



# Rickover and RCA

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# MERRICK & COMPANY

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Engineering | Architecture | Design-Build | Surveying | Planning | Geospatial Solutions



**MERRICK®**

# My Background

- BSME University of Alabama
- Nuclear Test Engineer – Charleston Navel Shipyard
- System & QA Engineer – Public Service Electric and Gas
- Quality Assurance Manager @ Savannah River Site
- NNSA Capital Projects – Governance & CAS Manager
- Merrick - NST – QA Manager Aiken Office

# Merrick's Purpose, Vision, & Values

- Our Purpose

- *Solving*
- *Growing*
- *Living*

- Our Vision

- “Our family of employee owners collaboratively developing the right solutions to better our world.”

- Our Values

- **R**espect
- **I**ntegrity
- **S**ervice
- **E**xcellence



# Merrick's Strategic Direction

- **Balanced Scorecard**
  - #1 – Learning & Growth
  - #2 – Markets & Clients
  - #3 – Finance
  - #4 – Systems & Operations
- **Focused Diversity – 50% Federal / 50% Private**
- **Smart Growth – 10% Increase in Growth & Profit**
- **Long-term Employee & Client Engagement**



# Merrick's Business Units

- Energy and Chemicals
- Geomatics
- High Performance Facilities
- Infrastructure Engineering
- Life Sciences
- **Nuclear Services & Technology (NST)**

# Merrick's Office Locations



# Highlights of Admiral Rickover's Life

- 1900 - Born in Poland
- 1905 – Immigrated to USA
- 1922 – Received BS from USNA
- 1929 – MSEE from Columbia University
- 1946 – Travelled to Oak-Ridge
- 1949 – Appointed Chief of Naval Reactors of AEC
- 1951 – Congress authorizes construction of the Nautilus
- 1954 - Launch of USS Nautilus
- 1958 – Shippingport Station Commissioned
- 1963 – The Loss of the USS Thresher (SSN-593)
- 1968 – Loss of the USS Scorpion (SSN-589)
- 1986 – Died and buried in Arlington National Cememtery





# Rickover's Books

- *How the Battleship Maine was Destroyed*
- *The Never-Ending Challenge of Engineering*
- *Eminent American: Namesakes of the Polaris Submarine Fleet*
- *The Social Impact of Cybernetics*
- *No Hold's Barred: The Final Congressional Testimony of Hyman Rickover*





# Significant Books on Rickover

- Polmar and Allen, *Rickover: Controversy and Genius*
- Allen & Polmar, *Rickover, Father of the Nuclear Navy*
- Theodore Rockwell, *The Rickover Effect: How One Man Made a Difference*
- Dave Oliver, *Against the Tide: Rickover's Leadership*
- Francis Duncan, *Rickover and the Nuclear Navy: The Discipline of Technology*
- Francis Duncan, *Rickover: The Struggle for Excellence*



# Rickover's Eight Basic Principles

- #1 - Ownership
- #2 - Responsibility
- #3 - Attention to Detail
- #4 - Priorities
- #5 - Know What is Going On
- #6 – Hard Work
- #7 - Checking Up
- #8 - Facing the Facts



# Rickover on Leadership

- “Human experience shows that people, not organizations or management systems, get things done.”
- “When doing a job - any job - one must feel that he owns it and act as though he will remain in that job forever.”
- “... we as managers must respond to honest errors by our people in a manner that will encourage both acknowledgement of errors and prevention of them in the future.”

# Rickover on Performance

- "... verbatim compliance requires you follow the rules - or get them changed so that you can follow them! This means that you comply verbatim ... or stop what you are doing and get them changed before you continue work."
- "You are not to exercise your judgment as to which rules you will follow - you are not to violate rules or requirements even if you know them to be wrong, stupid, or ill-advised."



# Rickover on Assessment

- "As we investigate problems, pursue technical resolutions and critique errors, the facts don't change but we do discover them and we do replace opinions, <false> assumptions, and suspicions with them."
- "An essential element of carrying out my work is the need to have it checked by an independent source. Even the most dedicated individual makes mistakes."
- "A system under which it takes three men to check what one is doing is not control; it is systematic strangulation."

# Rickover on Causal Analysis #1

- "The organization and members thereof must have the ability and willingness to learn from mistakes of the past."
- "When an individual makes an error, it is your responsibility to determine why the error occurred and correct the behavior that caused it."
- "The adequacy of your solution is almost always directly proportional to your knowledge of the problem."

# Rickover on Causal Analysis #2

- "When a mistake is made or something doesn't work right, your job as a manager, is to determine the underlying cause and to correct the problem - not to simply treat the symptoms."
- "... treating effects, as opposed to the real cause, will never solve the problem."
- "Nothing so sharpens the thought process as writing down one's arguments. Weaknesses overlooked in oral discussion become painfully obvious on the written page."



# Rickover on Corrective Action

- “The correct technical conclusion must never be influenced by schedule or cost pressures.”
- “We may decide, however, based on realities of cost or schedule, to go with less than the optimum or technically perfect solution - but that decision must be conscious and recognized for what it is - that is - a compromise. ... when we do so, ... be ready to accept the consequences of our decision.”
- “If you commit or are directed to do a task by a certain date - you have an inescapable obligation to complete it by that date or tell me immediately if you cannot.”

# Rickover on Lessons Learned

- “Success teaches us nothing; only failure teaches.”
- “We all make mistakes, due to errors of judgement, ignorance, or lack of experience, etc. I can excuse the mistake - once ... to make the same mistake twice is not excusable - we must learn for our experiences”
- “Good ideas are not adopted automatically. They must be driven into practice with courageous impatience.”
- “Once implemented they can be easily over-turned or subverted through apathy or lack of follow-up, so a continuous effort is required.”

# Keep Going!!!!



**“The Devil is in the details,  
but so is salvation.”**

— Admiral H.G. Rickover, USN