

## FRACTURE INVESTIGATIONS

4718 Renovo Way San Diego, CA 92124 Phone & Fax (858) 560-5530

### JAMES C. ALESZKA, P.E.

REGISTERED
METALLURGICAL AND
CORROSION ENGINEER

# JAMES C. ALESZKA METALLURGICAL AND CORROSION ENGINEER

### **SUMMARY**

- Registered Professional Metallurgical and Corrosion Engineer with extensive experience in product liability investigations.
- Performed numerous metallurgical and corrosion-related failure evaluations for the federal government, private industry, and local attorneys.
- Contributed to numerous professional journals, society publications, and international conferences.

### **LICENSURES**

July 1986:

Registered Professional Corrosion Engineer, State of

California (CR 1018)

February 1982:

Registered Professional Metallurgical Engineer, State of

California (MT 1749)

### **EDUCATION**

UNIVERSITY OF CALIFORNIA, LOS ANGELES

December 1973:

M.S., Engineering (Metallurgical)

June 1971:

B.S., Engineering (Metallurgical)

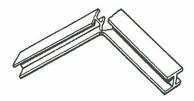
## **EXPERIENCE**

FRACTURE INVESTIGATIONS, San Diego, CA

Owner/Metallurgical & Corrosion Engineer

1987-1994 & 1995-Present

Conduct failure analysis investigations concerning airplane crashes, automobile
accidents, unmanned air vehicles, deep submersible rescue vehicles, offroad
vehicles, landing gear, mountain bikes, crankshafts, gears, turbine blades,
amusement park ride components, ladders, chairs, welded components, glass and
plastic fractures



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• Analyze the process of corrosion in a wide variety of settings and in a wide variety of materials and components:

### Aluminum Alloys

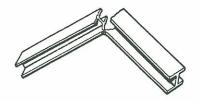
- camera and pump housings for the Deep Submergence Rescue Vehicle
- retract activator housing for the Predator unmanned air vehicle
- window frames
- lamp posts
- seaplane brackets (Universal Studio-Waterworld)
- fences
- roof panels

# Copper and Copper Alloys

- water lines
- valves
- condenser tubes
- recirculating lines
- heat exchangers
- sprinkler heads

## Carbon, Alloy and Stainless Steel

- graving dock pumps
- underground water pipes
- oxygen tanks
- engine flow tubes
- boat fittings
- automobile bodies
- outboard engine components
- fences (galvanized)
- nails (galvanized)
- water pumps



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# REGISTERED METALLURGICAL AND CORROSION ENGINEER

# LAW/CRANDALL, INC., San Diego, CA

1994-1995

# Senior Metallurgical & Corrosion Engineer

- Conducted soil corrosivity studies and provided guidelines to prevent underground corrosion of pipelines, utility lines, and reinforced concrete structures.
- Conducted metallurgical and corrosion-related failure analysis investigations.
- Evaluated welding schedules.
- Provided deposition testimonies.

# GENERAL DYNAMICS/CONVAIR, San Diego, CA

1979-1992

# Chief Metallurgical Engineer for the SLCM & VLS Cruise Missile Programs

- Determined appropriate materials for design.
- Determined appropriate processes for:
  - Corrosion prevention
  - Welding
  - Heat treatment
  - Plating
- Conducted failure analysis investigations.
- Performed independent research and development studies.

# GENERAL RESEARCH CORPORATION, Santa Barbara, CA Supervisor, Fracture Mechanics Laboratory

• Conducted fracture resistance studies under impact loading conditions on the following types of materials: aerospace, nuclear, pressure vessel, and common structural alloys.

# U.S. ARMY CONSTRUCTION ENGINEERING RESEARCH LABORATORY, Champaign, IL

1974-1975

1975-1979

# Principal Investigator, Metallurgy Branch

- <u>Principal Investigator</u>, Metallurgy Branch
- Investigated tensile, low-cycle fatigue, and impact properties of structural steels and weldment.
- Examined effects of hydrogen embrittlement and temper embrittlement on material properties.
- Performed numerous failure analysis investigations.



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### PUBLICATIONS/PRESENTATIONS

- Numerous professional journal and society publications and presentations.
- Extensive list of company reports.

### PROFESSIONAL SOCIETY MEMBERSHIPS

- American Society for Metals
- American Institute of Mining, Metallurgical and Petroleum Engineers
- National Association of Corrosion Engineers
- American Society for Testing and Materials:
  - Committee E-40, Technical Aspects of Products Liability Investigation:
  - Committee G-1, "Corrosion of Metals"

## **AWARDS/HONORS**

- Memorandum of Appreciation, Safety Investigation Board, U.S. Dept. of the Air Force (July 2002)
- "Who's Who in Science and Engineering" (July 1995)
- Extraordinary Achievement Award, General Dynamics (January 1985)
- Certificate of Achievement, U.S. Army Construction Engineering Research Laboratory (June 1975)
- Sea Grant Fellowship, UCLA (September 1971)