

DOCKET

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STATE OF CALIFORNIA

Energy Resources Conservation
And Development Commission

*In the Matter of Complaint Against
ORMAT NEVADA, INC. BROUGHT
BY CALIFORNIA UNIONS FOR
RELIABLE ENERGY*

Docket No. 11-CAI-02

Dated: September 26, 2011

**ENERGY COMMISSION STAFF'S EXHIBIT 302
RESUMES OF JOSEPH HUGHES,
SHAHAB KHOSMASHRAB, P.E.,
GEOFFREY LESH, P.E.,**

JEFFERY OGATA
Assistant Chief Counsel
California Energy Commission
1516 9th Street
Sacramento, CA 95817
Ph: (916) 654-5195
E-mail: jogata@energy.state.ca.us

JOSEPH HUGHES, P.E.

Joseph Hughes

Education

Sacramento State University 2003-2008
Sacramento, Ca

Bachelor of Science, Mechanical Engineering Technology, 3.25GPA-May 2008
AA degree in liberal arts and science 3.0 GPA

Experience

California Energy Commission March 2009-Present
Sacramento, Ca

Air Resources Engineer

- Currently authoring air quality staff assessments for thermal power plant projects in California producing more than 50 megawatts of electricity.
- Provided staff analysis for American Recovery and Reinvestment Act (ARRA) projects, along with natural gas fired projects.
- Review and process compliance reports for multiple power plants in California.
- Currently working on project amendments and modifications requiring air quality analysis and permitting.
- Trained in CEQA and NEPA analysis, along with AERMOD air modeling.

Capital Engineering Consultants, Inc April 2008-2009
Sacramento, Ca

Mechanical Engineer

- Responsible for detailed and accurate take off calculations to ensure successful project completion.
- Completing engineering design for Heating Ventilation Air Conditioning and Plumbing by utilizing complex engineering calculations and software.
- Responsible for meeting code regulation and requirements to the degree acceptable by various organizations.
- Lead productive weekly team meetings to discuss project scheduling, cost effectiveness, request for information, and change orders.

GEOFFREY LESH, P.E.

Geoffrey Lesh, P.E.
Mechanical Engineer

WORK HISTORY

California Energy Commission Mechanical Engineer 2002 - Current

- Review and analyze power plant applications in the areas of hazardous materials management, fire safety, worker safety, noise control, efficiency, and reliability.

Self-Employed Independent Investor 2000 - 2002

- Wrote market analysis computer software.

Read-Rite Corp Wafer Engineering Manager 1994 - 2000

- Designed and developed wafer manufacturing processes for computer data storage systems. Managed team of engineers and technicians responsible for developing wet and dry chemical processes for manufacturing, including process and safety documentation.
- Managed process and equipment selection for manufacturing processes.
- Processes included vacuum processed metals and ceramics, grinding-polishing, plating, etching, encapsulation, process troubleshooting, and SPC reporting.

Dastek Corp (Komag Joint Venture Start-up) Wafer Engineering Manager 1992 - 1994

- Developed wafer processes for new technology recording head for hard disk drives.
- Managed team of engineers and technicians.
- This position included start-up of wafer fab, including line layout, purchase, installation, and startup of new process equipment, etc.

Komag, Inc Alloy Development Manager 1989 - 1992

- Developed new vacuum-deposited recording alloys
- Responsible for planning and carrying-out tests, designing experiments, analyzing results, managing test lab conducting materials characterizations.
- Extensive process modeling and data analysis.

Verbatim Corp (Kodak) Process Development Manager 1983 - 1989

- Mechanical engineering for computer disk manufacturing, including product, process, and equipment including metal-ceramic-plastic processes for optical disk development.
- Production processes included plating, metal evaporation, reactive sputtering, laser-based photolithography, injection molding.
- Steering Committee Member, *Center for Magnetic Recording Research, UC San Diego*
- Steering Committee Member, *Institute for Information Storage Technology, University of Santa Clara*

IBM Corp Mechanical/Process Engineer 1977 - 1983

- Product development for photocopiers, semiconductors, and computer tape-storage systems.

EDUCATION

Stanford University, Master of Science Degree
UC-Berkeley, Bachelor of Science Degree
(Double Major)

University of Santa Clara, Graduate Certificate
Registered Professional Engineer, California

Materials Science and Engineering
Mechanical Engineering,
Materials Science and Engineering
Magnetic Recording Engineering
Mechanical #M32576
Metallurgical #MT1940

PUBLICATIONS

All-Solid Lithium Electrodes with Mixed-Conductor Matrix, J. Electrochem. Soc. **128**, 725 (1981).

Proc. Symp. on Lithium Batteries, H.V. Venkatesetty, Ed., Electrochem Soc (1981), p. 467.

PATENTS

Method of Preparing Thermo-Magneto-Optic Recording Elements, US Pat# 4,892,634 (assigned to Eastman Kodak Co.)

SHAHAB KHOSHMASRAB, P.E

Shahab Khoshmashrab, P.E.
Senior Mechanical Engineer

Experience Summary

Sixteen years of experience in the mechanical, civil, structural, manufacturing, energy, and related fields involving design, manufacturing, construction, and operation of various mechanical components and building structures. This experience includes, as the lead technical staff, electric generating power plants, including analysis of noise and vibration, generating capacity, efficiency, reliability, facility design (engineering), and policies, as applicable to all engineering-related aspects of power plants.

Education

- California State University, Sacramento-- Bachelor of Science, Mechanical Engineering, 1994
- Registered Professional Engineer (Mechanical), California — No. M32883 expires 9/30/12

Professional Experience

2001-2011—Mechanical Engineer – Engineering Office – Siting, Transmission and Environmental Protection Division – California Energy Commission

Performed analysis of generating capacity, reliability, efficiency, noise and vibration, and the mechanical, civil, structural and geotechnical engineering aspects of power plant siting cases.

1998-2001—Structural Engineer – Rankin & Rankin

Engineered concrete foundations, structural steel and sheet metal of various building structures including energy related structures such as fuel islands. Performed energy analysis/calculations of such structures and produced structural engineering detail drawings.

1995-1998—Manufacturing Engineer – Carpenter Advanced Technologies

Managed manufacturing projects of various mechanical components used in high tech medical and engineering equipment. Directed fabrication and inspection of first articles. Wrote and implemented QA/QC procedures and occupational safety procedures. Conducted developmental research of the most advanced manufacturing machines and processes including writing of formal reports. Developed project cost analysis. Developed/improved manufacturing processes.