Taylor Engineering LLC
1080 Marina Village Parkway, Suite 501 ■ Alameda, CA 94501-6427 ■ (510) 749-9135 ■ Fax (510) 749-9136

REINHARD G SEIDL, P.E.

Mr. Seidl is a registered mechanical engineer with an MS in Mechanical Engineering from the Delft University of Technology in the Netherlands.

He has 15 years of commercial and industrial HVAC system design experience, initially with a Dutch construction company specializing in industrial projects in Africa and the Middle East, and subsequently with a design-build construction company in California.

Mr. Seidl has experience in a wide range of project types, including petrochemical, semiconductor, pharmaceutical, clean room, heavy industrial, hospital and office buildings:

Designing a Shell refinery control building in Mombasa, Kenya, involved various stages of chemical filtration and detection, as well as a blast-proof mechanical room able to withstand explosions on site.

A Urea factory for Khorasan Petrochemical required another blast-proof building with chemical filtration, as well as the design of a steam heating facility for the Urea storage warehouses.

Mr. Seidls design of a Aluminum Rolling Mill in Egypt added to his experience with large industrial projects, specifications and project partners.

Upon his arrival in the United States, Mr. Seidl acted as project engineer for ACCO Engineered Systems, one of the oldest mechanical and specialty contractors on the West Coast. His first project with ACCO was the Silicon Graphics Headquarters in Mountain View, California. The campus project included 550,000 sqft of office and server room space, divided over a 4-building campus.

The Palo Alto Medical Foundation headquarters in Palo Alto, and the Sun Microsystems campus in San Jose are other examples of large, multi-building complexes Mr. Seidl has worked on.

His work at the Palo Alto Medical Foundation also allowed Mr. Seidl to familiarize himself with standards for medical facilities, and included the construction supervision of CatScans, MRI's, Linear accelerators, Lasers for Ophtalmology, and other specialized equipment.

In ACCO's process division, Mr. Seidl acted as project manager for that company's first design-build semiconductor project, and the first pharmaceutical design-build project.

This work involved the development of new standards, both for the engineering and construction crews, and the additional management required to successfully execute a new process throughout the organization. Mr. Seidl further developed his skills in operating in new territory in this role, while providing customers with the professionalism and support they had come to expect from an industry leader like ACCO.

At Taylor Engineering, Mr. Seidl is using the experience he has gained in over 10 years of field-related construction work to combine the theoretical considerations of planning and specifying with real-world constraints to produce cost-effective results that meet customer's requirements for quality.

While remaining involved in day-to-day engineering operations, his role as principal means he also manages workload planning for the office, and provides teaching and organizational support to our employees.

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REINHARD G SEIDL, P.E.

Education

1985 - 1991: Delft University of Technology, M.S. Mechanical Engineering

Registration

1998 - present State of California: Mechanical Engineer M-030676.

Experience

1998 - 2002: University of California Extension, Berkeley, CA
Instructor X471 “Principles of Refrigeration".
2007: Instructor X472 “HVAC System Design Considerations”

2003 - present: Taylor Engineering, Alameda, CA
Principal, responsible for HVAC and Controls design, specifications, conducting energy studies. Representing Taylor Engineering as commissioning agent in the field.

ACCO Engineered Systems, San Carlos, CA
2002 - 2003: Project Manager process systems group; responsible for semiconductor and pharmaceutical projects including cGMP construction and validation. Helped to establish engineering guidelines for process projects.
2000 - 2001: Project Manager, responsible for budgeting, bid presentation, project scheduling, completion of construction activities within deadlines, single point of contact to customer in “cradle-to-grave” concept.
1996 - 2000: Project Engineer, responsible for layout and design of mechanical systems, equipment selections, site visits, point of contact for construction team.

1991 - 1996: Stork Bronswerk, Amersfoort, the Netherlands
Project Engineer. Site visits & coordination with customers and other contractors. Coordination of electrical, mechanical and drawing departments. Schedules and status reports. Detailed mechanical calculations. Selection of subcontractors. Gave internal symposium for use of databases in project management.

Publications

Mark Hydeman, Reinhard Seidl and Chuck Shalley. Staying Online: Data Center Commissioning. ASHRAE, Atlanta GA. June 2005.

Reinhard Seidl. Trend Analysis for Commissioning. ASHRAE, Atlanta GA. January 2006.

Reinhard Seidl. Universal Translator. ASHRAE, Atlanta GA. July 2007

Professional Associations

ASHRAE:

- Voting member of Guideline committee GPC 30, Commissioning of Existing Buildings. http://gpc30.ashraepcs.org/

Simulation Tools

- **TrendAnalyzer:** Conceived of a tool for automating large scale whole-building trend analysis for commissioning. Supervised in-house implementation of programming.
- **Universal Translator:** Managed merging of TE-developed program code into Pacific Gas & Electric Universal Translator (UT). The UT is a free tool, available at www.utonline.org, that allows commissioning agents and building engineers to assess how well their building is working.

Presentations and Seminars

- "Innovations in Evaporative Cooling and Water Treatment", PG&E Energy Center, San Francisco, CA, December 2005
- "Using EMS Systems for Building Performance and Retro-Commissioning"
  - PG&E Energy Center, San Francisco, CA, February 2006
  - PG&E Energy Center, San Ramon, CA, March 2006
  - AMD, Sunnyvale, CA, March 2006
  - Radisson Hotel, Fresno, March 2006
  - National Conference on Building Commissioning (NCBC), San Francisco, CA, April 2006
- "Commissioning made accessible", California Commissioning Council, San Ramon, CA, November 2006
- "Retrofits for High-Tech Facilities", PG&E Energy Center, San Francisco, CA, October 2006
- "Data Analysis with the Universal Translator", PG&E Energy Center, San Francisco, CA, November 2006
- "Universal Translator – Advanced Topics", PG&E Energy Center, San Francisco, CA, November 2006
- "Design and Commissioning of Optimized Chilled Water Plants", PG&E Energy Center, San Francisco, CA, April 2007

Representative Projects

Projects for which Mr. Seidl designed the mechanical/control systems or acted as commissioning authority:

Lawrence Berkeley National Labs, NERSC	Oakland, CA, 2,400 tons, 20,000 ft²
Oracle 3OP	Redwood Shores, CA, 16 stories, 330,000 ft²
San Francisco SPCA	San Francisco, CA, 1 story, 45,000 ft²
KLA Tencor	Milpitas, CA, 3 buildings, 680,000 ft²
Veterans Administration	Palo Alto, CA, 5 stories, 750,000 ft²
Hewlett Packard chiller plant	Palo Alto, CA, 6 buildings, 3,000 tons
KLA Tencor	Livermore, CA, 2 stories, 120,000 ft²
San Francisco State University	San Francisco, CA, 10 buildings, 1.3 mln ft²
Palo Alto Medical Foundation	Palo Alto, CA, 3 stories, 40,000 ft²
Palo Alto Medical Foundation	Fremont, CA, 3 stories, 75,000 ft²
Cathedral of Christ the Light	Oakland, CA, 5 stories, 235,000 ft²
nVidia Data Center	San Jose, CA, 15,000 ft²
Ross Stores Headquarters	Pleasanton, CA, 5 stories, 150,000 ft²
Pixar Phase II	Emeryville, CA. 2 stories, 110,000 ft²
Palo Alto Westin Hotel	Palo Alto, CA, 5 stories, 184 rooms
Palo Alto Medical Foundation, incl. animal labs	Palo Alto, CA. 4 stories, 300,000 ft²
Silicon Graphics HQ	Mountain View, CA. 2 stories, 550,000 ft²
Egyptalum Aluminum Rolling Mill	Nag Hammady, Egypt, 200,000 ft²
Khorasan Petrochemical, Urea storage	Khorasan, Iran, 150,000 ft²
Khorasan Petrochemical Control Bldg	Khorasan, Iran, 1 story, 3,000 ft²
Shell/KPRL Petroleum Refinery Control Bldg	Mombasa, Kenya, 1 story, 5,000 ft²

Other Projects and Studies

Projects for which Mr. Seidl was the construction project manager:

Chukchansi Casino and Resort	Fresno, CA, 5 stories, 250,000 ft²
Palo Alto Medical Foundation, Fremont	Fremont, CA, 1 story, 5,000 ft²
Mendel Biotech, plant growth rooms	Hayward, CA, 1 story, 2,000 ft²
Form Factor, clean rooms and process systems	Livermore, CA, 1 story, 17,000 ft²
Point Biomedical, clean rooms and process systems	San Carlos, CA, 1 story, 10,000 ft²
Santur semiconductor, clean rooms and process systems	Fremont, CA, 1 story, 3,000 ft²
Sun Microsystems San Jose Campus	San Jose, CA, 2 stories, 250,000 ft²
ISE Labs semiconductor testing facility	Fremont, CA, 1 story, 20,000 ft²
San Jose Sharks ice rink	San Jose, CA, 1 story, 20,000 ft²