Help Raise the Bar in Mine Safety and Health

www.SMECMSP.org

15th Annual Mine Safety & Health Conference
Reno, NV October 2019

Michael Wegleitner, IAMSH Director
MS, CSP, CMSP
Montana Resources Celebrates 10-years Without Lost Time Incident

“It is difficult to pick a single component that enables a company to achieve a record such as this; however, having a professional safety staff is certainly an important part of that accomplishment.

“Mike McGivern and Pete Steilman are both Certified Mine Safety Professionals (CMSP) and their dedication to the safety of our employees, their knowledge of mine safety regulations and practices were instrumental in helping our Company achieve this record.”

Rolin Erickson, President of Montana Resources, Butte, MT
Industry Trends

• Increasing globalization.

• Increased competition for limited positions in both rising and falling commodity markets.

• Increasing hiring standards, e.g., employers seeking credentials.

• Job sourcing is more transparent, i.e., online.

• Differentiation is becoming more difficult.
Common U.S. Credentials in the Mining Industry

- Professional Engineer (PE).
- Certified Professional Geologist (CPG).
- Professional Surveyor (PS).
- Certified Safety Professional (CSP).
- Certified Industrial Hygienist (CIH).
- Certified Human Resources Professional (SHRM-CP).
- Professional Geologist (PG).
- Certified Public Accountant (CPA).
- Professional Project Manager (PMP).
- Certified Mine Safety Professional (CMSP).
<table>
<thead>
<tr>
<th>S&amp;H Discipline</th>
<th>Certification &amp;Registrations</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety &amp; health generalist</td>
<td>Certified Safety Professional (CSP)</td>
<td>U.S.</td>
</tr>
<tr>
<td></td>
<td>Canadian Registered Safety Professional (CRSP)</td>
<td>Canada</td>
</tr>
<tr>
<td></td>
<td>Certified Generalist OHS Professional (COHSPProf)</td>
<td>Australia</td>
</tr>
<tr>
<td></td>
<td>Certified Chartered Generalist OHS Professional (ChOHSP)</td>
<td>Australia</td>
</tr>
<tr>
<td></td>
<td>Diploma in Occupational Safety and Health (DOSH)</td>
<td>U.K.</td>
</tr>
<tr>
<td>Occupational hygiene&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Certified Industrial Hygienist (CIH)</td>
<td>U.S.</td>
</tr>
<tr>
<td></td>
<td>Registered Occupational Hygienists (ROH)</td>
<td>Canada</td>
</tr>
<tr>
<td></td>
<td>Certified Occupational Hygienist (COH)</td>
<td>Australia</td>
</tr>
<tr>
<td></td>
<td>Certificate of Operational Competency in Occ. Hygiene (COCOH)</td>
<td>U.K.</td>
</tr>
<tr>
<td></td>
<td>Diploma of Operational Competency in Occ. Hygiene (DOCOH)</td>
<td>U.K.</td>
</tr>
<tr>
<td>Human factors</td>
<td>Certified Professional Ergonomist (CPE)</td>
<td>U.S.</td>
</tr>
<tr>
<td>Health physics</td>
<td>Certified Health Physicist (CHP)</td>
<td>U.S.</td>
</tr>
<tr>
<td>Mining safety</td>
<td>Certified Mine Safety Professional  (CMSP)</td>
<td>U.S.</td>
</tr>
</tbody>
</table>
Advantages of Certification

For You
• Demonstrate proficiency
• Differentiate yourself
• Enhance your knowledge
• Improve Mine Safety & Health performance

For Employers
• Target knowledgeable and experienced candidates
• Develop staff
• Leverage as mentors
• Improve Mine Safety & Health
International Society of Mine Safety Professionals (ISMSP) History

• First meeting was held in 1990 in Chicago, Illinois.

• Founding ‘fathers’: HL Boling, Ben Sheppard, Dennis Steffy, John Zimmermann, Doug Martin and Debbie Kendrick.

• First CMSP granted by examination in 1993.

• IRS tax exempt status designated in March, 1996.

• First Critical Issues Conference held in Las Vegas, Nevada in 1998.

• Achieved third party accreditation for the CMSP in 2005.
ISMSP CMSP

- Understandably, ISMSP CMSP had a heavy focus on MSHA compliance.
- Eligibility criteria – 10 years mining experience.
- Preparation study course.
- Overtime, ISMSP gained accreditation.
- Re-certification required every 5 years
ISMSP Lessons Learned

• Began to shift exam focus away from 30 CFR to international.
• Annual “Critical Issues Conferences” generally popular.
• Needed growth to remain self-sufficient.
Society for Mining, Metallurgy & Exploration (SME)

• Largest mining related professional society in the world:
  15,000+ members from 100 countries.
  Members: engineers, geologists, metallurgists, operations managers, HSE professionals, government officials, educators, students and researchers.
  Most significant mining companies have involvement with SME.
  SME is a non-profit organization [501(c)(3)].
• Mission: to advance the worldwide mining and underground construction community through information exchange and professional development.
• Headquarters: Denver, Colorado. https://www.smenet.org/
• SME staff: 50 FTEs.
SME Benefits & Resources

- Membership: $156/year. You do not have to be an engineer!
- Annual Conference & Exposition. February each year.
- Speciality conferences, webinars, podcasts, short courses.
- Online & live training.
- Free access to OneMine.org.
- Free subscription to *Mining Engineering*.
- Mentor program.
- Scholarships.
- Publications (SME Bookstore)
- Local sections & SME Community.
- SME Awards.
- Discounts:
  - 25% off books, $100 off short courses
  - $100 off the annual conference
SME Acquisition of the CMSP & MSP Programs

• SME’s Health & Safety Division actively sought collaboration with AIHA, ASSE & ISMSP beginning in 2014.

• The S&H Division discussed certification as part of its strategic plan.

• ISMSP contacted SME in late Summer 2016.

• The transaction was finalized in January 2017.

• SME’s goal regarding the CMSP is stabilization, relaunch, growth (type & number) & promotion.

• SME’s goal for the MSP is to get feedback from current MSPs, assess its value in relation to the CMSP, and determine its future accordingly.
IAMSH of SME: International Academy of Mine Safety & Health of SME

- SME Board of Directors
- SME H&S Division
- SME IAMSH of SME
  - Body of knowledge
  - Exam delivery & mgt
  - Candidate application
  - Exam development
  - Continuing education
  - 3rd Party Accreditation
- SME Staff
SME Acquisition of CMSP

Acquisition Timeline:

• Summer 2016: SME contacted by ISMSP regarding CMSP adoption.

• September 2016: Due diligence & SME BoD decision.

• October 2016: ISMSP integration strategy meeting at SME HQ.

• December 2016 – June 2017: Notify ISMSP & SME members.

• Nov/Dec 2016: SME CMSP Oversight Board developed. (IAMSH)

• Jan/Feb 2017: Draft strategic plan approved.

• Feb 2017: First meeting of the CMSP Oversight Board.

• Feb 2017: Began work on new CMSP, grandfathering, etc.
IAMSH of SME 2017 Accomplishments

• Developed a new certification management board (IAMSH of SME).
• Developed bylaws & other administration controls.
• Communicated certification status to current and past ISMSP members, CMSP & MSP certificate holders, and SME members.
• Selected third party accreditation organization (NCCA).
• Began the third party accreditation process.
• Developed a new Body of Knowledge (BoK).
• Sought collaboration with ICMM and INSHPO re: certification.
• Defined criteria and began grandfathering existing CMSPs.
• Defined the professional development requirements for the CMSP.
• Defined new CMSP qualification standards.
• Put the MSP on hold until CMSP is relaunched.
IAMSH of SME 2018 Accomplishments

• Completed CMSP grandfathering.
• Established Certification Panel to create exam questions.
• Completed CMSP application requirements and materials.
• Conducted pilot test and established cut score.
• Established various policies required to administer program.
• Audited 10% of CMSPs grandfathered.
• Launched website and rolled out application information.
• Set date for first exam (August 25, 2018 in Denver).
IAMSH of SME 2019 Accomplishments

- Developed review course.
- Outreach to other organizations.
- Offered the exam in several locations.
- Expanded communication to CMSPs.
- Developed a business plan.
- Developed additional exam questions.
<table>
<thead>
<tr>
<th>2019+</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Continuous improvement of current certification programs.</td>
</tr>
<tr>
<td>• Establish international 3rd party accreditation (ISO 17024).</td>
</tr>
<tr>
<td>• Introduce a line management certification?</td>
</tr>
<tr>
<td>• Grow into the premier global organization representing mining safety and health professionals.</td>
</tr>
</tbody>
</table>
Status Quo or Evolve?

- SME was faced with a critical decision: keep the CMSP as it was under ISMSP or evolve it based on current practice?

- The IAMSH of SME board elected to develop a new CMSP examination for three reasons:
  - Third party accreditation was essential for global credibility.
  - The Body of Knowledge had changed since the ISMSP BoK & exam.
  - Once the BoK changed, it was necessary to retool the entire examination.

- This resulted in an extended timeline for new CMSP candidates and higher costs necessary to complete the work.
Qualifications

To become a CMSP, you must:

• Have ten (10) years of mining experience, two of which must have been in safety/health
• Pledge to abide by the CMSP Code of Conduct
• Pass exam

To maintain your CMSP, you must:

• Professional development is required
• 25 points per 5-year cycle
• Submit renewal application and fee by requested date
About the Exam

Based on Body Of Knowledge

I. Fundamental Knowledge of Science & Engineering
II. Leadership, Organization & Culture
III. Safety, Health & Risk Management
IV. Management Systems, Regulations & Assurance
V. Professional Skills, Conduct & Ethics

Frequently Asked Questions

• 100 question, multiple-choice exam
• Study from Body of Knowledge and Reference List
• CMSP Prep Course in development
• Apply by posted deadline
• Download materials at www.smecmsp.org
Application Process

• Visit [www.smeecmssp.org](http://www.smeecmssp.org)
• Download and complete application
• Submit with fee by posted deadline
• Cost:
  – $650 for SME members
  – $950 for non-members
Exam Dates & Deadlines

October 21, 2019
• Reno, Nevada
• Application Deadline: September 30

October 26, 2019
• Pittsburgh, PA
• Application Deadline: September 30

December 8, 2019
• Tuscon, AZ
• Application Deadline: November 8

February 22, 2020
• Phoenix, AZ
• Application Deadline: January 22
CMSP Review Course

This three-day course is designed to provide a high-level review of the CMSP Body of Knowledge.

Attend this course to:
  • Refresh your foundational safety and health knowledge
  • Assess your strength and weakness around CMSP domains
  • Determine areas for further study
  • Gain confidence in your abilities
  • Network with others interested in pursuing the CMSP

Course Dates
November 14-16, 2019
• Denver, CO

February 21-23, 2020
• Phoenix, AZ

Register at www.smecmmsp.org
Subject matter experts are needed to:

- Develop exam questions
- Write articles
- Author books
- Speak at conferences
- Serve on the IAMSH of SME Board of Directors
- Volunteer for the SME Health & Safety Division and other committees
- Submit awards nominations
- Mentor
IAMSH of SME
Board of Directors

• Bruce Huber, CMSP, Retired, Former Vice President, Health and Safety, Silver Standard Resources, Inc. (Chair)
• Stacy Kramer, Vice President, Director of Global Risk Management Systems, Freeport-McMoRan, Inc. (Vice-Chair)
• Dr. Jurgen Brune, P.E., Eur-Ing, RM, QP, Professor of Practice, Colorado School of Mines
• Mike Brnich, CMSP, Retired, Former Senior Mining Engineer, NIOSH
• Donavan Hebig, CMSP, CRSP, CSP, CET, CHSC, Principal and Consultant, 3D Safety Consulting
• Brian McNamara, CMSP, Safety and Environmental Manager, Yancey Brothers Co.
• Matthew Pedersen-Howard, Vice President, Safety and Health, Peabody Energy Co.
• Robert Pedigo, CEO, Pedigo & Associates (Public Member)
• Pat James, Vice President Human Resources, Health, Safety & Environment, Cementation Americas
• Craig Ross, CMSP, Principal, Ross Associates LLC.
• Hans Gerardo Sandoval, Health and Safety, Pio Xi
• Michael Wegleitner, CMSP, Corporate Director, Health and Safety, Hecla Mining, Inc.
• William York-Feirn, CMSP, Director, Mine Safety Program, State of Colorado
• Vacant
IAMSH of SME Question

• What are three critical things necessary to improve Mining Safety & Health performance?
Learn more:
www.SMECMSP.org

Contact:
CMSP@SMEnet.org