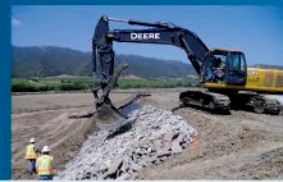


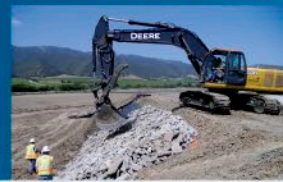
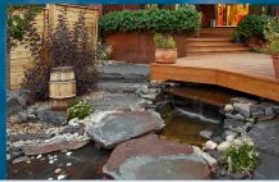
Making Safety Work for You - Safety and Environmental Certifications





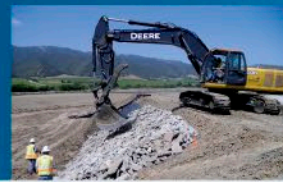
Safety Backed by Regulations and Standards

- OSHA, MSHA, NIOSH
- CalOSHA
- FHWA/DOT
- Department of Homeland Security
- Industry Consensus Standards (ANSI, NFPA, ACGIH)



Safety as a Growing Demand

- Projected to grow 4 percent from 2019 to 2029
- Products, buildings and processes complexity
- Worker's compensation costs
- Evolving regulations
- Construction pre-qualification
- Incident reporting



Environmental as a Growing Demand

- Projected to grow 8 percent from 2019 to 2029
- Environmental changes
- Cultural shifts
- Resource preservation and conservation
- Stricter environmental policies
- Environmental justice/equity



Safety as a Career

- Working together
- Opportunities to learn new skills
- In House Safety vs Consulting/Contractor work
- Public speaking
- Skills
 - Problem solving
 - Incident investigations
 - Interpreting safety regulations
 - Risk management
 - Negotiations



Day to Day Responsibilities

- Training
- Auditing and inspections
- Employee engagement
- Safety committee involvement
- Exposure monitoring
- Job hazard analysis
- PPE selection
- Documentation



Not Documented, Not Done

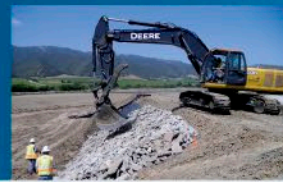




Experience and Knowledge-Based Certifications

International Academy of Mine Safety and Health (IAMSHA) of SME

- Certified Mine Safety Professional (CMSP)
 - Focuses on subject areas:
 - Fundamental knowledge of science and engineering
 - Leadership, organization and culture
 - Safety, health and risk management
 - Management system systems, regulation and assurance
 - Professional skills, conduct and ethics
 - Surface and underground



Certified Mining Safety Professional

- Persons who have professional knowledge and experience of domestic and international best practices
- Requirements
 - Will have ten years of mining experience, two in mine safety/health*
 - Be currently employed in mining safety/health position
 - Pass the CMSP exam (Five-and-a-half-hour exam, 100 questions)
 - Retain your certification



Experience and Knowledge-Based Certifications

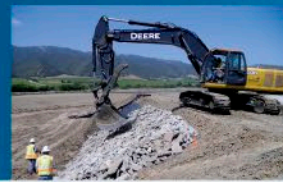
Board of Certified Safety Professionals (BCSP)

- Associate Safety Professionals (ASP)
- **Occupational Health and Safety Technician (OHST)**
- **Construction Health and Safety Technician (CHST)**
- **Safety Management Specialist (SMS)**
- **Safety Trained Supervisor Construction (STSC)**
- Certified Safety Professional (CSP)



Associate Safety Professional (ASP)

- Persons who perform at least 50% of professional level safety duties
- Requirements
 - Minimum bachelor's degree in any field of an associate in safety, health or the environment
 - Will have 1 year of safety experience where safety is at least 50%, preventative, professional level with safety duties
 - Pass the ASP examination (Five-hour exam, 200 questions)
 - Retain your certification



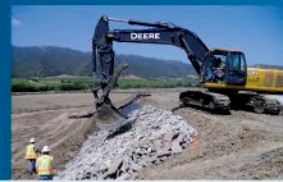
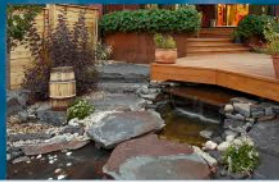
Occupational Health and Safety Technician (OHST)

- Persons who perform occupational hygiene and safety activities on a full time or part time basis as part of their job duties
- Requirements
 - Will work part-time or full-time in occupation health or safety (35% minimum) and have duties that require technical skills and knowledge in occupational health or safety
 - Will have 3 years of experience in occupational health or safety
 - Pass OHST examination (Four-hour exam, 200 questions)
 - Retain your certification



Construction Health and Safety Technician (CHST)

- Persons who demonstrate competency and work part-time or full time in health and safety devoted to the prevention of construction illnesses and injuries
- May be required for Construction bids
- Requirements
 - Work part-time or full-time in construction (35% minimum) and have duties that require technical skills and knowledge in H&S
 - Will have 3 years of experience in construction health or safety
 - Must pass the CHST exam (Four hour-exam, 200 questions)
 - Retain your certification



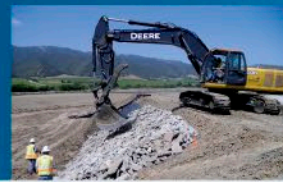
Safety Management Specialist (SMS)

- Persons with management skills required for a business's safe operation
- Requirements
 - Will have ten years of experience in occupational health or safety
 - Must pass the SMS examination
 - Retain certification (Four-and-a-half-hour exam, 200 questions)



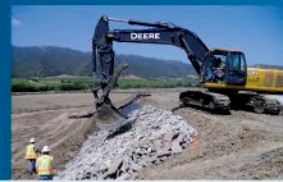
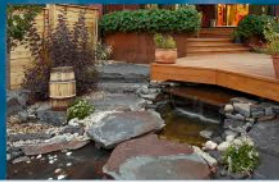
Safety Trained Supervisor Construction (STSC)

- Persons who have safety responsibilities that are part of other work duties
- Requirements
 - 30 hours of EHS training
 - Two years supervisory experience or 4 years related to construction; or an associates or higher; or completion of a two-year union training program apprenticeship
 - Pass the STSC exam (Two-hour exam, 100 questions)
 - Retain your certification



Certified Safety Professional (CSP)

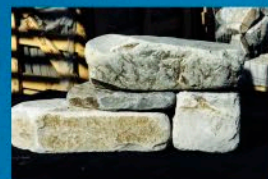
- Persons who perform at least 50% of professional level safety duties
- May be required in large scale construction jobs
- Requirements
 - Will have a minimum of a bachelor's degree
 - Will have four years of safety experience where safety is at least 50% of safety duties
 - Will have a BCSP Qualified Credential
 - Associate Safety Professional - ASP
 - Graduate Safety Practitioner - GSP
 - Certified Industrial Hygienist – CIH
 - Pass CPS examination (five-and-a-half-hour exam, 200 questions)
 - Retain certification



Experience and Knowledge-Based Certifications

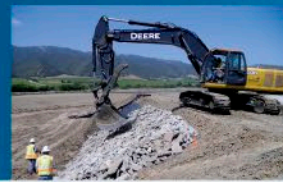
Board for Global EHS Credentialing (BGC)

- Certified Industrial Hygienist (CIH)
- Certified Associate Industrial Hygienist (CAIH)
- Qualified Environmental Professional (QEP)
- Environmental Professional Intern (EPI)
- Certified Professional Product Steward (CPPS)
- Certified Professional Environmental Auditor (CPEA)
- Certified Process Safety Auditor (CPSA)



Certified Industrial Hygienist (CIH) – Subject Areas

Air Sampling & Instrumentation	Health Risk Analysis & Hazard Communication
Analytical Chemistry	IH Program Management
Basic Science	Noise
Biohazards	Non-Engineering Controls
Biostatistics & Epidemiology	Radiation
Community Exposure	Thermal Stressors
Engineering Controls/Ventilation	Toxicology
Ergonomics	Work Environments & Industrial Processes



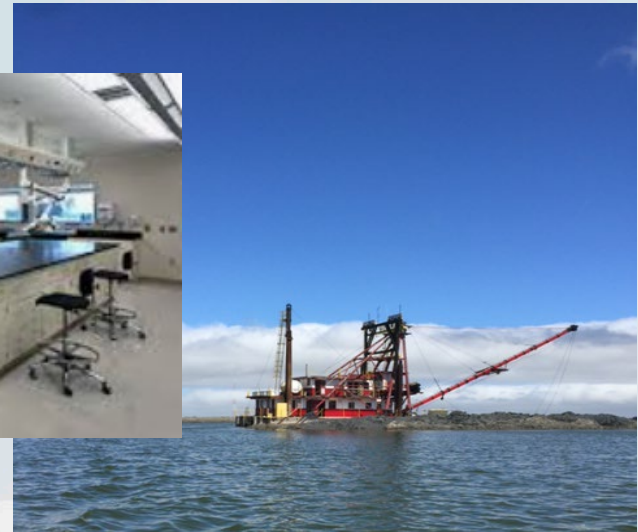
Certified Industrial Hygienist (CIH) – Benefits

- Recognized worldwide as experts in worker exposure assessment.
- Active lobbying to promote use of CIH designation in regulatory language.
- Help workers, employer, and community avoid injury/illness.
- Above average salary (median \$73,020 in 2018).
- Conferences with safety professionals?!



Certified Industrial Hygienist (CIH) – Eligibility

- Bachelor's degree from USDE accredited college with at least 60 semester credits of science, technology, engineering or math (STEM) and 15 credits in upper division STEM courses.
- 12 semester credits industrial hygiene coursework with 6 credits in Fundamentals of IH, Toxicology, Measurements, and Controls.
- Four years of IH practice (credits for IH degree holders) and currently practicing IH work with experience in at least two of the following stressor categories: chemical, physical, biological, or ergonomic.
- References: two supervisors to substantiate years of practice and document professional IH work by: obtain reference from CIH or someone certified by an organization recognized by the International Occupational Hygiene Association (IOHA).
- No involvement in unethical behavior and will follow Code of Ethics.



Diversity in Scenery





Questions?