

**DANA J. MAAS, P.E.**  
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**OBJECTIVE:** A Process Engineering position in an organization where a wide variety of fundamental engineering and managerial skills and experience are needed.

**EXPERIENCE:**

December 1997-  
Present

**Process Engineer**

*Dakota Gasification Company, Beulah, North Dakota*

Engineering operation and environmental solutions for water treatment, steam generation, flue gas desulfurization and gas liquid separation. Developed an environmentally acceptable model to predict SO<sub>2</sub> and NO<sub>x</sub> emissions when the continuous emissions monitoring system was down for an extended period. Process design projects totaling over \$ 2 MM for meeting environmental requirements and improvements to plant operation.

May 1988 -  
November 1997

**Process Development Engineer**

*Dakota Gasification Company, Beulah, North Dakota*

Conceptualized and specified potential commercial processing schemes. Performed economic evaluations and reviewed commercial designs for byproduct development processes. Guided byproduct pilot plant activities using computer process simulators including PDPlus, HYSIM, and PROII. Supervision of pilot plants to recover salable byproducts from coal gasification liquids and to remove hydrogen disulfide from flue-gas. Unit operations include single and dual solvent extraction, simple and extractive distillation, crystallization, acid flash and gas adsorption. Coordinated and supervised outside contract work.

May 1986-  
May 1988

**Project Manager**

*Energy and Environmental Research Center, Grand Forks, North Dakota*

Supervision of four professionals and eight operational personnel. Management of a \$500,000/yr high pressure and temperature pilot plant and laboratory facility.

May 1983-  
May 1986

**Research Engineer**

*Energy and Environmental Research Center, Grand Forks, North Dakota*

Management of DOE/AMEX coal company contract for preparation of cleaned low-rank coal slurries. Supervision of pilot plant operation on shift during continuous operation. Organizing construction, startup, and operation of 200 lb/hr high temperature/pressure pilot plant used to hydrothermally treat low-rank coal.

September 1982-  
May 1983

**Lecturer**

*University of North Dakota, Grand Forks, North Dakota*

Design, organization and grading of experiments for unit operation and stoichiometric laboratories.

September 1978-  
May 1980

**Educator**

*Milnor Public School, Milnor, North Dakota*

Demonstrated basic, chemical and mathematical principles and evaluated student comprehension at the Junior and Senior High levels.

**EDUCATION:**

1983

**M.S. Chemical Engineering, Chemistry**

*University of North Dakota, Grand Forks, ND*

1978

**B.S. Chemistry, Mathematics**

*North Dakota State University, Fargo, ND*