

# CURRICULUM VITAE



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**Name** : Rolf Hildre  
**Date of Birth** : 27<sup>th</sup> April 1959  
**Nationality** : Norwegian  
**Languages** : Norwegian, English, Swedish  
**Marital Status** : Married, three children  
**Education** : 1978 – 1982: Civ. Ing. (M.Sc.)  
from KTH – Royal Institute of Technology in Stockholm, Sweden,  
Department of Aeronautical Engineering.  
Main subject: Structural analysis.



**Other Training**: Various courses in FEM analysis (mainly ANSYS, some MSC/NASTRAN), composites, project management.

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## **Key Qualifications:**

Extensive experience in FEM analysis and other structural analyses since 1984.

Familiar with design codes for general steel structures, steel buildings, offshore/subsea structures, piping/spools, pressure vessels (nuclear and conventional), and atmospheric tanks. Norsok, DNV codes, ASME, Eurocode, AISC, NS/ISO.

Main competencies: FEM analyses: structural, thermal, static, transient dynamic, modal, linear/nonlinear; design code compliance, dimensioning calculations, nuclear power generation, oil and gas.

## **Professional Record:**

**Jan. 2006 – Present: CalCo – Rolf Hildre**  
Independent contractor

### ***Assignments:***

**Jan. 10 – Present: Scanscot Technology AB**  
Lund, Sweden  
*Consulting company – Structural Analyst*

Structural analyses on the Oskarshamn 2 nuclear power plant, undergoing power uprate and life extension. Pressure, thermal and mechanical loads. Thermal transients. Static, transient mechanical and modal analyses. Elastic and elasto-plastic material models. Fatigue

verification. Shakedown analyses. ASME Class 1 (subsection NB) code checks. Calculation of heat transfer coefficients.

Non-linear ultimate pressure/temperature analyses on steel components in nuclear power plant containment structures (drywell heads, airlocks). Internal and external pressures. Plastic collapse, linear and nonlinear buckling.

Structural verification of internal parts of a nuclear power plant reactor pressure vessel according to ASME design rules. Pressure, thermal and mechanical loads, static and transient.

Structural verification of steel buildings at nuclear power plants according to Eurocode 3. Column buckling, beam bending, lateral torsional buckling of beams. Check of bolted joints and welds.

Structural verification of atmospheric tanks at nuclear power plants according to Eurocode 3. Internal pressure and weather-related loads; shell stability, buckling checks.

Analyst and reviewer.

**Mar. 06 – Oct. 09: Westinghouse Electric Sweden AB**

Västerås, Sweden

*Nuclear services company – Structural Analyst*

Dimensioning calculations on nuclear reactor vessel nozzles, piping, internal parts, valves, pumps and heat exchangers in the PULS project. The project covered power uprate, safety improvements and life extension for the Oskarshamn 3 nuclear power plant.

ANSYS FEM analyses, thermal and structural, static and transient, fatigue evaluation. ASME design codes. Analyst and reviewer.

**Jan. – Feb. 06: Technip Offshore Norge AS**

Bærum, Norway

*Subsea, offshore and onshore engineering and construction – Structural Analyst*

Seafastening design and calculations for manifolds and 10 m chute for the Fram Øst project onboard the vessel *CSO Deep Pioneer*.

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**Oct. 2003 – Dec. 2005: Employee of Nemo Engineering a.s**

Lysaker, Norway

*Subsea engineering company – Analysis Manager*

***Projects:***

Stress analyses of subsea structures for the oil and gas industry: Steel structures, tools, pipe supports, pipelines, tees and spools. Analyst and reviewer.

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**1990 – Oct. 2003: Employee of Jotne EPM Consultants a.s**

Oslo, Norway

*Consulting company – Analysis Manager*

***Projects:***

Mechanical and thermal FEM analyses (ANSYS) and other mechanical calculations in the fields of offshore/subsea engineering, nuclear power generation and general land based industries. Pressure vessels and tees/wyes. Analyst and reviewer.

ASME/PD5500/TBK/TKN design codes. Offshore/subsea structures, seafastening, railway cars, folding missile wing, space/satellite structures and mechanisms.

Follow-up of design, fabrication and delivery of offshore structures.

Two years as department manager (for 8-10 employees).



**1984 – 1990: Employee of Kongsberg Våpenfabrikk a.s**

Kongsberg, Norway

*Defense company – Project Engineer and Structural Analyst*

***Projects:***

Structural analyses of anti-shiping missiles and launchers. Aerodynamic analyses. Planning and follow-up of environmental and mechanical qualification tests. Follow-up of development of folding wing at US sub-contractor.