



ENERCON

Excellence—Every project. Every day.

Engineering & Safety Analysis

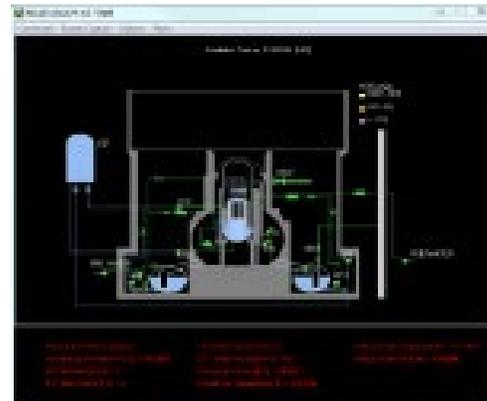
Thermal-hydraulic Analysis

ENERCON is well versed in thermal-hydraulic design and analysis of systems and components. Our capabilities have been developed through nearly 30 years of experience in addressing nuclear site-specific plant concerns, power up-rate efforts, and industry and regulatory issues such as FLEX and extended loss of all AC power (ELAP). ENERCON has expertise in all major thermal-hydraulic codes and understands the applicability and limitations of each. ENERCON integrates this extensive analysis capability with plant systems and operations knowledge to tackle the most challenging design, licensing, and safety issues. Our thermal-hydraulic expertise includes:

- Preparation of design basis calculations
- Commercial dedication of computer codes
- Containment/Compartment Analysis
- Turbine cycle performance analysis
- Analysis of two-phase flow processes
- Void and water hammer evaluations
- Containment sump performance analysis
- SBO and ELAP room heat-up analysis
- System and component performance modeling
- Reactor coolant system response analysis
- Plant transient and accident analyses
- Decay head loads, fuel pool heat up, and accident evaluations

Hydrogen Generation & Combustion

Hydrogen Generation and Combustion are a concern in light water reactors as the pressure loads from hydrogen combustion could breach containment or damage safety-related equipment.



MAAP RCS
Response
Analysis

ENERCON has had a lead role in this area for over twenty-five years, beginning with the management of the BWR 6 Hydrogen Control Owner's Group.

ENERCON has the analytical capabilities and experience needed to assess and mitigate hydrogen production, transport, mixing, and combustion in response to postulated severe accident sequences.

Analysis Codes:

RELAP • GOTHIC • RETRAN • PEPSE • PIPE FLO • FATHOM • MAAP • MELCOR • CLASICX-3

Hazard Analysis

ENERCON is experienced with performing process and safety hazard analysis in support of safer, more efficient, and more reliable plants. Through systematic process system and procedure reviews, we identify and document hazards. For each identified hazard, the failure consequences are determined to prioritize corrective actions. For high-risk hazards, preventative and or mitigative actions are identified, which reduce the risk to acceptable levels. The resulting product is a safety basis framework that assures the safe handling of hazardous materials and processes.

Analysis Codes:

ALOHA • SLAB • Canary

ENERCON is ranked as one of the largest providers of engineering design services to the U.S. Nuclear Industry. We are uniquely qualified to support our clients' routine and complex engineering needs with over 700+ experienced engineers. Our Engineer of Choice contracts with over 90% of the operating U.S. nuclear power plants allows us to provide high-quality services for all large and small scope projects efficiently.



Atmospheric Dispersion & Plume Analysis

ENERCON has provided technical consultation to the nuclear industry on the design and location of meteorological towers, and meteorological data for estimating relative concentrations of chemical and radiological contaminants for use in siting of new plants release consequence evaluations. In addition, ENERCON has extensive experience in cooling tower drift evaluations and thermal plume analysis. By coupling our experience and capability with site-specific documentation and data, ENERCON can provide:

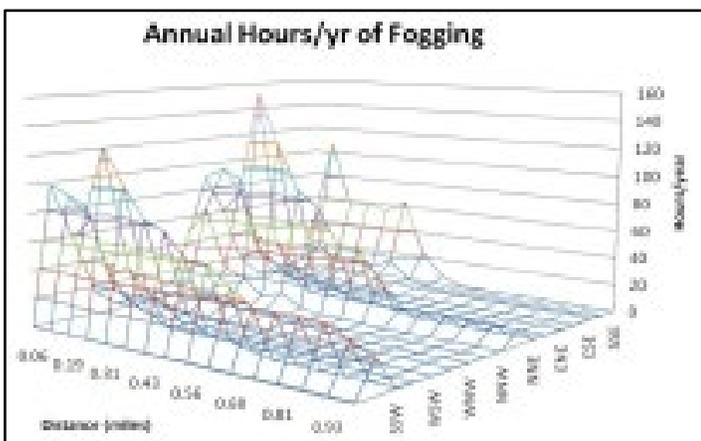
- Atmospheric dispersion and deposition factors for use in chemical and radiological assessments
- Offsite Dose Calculation Manual (ODCM) development and update
- Emergency Planning guidance
- Lake and river discharge thermal mixing and dilution studies
- Cooling tower plume effects and drift predictions

Analysis Codes:

ARCON96 • PAVAN • XOQDOQ • SACTI •

Probabilistic Risk Assessment

Probabilistic risk assessment (PRA) and risk information has become integral to the design, licensing, and operation of nuclear power plants.



In conjunction with our subsidiary MARACOR, ENERCON is experienced in the development and update of PRAs and the development of risk-informed applications. This experience includes:

- Development and update of the various elements of PRA, including external events
- Configuration of PRA models for use in online risk monitors
- Level 3 PRA models
- Severe Accident Mitigation Alternatives (SAMA) analysis
- Development of risk-informed license amendment requests (e.g., Extended Allowed Outage Times (AOTs), Extension of Integrated Leak Rate Test (ILRT) interval)
- Mitigating Systems Performance Indicator (MSPI) Basis Document development and update
- Maintenance Rule, Fire PRA, and NFPA 805 support
- PRA Self Assessment and Peer Review

PRA Codes:

CAFTA • ETA • MACCS2 PRAQUANT • SYSIMP • UNCERT

Our corporate philosophy is simple:

Excellence - Every project. Every day.

Service excellence is the primary goal of Enercon Services, Inc. We realize that today's market is highly competitive, and, as an employee-owned company focused on doing it right the first time, our work directly reflects on our personal and corporate reputations. This is the reason for our exceptional work standards and client responsiveness.

CLICK HERE to contact us and put over thirty years of excellence, innovation, and success on your side.



#2 Nuclear Power
#15 Power
#9 Cogeneration
#57 Pure Design
#74 Top 500 Design Firms

enercon.com | Enercon Services, Inc.

