DEYLAMAN
Filtration | Separation

*NAPTA Services*

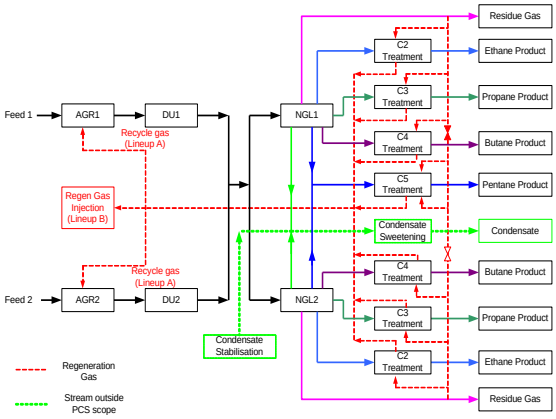
# Process Integration and Optimisation

From well fluids to energy suppliers, chemical feedstock and final products, there is a sequence of separation of phases and removal of contaminants required to fulfil the specifications of the defined value products. In addition, removed contaminants may present its own value (e.g. Sulphur).

In practice there are two ways to develop a process scheme; by individual selection and optimisation of the critical steps including phase separation – contaminant removal – and conversion of the wastes. Alternatively it should be taken into account interrelationship and dependencies of the optional process steps while selecting the best optimised concept and process line-up right from the start of the project. Similar strategy is applicable for process optimisation of existing facilities; per process, or integrated approaches.

A few examples are:-

- Selection of an Amine process which can be integrated with the Tail Gas Treating Unit Amine step, or two independent processes.
- Selection of number of parallel processing trains; optimised per selected process (size, energy) resulting in different number of throughput size parallel units (connected with headers), or optimised in 'independent' parallel trains (equal throughput through all processing units).
- Optimisation for deeper Sulphur removal, a higher Sulphur recovery rate, usually executed in the Tail Gas Treating Unit, where the Amine unit may be able to solve the missing recovery rate instead of the traditional addition of more severe Tail Gas Treating.
- Energy optimisation envelop choice and future requirements like $CO_2$ capture or increased contaminants levels because of EOR may influence the selection of process units in the process line-up study. Optimisation of existing units with limited operational data – because critical givens are not measured – is a great and costly regret over the life time of a processing unit. Definition of requirements upfront will prevent deficits.




NAPTA can provide engineering services on the setting up of objectives, boundaries, key decision factors and development of weighted risk tables for individual process requirements as well as integrated line-ups. NAPTA can provide assistance during execution of definition and evaluation of outcomes of process design.

The definition of processing test runs, whether for direct unit optimisation, as basis for process models (including the selection of suitable plant data and plant data consistency checks) can be provided by the NAPTA Process Integration Experts.

The provided services can help you to:-

- Define the project requirements in technology detail
- Optimise integrated designs
- Optimise process test runs for the purpose the data is required

For more information, please connect with NAPTA's Process Integration and Optimisation SME Mrs Jeanine Klinkenbijl via herein below contact details.

## Contact

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