

**2020 NEI Report of Project Management Lessons Learned and Best Practices  
Construction of New Nuclear Power (NNP) Plants  
32 Public Domain Reference Documents**

**2018**

**Industry Reference Document (29) of (32)  
Integrated Project Teams and  
Leadership for Advanced Reactor Projects  
11 pages**

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Nuclear Industry Council (NIC) Advanced Reactor Summit



# Integrated Project Teams (IPT) for Advanced Reactor Projects

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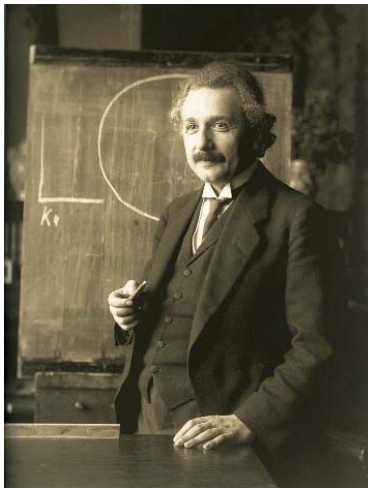
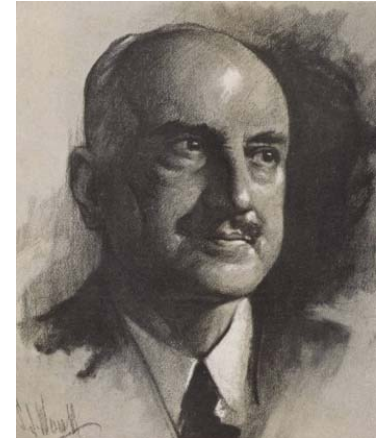


*"Connecting Vision and Plans with Performance and Execution"*

# Key Points

*Those who cannot remember the past are  
condemned to repeat it....*

George Santayana



*It's a form of insanity to repeat the  
same steps over & over and to  
expect a different result....*

Albert Einstein



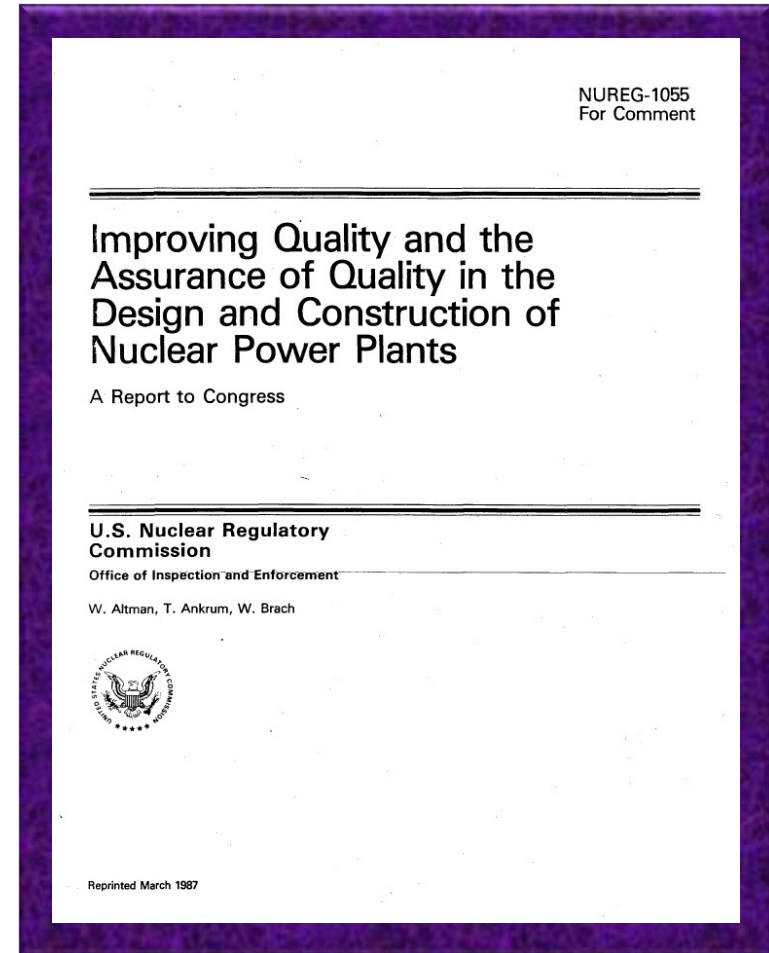
# First Thoughts

- Hubris – an excess of pride and ambition that leads directly to the possessor's ruin
- You are not smarter than the people who have gone before you
- The benefits of Advanced Reactor Technology are irrelevant if you cannot build the plant
- Project success is inversely proportional to the complexity of the contract



# NUREG-1055

- This is a critical planning reference for lessons learned from the GEN-II construction programs
- This 1987 NUREG is **mandatory** reading before beginning any Advanced Reactor Project
- Failure to do this will lead to disaster.





# NUREG-1055 Major Findings

- Section 3.4 – Attributes of Successful Projects
  - Prior Nuclear Experience
  - Licensee Understanding and Leadership
  - Commitment to Excellence
  - Strong Project Management with Clear understanding of Roles and Responsibilities
  - Design Completion and Planning
  - Integration of QA to Project Management



# Major Causes of Project Failures

Price Waterhouse 2012 Global Survey





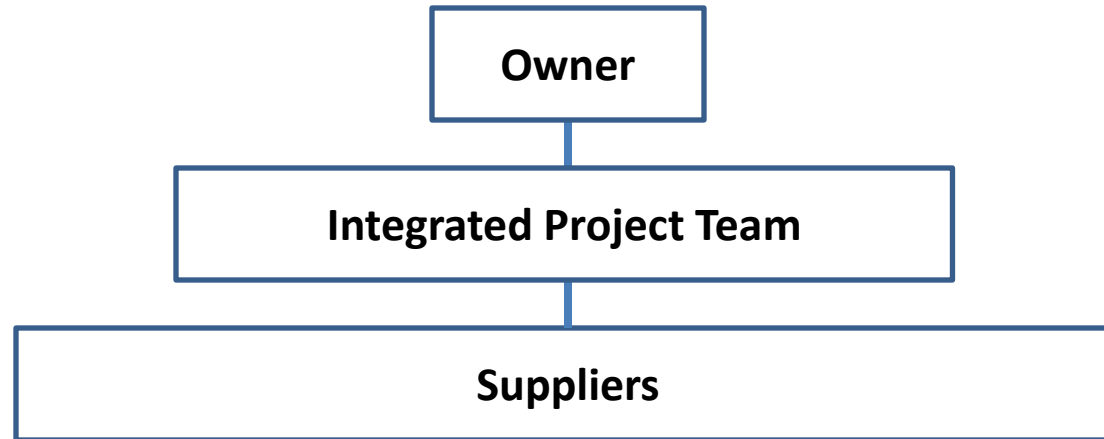
# Integrated Project Team

- One owner-driven organizational structure
- One project manager overall
- Shared incentive fee pool
  - Determined by project success
- One schedule held by all team members
- Manage risks...do not shed risks
  - Best athlete philosophy
- Transparent information & no surprises





# IPT Structure



- Interfaces are controlled by project leadership
- Risks are handled by participant best able to resolve the issue
- Planning is bottom up and managed internally
- Fee is shared based on the project success



# IPT Partner Approach

- Licensee/Owner is the overall project management leader
- Licensee/Owner leads the Integrated Project Schedule (IPS)
- Licensee, OEM, & EPC personnel skills are integrated to optimize project team structure & responsibilities
- Partnership & trust between owner & contractors create the foundation
- Communications, openness, & teamwork must flourish
- Adopt incentives to motivate personnel at all levels
- ***An experienced, motivated & passionate Project Leader is critical***



# Conclusions

- Learn from the past – prepare for the future
- Use a strong integrated project team approach
- Eliminate risk shedding – embrace risk management
- One integrated team held together by a binding agreement and shared fee incentives
- Technology is irrelevant – if you cannot construct it, it does not work



# Questions

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