8 ENERGY





It's difficult to imagine a more challenging environment for man and his works to endure than the the sea and its surroundings. Only the nearly limitless beauty and bounty of the marine world could lure us again and again to make a place for ourselves nearby. There are a thousand things that go wrong out here, and only a handful of people with the expertise and experience to isolate the ones that have.

At S-E-A, we have over 40 years experience investigating, researching and reconstructing accidents and failures worldwide, including those that take place where the man-made is often swallowed up or swept away altogether.

S-E-A has a long history as an acknowledged leader in investigative engineering and forensic science. Since 1970, S-E-A has been a multidisciplinary, full-service and professional organization providing thorough research, analysis and testing. S-E-A offers complete investigative services, including mechanical engineering, electrical engineering, civil engineering, chemical engineering, fire investigation and industrial hygiene. In addition, S-E-A has a fully equipped chemical testing laboratory. S-E-A's full-time staff of investigators, engineers and chemists consists of licensed/registered professionals who are court-qualified experts within their respective fields.

Marine Systems

- Deck equipment ground tackle; boat davits; cargo handling
- Propulsion and auxiliary equipment
- Piping, fuel transfer and electrical systems steam, hydraulic, feed water, fuel, oil
- Standards compliance; (Classification, IMO/SOLAS, NMMA, ABYC, USCG)

Shore Side Facilities

- Docks/piers (cranes, lifts, shore power, shore side piping systems)
- Shipyards/marinas
- Workplace safety
- Premises liability
- Layup, wet or dry storage and winterization

Failure Analysis

- Products testing
- Hull structure/watertight integrity
- Hydrostatic and stability analysis
- Cargo/container damage
- Corrosion analysis
- Lifesaving equipment

- Equipment and component evaluations
- Fuel contamination

Accident Investigation & Reconstruction

- Ship/boat/barge collisions, groundings and accidents
- Navigation
- Piloting/rules of the road
- Watercraft stability/flotation
- Premises liability/slip and falls
- Analysis of data recorders
- Bodily injury/biomechanical analysis/ human factors
- Demonstrative evidence/animation/modeling
- Industrial accidents

Fire – Origin & Cause Analysis

- Comprehensive analysis to determine the cause of and responsibility for fires
- Explosion investigations
- Electrical systems
- Mechanical systems
- Engine (gasoline/diesel/propane)
- Human actions

Energy – Oil & Gas

- Upstream (drilling, production)
- Downstream (refining, petrochemicals)
- Transport (pipelines, ships and barges)
- Storage
- Process safety
- Turbines, generators, transformers, etc.

Environmental Health & Safety

- Petroleum spill and release
- Chemical exposure evaluation
- Accident and incident review investigation
- Chemical transport accidents
- Contamination analysis (fuel, chemical stocks)
- Slip, trip and fall evaluations
- OSHA/USCG/IMO compliance review



-- Representative S-E-A Marine & Energy Clientele

- Marine Insurance Companies
- Energy Insurance Companies
- Maritime Law Firms
- Boat Manufacturers
- Protection & Indemnity Clubs
- Recreational Boating
- Cruise Ships
- Deep Water Vessels
- Shipyard Facilities
- Marinas & Docking Facilities
- Commercial River Traffic
- Commercial Fishing Vessels
- Petrochemical (onshore and offshore energy production)



Scientific Expert Analysis



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Our Logo In geology, there is an ideogram used to represent twisted rock formations. The Nsibidi people in Ghana use the same structure to indicate a situation where two witnesses contradict each other but only one is telling the truth (the straight line).