Structured Monitoring of Refinery Sulphur Recovery Unit and Amine units

Nynas is a different kind of oil company. We use oil to create sustainable value. Our business is specialised oil applications and within our field we’re a world leader. We have over 800 employees, we maintain production facilities in Europe, North and South America and have offices in some 30 countries. All this generates a € 2 billion turnover and stable growth. In order to meet our customers’ changing needs, we work closely with them to continually develop oil’s unique possibilities. That’s what we call – Taking oil further.

Background
Nynas produces naphthenic oil for three main segments. Insulating oil is mainly used to insulate and cool transformers, process oils are predominantly used in rubber, adhesives and printing ink, while base oils are suitable for e.g. metalworking fluids and other industrial lubricants.

Solvent extraction, using a solution of Diisopropanol-amine (DIPA) dissolved in water, is applied to separate hydrogen sulphide gas from circulating hydrogen. The DIPA and hydrogen sulphide mixture is then heated at a low pressure and the dissolved gas is released as a concentrated stream which is converted to elemental sulphur in the modified Claus process.

Project
The sulphur recovery unit and amine treating unit is a bottleneck resource within Nynas manufacturing organization and its performance will have a direct impact on the corporate bottom-line. Therefore, Nynas Manufacturing would like to initiate a Masters Thesis project in order to further develop our catalyst condition monitoring process. This work could include:

- Literature studies within the area of sulphur and amine unit monitoring
- Benchmarking against other petrochemical manufacturing companies
- Collaboration with experts with suppliers and consultants, and manufacturing experts within Nynas.
- Process modelling
- Development of an integrated monitoring framework to be implemented at Nynas.

Finally, this project will be an opportunity for you to add value to Nynas Manufacturing. At the same time it will provide you with the feel of how working for a multinational petrochemical company can be. Your Master Thesis work will start September 1st 2013.

For further information please contact:
Mrs. Linda Berglund
Mgr Process Technical Services
Please send your application no later than May 31st, 2013 to human.resources@nynas.com.