

Education and Training:

Bill holds multiple certifications issued by the National Institute for the Certification of Engineering Technologies, sponsored by the American Association of Professional Engineers. The written exams were taken in the Engineering Department at ASU. They included:

Level 2 certification, which requires a minimum of 2 years practical experience, and is viewed by the industry as the equivalent of an Associate Degree in Engineering.

Level 3 certification, which requires a minimum of 5 years practical experience and passage of a written exam. This is viewed, in the industry, as equivalent to a BS in Engineering. This is the minimum level of certification needed to be in charge of the Quality Control of a project. For any federal government project, the minimum requirements to manage or be the principal for the project, requires a minimum level 3 certification or a Bachelor's Degree in Engineering.

Level 4 certification (the highest attainable), requires a minimum 10 years of practical experience. It also requires the applicant to have been the principal on a major project (for the duration of the project) or one full year as a manager of a geotechnical materials testing laboratory. It is viewed, by the industry, as equivalent to a Masters in Science degree in Engineering.

All of the above are required before you are allowed to take the exam. Once the level of certifications is achieved, you are eligible to take the nationally recognized Professional Engineer licensing exam.

The only other way to achieve P.E. status is to spend 4+ years in college, graduate, take the The EIT (Engineer in Training) exam, followed by five years of work in the engineering industry.

At this point, you will also be eligible to take the P.E. (Professional Engineering) exam

Bill chose not to take the P.E. exam because he did not want to be restricted to an office and instead wanted to play an active role in projects.

Other certifications/training:

MSHA (Mining Safety and Health Administration) – certified

OSHA (Occupational Safety and Health Administration) - certified with subsurface and confined spaces endorsement

EPA (Environmental Protection Agency) – trained with erosion control and groundwater protection

NRC (Nuclear Regulatory Commission) – Radiation safety officer

Experience

Michigan Department of Transportation, Testing and Research Division-Supervise the mining and crushing of rock used for highway construction. Some materials require the sampling to be done in the mine, but will require transport to a full service lab for specialized testing. All testing and inspections are done at or inside a mine.

ATL-a minority-owned consulting engineering firm: geotech/materials laboratory manager

Chen Northern (Thomas Hartig): Senior field inspector

PSI (Professional Services. Inc.): Senior field inspector/backup lab tech

Alpha Geotechnical: Senior engineer. Assisted in the design/construction of their first geotech lab, guided the lab through its initial certification as a referee lab through the National Bureau of Standards. All testing was done in the presence of nationally-accredited proctors from the U.S. Government Bureau of Standards. All other duties included training of both field and lab personnel

MacTec Engineering and Consulting” Lead Field Inspector. Project and quality control manager and trained new staff.

All of the above included work in the lab and actual, physical presence inside various mine locations throughout the state.