

# Owner's Engineering Services For Commercial Nuclear Power Plants



# Leading the Next Generation of Nuclear Energy

As the world demands clean, reliable and economical energy sources, nuclear energy is answering the call. The next generation of nuclear plants will set the stage in our industry for years to come. Overcoming the challenges associated with the engineering, procurement and construction of a nuclear generating facility demands the technical know-how, precise execution and the highest quality service. Burns and Roe has the right mix of expertise to meet the challenges and deliver outstanding engineering services on time and ahead of schedule.

As an Owner's Engineer, Burns and Roe will identify and manage project risk, plan for successful execution and ensure responsive performance of contracted activities. When compared to the multi-billion dollar construction cost of a nuclear plant, the benefit of selecting the right Owner's Engineer that has these capabilities to protect, support and advise the Owner with unyielding commitment is invaluable.

**“ I want to take this opportunity to thank Burns and Roe for their excellent performance... the responsiveness and attention to details exhibited by their staff was instrumental in completing [the work] within budget and on schedule. ”**

- NRG Inc.

Letter to Burns and Roe



# Built on our Legacy of Nuclear Power

Burns and Roe's experience includes over 120 nuclear projects, encompassing nuclear power installations, research reactor facilities, radiation laboratories, reactor and primary heat dissipation systems, reactor fuel processing, reactor test activities, nuclear waste handling systems, retrofit programs for operating plants and decommissioning and dismantling of facilities. From the very beginning of the commercial nuclear power industry, Burns and Roe has been involved in the development of nuclear power generating technologies. Our involvement and commitment continues to this day with the preparation of licensing applications for the next generation of nuclear power.



Burns and Roe's **legacy continues** with the **first competitively bid Combined Construction and Operating License (COL)** applications for today's **newest generation of nuclear plants.**

# Value-added

**B**urns and Roe excels in the Owner's Engineering role because we know how to execute projects throughout all phases of their development. Our support helps ensure project success and technical soundness. Our team of experts will be responsive to our client's needs and will ensure that quality, budget and schedule goals are not compromised.

# Owner's

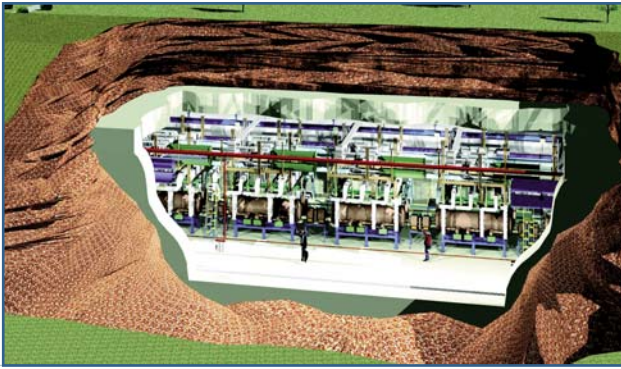
**Burns and Roe corporate support has been excellent... they have been proactive in meeting all contractual deliverables.**

**Department of Energy**

We bring exceptional technical, financial and management capabilities through a cadre of seasoned professionals having extensive nuclear engineering, project development and management consulting experience. This core group provides a full range of high-level technical and energy business consulting services by drawing on Burns and Roe's extensive resources and capabilities.

The professionals at Burns and Roe are knowledgeable of the ongoing changes occurring in the nuclear industry. We have maintained our knowledge through our extensive activities in the industry as the nuclear industry is thrust into a continuous array of changes - technological, regulatory and commercial. Burns and Roe is committed to the Nuclear Renaissance. We have served our clients in the nuclear industry since the 1950's and are committed to guiding the industry towards a promising future.





# Engineering

Our wide range of owner's engineering and consulting expertise includes

■ Alternative Energy Assessments	■ Design Optimization
■ Value Engineering Studies	■ Supply Chain Analysis
■ Design Reviews	■ Vendor Proposal Evaluation
■ Project Capital Cost Estimates	■ Contract Negotiation
■ Life Cycle Cost Estimates	■ Regulatory Support
■ Economic Analysis	■ Engineering/Constructability Reviews
■ Risk Management and Contingency Analysis	■ Prepare Technical/Quality Specifications
■ System Engineering	■ Labor Market Analysis
■ Project Cost and Schedule Control	■ Risk Assessment, Evaluation and Mitigation
■ Configuration and Change Management	■ Vendor Contract Management
■ Project Management Reviews	■ Project Reporting
■ Integrated Safety Management	■ Independent Engineering Review
■ Financing Support	■ Contractor Design Review
■ Project Cost Estimates/Analysis	■ Progress Monitoring
■ Develop and Maintain Project Schedules	■ Certification of Submittals
■ Develop Project Controls	■ Change Order Review and Negotiations
■ Prepare Project Execution Plan	■ Quality Reviews
■ Technology Selection	■ Construction Monitoring
■ Licensing and Permitting Support	■ Shop Inspection and Oversight

# Safety Focused

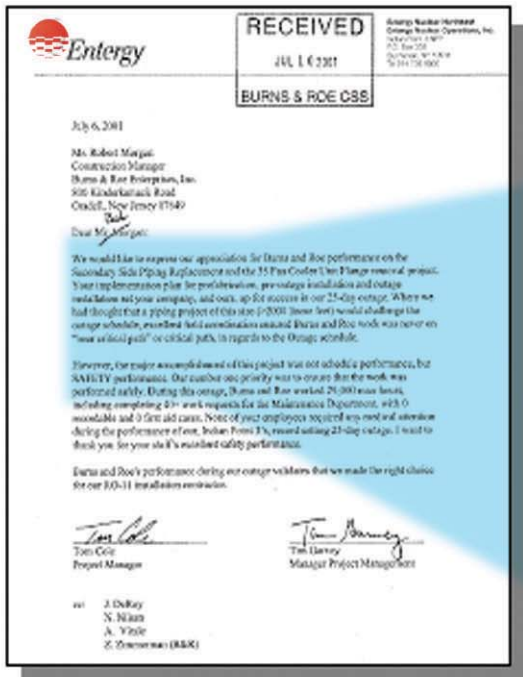
Burns and Roe is committed to conducting work efficiently and in a manner that ensures protection of workers, the public and the environment. We provide effective management to all levels to ensure that all employees implement and uphold the Burns and Roe Corporate Safety Program within their respective sphere of activity or responsibility.



Focus on Safety Throughout

“We would like to express our appreciation of Burns and Roe's performance. Burns and Roe's performance validated that we made the right choice.”

Entergy Nuclear Northeast  
Letter to Burns and Roe



“The major accomplishment of this project was not schedule performance, but SAFETY performance. Our number one priority was to ensure that the work was performed safely...Burns and Roe worked 29,000 man hours...with 0 recordable and 0 first aid cases.”

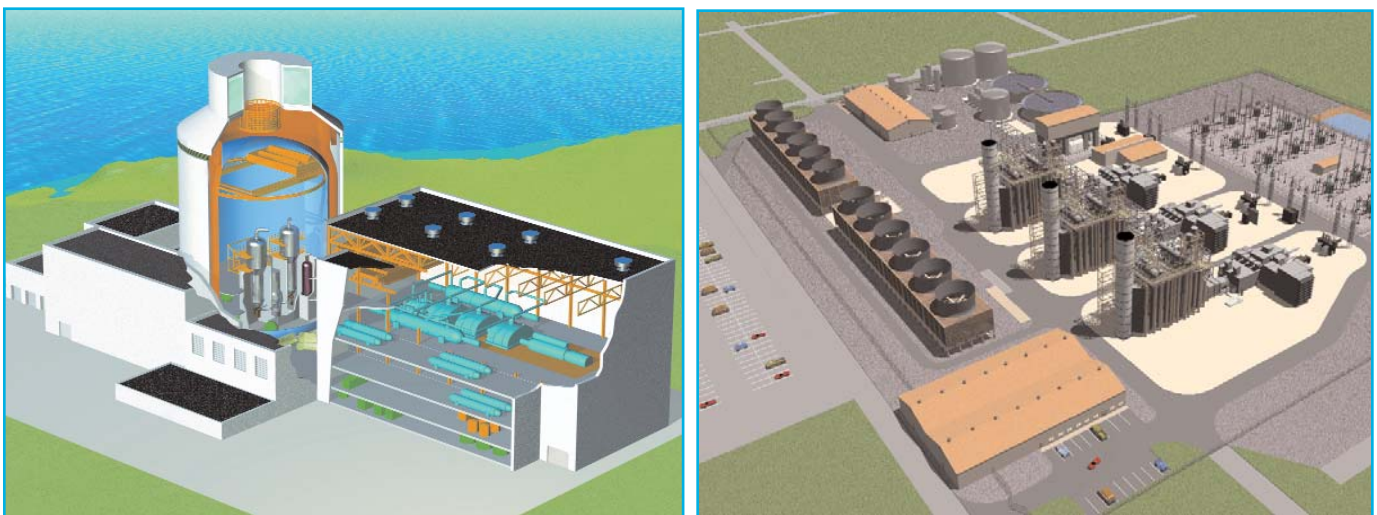
Entergy Nuclear Northeast

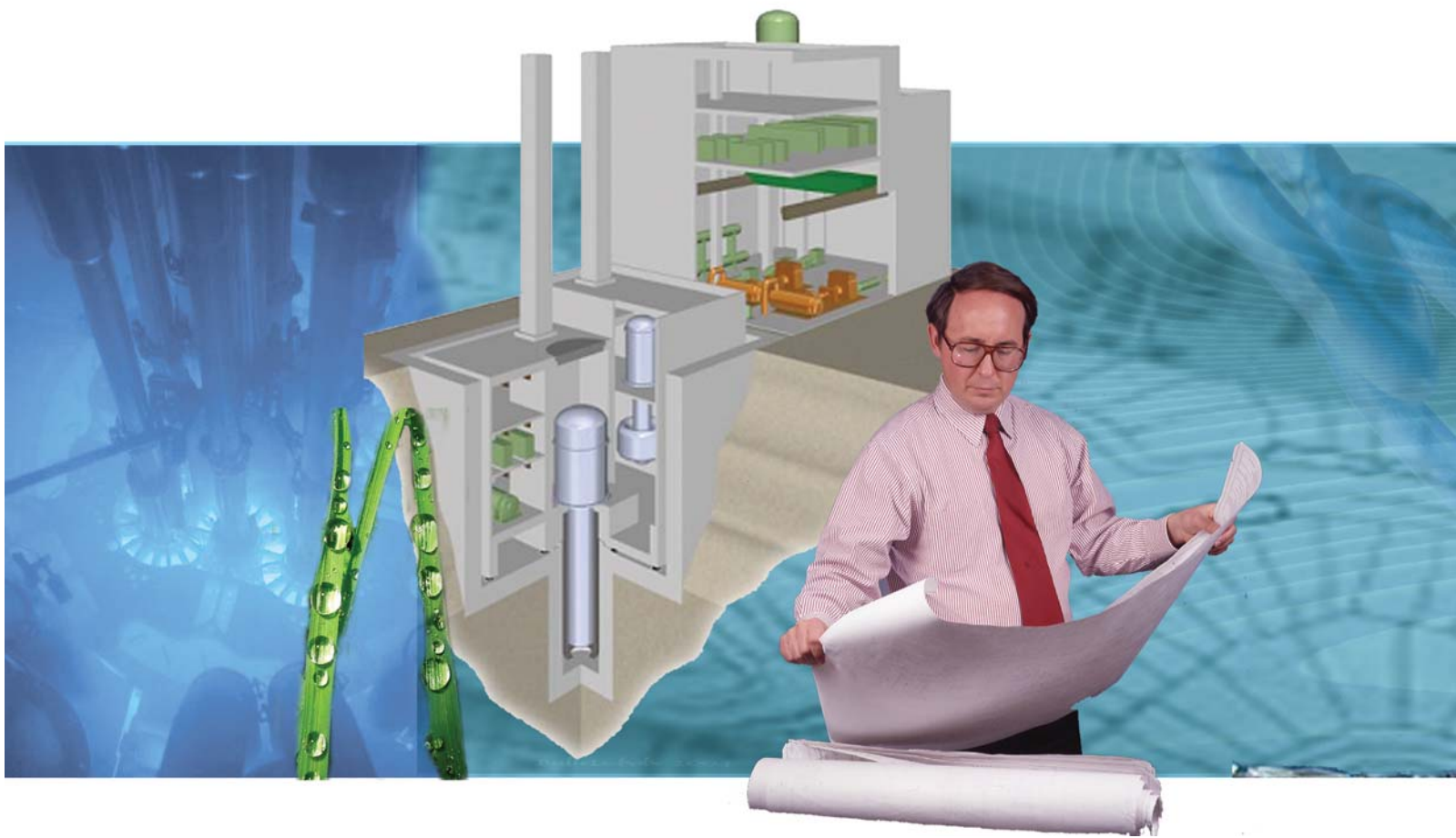
# Knowledge & Tools

Burns and Roe is currently the architect-engineer (AE) partner preparing the COL application for Duke Power and NuStart Energy. We are a member of the Nuclear Energy Institute's review board and a participant in the NRC DG 1145 workshop. We continue to provide engineering, design and operation support services for more than fifty operating nuclear power plants both in the U.S. and around the world.



Our team has the systems and tools in place to support today's large-scale nuclear projects. Our tools are tested and proven on the current generation of operating plants. Our state-of-the-art information management system includes project web sites, 3-D CADD modeling, and a proven project management system to define, plan, integrate and administer the next generation of nuclear power plants.





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