

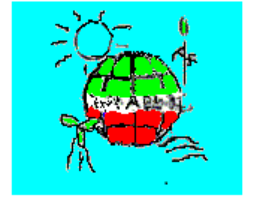


طاقة الشمال

North Lebanon Alternative Power

www.nlap-lb.com

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MEAE - Middle East Alternative Energy Institute

مركز الشرق الاوسط للطاقة البديلة

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LIQUEFIED NATURAL GAS (LNG)

PRESENTED BY: MARYAM ABDEL-KARIM

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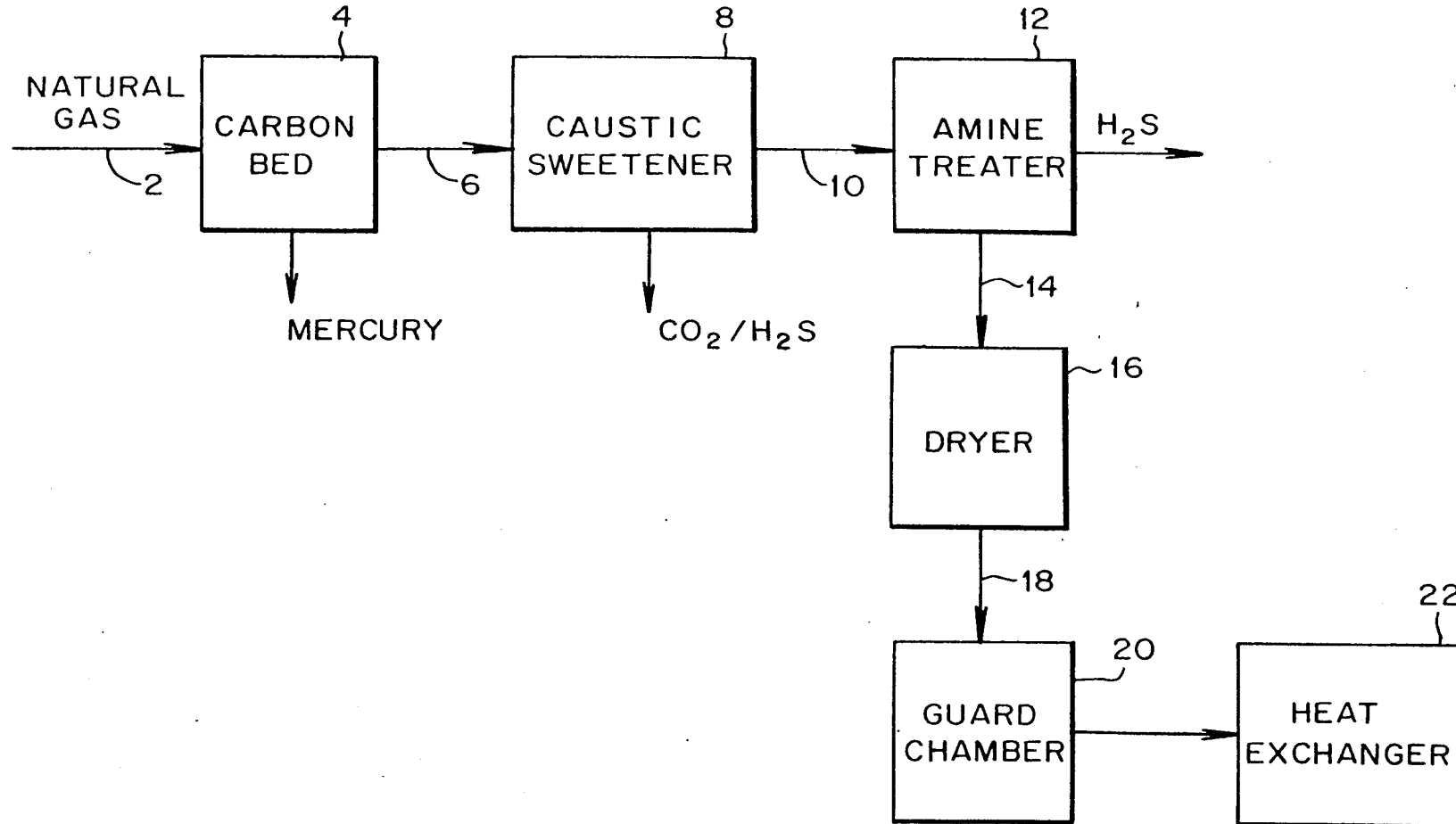
CONTENT

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LNG PROPRIETIES

- LNG IS COMPOSED MAINLY FROM METHANE (MORE THAN 90%)
- LNG IS REFRIGERATED AROUND -160°C
- LNG HAS THE BEST SAFETY RECORD OF ALL FOSSIL FUELS: NOT FLAMMABLE OR EXPLOSIVE IN LIQUID FORM
- NONCORROSIVE AND NONTOXIC
- VOLUME REDUCTION 600 TIMES WITH THE SAME CALORIFIC CAPACITY
- THE LIQUEFACTION FACTORY CONSUMES NEARLY 10% OF THE NATURAL GAS WHILE FUNCTIONING
- THE LNG WILL BE STOCKED AT AN ATMOSPHERIC PRESSURE IN STORAGEES MADE FROM CONCRETE OR METALLIC TANKS, POSSESSING DOUBLE WALL AND THERMAL INSULATION.
- THE PRINCIPALS LNG EXPORTERS ARE: QATAR, AUSTRALIA, MALESIA, NIGERIA AND INDONESIA (MORE THAN TWO-THIRDS)
- THE PRINCIPALS LNG IMPORTERS ARE: JAPAN, SOUTH KOREA, CHINA.

LNG PRODUCTION DIAGRAM

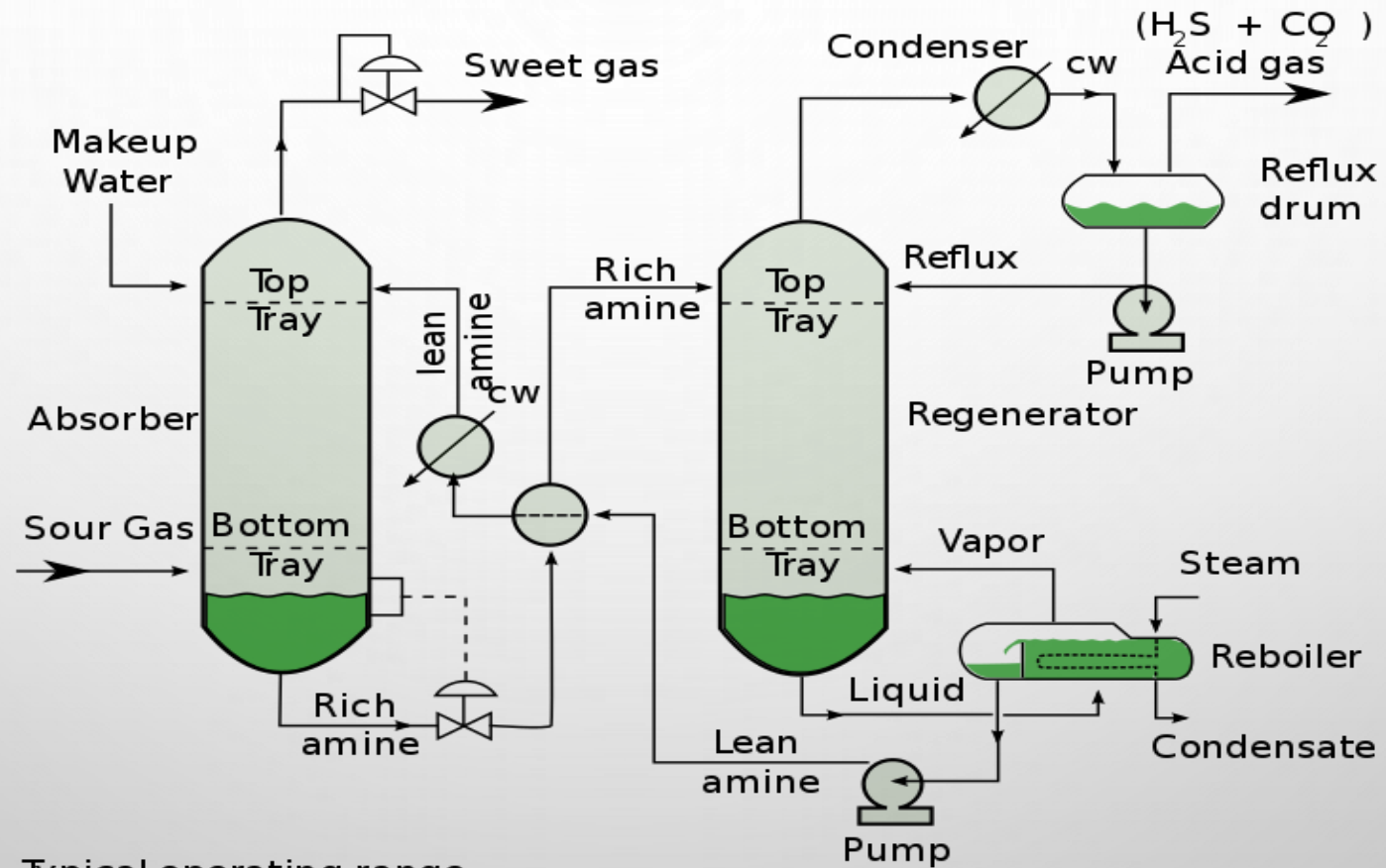


1. MERCURY REMOVAL

- **EXAMPLE**

An adsorbent consisting of silver deposited on gamma alumina was prepared by saturating the gamma alumina with an aqueous solution of silver nitrate, drying and calcining the impregnated alumina, and then reducing the silver nitrate to free metallic silver by contacting the alumina with formaldehyde. the adsorbent contained approximately 5 percent by weight of silver. an initial test of the adsorbent in which 0.1 gram of the adsorbent was contacted with 100 milliliters of air equilibrated with mercury indicated that 98 percent of the mercury in the air was removed.

2. CO₂ REMOVAL

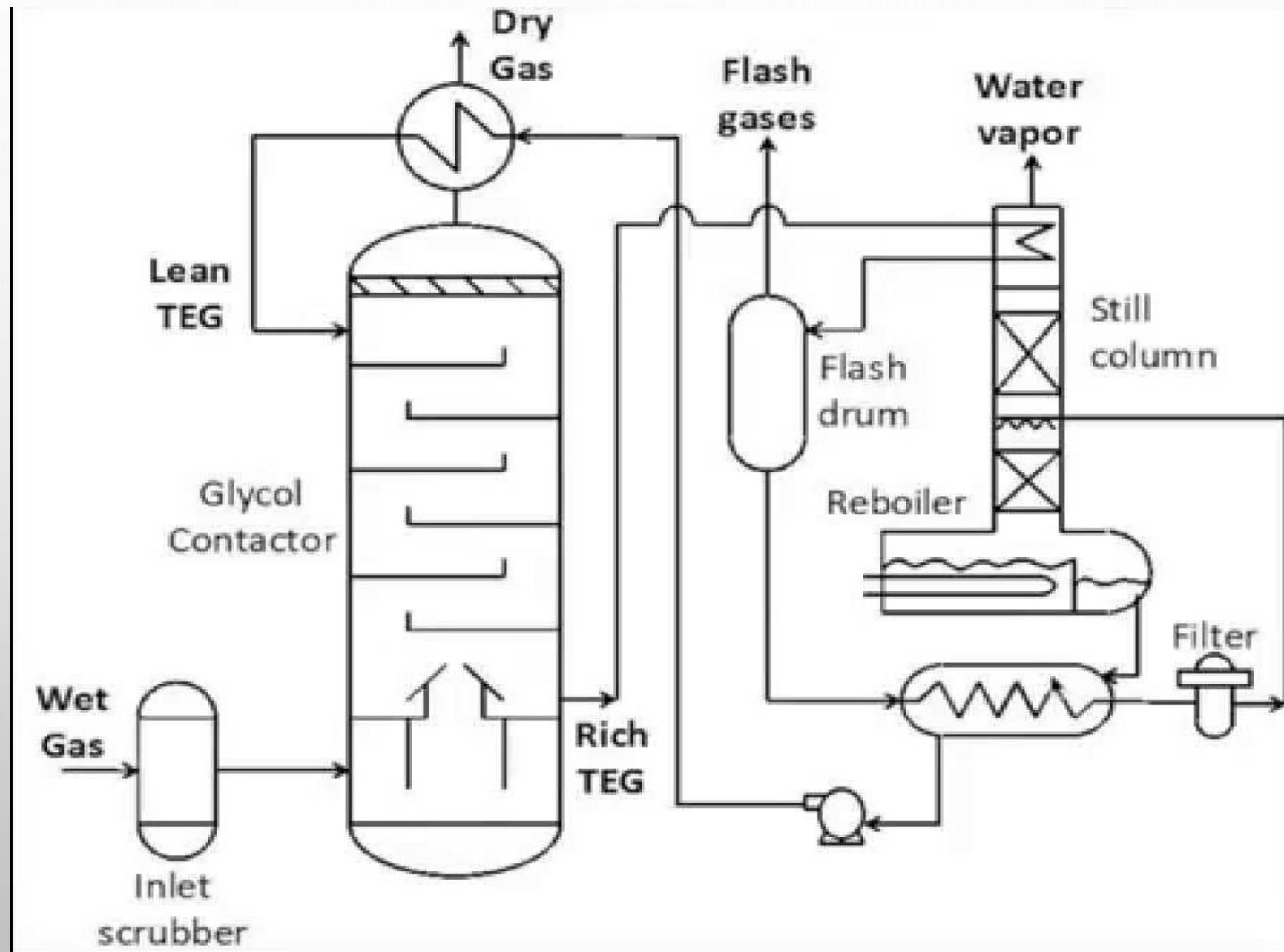


Typical operating range

absorber : 35 to 50°c and 5 to 205 atm of absolute pressure

Regenerator : 115 to 126°c and 1.4 to 1.7 atm of absolute pressure
at tower bottom

WATER REMOVAL (GLYCOL DEHYDRATION)



The background features a light gray gradient with several realistic water droplets of various sizes scattered in the corners. The droplets have highlights and shadows, giving them a three-dimensional appearance. In the center, the text "THANK YOU!" is displayed in a bold, black, sans-serif font.

THANK YOU!