Todd Parfitt, Director
Wyoming Department of Environmental Quality
122 West 25th St, Herschler Building
Cheyenne 82002

September 11, 2013

Dear Mr. Parfitt,

Thank you for accepting our recommendation for experts to work on the Pavillion Groundwater Contamination Investigation.

Please consider David Folkes and Anthony Ingraffia as part of your team of experts . Bios for Mr. Folkes and Mr. Ingraffia are enclosed.

We look forward to your response in writing.

Respectfully,

John Fenton, Chair
Pavillion Area Concerned Citizens
202 Indian Ridge Road
Pavillion, WY

David J. Folkes, PE

Primary Disciplines:

Environmental Engineering, Geoenvironmental Engineering, Hydrogeology,

David Folkes, P.E., is a principal civil and environmental engineer based in Colorado who offers clients more than 35 years experience in environmental and geotechnical consulting throughout the United States and Canada.

Dave is one of the nation's foremost experts on vapor intrusion (VI) evaluation and mitigation. He was invited by the U.S. EPA to address the national Resource Conservation and Recovery Act meetings held in 2000 and 2002 on VI issues impacting sites throughout the country. He also was among the instructors for the EPA's first VI mitigation guidance and training seminars, held in 2002 and 2003. As a member of the Interstate Technology and Regulatory Council (ITRC) VI Team, Dave helped develop the council's 2007 guidance and then served as an ITRC instructor for state and federal regulatory officials between 2008 and 2011. He remains a member of the ITRC's Petroleum VI Team.

Dave has served as a consultant to industry and regulatory agencies on more than 100 VI sites around the world, often providing litigation support to clients. Dave continues to direct projects for the Redfield Site in Denver, one of the largest VI sites in the country. He also provides technical assistance to the Wyoming Department of Environmental Quality, including collaborative oversight of voluntary cleanup of petroleum impacted soils and groundwater at former and active oil refinery sites, gas plants, and Brownfields sites. Other work has included design and evaluation of liner systems for impoundments.

Dave has also helped metals processing and mining companies address environmental impacts at a number of sites, including management of remedial investigations, feasibility studies, and remedial actions at the ASARCO Globe Plant in Denver; forensic investigations of the source of anomalous arsenic concentrations in surface soils in urban soils; litigation support for several class actions alleging soil contamination due to historic smelter and metals refinery emissions; assistance with Hazard Ranking System scoring issues at mining sites; and other metals-related issues.

Mr. Folkes is a registered professional engineer and earned his bachelor's degree in Geological Engineering in 1977 and his master's degree in Civil Engineering in 1980, both from the University of Toronto, Canada. He has over 35 years of experience as an environmental consultant. His areas of expertise include investigation and remediation of soil and groundwater contamination and vapor intrusion.

Geosyntec Consultants
7009 S. Potomac Street , Suite 300,
Centennial, CO, 80112, USA
Telephone: 303 790 1340

Anthony R Ingraffea

ari1-profile.jpg

Anthony R Ingraffea

Dept: Civil and Environmental Engineering

Title: Dwight C. Baum Professorship in Engineering

Address: 322 Hollister Hall

Phone: 607 255-3336

email: ARI1@cornell.edu

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Biography

Dr. Ingraffea spent two years as a structural engineer with the Grumman Aerospace Corporation and two years as a county engineer with the Peace Corps in Venezuela before he began doctoral studies. He has taught structural mechanics, finite element methods,and fracture mechanics at Cornell since 1977.

Dr. Ingraffea's research concentrates on computer simulation and physical testing of complex fracturing processes. He and his students performed pioneering research in the use of interactive computer graphics in computational mechanics. He has authored with his students over 200 papers in these areas. He has been a principal investigator on over $35M in R&D projects from the NSF, NASA Langley, Nichols Research, NASA Glenn, AFOSR, FAA, Kodak, U. S. Army Engineer Waterways Experiment Station, U.S. Dept. of Transportation, IBM, Schlumberger, Digital Equipment Corporation, the Gas Research Institute, Sandia National Laboratories, the Association of Iron and Steel Engineers, General Dynamics, Boeing, Caterpillar Tractor, and Northrop Grumman Aerospace.

Professor Ingraffea was a member of the first group of Presidential Young Investigators named by the National Science Foundation in 1984. For his research achievements he has won the International Association for Computer Methods and Advances in Geomechanics "1994 Significant Paper Award" for one of five most significant papers in the category of Computational/Analytical Applications in

the past 20 years, and he has twice won the National Research Council/U.S. National Committee for Rock Mechanics Award for Research in Rock Mechanics (1978, 1991). His group won a NASA Group Achievement Award in 1996, and a NASA Aviation Safety Turning Goals into Reality Award in 1999 for its work on the aging aircraft problem. He became a Fellow of the American Society of Civil Engineers in 1991.

Professor Ingraffea has received numerous awards his outstanding teaching at Cornell. He received the first Society of Women Engineer's Professor of the Year Award in 1997, the 2001 Daniel Luzar '29 Excellence in Teaching Award from the College of Engineering, and, in 2005, was named Weiss Presidential Teaching Fellow at Cornell University. He has been a leader in the use of workstations and information technology in engineering education, with grants from the NSF, U.S. Department of Education, Digital Equipment Corporation, Sun Microsystems, and Hewlett-Packard in these areas. He organized and was the first Director of the NSF-supported, $15M Synthesis National Engineering Education Coalition, a team of eight diverse engineering colleges. Synthesis developed, implemented, and assessed innovative programs and technologies to improve the quality of undergraduate engineering education and to attract and graduate larger numbers of women and under-represented minority engineers. He was Cornell Co-PI on a NASA/NYS/AT&T sponsored project to develop an Advanced Interactive Discovery Environment for collaborative distance design in engineering education, teaming with faculty from aerospace, mechanics, and civil engineering from Cornell and Syracuse universities.

He was named Co-Editor-in-Chief of Engineering Fracture Mechanics in 2005, received the ASTM Irwin Award for meritorious contributions to the practice of fracture mechanics in 2006, and was named a Fellow of the International Congress on Fracture in 2009. In 2011, TIME Magazine named him one of its "People Who Mattered".