

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION COMMISSION**

**IN THE MATTER OF THE APPLICATION OF THE  
NEW MEXICO OIL CONSERVATION DIVISION FOR  
ADOPTION OF AMENDMENTS TO RULE 19.15.17  
(THE "PIT RULE"), STATEWIDE.**

**CASE NO. 14292**

**PRE-HEARING STATEMENT OF  
THE NEW MEXICO CITIZENS FOR CLEAN AIR & WATER**

**NMCCA&W'S REPRESENTATION:**

This prehearing statement is submitted by the New Mexico Citizens for Clean Air & Water, Inc. (NMCCA&W), pursuant to 19.15.14.1204(B) NMAC.

NMCCA&W intends to offer technical testimony by Dr. Neeper, and to cross-examine witnesses at the hearing in this matter.

NMCCA&W is represented by Alletta Belin, of Belin & Sugarman, 618 Paseo de Peralta, Santa Fe, New Mexico 87501. In addition, NMCCA&W will also be represented by Dr. Donald Neeper, who has been duly authorized by NMCCA&W to act as the organization's representative in this proceeding. See Exhibit 1 attached hereto. It may not be possible for NMCCA&W always to be represented at this hearing by their counsel, Ms. Belin; Dr. Neeper also may need to be absent from portions of the hearing. Cross-examination for NMCCA&W may be conducted by either Ms. Belin or Dr. Neeper, depending on the circumstances.

**NMCCA&W'S TESTIMONY:**

**WITNESS**

**ESTIMATED TIME OF DIRECT TESTIMONY**

Donald A. Neeper

50 minutes

Dr. Neeper's qualifications are attached hereto as Exhibit 2.

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SYNOPSIS OF TESTIMONY:

REVISED STANDARD FOR BURIAL OF DRILLING WASTES  
Donald A. Neeper

This testimony will review portions of the data presented during the hearing for the pit rule, examining whether an increase in the chloride standard for buried materials is technically justified. The testimony will put the measurements and prior calculations of chloride transport in the context of the proposed rule amendment that would increase the leach standard from 250 to 3000 mg/l.

Testimony will also examine the economic need for modification of the burial standard. Testimony will oppose the amendment to the standard, but will suggest that if the standard is amended, the amended value should expire in approximately two years. Our suggestions for revised language in the rule will also include recommendation that the operator who intends to dispose of waste by deep trench burial should establish in his drilling record the depth to any saturated region within 200 feet of ground surface.

NMCCA&W'S EXHIBITS:

1. NMCCA&W authorization for Dr. Donald A. Neeper to act as its representative in this proceeding
2. Resume of Dr. Donald A. Neeper
3. Dr. Neeper's Powerpoint presentation (including approximately 32 slides)

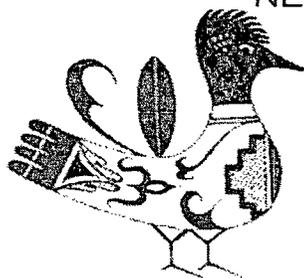
Respectfully submitted,



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Attorney for NMCCA&W

NEW MEXICO CITIZENS FOR CLEAN AIR & WATER, INC.

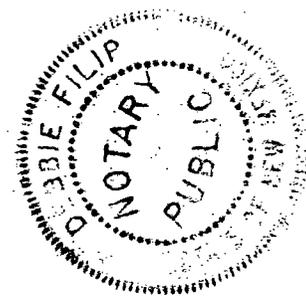


P. O. Box 5  
Los Alamos, NM 87544

To Whom It May Concern:

The New Mexico Citizens for Clean Air & Water, Inc. authorize Dr. Donald A. Neeper to speak on behalf of this organization at hearings and meetings before the Oil Conservation Division and hearings and meetings before the Oil Conservation Commission throughout the calendar years 2009 and 2010.

John R. Bartlit  
Chairman,  
NMCCA&W, Inc.



Subscribed and sworn before me this 16<sup>th</sup> day of March, 2009.

  
Notary Public

My commission expires 09/15/2012.

**QUALIFICATIONS**

**Donald A. Neeper**  
**(retired, Los Alamos National Laboratory)**  
**(retired, Science and Engineering Associates, Inc.)**  
**2708 B. Walnut St.**  
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**Education**

B.A. (physics) Pomona College, 1958, magna cum laude.  
M.S. (physics) Univ. Wisconsin, 1960.  
Ph.D. (low temperature physics) Univ. of Wisconsin, 1964.  
Academic honors: Phi Beta Kappa; Pi Mu Epsilon; Sigma Xi.

**Relevant experience**

- 25 years experience in thermal engineering at Los Alamos National Laboratory, including supervision of RCRA Facility Investigation of large waste disposal sites containing hazardous and radioactive wastes.
- Six years part-time experience consulting on vapor extraction and soil remediation.
- Continuing research on vapor transport in soils and passive vapor extraction; authored four publications since 2001.
- Three years' service on the governing board of STRONGER, Inc..

**Continuing research**

Transport of volatile organic compounds and other contaminants in the vadose zone.

**Professional experience**

- 2004-09    Guest scientist, Los Alamos National Laboratory.
- 2003        Scientist-in-residence, Meadville Theological School, winter quarter.
- 1996-2002   Senior Scientist, Science & Engineering Associates, Inc.
- 1994-96     Scientist, ERM, Inc.
- 1968-94     StaffMember, Group Leader, and Project Leader, Los Alamos National Laboratory.

**AWARDS**    Department of Energy Certificate of Appreciation, 1984.

**PATENTS**   "Ventilation of Porous Media," U.S. Pat. 5,288,169 (Feb. 22, 1994).

**LICENSES**   Commercial pilot; certified flight instructor (expired).

**Professional association**

American Geophysical Union

**Technical publications**

"Unidirectional gas flow in soil porosity resulting from barometric pressure cycles," D. A. Neeper and P. Stauffer, *Journal of Contaminant Hydrology* 78, 281-289, 2005.

"Harmonic Analysis of Flow in Open Boreholes due to Barometric Pressure Cycles," D. A. Neeper, *Journal of Contaminant Hydrology* 60, 135-162 (2003).

"Investigation of the Vadose Zone with Barometric Pressure Cycles," D. A. Neeper, *Journal of Contaminant Hydrology* 54, 59-80 (2002).

"A Model of Oscillatory Transport in Granular Soils, with Application to Barometric Pumping and Earth Tides," D. A. Neeper, *Journal of Contaminant Hydrology* 48, 237-252 (2001).

"Thermal Dynamics of Wallboard with Latent Heat Storage," D. A. Neeper, *Solar Energy* 68, 393-403 (2000).

"The Influence of Topography, Stratigraphy, and Barometric Venting on the Hydrology of Unsaturated Bandelier Tuff," D. A. Neeper and R. H. Gilkeson, in The Jemez Mountains Region: New Mexico Geological Society, Forty-Seventh Annual Field Conference, Sept. 25-28, 1996, F. Goff, ed., pp. 427-432.

"Barometric Pumping with a Twist: VOC Containment and Remediation without Boreholes," W. Lowry, D. Neeper, and S. Dunn, Proc. Industry Partnerships to Deploy Environmental Technology, Morgantown WV, Oct. 22-24, 1996. DOE/CONF-9610231-31.

"Frequency Domain Analysis of Subsurface Barometric Flows," D. A. Neeper and S. P. Limback, EOS, Transact. Amer. Geophys. Union 75 (44, Suppl.) p. 264, 1994. Amer. Geophys. Union 1994 Fall meeting, San Francisco CA, Dec. 5-9, 1994.

"Soil Vapor Extraction Enhanced by Oscillatory Flow," D. A. Neeper, Proc. Fifth National Outdoor Action Conf. on Aquifer Restoration, Ground Water Monitoring, and Geophysical Methods, Las Vegas NV, May 13-16, 1991, pp. 75-88.

"Potential Benefits of Distributed PCM Thermal Storage," D. A. Neeper, Proc. 14th National Solar Conf., Denver CO, June 19-22, 1989, pp.283-288.

"Analytic Model of a Passive Vapor Transport Heating System," D. A. Neeper, *Solar Energy* 41, 91 (1988).

"Efficiency of a Solar Collector with Internal Boiling," D. A. Neeper, *ASHRAE Trans.* 93 part 1, 295 (1987).

"Solar Buildings Research: What Are the Best Directions?" D. A. Neeper, *Passive Solar Journal* 3, 213 (1986).

"Passive Space Heating with a Self-Pumping Vapor System," J. C. Hedstrom and D. A. Neeper, Proc. 11th National Passive Solar Conf., Boulder CO, June 8-11, 1986.

"Passive Vapor Transport Solar Heating Systems," J. C. Hedstrom and D. A. Neeper, Proc. 10th Annual Passive Solar Conference, Raleigh, October 15-20, 1985, p. 231.

"Vapor Phase Heat Transport Systems," J. C. Hedstrom and D. A. Neeper, Los Alamos National Laboratory report LA-10487-MS (September 1985).

"A Self-Pumping Vapor System for Hybrid Space Heating," D. A. Neeper and J. C. Hedstrom, Proc. Congress International Solar Energy Society, Montreal, June 23-29, 1985, p.440.

"Vapor Phase Heat Transport Concepts," D. A. Neeper and J. C. Hedstrom, Proc. Solar Buildings Conference, Washington DC, March 18-20, 1985. DOE/CONF-850388, p. 176 (July 1985).

"Impacts of Research Efforts on New and Existing Buildings," D. A. Neeper, Proc. Solar Buildings Conference, Washington DC, March 18-20, 1985. DOE/CONF-850388, p. 131 (July 1985).

"Potential Performance Benefits of Advanced Concepts and Materials Research," D. A. Neeper, et. al., Proc. Passive and Hybrid Solar Energy Update, Washington DC, Sept. 5-7, 1984. DOE/CONF-8409118, p. 20 (October 1984).

"Diurnal Heat Storage in Direct-gain Passive Solar Buildings," J. D. Balcomb and D. A. Neeper, ASME/AIChE National Heat Transfer Conference, Seattle WA July 21-24, 1983. CONF-830702-15 (1983).

"Some Potential Benefits of Fundamental Research for the Passive Solar Heating and Cooling of Buildings," D. A. Neeper and R. D. McFarland, Los Alamos National Laboratory report LA-9425-MS (August 1982).

"Research and Development of Solar Ponds," D. A. Neeper, Testimony for the U.S. House of Representatives, Committee on Science and Engineering, Subcommittee on Energy Development and Application, Washington DC, March 19, 1980. Published in the transcript of the hearing and as Los Alamos National Laboratory internal document LA-UR-80-1018.

"Analysis of Matrix Air-Heaters," D. A. Neeper, Proc. Congress International Solar Energy Society, Atlanta, May 28, 1979, p. 298.

Various classified reports, D. A. Neeper, Los Alamos National Laboratory, 1970-77.

"Ion Motion and Vortex-Ring Formation in Pure Liquid He<sup>4</sup> and He<sup>3</sup>-He<sup>4</sup> Solutions between 0.05 and 0.5 K," D. A. Neeper and L. Meyer, *Phys. Rev.* 182, 223 (1969).

"Vortex-Ring Formation by Negative Ions in HeII under Pressure," D. A. Neeper, *Phys. Rev. Lett.* 21, 274 (1968).

"Rapid Startup of a He<sup>3</sup>-He<sup>4</sup> Dilution Refrigerator," D. A. Neeper, *Cryogenics* 7, 307 (1967).

"The Kapitza Resistance of Mercury," D. A. Neeper, D. C. Pearce, and R. M. Wasilik, *Phys. Rev.* 156, 764 (1967).

"Negative Magnetoresistance in Tellurium," D. C. Pearce, R. M. Wasilik, and D. A. Neeper, Proc. IXth Int. Conf. Low Temperature Physics, Plenum Press, 1965, p. 736.

"Thermal Resistance at Indium-Sapphire Boundaries between 1.1 and 2.1 K," D. A. Neeper and J. R. Dillinger, *Phys. Rev.* 135, A1028 (1964).

"Volume Flow Rate of the HeII Film on Glass," R. W. Selden, D. A. Neeper, and J. R. Dillinger, Proc. VIIth Int. Conf. Low Temperature Physics, University of Toronto Press, 1961, p. 525.

**CERTIFICATE OF SERVICE**

I hereby certify that on March 26, 2009, I have caused a copy of this pre-hearing statement in Case 14292 to be delivered to the following persons, by U.S. Mail, by hand delivery, or by electronic means.

Oil Conservation Commission (hand delivery of 6 copies)

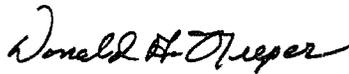
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