to the health of animals or plants which are commonly hatched, bred, cultivated, or protected for use by man for economic benefit. Appropriate sources of toxicological information for human health risk assessments, at a minimum, include the following elements: (1) based on the best available, peer reviewed science and supporting studies conducted in accordance with sound and objective scientific practices, as well as data collected by accepted methods or best available methods, (2) available to the public, and (3) transparent about the methods and processes used to develop the values. Integrated Risk Informant System, the EPA's Provisional Peer Reviewed Toxic Values, Agency for Toxic Substances and Disease Registry Minimal Risk Levels and Human Effects Assessment Summary Tables are examples of acceptable sources for toxicological information for human health risk assessments.*

DoD proposes to add a provision to the Rules, as Section 20.6.2.10 NMAC, which would streamline the permitting process and eliminate confusion and redundancy in the Rules. The language of this proposed added provision would read as follows:

"20.6.2.10 LIMITATIONS: These regulations do not apply to:

A. Except as provided in Part 4, any activity or condition subject to the authority of the environmental improvement board pursuant to the Hazardous Waste Act, NMSA 1978, §§ 74-4-1 to - 14, the Ground Water Protection Act, NMSA 1978, §§ 74-6B-1 to - 14, or the Solid Waste Act, NMSA 1978, §§ 74-9-1 to - 25; or

B. Any activity or condition subject to the authority of the oil conservation commission pursuant to the Oil and Gas Act, NMSA 1978, §§ 70-2-1 to – 38, or other laws conferring power on the commission to prevent or abate water pollution."

Additionally, if the Rules are modified to add 20.6.2.10 NMAC, DoD proposes changes to 20.6.2.3105.O NMAC to reflect these changes. Specifically, the Petition proposes changes to 20.6.2.3105.M and proposes to add subsections N & O to 20.6.2.3105 NMAC. Subsection M is an exemption from the discharge permit requirement of the Rules for effluent or leachate discharges regulated under the Oil Conservation Commission Act and the regulations of the Water Quality Control Commission. DoD's proposes to delete subsection M of 20.6.2.3105 because it would become duplicative and unnecessary. DoD also proposes to change what would become subsection N (proposed as subsection O in the Petition) from:

"*O. Any activity or condition subject to the authority of the environmental improvement board pursuant to the Hazardous Waste Act, NMSA 1978, §§ 74-4-1 to -14, the Ground Water Protection Act, NMSA 1978, §§ 74-6B-1 to -14, or the Solid Waste Act NMSA 1978, §§ 74-9-1 to -25, or regulated under the federal Resource Conservation and Recovery Act, except to abate water pollution or to control the disposal or use of septage and sludge.*"

to:

"*N. Any activity or condition regulated under the federal Resource Conservation and Recovery Act or the federal Comprehensive Environmental Response, Compensation and Liability Act.*"

Additionally, DoD believes the Rules could be improved upon to allow for more flexibility in achievement of compliance or standards. DoD respectfully requests that the Commission consider further amendments to the Rules that incorporate concepts and provisions similar to those included in neighboring states that allow for flexibility in achieving compliance.

5. Reservation of Rights

The United States Air Force, Department of Defense reserves the right to call any other person to present original and/or rebuttal testimony in response to another notice of intent, testimony, exhibit or public comment filed in this matter or to any testimony or exhibit offered at the public hearing.

WHEREFORE, USAF, DoD respectfully requests that the Water Quality Control Commission accept this Notice of Intent to Present Technical Testimony of behalf of United States Air Force, Department of Defense.

DATED this 7th day of September 2017.

Respectfully submitted,

Michael L. Casillo, Litigation Attorney
AFLOA/JACE
1500 West Perimeter Road, Suite 1500
Joint Base Andrews, MD 20762
Telephone: (240) 612-4680
Email: michael.l.casillo2.civ@mail.mil

USAF/DoD EXHIBIT 1

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 DIRECT TESTIMONY OF SAMUEL BROCK

I. BACKGROUND AND EXPERIENCE

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, San Antonio, Texas. I am presenting this written testimony on behalf of the United States Air Force, Department of Defense (DoD). As Subject Matter Expert for Toxicology, I am responsible for, among other things, resolving problems or issues impacting toxicology and risk assessment concerning the conditions and vulnerabilities of systems extending across the Air Force and DoD. I received a Doctorate in Veterinary Medicine from Purdue University in 1970 and a Master of Public Health, Epidemiology from University of North Carolina, Chapel Hill in 1976. My experience, duties and responsibilities are outlined in my resume, which attached to my testimony as USAF/DoD Exhibit 2. As demonstrated in my resume, I have worked as a Subject Matter Expert for nearly ten (10) years. Prior to this, I worked as a Toxicologist for six (6) years at the Air Force Center for Engineering and the Environment (AFCEE), as a Toxicologist for WPI for seven (7) years, and as an Epidemiologist at the Texas Department of Health. My resume also identifies my specialized training, licenses/certificates, professional associations, written works, my past presentations and speaking engagements, as well as my duties representing the Air Force and DoD on various working groups and panels. My testimony will comment on Petitioner's proposed narrative standard for toxic pollutants.

II. INTRODUCTION

Petitioner proposes to add a narrative standard for toxic pollutants at Section 20.6.2.3103(A)(2) NMAC. As proposed, the standard would allow a toxic pollutant standard to be based on any scientific information that is publically available, regardless of whether or not

the scientific information is based on legitimate peer reviewed, and accepted scientific research. Such language is arguably contrary to the statutory requirements for best available science in the New Mexico Water Quality Act, NMSA 1978 74-6-1 to -17 (1963, as amended through 2013) (the "Act"), and proposes language that is, in my opinion, arbitrary in that it creates the possibility that a standard could be adopted based on scientific information that is incomplete or does not meet an acceptable standard of practice within the scientific community. The broad scope of the proposed language could lead to disparate and unreasonable standards or conversely to those that are not protective of human health and the environment because they are based on cursory scientific studies.

The intent of my testimony is to advocate for the adoption of toxic standards that are based on legitimate science rather than junk scientific information. To allow for the adoption of human health standards based on studies that are not rigorously vetted by generally accepted scientific methods is counterproductive to the goals of protecting human health and the environment and contrary to the very foundation of scientific reason and method. To be clear, I support the promulgation and adoption of adequately supported new toxic standards under the amended rules. It my position, however, that the adoption of those standards should give consideration to the weight of scientific evidence through a systematic process as is standard practice in the scientific community. Consequently, I am proposing language that would clarify the scientific basis for setting standards for toxic substances or pollutants to those that are from published sources that are credible, reproducible, accepted and peer reviewed. These revisions are aligned with the Act's requirements and recommendations for use of best science in rulemaking as stated in NMSA Sections 74-6-4(D), (E) & (K).

III. PROCEDURE FOR ADOPTING TOXIC POLLUTANT STANDARDS

A. STATUTORY CONSISTENCY

As stated in 20.6.2.2 NMAC, entitled "Statutory Authority," the Ground and Surface Water Protection Rules derive their authority pursuant to the Act which in turn claims authority under the Federal Clean Water Act, Sections 1251 through 1387 of Title 33 of the United States Code, and the Safe Drinking Water Act Sections 300f through 300g-26 of Title 42 of the United States Code. With regard to the analysis of risks to human health, safety and the environment, the Safe Drinking Water Act mandates the use of "the best available, peer reviewed science and supporting studies conducted in accordance with sound and objective scientific practices; and data collected by accepted methods or best available methods." 42 U.S.C. § 300g-1(b)(3)(A) & (B). It would be inconsistent and contradictory with the underlying Federal enabling statutes to not require the use of scientifically accepted methodologies and peer review processes. These processes are arguably a factor for the Commission to consider under a NMSA Sections 74-6-4 (E)(7).

B. USE OF SCIENTIFIC METHODS IN RULE MAKING

The language of the proposed rule does not set a standard for the use of the highest quality, best available science in setting narrative toxic substances standards which will likely lead to excess litigation. Toxic substance standards based on poor scientific methodology are subject to challenge because they are arbitrary. As an example, the EPA has seen multiple challenges when it has adopted standards which did not adhere to the scientific review required under the Information Quality Guidelines. The Information Quality Guidelines require Federal administrative agencies to ensure the quality, objectivity, and integrity of the scientific analysis

that support regulatory decision making. *See* Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies, 67 Fed. Reg. 8,452 (Feb. 22, 2002). Additionally, the Frank R. Lautenberg Chemical Safety for the 21st Century Act, Pub. L. No. 114-182, 130 Stat. 448 (2016), recently amended the Toxic Substances Control Act, requiring Federal agencies to consider only the best available science but also the weight of the scientific evidence that they are relying on. *See* 15 U.S.C. § § 2617(f)(D)(i) (2016) & 2625(h) (2016).

The U.S. EPA's Integrated Risk Assessment (IRIS) database is another example of using the use of the highest quality, best available science to set risk based standards. EPA's IRIS Program supports EPA's mission to protect human health and the environment by identifying and characterizing the health hazards of chemicals found in the environment. Each IRIS assessment can cover a chemical, a group of related chemicals, or a complex mixture. The IRIS Program is located within EPA's National Center for Environmental Assessment (NCEA) in the Office of Research and Development (ORD). The placement of the IRIS Program in ORD is intentional. It ensures that IRIS can develop impartial toxicity information independent of its use by EPA's program and regional offices to set national standards and clean up hazardous sites. The Office of Research and Development (ORD) is the scientific research arm of EPA, whose leading-edge research helps provide the solid underpinning of science and technology for the Agency.

C. TRANSPARENCY IN RULE MAKING

Transparency in toxic substance standards rule making is important in fostering public trust in its scientific health agencies. As an example, the IRIS process is very transparent. EPA announces the availability of the draft human health risk assessment and draft peer review charge

questions for public review and comment on the IRIS website. A public meeting is held to discuss the draft assessment, draft peer review charge questions, and specific science questions raised by the assessment. The IRIS Program may revise the draft assessment and peer review charge questions in response to the public's comments. Additionally, EPA prepares a response to major public comments received during the public comment period.

EPA then releases the draft assessment and peer review charge questions for external peer review by the EPA's Scientific Advisory Board (SAB) Chemical Assessment Advisory Committee (CAAC). During external peer review, a public external peer review meeting is held and the public is allowed to attend the peer reviewers' discussion of the draft assessment and provide comments. The SAB announces the dates and location of the peer review meeting.

The IRIS Program revises the assessment to address peer review comments. They also prepare a written response-to-comment document. The revised assessment is reviewed by EPA's program offices and regions, other federal agencies, and the Executive Office of the President before the final assessment is posted on EPA's website.

As currently worded the toxic substances narrative standards which allow for the reliance on "any published scientific information" falls well short of scientifically accepted validation methods. Peer review is a necessary element in the evaluation of scientific information used in the formulation of scientifically and legally defensible standards. Litigating narrative standards based on arbitrary scientific information would be a drain on NMED resources which can be better utilized in other areas.

Arbitrary scientific information also undermines the public trust. Reliance on anything but the best available, published and peer reviewed science can result in unnecessary costs and public confusion. The best available scientific information, verifiable data and weight of

evidence should be the basis for regulatory decision making. Regulatory standards set based on arbitrary scientific information are based on mere assumptions rather than actual data and scientific interpretation. Such standards may be unreasonable leading to excess costs and denial of resources or conversely may not be protective enough. Estimates of risk based on limited, unverified, and non-peer-reviewed studies are often misleading and provide flawed information. Flawed information misinforms the public, leads to incorrect decisions and can undermine the integrity of the NMED.

IV. RECOMMENDED LANGUAGE

The internet has provided everyone access to a truly unlimited volume of information. Unfortunately, the volume of data available does not mean that all of the publicly available data is accurate or useful. The focus of the toxic standards should be on protecting the health of the residents of New Mexico by using the highest quality, verifiable scientific data. Establishing standards using publicly available information that has not undergone proper peer review creates the risk that limited resources will be directed to conditions that, after thorough review, are deemed not important or even worse increases the public's exposure to toxic chemicals. To respond effectively to human health risks NMED should adhere to standards based on reliable scientific information. Including the criteria for scientifically vetted information as part of the development of toxic pollutant standards ensures the residents of New Mexico are protected using the best available science. Good science also prevents a conflict of law in the unlikely situation where the State of New Mexico establishes a standard based on scientific information that does not meet the legitimate scientific criteria mandated in the Federal enabling statutes.

Accordingly, we recommend that WQCC change 20.6.2.3103(A)(2) NMAC from what is proposed by Petitioner to the following:

(2) Standards for Toxic Pollutants. A concentration upon exposure, ingestion, or assimilation either directly from the environment or indirectly by ingestion through food chains: (1) shown by human health risk assessments to warrant actions to reduce or prevent direct or indirect injury to human health, (2) creates a lifetime risk of more than one cancer per 100,000 exposed persons, or (3) produces harmful effects to the health of animals or plants which are commonly hatched, bred, cultivated, or protected for use by man for economic benefit. Appropriate sources of toxicological information for human health risk assessments, at a minimum, include the following elements: (1) based on the best science available, peer reviewed science and supporting studies conducted in accordance with sound and objective scientific practices, as well as data collected by accepted methods or best available methods, (2) available to the public, and (3) transparent about the methods and processes used to develop the values. Integrated Risk Informant System, the EPA's Provisional Peer Reviewed Toxic Values, Agency for Toxic Substances and Disease Registry Minimal Risk Levels and Human Effects Assessment Summary Tables are examples of acceptable sources for toxicological information for human health risk assessments.

V. CONCLUSION

In conclusion, it is my hope that the Commission will consider requiring that the toxic standards be based on rigorously vetted, published, and peer reviewed science. NMED should evaluate risk based upon its best scientific judgement and consider all credible and relevant information available. The proposed paragraph above simplifies the standard by consolidating human health requirements and identifying the potential impact of contaminated plants and

animals. The first sentence is ordered so that human health information, where risk based assessments are required, are elements 1 and 2, while the economic impact of contaminated plants and animals is identified as 3. The need to identify human consumption of plants or animals, as in the current New Mexico requirement, is not needed because the first sentence of the proposed alternative language includes direct and indirect ingestion. The third element of the first sentence recognizes the fact that the contamination of plants and animals may pose an economic hardship, as does the second part of the first element of the first sentence in the current regulation.

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

Samuel L. Brock, DVM, MPH
Samuel.brock@us.af.mil
Phone 210-395-0670

EXPERIENCE

SUBJECT MATTER EXPERT FOR TOXICOLOGY ***2008 – Present***
UNITED STATES AIR FORCE CIVIL ENGINEER CENTER, ENVIRONMENTAL MANAGEMENT DIRECTORATE, TECHNICAL SUPPORT DIVISION, SAN ANTONIO, TX

- Responsible for resolving problems or issues impacting toxicology and risk assessment concerning the conditions and vulnerabilities of systems extending across the Air Force and DoD
- Responsible for developing Air Force criteria and implementing guidance for a wide range of technical development, implementation, interpretation and problem resolution concerning environmental risk assessment
- Responsible for identifying and prioritizing short- and long-range requirements; developing and implementing corresponding budget requirements to provide technical consultation to the field
- Represent the Air Force as subject matter expert at conferences and technical forums; and with other DoD services and industry to establish technical guidance and collaborate with other agency functional experts to identify, develop, and advocate for Research, Development Testing & Engineering efforts.
- Develop and advocate for required technical courses in conjunction with the Air Force Institute of Technology (AFIT) and/or other schools and delivers presentations at technical forums
- Expert knowledge of the concepts, principles, practices, standards, methods, techniques, materials and equipment associated with environmental risk assessment and toxicology
- Coordinate Air Force Toxicology reviews of EPA Chemical Risk Assessments for DoD comment during interagency EPA's Interagency Review Process.
- Represented the Air Force on working groups developing National and DoD guidance on remediation risk management, vapor intrusion, bioavailability of contaminants in soil and sediments, Project Risk Management for Site Remediation and Remediation Management of Complex Sites
- Participated in development of the Air Force Center for Environmental Excellence Guidance for determining assessment and remediation requirements for small arms firing ranges.
- Provided risk assessment review to the prototype Army Corps of Engineers risk assessment approach for explosive hazards
- Currently integrating environmental restoration programs with site specific assessment of restoration potential, activities include: standardized analytical data mining; automated attenuation-rate and mass movement estimations to predict remediation complete dates and to match site-conditions with the EPA Site completion Strategy in order to track remediation progress
- Negotiated a technical approach to close seven contaminated sites at a former Air Force missile plant on the National Priority List using adaptive management. Replaced $50M pump & treat construction with a treatment to reduce contaminant levels; demonstrated proposed state clean-up levels were not achievable in bedrock based on site-specific pilot studies and negotiated feasible, site-specific goals for two highly toxic chemicals
- Serve as a subject matter expert to DoD Materials of Emerging Regulatory Interest (MERIT) working groups and Military Family Housing Privatization Initiative activities addressing pesticides in soil. In this capacity, I provide toxicology support to the HQ Air Force Housing

Privatization to address persistent legacy pesticides in soil around 50,000 older housing units Air Force-wide. I evaluated site data, product distribution and regulatory requirements during deliberations with key project stakeholders. I also collaborated with developers to standardize characterization, develop decision logic to optimize waste management approaches to reduce project costs and conducted applied research to treat impacted soil when necessary

TOXICOLOGIST ***Jul 2002 to Aug 2008***
AIR FORCE CENTER FOR ENGINEERING AND THE ENVIRONMENT (AFCEE) ***SAN ANTONIO, TX***

- Duties included: toxicology, ecological and human health risk assessment and regulatory consultation supporting a full range of CERCLA and RCRA environmental site restoration
- Activities included: program management of AFCEE peer review program, performance based risk management program, and contract administration for four task orders
- Represented the Air Force with other DoD services to establish joint DoD technical guidance for evaluating vapor intrusion sites
- Managed three, multi-year Environmental Security Technology Certification Program (ESTCP) projects investigating technologies to evaluate soil vapor intrusion into buildings and led technology selection and development of two new prototype sensors for field testing providing real-time analysis of contaminants in indoor air

AIR FORCE PROGRAM MANAGER ***JAN 2002 TO JUL 2002***
AGEISS ENVIRONMENTAL INC. ***SAN ANTONIO, TX***

- Managed San Antonio operation providing Global Engineering, Integration and Technical Assistance to the Air Force Center for Environmental Excellence
- Responsibilities included professional staff and technical employees scheduling and quality control
- Actions included business development, budget, and technical product development

TOXICOLOGIST ***Jul 1995 to Jan 2002***
WPI ***SAN ANTONIO, TX***

- Managed the San Antonio Geo Science Work Group providing Global Engineering, Integration and Technical Assistance to the Air Force Center for Environmental Excellence supporting a full range of CERCLA and RCRA environmental site restoration

EPIDEMIOLOGIST ***Nov 1994 to Jun 1995***
TEXAS DEPARTMENT OF HEALTH ***SAN ANTONIO TX***

- Duties include human health risk assessment, epidemiological surveillance and risk communication implementing disease control strategies targeting the Texas-Mexico Border

ACTIVE DUTY, UNITED STATES AIR FORCE **1970 to 1993**

VARIOUS LOCATIONS

- Served in positions of progressing responsibility at ten locations in the United States and overseas
- Managed major command public health compliance and training programs at ten Pacific Air Force Bases
- Activities included occupational health surveillance, hazard communication and professional development advisor for over 160 medical professionals in 19 specialties
- Provided medical threat analysis (Chemical, Biological, and Physical Threat Assessments for Southwest Asia (1990 to 1991)), R&D oversight, and interagency liaison

EDUCATION

Doctor of Veterinary Medicine, Purdue University, 1970
Master of Public Health, Epidemiology, University of North Carolina Chapel Hill, 1976

SPECIALIZED TRAINING

Air War College
Achieved Defense Acquisition Level II Certification requirements September 3, 2007
Completed Defense Acquisition University (DAU) courses:
Fundamental of Systems Acquisition Management
Facility Engineering

LICENSES/CERTIFICATES

Licensed Veterinarian: Texas, Illinois and Colorado
Diplomat, American College of Veterinary Preventive Medicine

COMMITTEES

Currently Active:
Department of Defense Tri Service Risk Working Group (TSERAWG)
Office Secretary of Defense Military Munitions Response Dialogue
Interstate Technology Regulatory Council (ITRC)
2009-2010 Chair Interservice Environmental Education Review Board

PROFESSSIONAL ASSOCIATIONS

American Veterinary Medical Association
American College of Veterinary Public Health

PUBLICATIONS

Writing Team, *Remediation Management of Complex Sites,* Interstate Technology and Regulatory Council projected October 2017

Writing Team, *Project Risk Management for Site Remediation*, Interstate Technology and Regulatory Council, March 2011

Performance Based Remediation Management Guidance, Air Force Center for Environmental Engineering, March 2009

Evaluation of Vapor Intrusion Impacts Using Induced Building Depressurization, Dr. Thomas McHugh and Samuel L. Brock (submitted to Environmental Science & Technology)

McHugh T.E., Nickles, T.N., Brock, S., "Evaluation of Spatial and Temporal Variability in VOC Concentrations at Vapor Intrusion Investigation Sites" in Proceedings of *Vapor Intrusion: Learning from the Challenges* (Providence, RI, September 26-28, 2007).

Chowdhury, S., and Brock, S. L., *Indoor Air Inhalation Risk Assessment for Volatiles Emanating from Light Non-aqueous Phase Liquid, Journal of soil and Sediment,* Journal of Soil and Sediment

Heterosexual Transmission of Viral Hepatitis and Cytomegalovirus in Military Personnel Stationed in the Western Pacific, Sexually Transmitted Diseases, 1993

PRESENTATIONS

Interstate Technology and Regulatory Council presentation on *Long Term Management of Remediation Management of Complex Sites,* RemTEC Summit, Denver, CO, March 2017

Air Force Wide Occurrence of Naphthalene in Groundwater, Soil and Other Media, P. Hunter and S. Brock Association for Environmental Health and Sciences Foundation, San Diego, CA, March 2015

Invited Instructor, *Risk Assessment and Risk Communication* at the Air Force Institute of Technology, Wright Patterson AFB, OH, annually from 2003 through 2015

Internet-Based Training Instructor, *Project Risk Management for Site Remediation*, Interstate Technology and Regulatory Council, quarterly from Fall 2011 through November 2014

AFCEE's Emerging Issues and Groundwater contamination Strategy RemTEC Summit, Westminster, CO, November 2013

Complex Remediation Case Study PJKS, RemTEC Summit, Westminster, CO, November 2012

Overview of Technical Challenges by Key Emerging Contaminants An Air Force Perspective, Groundwater Resources Association of California, Concord, CA, February 2012

AFCEE Emerging Issues, Air Force Center for Environmental Engineering Technology Transfer Workshop, San Antonio, TX, August 2009

Session Chair, *Soil Vapor Intrusion*, Air Force Center for Environmental Engineering Technology Transfer Workshop, San Antonio, TX, August 2008

Session Chair, *Remediation Risk Management Intrusion*, Air Force Center for Environmental Engineering Technology Transfer Workshop, San Antonio, TX, August 2008

USAF/DoD EXHIBIT 3

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 TECHNICAL TESTIMONY OF SCOTT CLARK

My name is Scott Clark and I am the Remedial Project Manager for Kirtland Air Force Base (AFB) and the senior Restoration Lead for the New Mexico Air Force Installations. I have worked as a federal employee with the Air Force since 2006, and prior to that I worked as a contractor at Kirtland AFB for Engineering/Environmental Management (E2M). I am presenting this written testimony on the behalf of the United States Air Force, Department of Defense on the proposed amendments to ground and surface water protection for the State of New Mexico. My resume is attached to my testimony as **USAF/DOD Exhibit 4**.

I have a Bachelor's of Science in Environmental Management from Northeastern Oklahoma State University (1998) and that coursework included numerous courses in environmental regulatory compliance. I have 15+ years of experience in New Mexico working environmental compliance and environmental restoration issues for the Air Force. In this capacity, I have worked as the Kirtland AFB Air Quality Program manager, the Military Munitions Response Program manager, and have worked numerous environmental cleanup projects prior to moving into the Environmental Remedial Project Manager position. During my career, environmental permitting has been an ever-present companion and something that informs every aspect of the job from evaluating clean-up remedies to programming and budgeting of money to accomplish mission goals.

We fully understand the need for permitting as a tool to protect the environment as well as to demonstrate compliance, and we whole-heartedly support the regulatory agencies' mission. Our goal in testimony today is to provide comments that we believe will streamline the permitting process and eliminate confusion and redundancy in current regulations and hopefully improve the regulations.

Petitioner proposes changes to 20.6.2.3105.O that would exempt facilities or activities from the discharge permit requirement under the Water Quality Act, NMSA 1978 74-6-1 to – 17 (1963, as amended through 2013) (the "Act") and Title 20, Chapter 6, Part 2 of the NMAC, titled the Ground and Surface Water Protection Rules" ("Rules") that Petitioner claims are "designed to minimize the duplication of regulatory oversight and better reflect [Section 74-6-12(B)]." *See* Petition, Attachment ("Atch") 2, p. 24, lns 50-54 & Atch 3 at ¶ 9.

The statutory exemptions contained in Sections 74-6-12(B) & (G), however, apply to all the requirements under the Act, not just the discharge permit requirements. One of the three laws identified in the statutory exemption in Section 74-6-12(B) is Hazardous Waste Act, NMSA 1978, Sections 74-4-1 to -14 (1977, as amended through 2010). The Hazardous Waste Act authorizes the New Mexico Environmental Improvement Board to adopt rules for the management of hazardous waste necessary to protect human health and the environment. *See* NMSA 1978 § 74-4-4(A) (1977, amended 2010). The Hazardous Waste Act also requires that the permits issued for hazardous waste treatment, storage and disposal facilities contain "corrective action" provisions relating to clean-up of certain releases of hazardous wastes or hazardous constituents. *See* §§ 74-4-4(A)(5)(h) – (i) (2010) ;74-4-4.2(B) (2006). "Corrective action" is defined broadly, meaning "action taken in accordance with the rules of the board to investigated, minimize, eliminate or clean up a release to protect the public health, safety and welfare or the environment." *See* § 74-4-3(C) (2010). In addition, I understand the Hazardous Waste Act's enforcement and compliance provisions authorize NMED to issue compliance orders, assess civil penalties of up to $25,000/day, suspend or revoke permits, file an action in court, seeking injunctive and other relief and otherwise direct a party to take responsive action it deems necessary to protect human health and the environment. *See* § 74-4-10(A)-(C), (E) – (F)

(2001). Thus, the Hazardous Waste Act grants broad powers to NMED over facilities and entities regulated under the Hazardous Waste Act. In addition, as I explained earlier, I am ever mindful of environmental permitting requirements in every aspect of my duties, from evaluating clean-up remedies to programming and budgeting of money to accomplish mission goals. My experience has shown me that NMED exercises its broad corrective action powers it has under the Hazardous Waste Act to ensure the clean-up of releases of hazardous wastes or hazardous constituents at such facilities, including the type of activities addressed in the Rules.

DoD proposes to add a provision to the Rules, as Section 20.6.2.10 NMAC, which would streamline the permitting process and eliminate confusion and redundancy in the Rules. The language of this proposed added provision would read as follows:

"20.6.2.10 LIMITATIONS: These regulations do not apply to:

A. Except as provided in Part 4, any activity or condition subject to the authority of the environmental improvement board pursuant to the Hazardous Waste Act, NMSA 1978, §§ 74-4-1 to - 14, the Ground Water Protection Act, NMSA 1978, §§ 74-6B-1 to - 14, or the Solid Waste Act, NMSA 1978, §§ 74-9-1 to - 25; or

B. Any activity or condition subject to the authority of the oil conservation commission pursuant to the Oil and Gas Act, NMSA 1978, §§ 70-2-1 to – 38, or other laws conferring power on the commission to prevent or abate water pollution."

To be clear, we fully understand the need for permitting as a tool to protect the environment as well as to demonstrate compliance, and we whole-heartedly support the Petitioner's mission. It is our position, however, that duplicative reporting and permitting requirements do not do not result in greater protection of the environment and human health. Instead, duplicative permitting and reporting requirements result in additional cost and staff time

for both the regulator and the regulated community. In addition, potentially competing requirements results in confusion amongst the regulated community as to whether and how the various environmental statutes and regulations apply to activities undertaken pursuant to another environmental statute such as corrective action under the Hazardous Waste Act, making the regulated community vulnerable to inadvertent noncompliance.

I respectfully suggest that the compliance redundancies are appropriately addressed by (1) ensuring that the proposed amendments to the Rules mirrors the text in Section 74-6-12(B) of the Act; and (2) the bureau with primary oversight of a cleanup be charged with internal coordination amongst the various compartmental units of the regulator. Such an approach will streamline the process and ensure that activities undertaken by the regulated community is protective of human health and the environment, without adding unnecessary layers of confusing and duplicative regulatory requirements.

DoD is open to other possible ways to improve on the drafting of the language of its proposed section 20.6.2.10 NMAC. In fact, for consistency and clarification purposes, subsection A of the proposed 20.6.2.10 NMAC could arguably also include a reference to the federal Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"). Such a reference would arguably add clarity to the limits of the proposed regulation where federal laws apply. Again, the goal of such proposed changes is to streamline the permitting process and eliminate confusion and redundancy in the Rules.

Additionally, if the Rules are modified to add 20.6.2.10 NMAC (or substantially the same language), DoD also proposes changes to 20.6.2.3105.O NMAC to reflect these changes. Specifically, the Petition proposes changes to 20.6.2.3105.M and proposes to add subsections N & O to 20.6.2.3105 NMAC. Subsection M is an exemption from the discharge permit

requirement of the Rules for effluent or leachate discharges regulated under the Oil Conservation Commission Act and the regulations of the Water Quality Control Commission. Since DoD proposes to limit the application of the Rules to any activity or condition subject to the authority of the Oil Conservation Commission under the Oil and Gas Act, DoD's proposes to delete subsection M of 20.6.2.3105 because it would become duplicative and unnecessary. DoD also proposes to change what would become subsection N (proposed as subsection O in the Petition) from:

> "*O. Any activity or condition subject to the authority of the environmental improvement board pursuant to the Hazardous Waste Act, NMSA 1978, §§ 74-4-1 to -14, the Ground Water Protection Act, NMSA 1978, §§ 74-6B-1 to -14, or the Solid Waste Act NMSA 1978, §§ 74-9-1 to -25, or regulated under the federal Resource Conservation and Recovery Act, except to abate water pollution or to control the disposal or use of septage and sludge.*"

to:

> "*N. Any activity or condition regulated under the federal Resource Conservation and Recovery Act or the federal Comprehensive Environmental Response, Compensation and Liability Act.*"

Similar to DoD's proposed language for its proposed addition of Section 20.6.2.10 NMAC, we are open to other possible ways to draft this language. In fact, while DoD reserves all rights to comment, oppose, rebut or otherwise take any action concerning comments by other Parties on Petitioner's proposed changes to the Rules, DoD may be willing to support the Los Alamos National Security, LLC's proposed changes to 20.6.2.3105 NMAC.

I also have generalized comments, not reflected in DoD's Statement of Reasons document concerning possible changes to the Rules that could improve upon the Rules and relate to DoD's concerns about duplicative permitting and reporting requirements. Specifically, I believe it would be helpful to the regulated community if the proposed regulations contained provisions to further clarify when notification is required under 20.6.2.1203.A NMAC. DoD personnel have observed that the narrative standard in 20.6.2.1203.A NMAC vague and disparately applied. In addition, NMED has frequently required such a notification even when there is no surface water near the spill and where there is no reasonable probability that groundwater may be impacted due to the small volume of the spill, prompt containment/removal of the release and impacted soil, and depth to groundwater.

Additionally, DoD believes the Rules could be improved upon to allow for more flexibility in achievement of compliance or standards. DoD personnel have observed that when drafting similar regulations, several states, including neighboring states like Colorado and Texas have included language that allow for more flexible achievement of compliance or standards, especially in the context of environmental compliance actions performed pursuant to other federal and state environmental statutes. *See e.g.* 5 COLO. CODE REGS. § 1002-41(2017); 30 Tex. Admin. Code §§ 350.71 – 350.79. As a member of the regulated community, DoD would recommend further amendments to the Rules that incorporate concepts and provisions similar to those included in neighboring states that allow for flexibility in achieving compliance.

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

Scott Clark

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Experience

U.S. Department of Air Force **May 2006 – Present (40 hours/week)**

Environmental Engineer, Operations Division, Environmental Management Directorate, Air Force Civil Engineer Center (AFCEC/CZO), GS-13

- Member of Restoration Section team on clean-ups of number of environmental restoration sites across the state. Responsibilities include: working closely with contractor in the evaluation of cleanup technologies and treatment systems for effectiveness in support of a submissions to state regulator that seek to develop and implement remedial responses at restoration sites; assisting the development of internal briefing and external public affairs component of restoration sites by articulating technical environmental engineering & physical science issues and steps being taken to protect human health and the environment
- Extensive experience in project management, and worked closely with United States Army Corps of Engineers with program management, life cycle planning, and budgeting and executing remediation projects under both RCRA and CERCLA
- Actively involved in budget formulation and life cycle planning for the management of numerous sites, addressing programmatic issues in a difficult regulatory environment, and communicating and interacting regularly with both regulators and stakeholders
- In performance of restoration activities, have developed short-range interim measure targets as well long-range action plans to comply with regulator direction
- Regularly perform evaluation and analysis of technical aspects/issues in a difficult regulatory environment – by interacting regularly with both regulators and stakeholders
- Active member of the KAFB Technical Advisory Subcommittee (TAS), tasked with reviewing all NEPA documents (EA's, EIS's, Environmental Baseline Surveys, etc.) for environmental concerns.
- Have performed reviews interpreting air modeling in support of the Kirtland AFB Title V permit and
- Authority to construct permits
- Involved several Air Force "Information Exchange" meetings with the EPA Office of Research and Development and worked alongside regulators to help develop policies that would fit the unique requirements of military installations
- Responsible for oversight of cleanup projects of disregarded military munitions under the USAF Military Munitions Response Program (MMRP) for Kirtland, Holloman, and Cannon AFBs. Duties include: evaluating cleanup technologies, developing project narratives, budgets, and schedules, and coordinating project requirements and proposals through USAF service center contracting officers. Recently moved 27 different sites to closure or long term monitoring, and have presented that work in joint semi-annual DoD / Department of Energy (DOE) public meetings. My efforts have resulted in my being recognized as a subject matter expert for Air Force Civil Engineering Center for munitions response
- Served as Air Quality program manager. In that capacity, my duties included: calculating emissions using EPA approved methods (predominantly AP-42), gathering and analyzing complex data sets to determine regulatory applicability, and compiling data for air emissions inventories. Performed numerous Clean Air Act new source reviews and worked with local regulators as a stakeholder in the development/refinement of current regulations. Served as part of an Air Force Tiger Team which was tasked with development of a web-based emissions database to be deployed Air Force wide.

- Directed the 2007 and 2008 KAFB Environmental & Occupational Health Compliance Assessment Management Program (EOHCAMP), a base-wide environmental audit that included planning and conducting standard program/policy evaluations across all environmental protocols for effectiveness and efficiency; tracking, analyzing, and closure of findings, and presents written findings in reports for senior leadership
- Member of the Kirtland AFB Emergency Operations Command (EOC). Responsibilities include providing support to the incident commander and directing on-scene emergency personnel regarding environmental concerns in the event of a disaster
- Other duties include Government Purchase Card (GPC) card holder for my organization, and have served as the Asbestos program manager and Ozone Depleting Substances program manager
- Consistently demonstrated knowledge of environmental physical scientific principles, practices, techniques, and procedures

Engineering & Environmental Mgmt., Inc. (e2M) **Sept 2002 – May 2006 (40 hours/week)**
Contract Support, Air Quality

- Managed and calculated emissions for all active air emission sources at Kirtland AFB, based on inputs from annual site visits conducted at all active air emission sources and the collection and compilation of operating data for all Kirtland AFB active air emission sources
- Performed new source review, providing input and identifying permit requirements for any new sources being brought on base, and otherwise responsible for ensuring that Kirtland AFB was in compliance with its numerous air quality permit
- Worked extensively on the development of a database/software interface that streamlined the ability to push vast amounts of data into a proprietary Air Force database used for calculation of air emissions
- Team lead on the annual Air Emissions Inventory - responsible for completing the semi-annual compliance certification, and ensuring field personnel completion of environmental training and management of training records
- Liaison and focal point between all tenants at Kirtland AFB and local regulators for permitting issues related to open burn and open detonation activities
- Actively involved in the NEPA process – reviewed environmental reviews of new projects on Kirtland AFB to ensure they were in accordance local and federal air quality regulations
- Team Lead for Air Quality during the Kirtland AFB 2004 Internal Environmental Compliance Assessment Management Program (ECAMP) and was formally recognized by the 2005 External ECAMP team as having provided exceptional service and being a well-run program
- Member of the Kirtland AFB HazMat Pharmacy Process Team (HMPPT) responsible for identifying issues that could affect the Air Quality program at the installation

Farmers Ins. Co., Inc. **Jan 1999 – Aug 2002 (40 hours/week)**
Senior Claims Representative

- Territory field adjuster responsible for handling of both liability-injury and auto property damage claims
- For liability-injury cases, responsibilities included independent negotiation of injury claims, both direct and attorney represented.
- Participated in pre-trial mediations, settlement conferences, and have been responsible for the writing of contentions for inter-company arbitration
- Handled all aspects of accident and injury investigation, including extensive reviews of medical records, the writing of case summaries which outlined the injuries and specific course of treatment administered to an individual, as well as communicating settlement recommendations
- Settled countless third-party and first-party injury claims

- Automobile property damage responsibilities included the writing of estimates, vehicle valuations, and the settling of total losses

EDUCATION

Northeastern State University, Tahlequah, OK
Bachelors of Science Degree, May 1998
Major: Environmental Management
Minor: Safety/Industrial Hygiene

- Presidents Honor Roll, Deans Honor Roll Environmental Mgmt. Student of the Semester - Spring 1998

RELEVANT COURSEWORK, LICENSES AND CERTIFICATIONS:

- Defense Nuclear Weapons School - Nuclear Weapons Incident Response Team - Feb 2016
- FEMA Incident Command System (ICS) 100, 200, 800 - Nov 2015
- FEMA Incident Command System (ICS) 300, 400, 700, 702a - Dec 2015
- USAF Response Task Force training - Nov 2015
- Certified Visible Emissions Evaluator – (Recertified) Feb 2007
- U.S. Air Force Civilian Leadership Training Program - Jun 2010
- Remedial Action Cost Engineering and Requirements (RACER) Training – August 2009
- Air Force Restoration Information System (AFRIMS) - March 2009
- Comprehensive Emergency Management Program 10-2 (CEMP 10-2) training – Nov 2007
- EPCRA Section 311/312 Refresher Training - Feb 2007
- Air Program Information Management System (APIMS) user in Tanks and Air Emissions Inventories - March 2003
- Environmental Management Systems (EMS) Auditor Training - Oct 2005

AWARDS / RECOGNITIONS

- Received Commendation by Secretary of Air Force for work and progress made on the Bulk Fuels Spill, which was attended by New Mexico Governor, both Senators, local Congresswoman, Mayor of Albuquerque, and New Mexico Environment Department Secretary

CERTIFICATE OF SERVICE

I hereby certify that on September 7, 2017, a true and correct copy of the foregoing "Notice of Intent to Present Technical Testimony" along with USAF Exhibits 1 - 4 thereto were served via electronic mail to the following:

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