STOCK ENTERPRISES

FORENSIC CONSULTING & CONSTRUCTION SERVICES

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STEPHEN J. STOCK, P.E., P.L.S.

PROFESSIONAL EXPERIENCE:

2002 to STOCK ENTERPRISES

Present Consulting Engineer

Provide engineering and surveying investigations, analysis, reports and testimony for failure analysis, and toward the resolution of industrial, commercial, mining, and residential personal injury and property damage claims and litigation including: homeowner associations; insurance companies; utilities; and construction companies. A few litigation topics included: geotechnical; structural; excavation and trenching; confined space; utility line breaks; storm and sanitary sewer line back-ups; hydrology; mine subsidence; blasting; cranes; damaged structures to determine structural soundness; road repairs; noise; mold; lightening strikes; ladders; walkways; scaffolds; fall protection; conveyors; mine fires; mine stability issues and hydrology; gas wells; mining near abandoned mines; construction; mine and industrial workplace safety.

2011 to Allegheny Chapter PA-PLS [AC-PA-PLS]

Present Provide Continuing Education [CEU's] to Professional Surveyors and Engineers. [Upcoming and Past Seminars are posted on web site].

1981 to SELF-EMPLOYED

Present Prepare structural plans for several residential builders. Own and actively manage 14 buildings containing 29 rental units. Have dealt with numerous lenders, nonprofit organizations, as well as local community officials to obtain needed permits, SBA loans, HUD and state grants and rehabilitation funds for the buildings, and maintain a number of the units under the Section 8 program in Allegheny County, PA. In the early 1990's, as the engineer of record, oversaw the demolition and reconstruction of a seaside condominium complex that was destroyed by a hurricane. In the 1980's, provided surveying services, prepared subdivision plans, and performed engineering surveying services for Northeastern Marketing Inc. which delivered manufactured and modular housing to Western PA.

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1989 toO.S.H.A., U.S. DEPT. OF LABOR, DIRECTORATE OF CONSTRUCTION2002Civil Engineer

Provided expert technical and on-site assistance to the OSHA field, regional, and national offices, for a wide variety of engineering situations including: shoring, process failures, shafts, tunneling, blasting, demolition, scaffolding, concrete and masonry, excavations, confined space design, bridge failures, crane lift failure, petrochemical plants, and other construction and engineering safety issues. Worked with OSHA Training Institute to develop instructional materials for OSHA personnel in excavation and trenching, tunneling and confined space. Involved in numerous on-site training classes and taught excavation and trenching safety, such as shoring and soil classification methods. Worked with industry group (NUCA) to develop trench safety checklist for use by contractors. Provided technical assistance to U.S. National Committee on Tunneling Safety developing improved tunneling technology, including submitting a draft of a Tunneling Safety Notebook to the International Tunneling Committee in 1991. Worked on OSHA's construction standards in the areas of steel erection, scaffolding, fall protection, trenching, tunneling, and confined space. Taught the OSHA 500 Safety and Health training course for labor and industry personnel at a number of locations throughout the United States. Took part in the Advisory Committee on Construction Safety and Health meetings and prepared summary notes for the Assistant Secretary. NInvestigated numerous construction and industrial accidents and plant explosions, including: cranes, ladders, walkways, scaffolds, walls, subways and tunnels. Represented OSHA in meetings with officials of other federal agencies and trade organizations.

1980 to M.S.H.A., U.S. DEPT. OF LABOR, BRUCETON SAFETY &

1989

TECHNOLOGY CENTER, MINE WASTE AND IMPOUNDMENT DIVISION Senior Mining/Civil Engineer

Worked in the technical support department and acquired a thorough knowledge of the safety and health regulations applicable to mining. Developed recommendations for safer and more efficient mining operations based upon a complete knowledge of the Federal Mine Safety and Health Act of 1977, the Coal Mine Health and Safety Act of 1969, OSHA safety and health regulations and polices, and others. Evaluated various underground operations for mining under or near various water bodies, the condition of structures and foundations, handling of mine waste, abandoned oil and gas wells, existing and new construction. Conducted onsite investigations to determine degree of corrosion, fatigue stress cracking and other potential failure situations in buildings, conveyors, marine terminal loadout facilities, railroad and haulage bridges and river dredges, silos, and bins. When there was a failure potential or construction techniques were inappropriate, worked to expedite safe corrective measures. Reviewed engineering plans submitted to mine operators for the purpose of either correcting deficiencies at existing sites or the construction of new fresh water and mine refuse structures. Investigated existing waste embankments and fresh water and slurry impoundments for hydrology, ascertained the structures overall stability and evaluated the construction techniques employed during their construction. Reviewed slurry disposal plans for environmental technical adequacy as required by MSHA under the Office of Surface Mining regulations. Was a member of the MSHA Nuclear Waste Disposal Committee. Evaluated the initial conceptual development and construction plans for the underground nuclear waste disposal facilities. Participated in the investigation of the multiple fatal stockpile suffocation accident at Loveridge No. 22, Consolidated Coal Company, Fairview, WV. Participated in the investigation of a multiple fatality underground haulage incident at Keystone Mine No. 2, in West Virginia.

1980 to **COMMUNITY COLLEGE OF ALLEGHENY COUNTY**

1988 Adjunct Faculty

Taught engineering, construction, and surveying courses.

1983 to **PENN STATE UNIVERSITY**

1986 Summer Engineering Faculty Taught engineering courses.

1978 to **DLM COAL CORPORATION**

1979 Chief Engineer

Directed and performed all engineering and surveying for the company's strip mines and contract deep mine, including: exploration, mine permit application preparation, needed surveying, mine maps, and requested cost projections. Permit applications were prepared to comply with various federal and state environmental and safety laws.

1977 to NORTH AMERICAN COAL CORPORATION

1978 StaffAssistant/Mining Engineer

Administered and supervised division's exploration program which included the drilling operations on properties in Pennsylvania and West Virginia. Evaluated geologic conditions, ground control problems, and roof bolting patterns for roof and ground control in the company's deep mines. During the Johnstown, PA flood, assisted in the mine rescue of personnel at the Seward Mine. Worked on flood recovery, recovering equipment and restoring production.

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1974 to ENI ENGINEERING COMPANY

1977 Civil Engineer

Designed, and prepared design proposals for, industrial plants, including: additions; thermal dryers; renovations and retro-fitting of existing coal, salt and limestone plants; conveyor and storage facility sizing; process evaluations; overland conveyor systems; concrete reclaim tunnels; railroad loadout facilities and sidings; barge loadout and other related facilities for the mineral industry in the U.S. and Canada.

1973 to CONSOLIDATION COAL COMPANY

1974 Civil Engineer and Foreman

Prepared needed mining application, progress maps, 1 yr., 5 yr, and life of mine projections for the surface mines in assigned area. Responsibilities included: mine layout, equipment applications, economic evaluations, project engineering, supervision over survey crew and engineering draftspersons. Attended local township meeting and answered public and elected officials concerns on proposed road closures. Evaluated soil conditions for planting requirements for the surface mine permit applications. Supervised construction of 2 miles of township road, a freshwater earth sediment dam, enlargement of a tailings impoundment, spoil grading, and topsoil removal and replacement. Oversaw seeding and tree planting to revegetate the regarded slopes.

PROFESSIONAL REGISTRATIONS:

Registered as a Professional Engineer in Pennsylvania, North Carolina, South Carolina, Ohio, and West Virginia. Registered as a Land Surveyor in Pennsylvania.

PROFESSIONAL AFFILIATIONS:

ANSI A-10 Accredited Standards Committee - Construction & Demolition Operations - Member Subgroup Member ANSI - A10.12 - Excavation (Chairman) Subgroup Member ANSI - A10.6 - Demolition

Committee Member - ASCE Drilled Shafts Standards Committee (1993-94) Society of Mining Metallurgy & Exploration [SME]

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EDUCATION:

EXPERT

Ph.D., Civil Engineering Applied Sciences, Columbia Pacific University M.S., Mining Engineering, University of Pittsburgh

B.S., Civil Engineering, University of Pittsburgh

Ph.D. Dissertation - Comparison of Soil Classification Systems used in the United States and Canadian Provinces Excavation and Trenching Standards.

M.S. Thesis - Pressure Drop & Pump Selection for Coal Slurry Pipelines. M.S. Special Design Project - Design of Railroad Loadout Facility and Rail Siding.

RETAINED