UTAH LABOR COMMISSION
MINE SAFETY TECHNICAL ADVISORY COUNCIL MEETING

Tuesday April 21, 2009 at 11:00 A.M
Room 319, Heber M Wells Building
160 E 300 S
Salt Lake City, UT

The following Advisory Council members were in attendance:
Sherrie Hayashi, Commissioner, Utah Labor Commission
Mike Dalpiaz, International Vice President, United Mine Workers of America
Steve Childs, Skyline Mine
Don Shelley, Deer Creek Mine
Randy Tatton, President, Mining Health & Safety Solutions
Miles Nelson, Associate Vice President, College of Eastern Utah
Bruce Riches, Captain, Department of Public Safety
John Baza, Division Director, Department of Natural Resources, Division of Oil, Gas and Mining
William Denning, MSHA for Allyn Davis District 9 Manager, MSHA
Jeff McKenzie, Acting Branch Chief, Solid Minerals, US Department of the Interior, BLM
Jimmy Brock, Senior Vice President, Consol Energy
Lamar Guymon, Sheriff, Emery County
Terri Watkins, Chief Nursing Officer, Castleview Hospital
Walter Arabaz, Director, U of U Department of Geology and Geophysics (Seismology)
Kim McCarter, Professor, U of U Department of Mine Engineering
Ralph Sanich, Manager of Health, Safety and Training, Interwest Mining Company
John Byars, Manager of Engineering, Sufco Mine, Arch Coal

Legislative Liaison present:
Senator David Hinkins

Others present:
Alan Hennebold, Deputy Commissioner and Legal Counsel, Utah Labor Commission
Pete Hackford, Division Director, Utah Labor Commission, Div of Boiler, Elevator and Coal Mine Safety
Garth Nielsen, Director, Office of Coal Mine Safety
Debbie King, Administrative Secretary, Coal Miner Certification

WELCOME

1. **Sherrie Hayashi, Commissioner – Meeting called to order 11:30**
    - Explanation of why OCMS is part of Labor Commission – The Office of Coal Mine Safety was placed with the Utah Labor Commission by an executive order based on the findings of the Utah Coal Commission established after the Crandall Canyon in the form of the Coal Mine Safety Act.
    - Senator David Hinkins invited to serve as Legislative Liaison – submit legislation, if and when needed, regarding mine safety on behalf of the council.
    - Committee functions – This council is advisory in nature – not decision making. The council was purposely created to contain a broad base of stakeholders including; miners, mine operators, educators and engineers as well as regulatory agencies such as MSHA, the Department of Public Safety and Division of Oil, Gas and Mining and to functions in an advisory role to the Commissioner

- Importance of Council's recommendations and advisements – The Commissioner's vision for the council is to use the recommendations and advisements of the council to be utilized to draft new legislation that will greatly increase safety in Utah's coal mines

2. **Garth Nielsen, Director, Office of Coal Mine Safety - Introduction of members**
   - All members introduced themselves and gave a brief explanation of their foundation on this council

3. **Alan Hennebold, Deputy Commissioner & Legal Counsel – Review of Coal Mine Safety Act**
   - History of Old Mine Office as part of Industrial Commission – In the early 19th century the responsibility for coal mine safety rested with the State. Beginning in the 1950s and through the 1970s the Industrial Commission, predecessor of the Labor Commission, had extensive statutory and regulatory control overseen by a team of mine inspectors.
   - State vs Federal authority – In 1988 the State of Utah has withdrawn almost completely with the exception of Miner Certification testing
   - Coal Mine Safety Act – legislation that was the direct result of the Crandall Canyon accident
     - Establishment of OCMS - Gave the Labor Commission and OCMS authority to coordinate and serve as a clearing house for safety but not a great deal of actual enforcement of regulatory power
     - Reestablished Coal Miner Certification Office
     - Established MSTAC – wide range of authority

   "The council shall advise and make recommendations to the commission, the office, and the Legislature regarding:
   (a) safety of coal mines located in Utah;
   (b) prevention of coal mine accidents;
   (c) effective coal mine emergency response;
   (d) coal miner certification and recertification; and
   (e) other topics reasonably related to safety of coal mines located in Utah."

4. **Pete Hackford, Director, Safety Division**
   - Length of terms for voting council members
     - Certificates and terms – Mr. Hackford explained that due to the fact that the council is new some members have been given 2 year terms and others 4 year terms. When these initial terms expire the current member will have the option to continue for another term.
     - It is imperative that all of the categories of members required by the Coal Mine Safety Act be maintained.
   - Travel reimbursement/per diem – Bobie Tupou – forms were distributed and an explanation was given of the methods for applying for reimbursement for travel and per diem.
     - Only one government agency can be charged for reimbursement – no "double dipping"
     - All forms are available from the Labor Commission – contact Ms. Tupou (801) 530-6335
     - In order to qualify for reimbursement all airline tickets and hotel accommodations should be booked through

5. **Debbie King, Miner Certification Official – Report to Council**
    - **Overview of Miner Certification improvements**
        - location of testing – from hotel to CEU
        - method of test generation – new software, more secure (tests are shredded)
        - grading of tests – hardware and software scanned
        - notification of results
        - more consistent method of grading of manual portions of test
        - Improved communication – web page, notification via email
        - Re-vamped miner certification panel members
    - **Recommendations**
        - Development of relationship with WETEC who administers training – **Miles Nelson mentioned that there is already a great improvement of this relationship as did Pete Hackford*
        - New Hire Testing – federal requirement for 40 hours of training – no test currently being administered
        - Recertification – should we add requirements for refreshers for foremen and fire bosses

          **Randy Tatton suggested that perhaps the results of the accidents on the spreadsheets be made in percentages to allow easier interpretation of results – also to see if there are decreases in accident rates as a result of recertification*

          **John Baza provided some insight as to how these recommendations were came about during the meetings of the Coal Commission established after the Crandall Canyon Disaster by the Governor.*

          **Mike Dalpiaz mentioned that these recommendations were made to improve safety – also discussed revocation of certifications*

        - Certification Panel Member changes to include people from CEU - **Pete Hackford stated that he believed that adding a member of the MSTAC council from CEU was more appropriate than adding that member to the mining panel*

          **Suggestion was made that miners should be notified of the subject matter of test questions that were missed during testing to allow that miner to review that subject matter to make him a better and safer miner.*

        - Funding – Coal mine safety act implemented funding for this recommendation

- **William Denning spoke on his recommendations -** Recommendation 45 –read and then reported status of this recommendation – Bill was the MSHA family liaison assigned to the families – recommendation is to improve communication with families of victims. Recommendation 44 – who should take lead role in a disaster – Bill stated that Red Cross was particularly helpful – Establish a plan for organization of accident response. Establishment of mine accident investigation legislation for investigations outside of MSHA

  **Mike Dalpiaz brings up mine laws dissolution in 80's – wants to know from Senator Hinkins if it will be possible to get legislation passed due to duplication of responsibility which was the reason for dissolution of the state mining office in the first place*

** Note: All comments noted have been italicized for easy recognition.*

**Discussion of funding for recommendations made by the council was initiated by Mike Dalpiaz. Commissioner Hayashi noted that once the economy began to improve that this council will find bi-partisan support in the legislature*

- **Sheriff Guymon spoke on his recommendations** – suggest that people in Public Safety and Mine operator communicate in an emergency notification system – families Emery county assigned liaison to families – these items need to be addressed BEFORE and issue. Where you can restrict people – where are property lines? Number of phone lines available – what services are available from outside companies? Plan should be in place to know who is who and what they are responsible .

  **Commissioner Hayashi and Bill Denning from MSHA commended Sheriff Guymon on his role at Crandall Canyon.*

- **Miles Davis spoke on his 12 recommendations** – handout was distributed that encompassed a full summary – see attachment

- **Professor Walter Arabaz spoke regarding his recommendations** and also provided handouts describing all of his recommendations regarding seismology – see attachment

- **Kim McCarter spoke regarding his recommendations** and also provided handouts describing all of his recommendations regarding mine engineering – see attachment – Professor McCarter also spoke of the decline in mine engineering students

6. **Garth Nielsen, Director, Office of Coal of Mine Safety – Report to Council**
   - Review and Discussion of Utah Mine Safety Commission Report and Recommendations – reminded the council to remember that all of the recommendations and changes that they make will effect all individuals who participate in mining in every way – keep this is in mind whenever you make a recommendations
   - Handouts in binder detailing his findings and recommendations
   - Asked for suggestions regarding the yearly symposium that would help to bring people out people to these meetings

   - Council will be asked to prioritize and develop a plan of implementation of Utah Mine Safety Commission Report and Recommendations – Moved to the next meeting

7. **Next Mine Safety Technical Advisory Council Meetings have been set for June 23, September 15 and December 15**

Handout - Miles Nelson

Utah Mine Safety Commission Recommendations for College of Eastern Utah (CEU) & CEU's Western Energy Training Center (CEU-WETC)

Update - April 21, 2009

√ Recommendations 15,16,18,21,24: State Supported Curriculum, Programs, & Training

The Mine Safety Commission (MSC) made multiple recommendations for state sponsored support of training activities, programs, and equipment at CEU-WETC. These included recommended support for curriculum development and delivery of workforce preparation programs, safety and accident prevention, improved training on the threat of coal mine bumps, extension of the required new miner training, and coal management safety.

In response to these recommendations, CEU requested ongoing and one-time funding from the State Legislature during the 2008 Session. The funding requests resulted in limited success as only $600,000 in one-time funding was appropriated. This level of state support required the college to scale back operations at CEU-WETC for the fiscal year 2008-2009, including downsizing training programs and staff. In an effort to maximize available resources and facilities, CEU's Mining and Industrial Technology department was moved from the Price campus to the CEU-WETC facilities at the beginning of the fiscal year. The department primarily provides all aspects of the safety and health training required by MSHA.

During the 2009 Legislative Session, State funding was requested to support & expand the programs and training activities at CEU-WETC. Senator Robles sponsored SB67, "Miners Safety and Training", which included $600,000 one-time funding to support CEU-WETC. The bill passed the Senate but failed to pass the House.

Without ongoing state support, the training programs at CEU-WETC have had limited resources to implement the recommendations related to the new and expanding programs aforementioned. However, through the restructuring of some of the existing program areas and the use of some carry forward funds from federal grant sources, some notable progress has been made over the past 15 months.

A summarized list of these activities includes:

1. ***Simulated Underground Mine:*** = CEU-WETC has invested an initial $25,000 in supplies and equipment to begin developing a simulated mine training environment within its warehouse facility. The facility is being used to train inexperienced and experienced miners in a mine-like environment in various safety courses and mine rescue operations.

2. ***New Coal Miner Training Program "Going beyond the Minimum"*** = CEU has been partnering with individual operators to develop, customize, and deliver training that goes beyond MSHA's minimum requirements. The courses have been requested from and voluntarily supported by the operators in an effort to provide workers with additional training beyond the initial requirements under the law.

3. ***Assisting the Industry to Recruit, Prepare, and Retain Qualified Personnel*** =

A. Workforce Readiness: College has developed and implemented a "Workforce Readiness" program which assists individuals that are new to the industry to obtain some basic job related skills with which to seek employment within the industry.

B. Energy Pathway: CEU has developed a grant project in cooperation with the Utah State Office of Education (USOE) and the local school districts to develop an "Energy Pathway" for students interested in pursuing a career in the Energy Field. The initial $15,000 grant to the college is to develop the pathway along with some of the needed Courses & curriculum.

√ Recommendation #17: Flexibility for CEU-WETC

CEU continues to work cooperatively with MSHA to provide the highest quality, applicable training to Utah Miners. The statements by CEU-WETC personnel to the Mine Safety Commission did not include any language inferring that programs were "unduly constrained by MSHA requirements". The MSC recommendation appears to include a misinterpretation of statements made concerning MSHA requirements and guidelines. As far as CEU-WETC is concerned, current MSHA requirements are prescriptive, however they still allow for the development of the best safety program for the state of Utah.

√ Recommendations 19 & 20: Advanced Training Opportunities & Mentoring

As mentioned before, the college is providing advanced, hands-on training through the recently developed simulated mine environment at CEU-WETC. This provides opportunity for some hands-on training in situations that are encountered in a real work environment. In addition, the college utilizes the most up to date equipment and technology in the classroom, providing students with the highest quality training experience possible.

CEU actively supports the use of mentoring in training. To begin with, the college employs instructors with vast practical mining experience, some of which are retired from industry. One example is the key developer/instructor of the simulated mine environment. The individual has over 30 years of industry experience, including a number of years in training mine rescue personnel while employed in the industry. Beyond the training at the CEU-WETC, the college also works closely with individual operators to assist in developing site specific training for their employees. In addition, most operators ensure that new miners are "mentored" on the job along side experienced miners who know the ins and outs of the operation.

√ Recommendations 22 & 23: Collaboration with U of U & Associate Degree in Mining

CEU-WETC has worked cooperatively with the University of Utah (U of U) to provide various short-term training opportunities to Utah Miners. For example, on April 14th, 2009, CEU-WETC hosted an information meeting conducted by the U of U on "Seismic Monitoring Applicable to Deep Coal Mines."

As mentioned previously, CEU in cooperation with USOE and the local school districts is developing an Energy Pathway for students to be able to prepare individuals for careers in the field of energy. The first year of the grant provides for the development of the pathway, including the development of some key high school level courses in mining and energy. The second year of the grant is intended to develop the transitions (pathways) to some of the options for post-secondary training in the career field, including production workers, mechanics, electricians, engineers, management, etc.

Also, it is important to note that CEU already has an associate degree in Mining Technology which it placed in idle status approximately 5 years ago. At the time, the degree program had only one or two students enrolled and was not in demand by the industry. If enough demand for such a degree now exists, CEU could make necessary adjustments to the curriculum to align it with industry requirements and the programs offered through the U of U.

√ Recommendation # 25: CEU-WETC Board

The CEU-WETC Board is comprised of representatives from industry, academia, and the community and continues to focus on the development of training programs for the energy industry, including Coal Mining. As a result of funding constraints for CEU-WETC, the board has focused on securing solid on-going funding for the support of programs. The board has not conducted formal assessments of the training programs beyond the assessments conducted for programs provided by the MSHA Grant program (Mining and Industrial Training Department).

√ Recommendation # 32: Strategies to Address Language Barriers

CEU has had multiple discussions with the Labor Commission concerning strategies to address language barriers for Spanish speaking miners with limited or no English skills. In anticipation of the growing need, CEU has been acquiring curriculum materials from MSHA and other states to prepare to address the issue. However, to this point, the resources to acquire a bilingual instructor on a full-time basis have not been available. CEU has been and will continue to seek funding through various state and federal sources to address the issue.

Handout - Kim McCarter

MINE SAFETY TECHNICAL ADVISORY COMMITTEE MEETING
April 21, 2009

UPDATE ON MINING ENGINEERING GRADUATES

Mining Engineering Program	Enrollment (BS)		Degrees (BS)	
	2007-08	2008-09	2007-08	2008-09
University of Alaska Fairbanks	20	27	2	4
University of Arizona	59	62	11	14
Colorado School of Mines	82	83	24	?
University of Kentucky	104	117	8	11
Missouri University of Science and Technology	150	142	28	?
Montana Tech of the University of Montana	65	67	8	?
University of Nevada - Reno	50	45	7	4
The Pennsylvania State University	24	35	1	?
Southern Illinois University at Carbondale	37	31	2	?
University of Utah	47	52	4	9
Virginia Polytechnic Institute and State University	168	161	29	59
West Virginia University	91	102	9	?
Total	897	924	133	

Source of information – SME Guide to Mineral Schools 2009

MS and ME Degrees for 2007/08 = 46
PhD Degrees for 2007/08 = 14

Annual demand for Mining Engineering Graduates ≈300

Perception of mine operators in Utah – greatest need is for graduates with background in ground control or ventilation

Retiring faculty outnumber PhD graduates with an interest in teaching – major problems in staffing mining schools are now apparent and will accelerate in the next 5 to 10 years.

Handout - Walter Arabaz

Mine Safety Technical Advisory Council Meeting
April 21, 2009
Salt Lake City Utah
11:00 A.M.

Report by Walter Arabasz (University of Utah Seismograph Stations) on Recommendations 9 and 10 in the Utah Mine Safety Commission Report and Recommendations (January 2008)

9. The State should upgrade seismic monitoring coverage of the coalmining region of Central Utah to establish the basic infrastructure for effective regional-scale seismic monitoring of all areas of active coal mining and to enhance seismic monitoring at individual bump-prone active mines.

Part I.

Utah should seize a one-time opportunity to acquire for permanent use three high-quality, three-component broadband seismometers with associated signal processing, power, and communications equipment. These strategically located stations currently monitor the Wasatch Plateau-Book Cliffs coalfields but are part of a temporary National Science Foundation experiment and will be removed in late 2008 or early 2009. Under the National Science Foundation "Earth Scope" program, this seismic equipment can be purchased for $110,000 (plus $5,000 annual maintenance), a significant savings, and become part of the University of Utah Seismograph Stations' (UUSS) regional network.

Part II.

An additional, relatively low-cost approach to enhance monitoring of mining-induced seismicity (MIS) would be to add a single above-mine digital accelerograph, linked by continuous telemetry to the UUSS, at selected active mines. This would require active cooperation and some support from the mines and would cost about $15,000 for each installation, with modest installation and ongoing maintenance costs. Three mines currently have such above-mine instrumentation as part of partnering arrangements with the UUSS that entail modest monthly payments from the mines. To extend this type of monitoring capability to other mines, the UUSS is seeking one-time funding from NIOSH to capitalize instrumentation for as many as five mines that might be willing to undertake partnering arrangements similar to existing ones. This type of monitoring arrangement provides an opportunity to correlate mining activity with MIS and may provide important information for risk assessment associated with longwall operations. The state should encourage such arrangements and consider assistance if funding from NIOSH does not materialize.

A map on the following page shows the location of the high-quality seismic stations referred to in Part I (see USArray stations, red stars). The map also shows the three existing above-mine seismic stations described in Part II (see digital accelerographs, blue triangles).

Report on Recommendation 9, Part I.

The Utah Mine Safety Commission Report and Recommendations were submitted to Governor Huntsman in January 2008. By the end of the 2008 General Session of the Utah Legislature it was apparent that state funds would not be forthcoming to take advantage of the one-time opportunity to acquire the three temporary EarthScope seismograph stations strategically located in Utah's coal-mining region.

In late March 2008, the University of Utah's Department of Mining Engineering and the University of Utah Seismograph Stations (UUSS) jointly submitted a multipart proposal to the National Institute for Occupational Safety and Health (NIOSH) in response to a request for research relevant to *Western Deep Coal Mine Safety Improvements.*

The proposal was successfully funded. Under one of the subprojects, NIOSH provided $75,000 to acquire two of the high-quality EarthScope/USArray stations (labeled **P17A** and **P18A** on Figure 1, preceding page).

In addition to the two stations acquired with NIOSH funds, a third EarthScope/USArray station (**Q16A** on Figure 1, preceding page) was acquired by UUSS through a cost-sharing arrangement with Utah's School and Institutional Trust Land Administration (SITLA). SITLA provided $17,500 and UUSS provided $17,500.

Data from all three of these EarthScope/USArray stations have been continuously integrated into the UUSS regional seismic network system since late 2007. Ownership of the stations has now been transferred from the National Science Foundation to the University of Utah and the stations will be a permanent part of the UUSS network.

Report on Recommendation 9, Part II.

UUSS was not able to get one-time funding from NIOSH that would have capitalized equipment for as many as five above-mine seismic stations (at approximately $15,000 per installation) in the Wasatch Plateau-Book Cliffs coal-mining region.

UUSS is engaged in discussions with one mine in the Wasatch Plateau interested in enhancing seismographic coverage near its operations. In this one instance, UUSS may be able to provide equipment and work out a partnering arrangement similar to three already in effect in the Book Cliffs area.

For reasons described next under Recommendation 10, it appears that most coal operators in Utah are not presently inclined to voluntarily pursue more detailed mine-specific seismic monitoring.