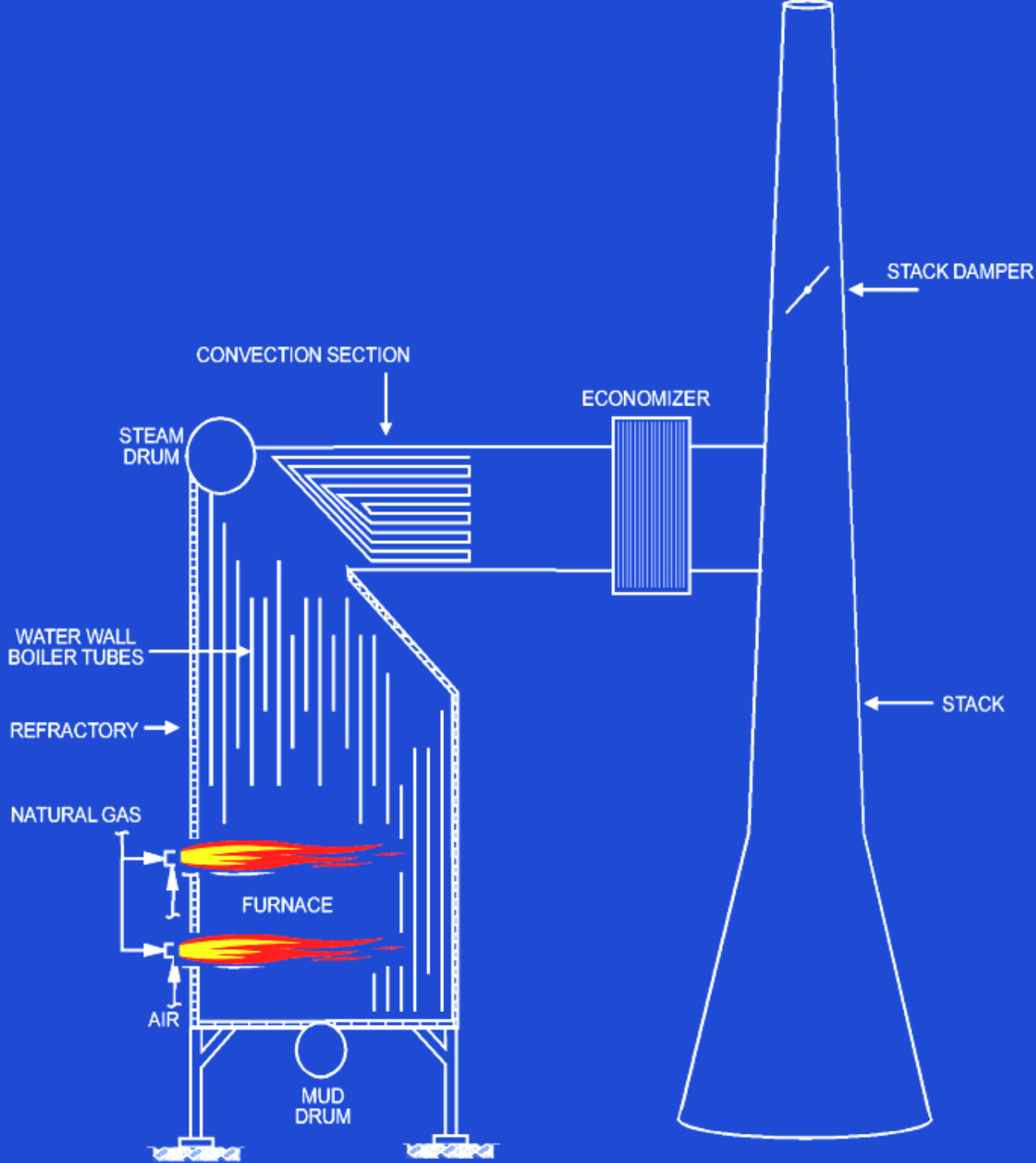
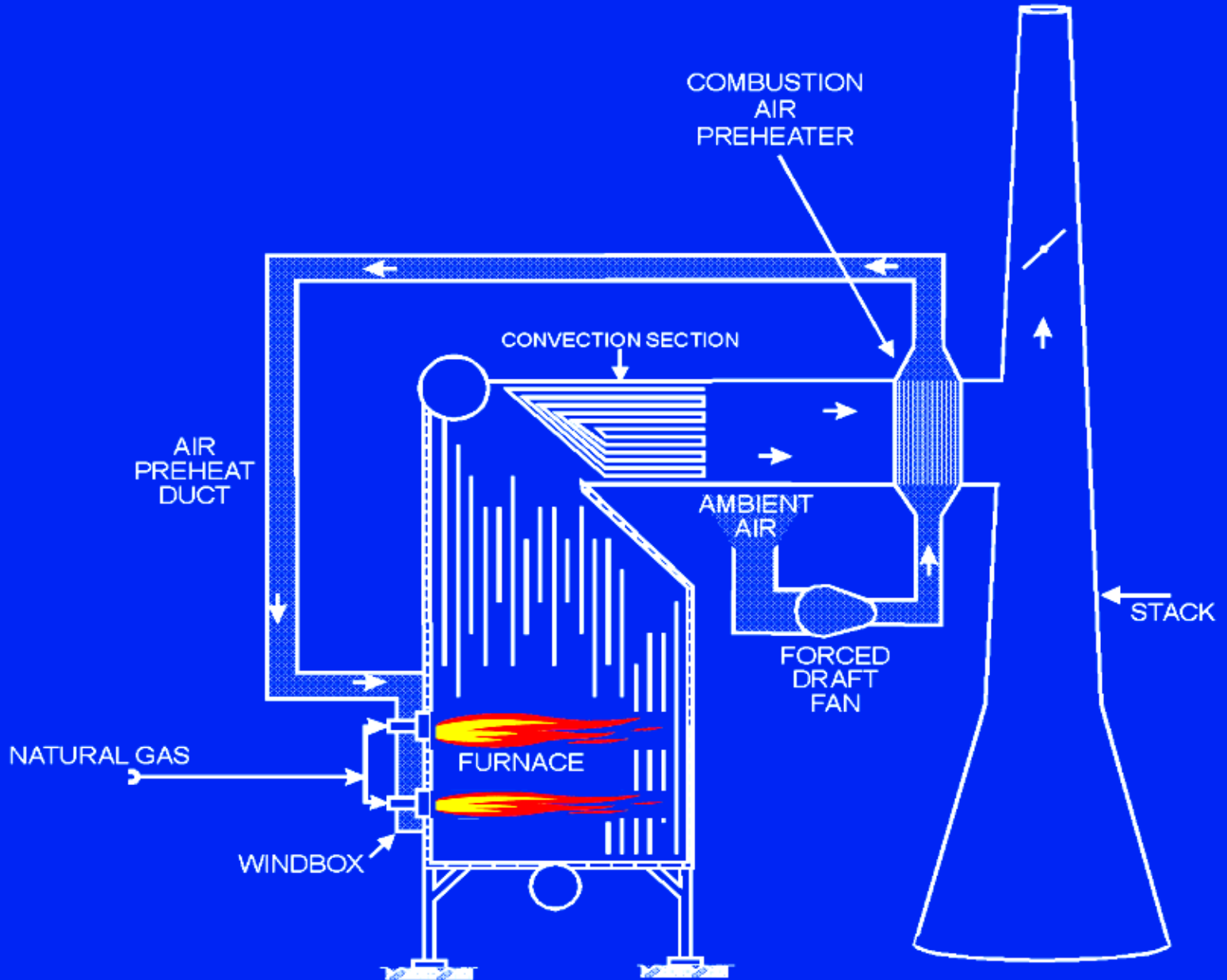


**Figure 201.1**  
**Conventional Gas-Fired Heater**



# Gas Fired Water Tube Boiler

# Combustion Air Preheat





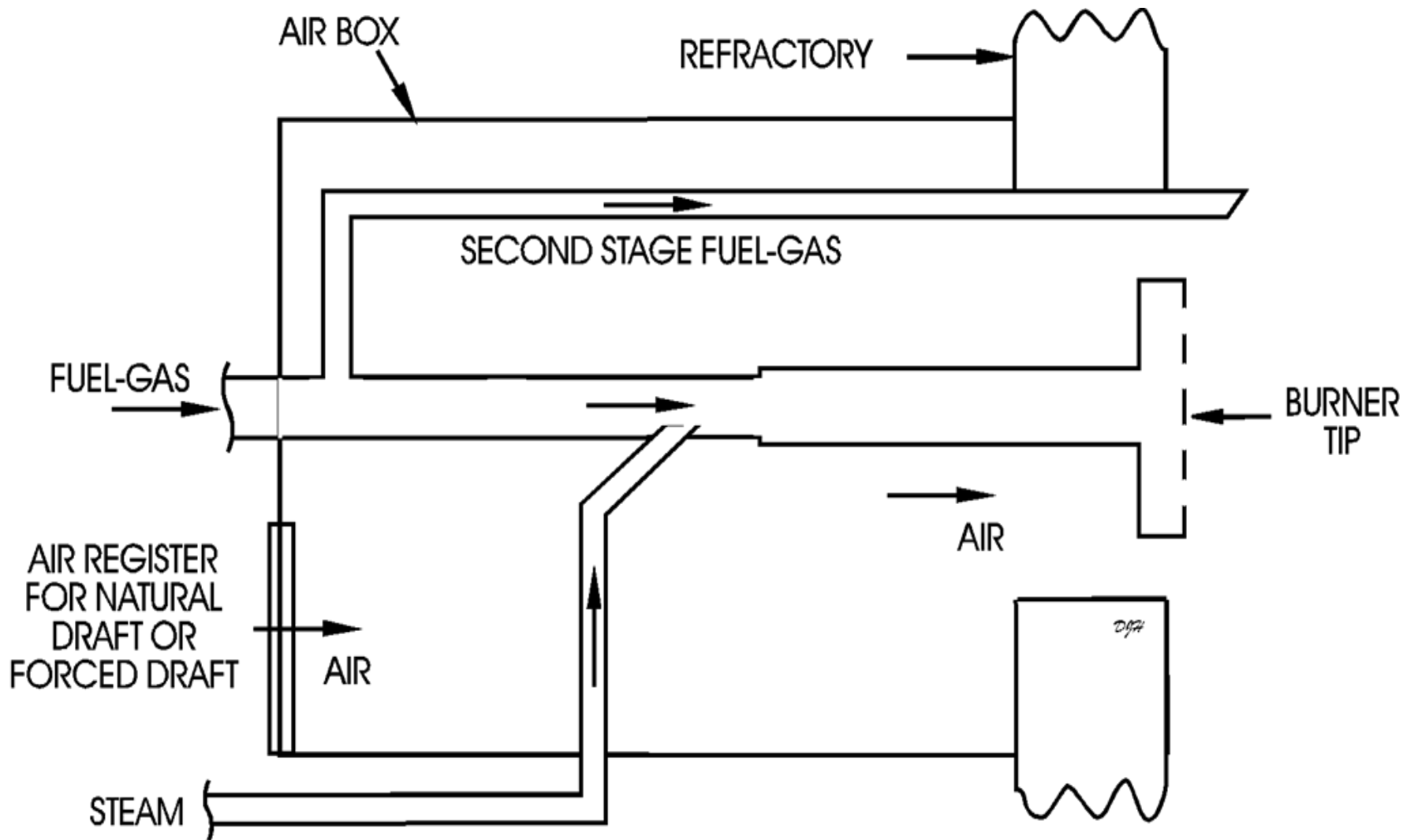


Figure 201.6  
 Low-NO<sub>x</sub> Burner with Staged Fuel  
 and Steam Injection

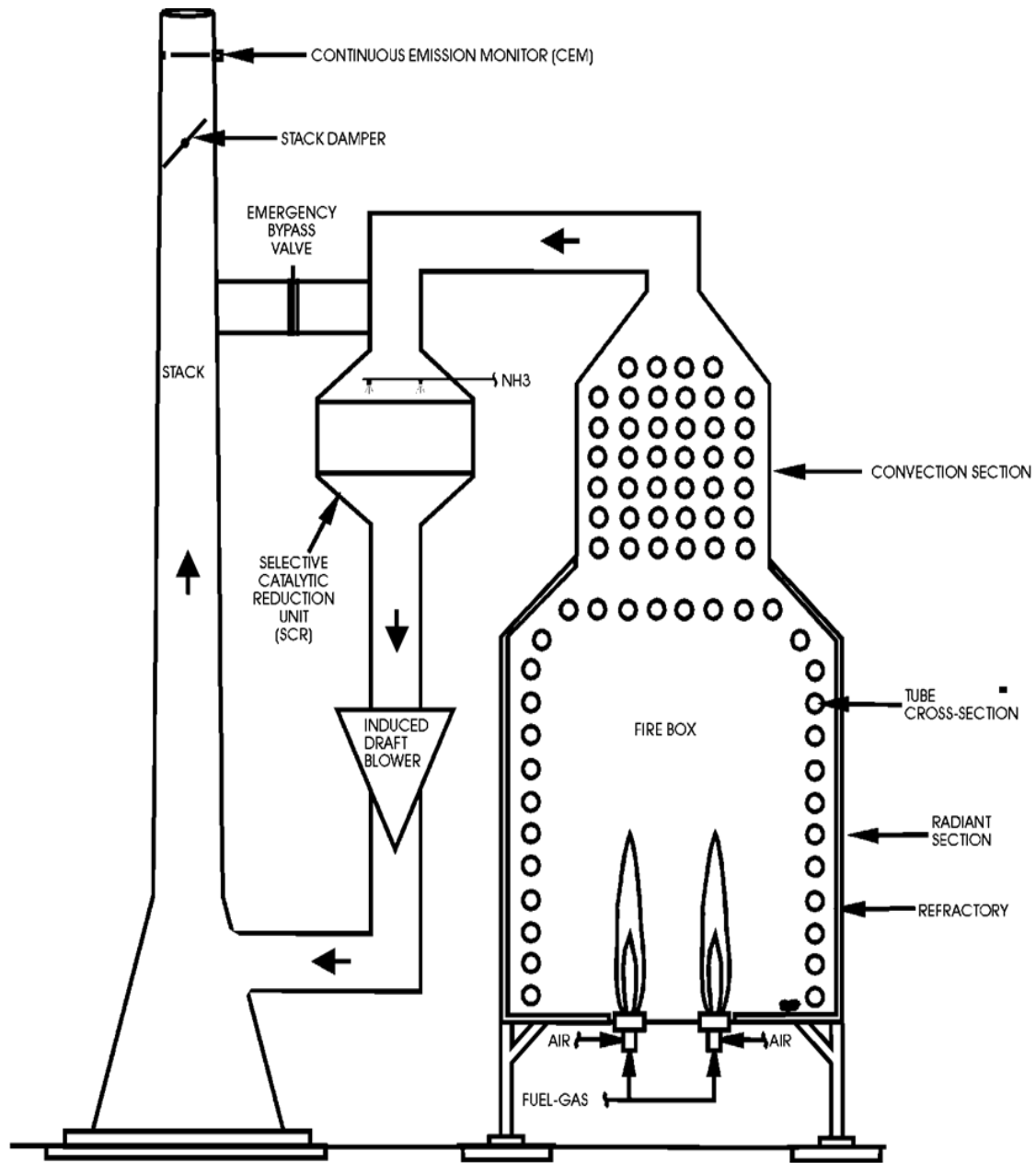
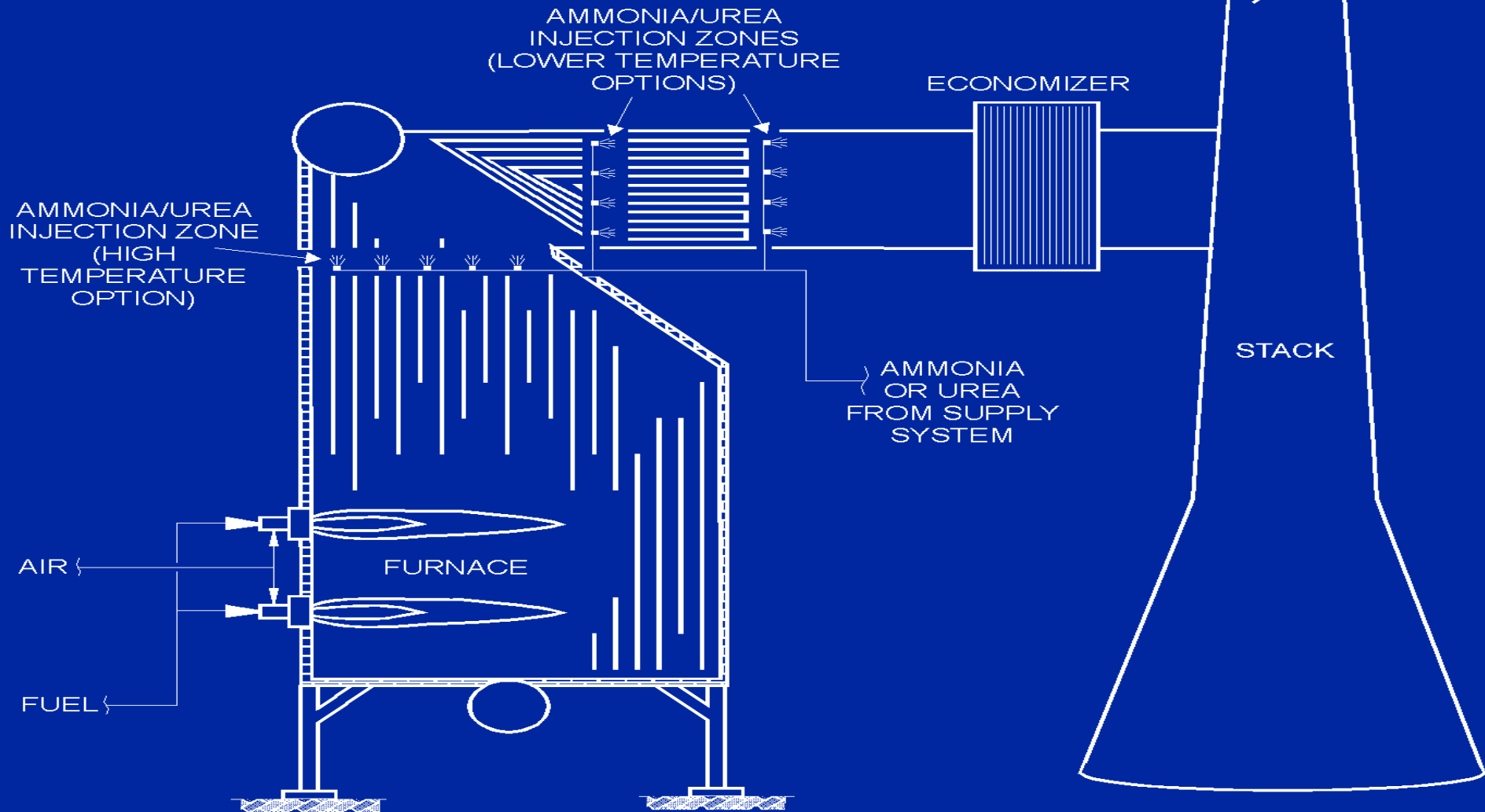


Figure 201.2  
Gas-Fired Heater With Retrofit SCR System

# Boiler With SNCR



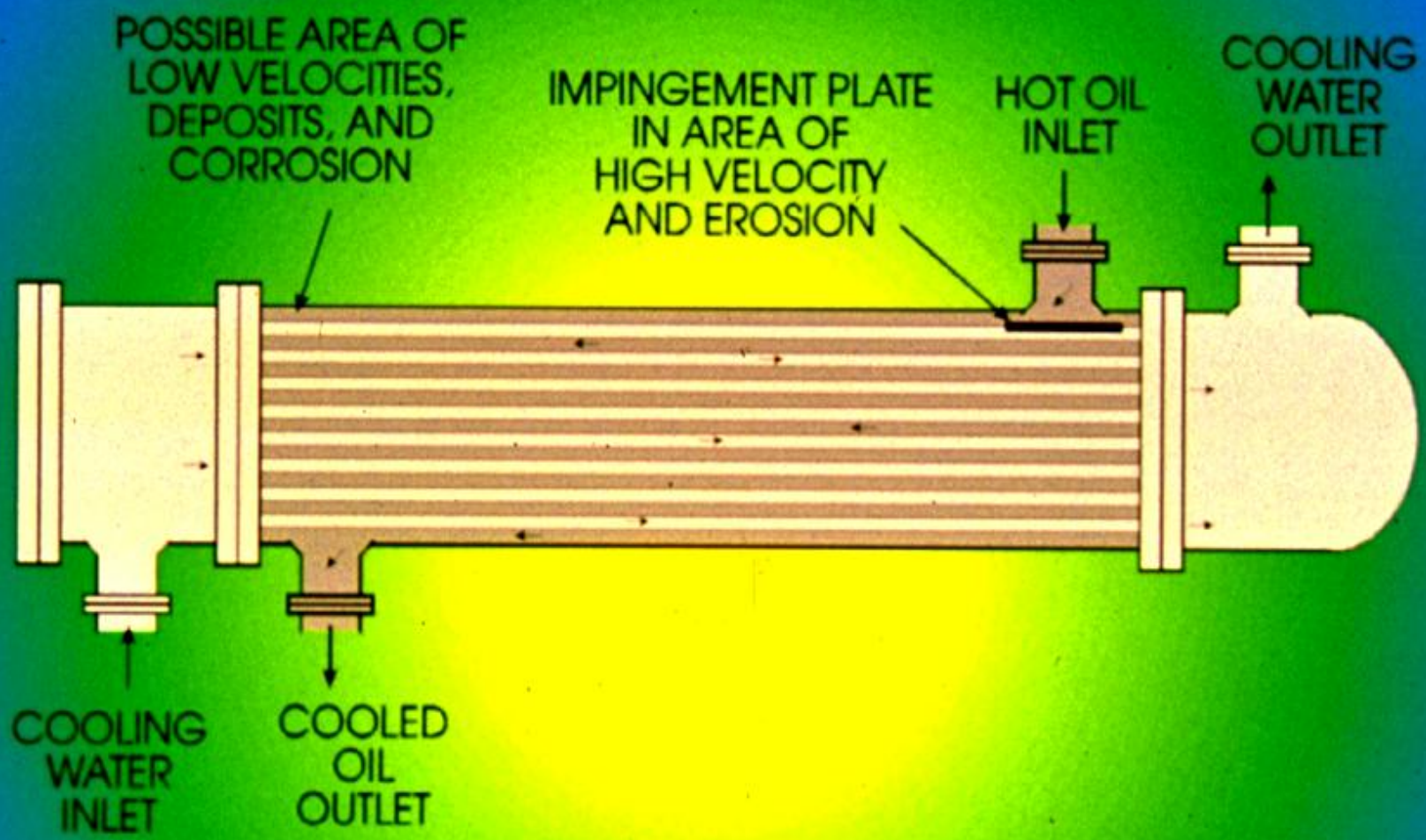


Figure 304.2  
Heat Exchanger (Simplified)



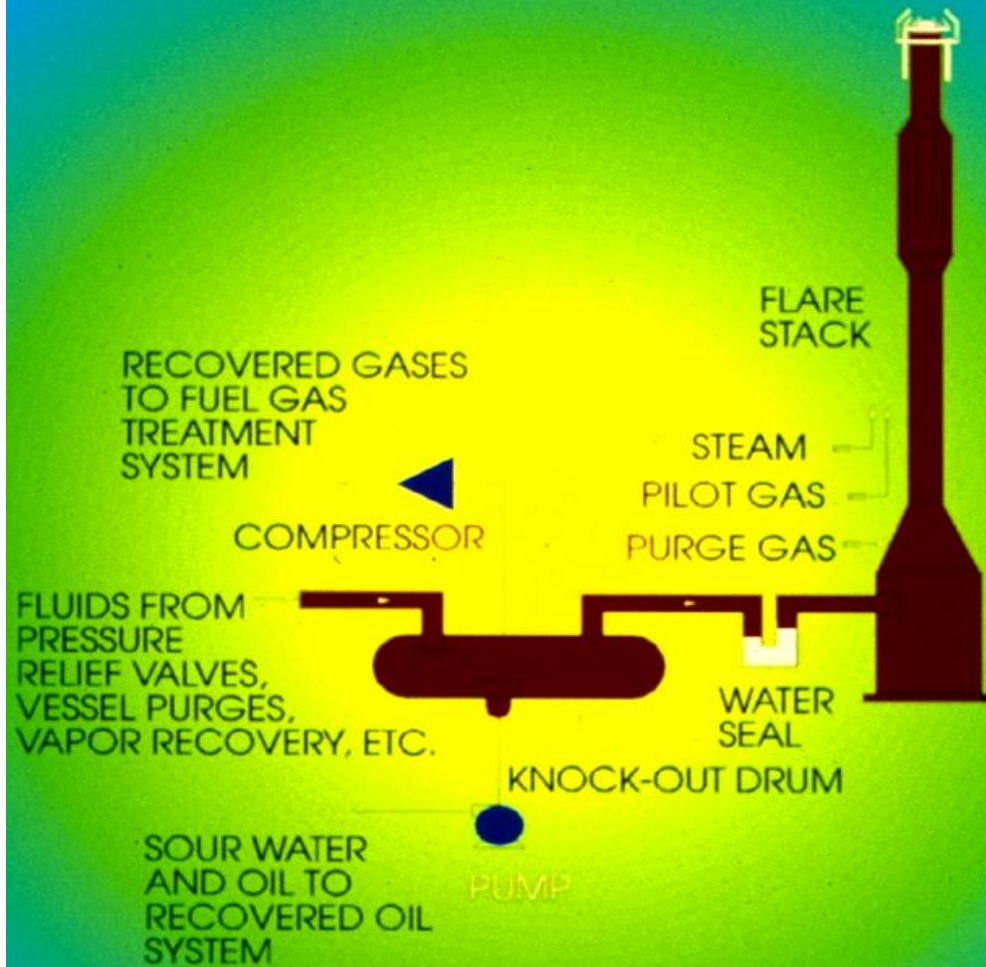
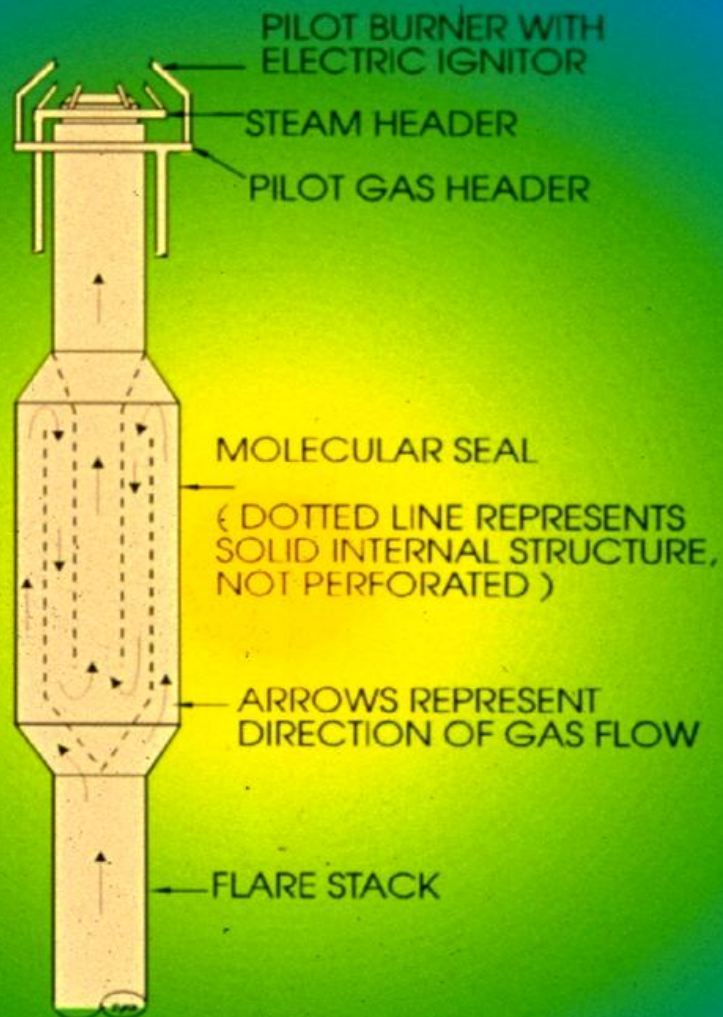


Figure 202.1  
Blowdown System with Gas Recovery



**Figure 202.2**  
**Flare Tip and Molecular Seal**

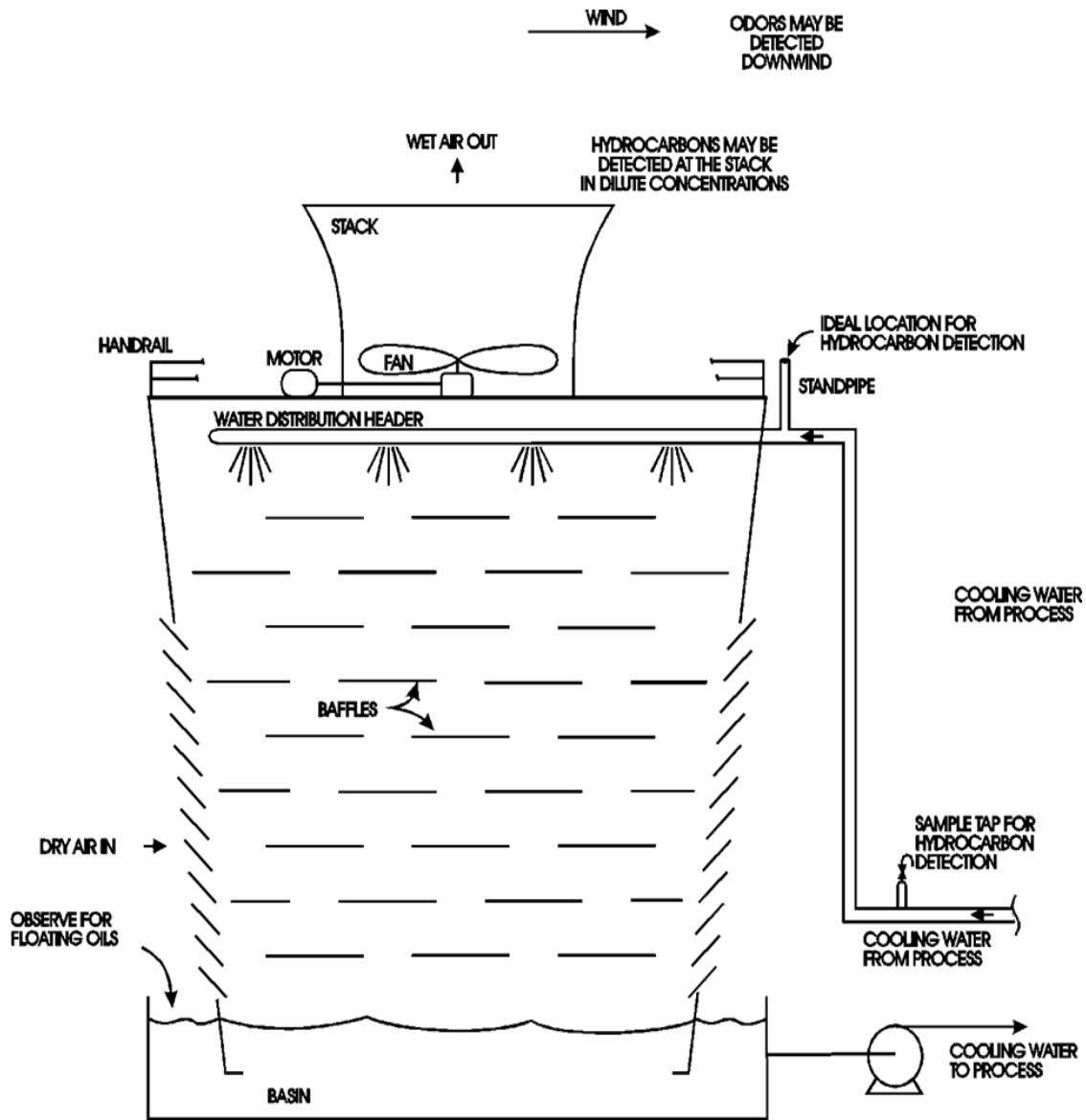
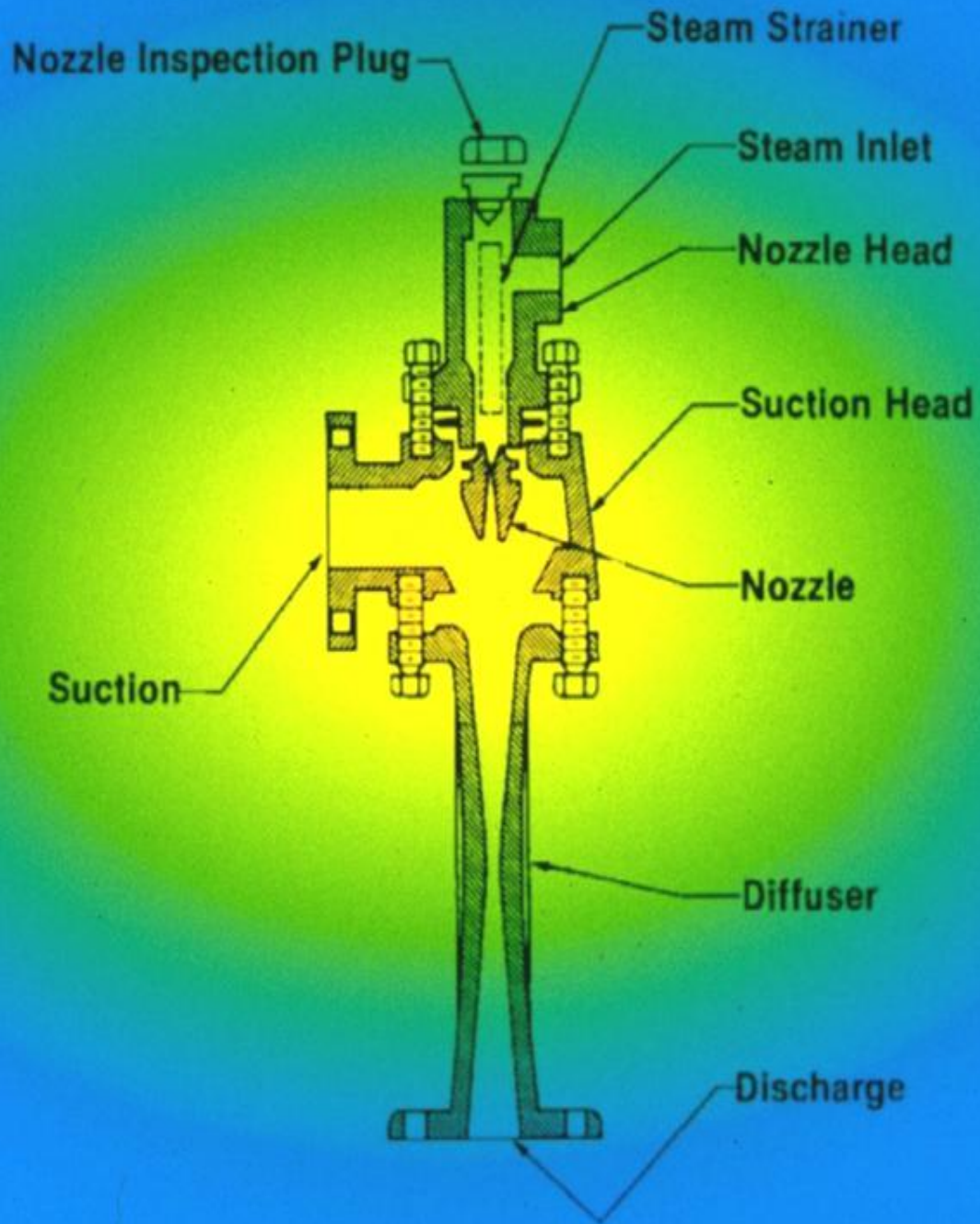


Figure 304.1  
Simplified Cooling Tower



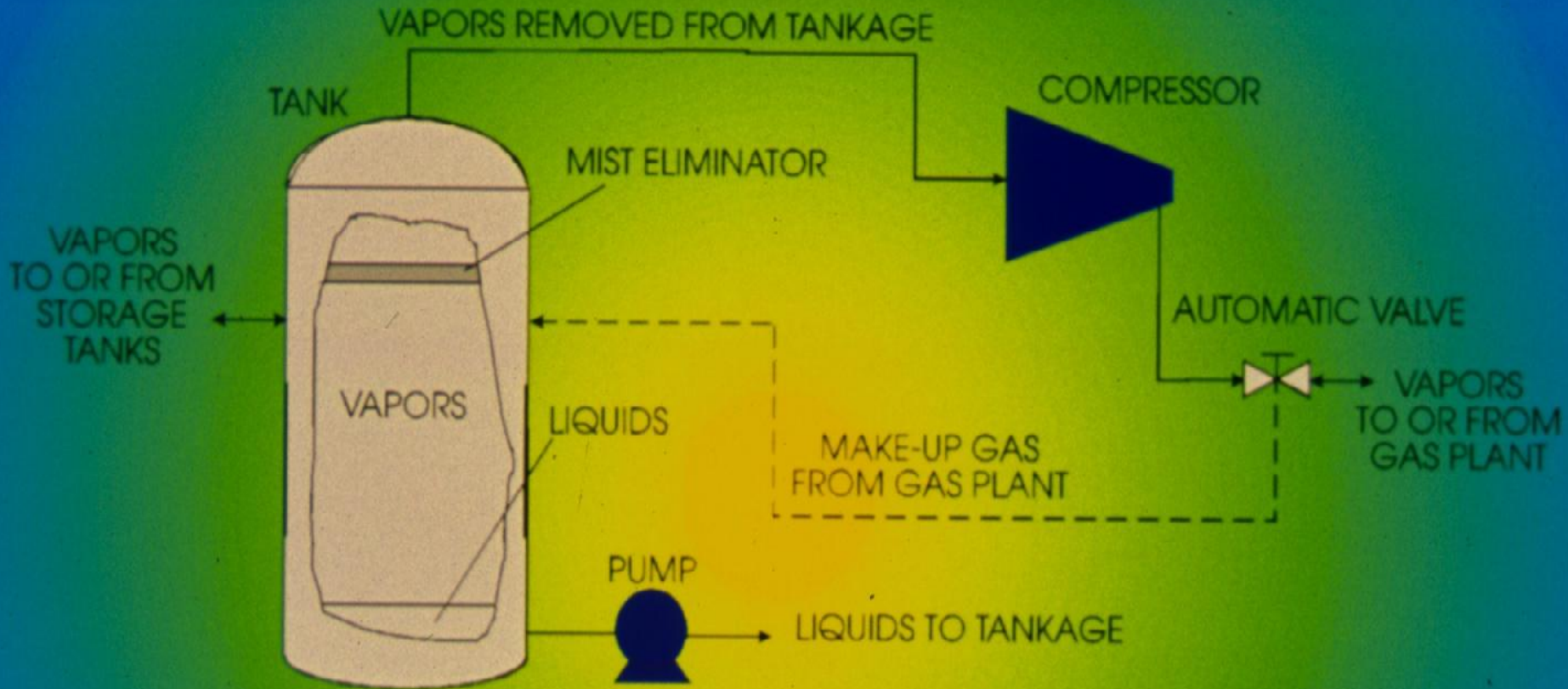


Figure 302.2  
Vapor Recovery Unit

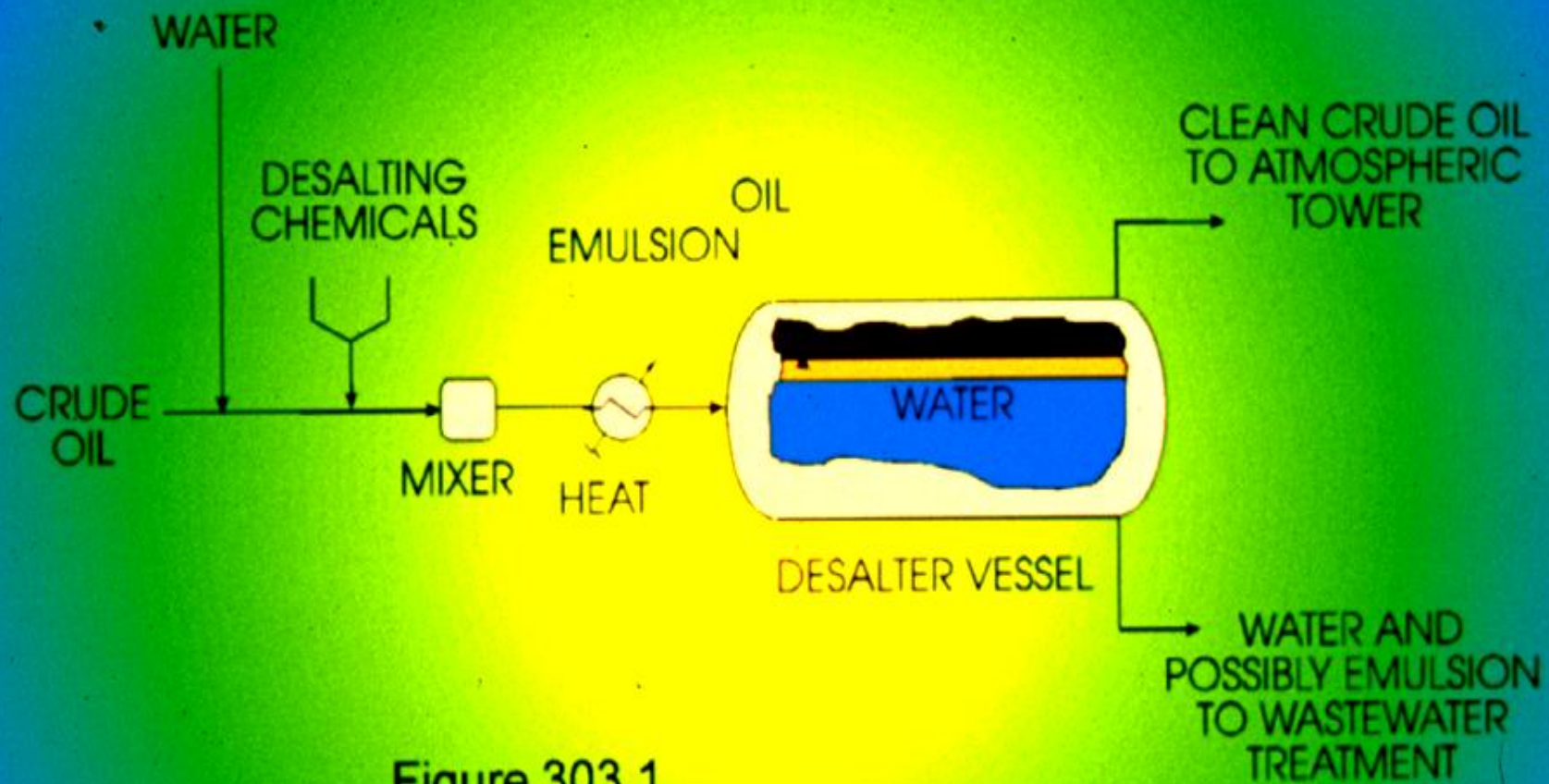
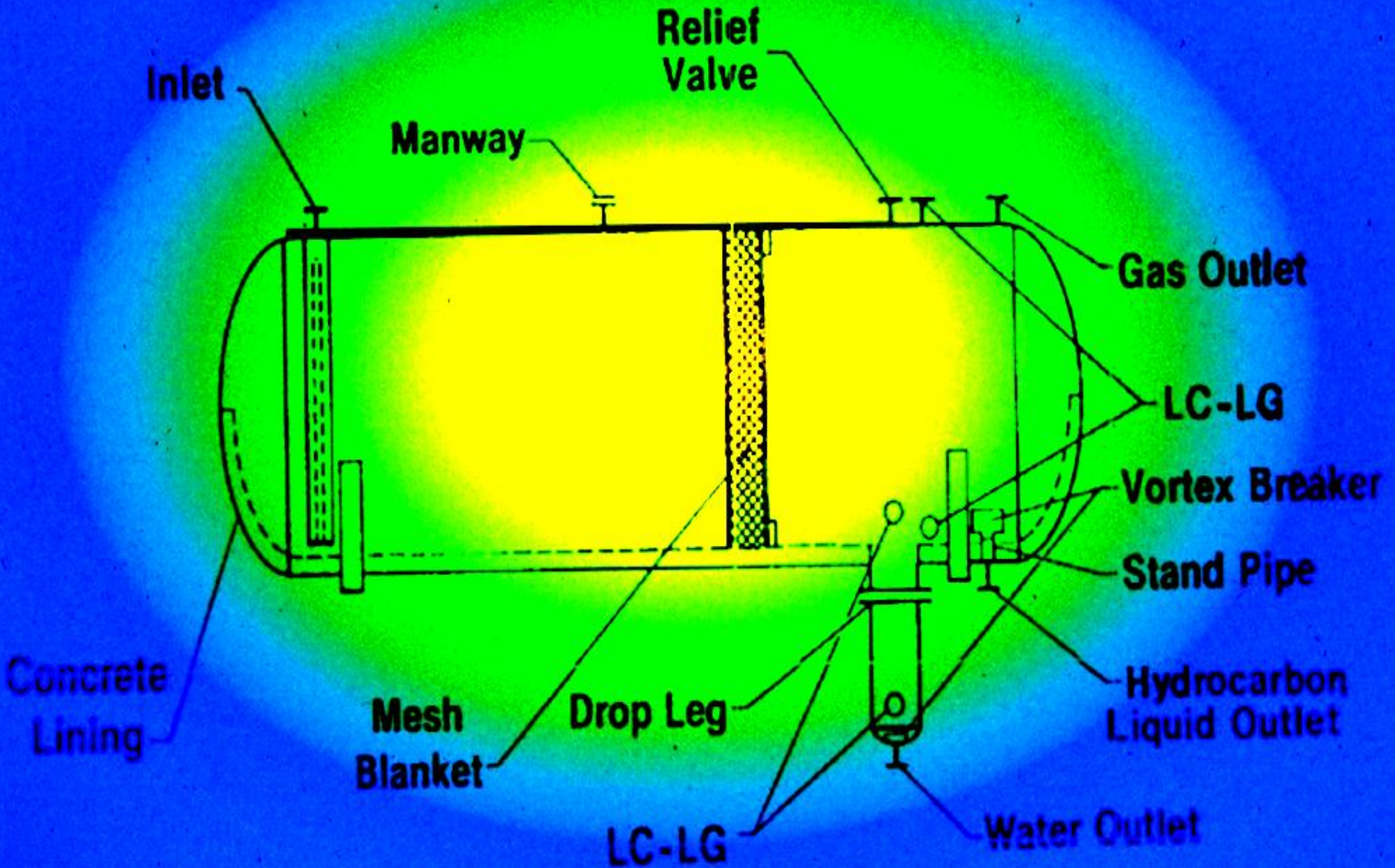
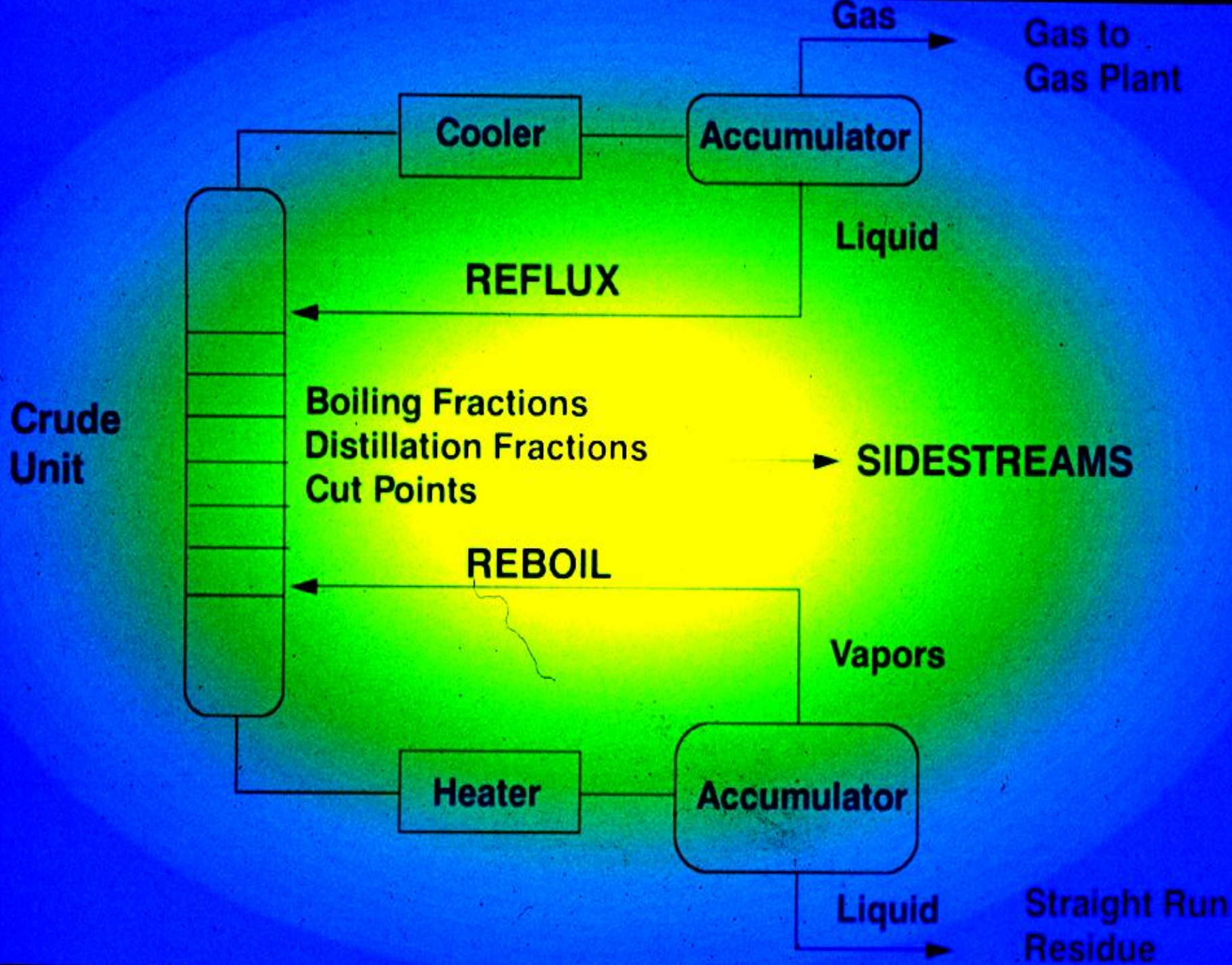


Figure 303.1  
Crude Desalter

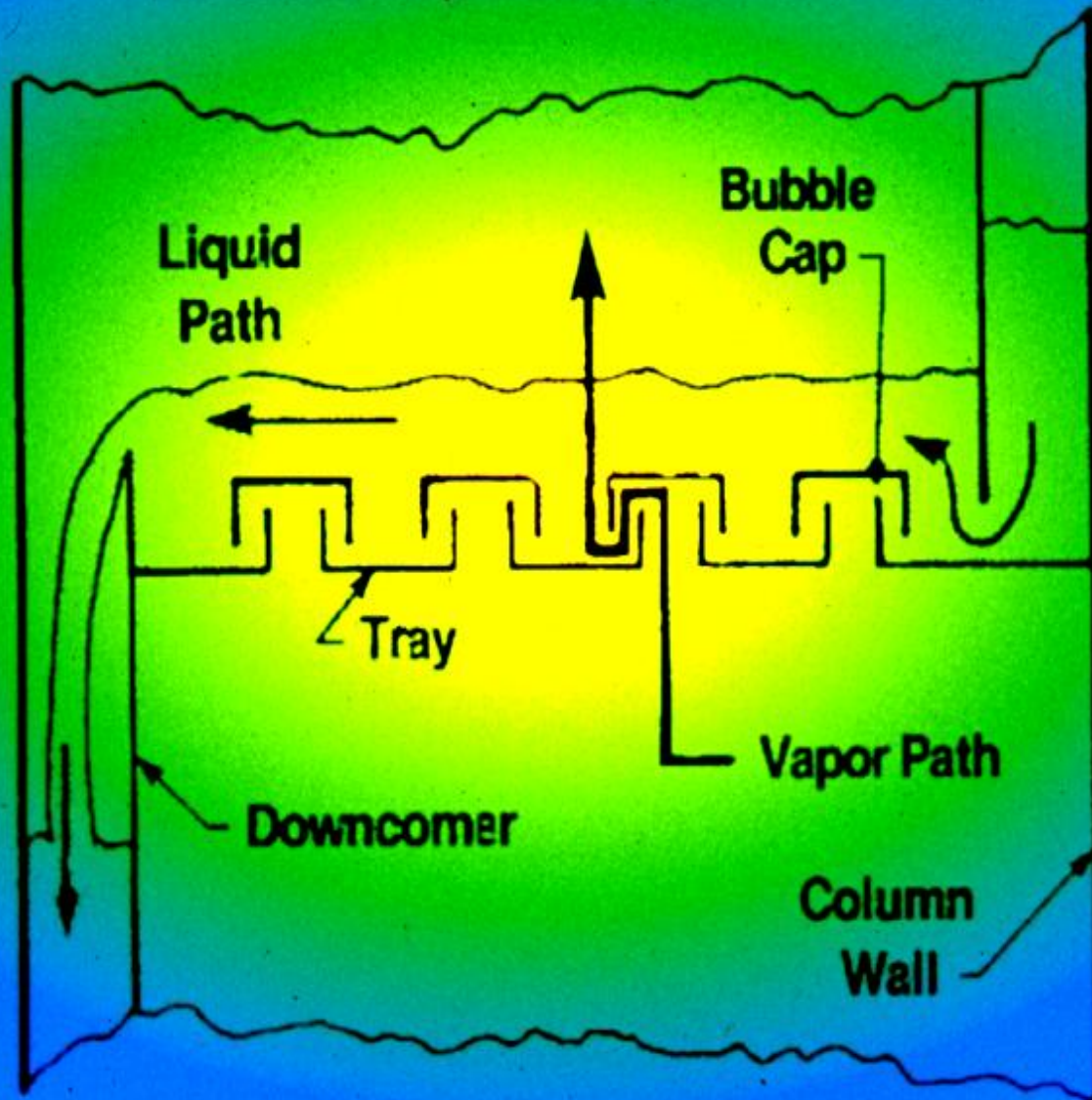
# Low Pressure Flash Drum

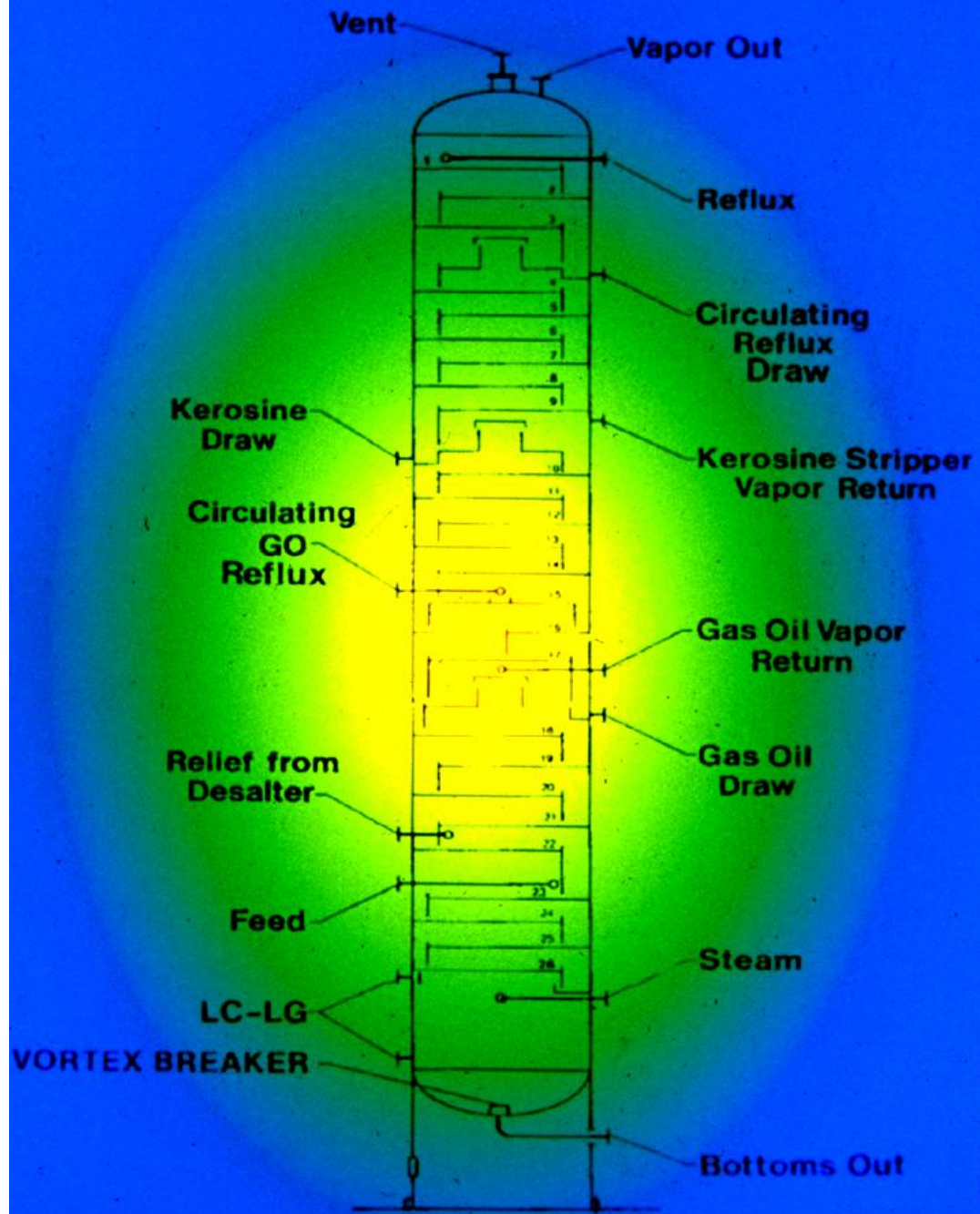


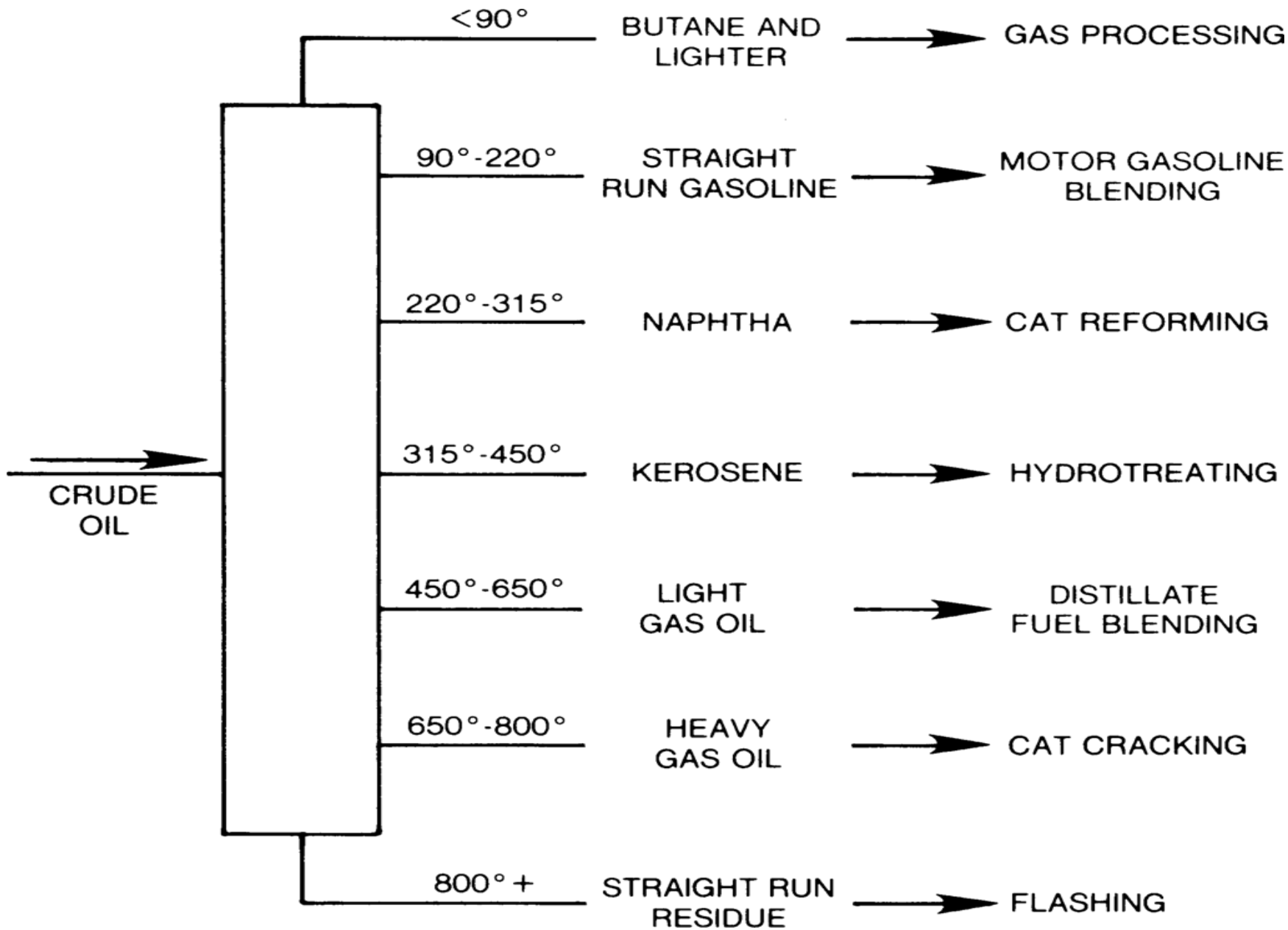




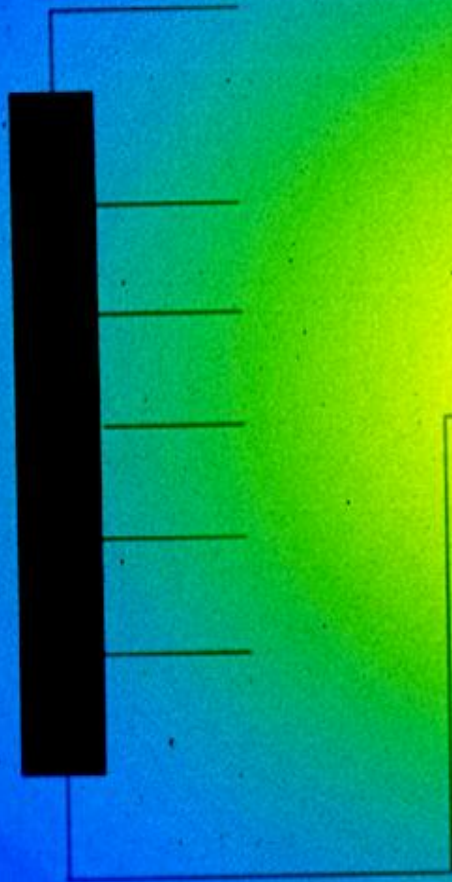
# Diagram of a Typical Tray





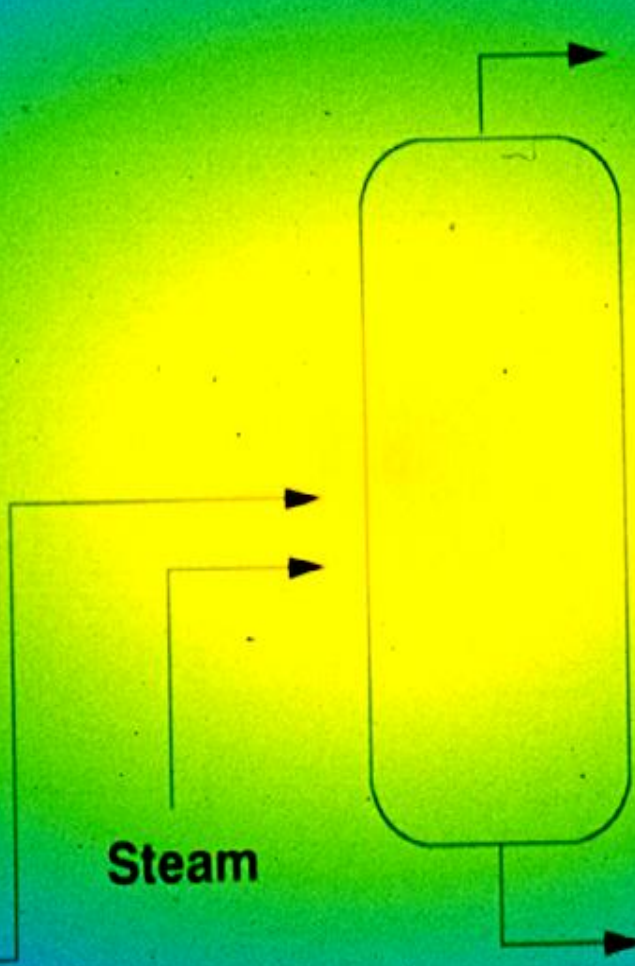


**Atmospheric Column  
(Crude Unit)**



**Straight Run Residue**

**Vacuum Flasher**



**Flasher Tops**

**Light Flashed Distillate**

**Heavy Flashed Distillate**

**Steam**

**Flasher Bottoms**

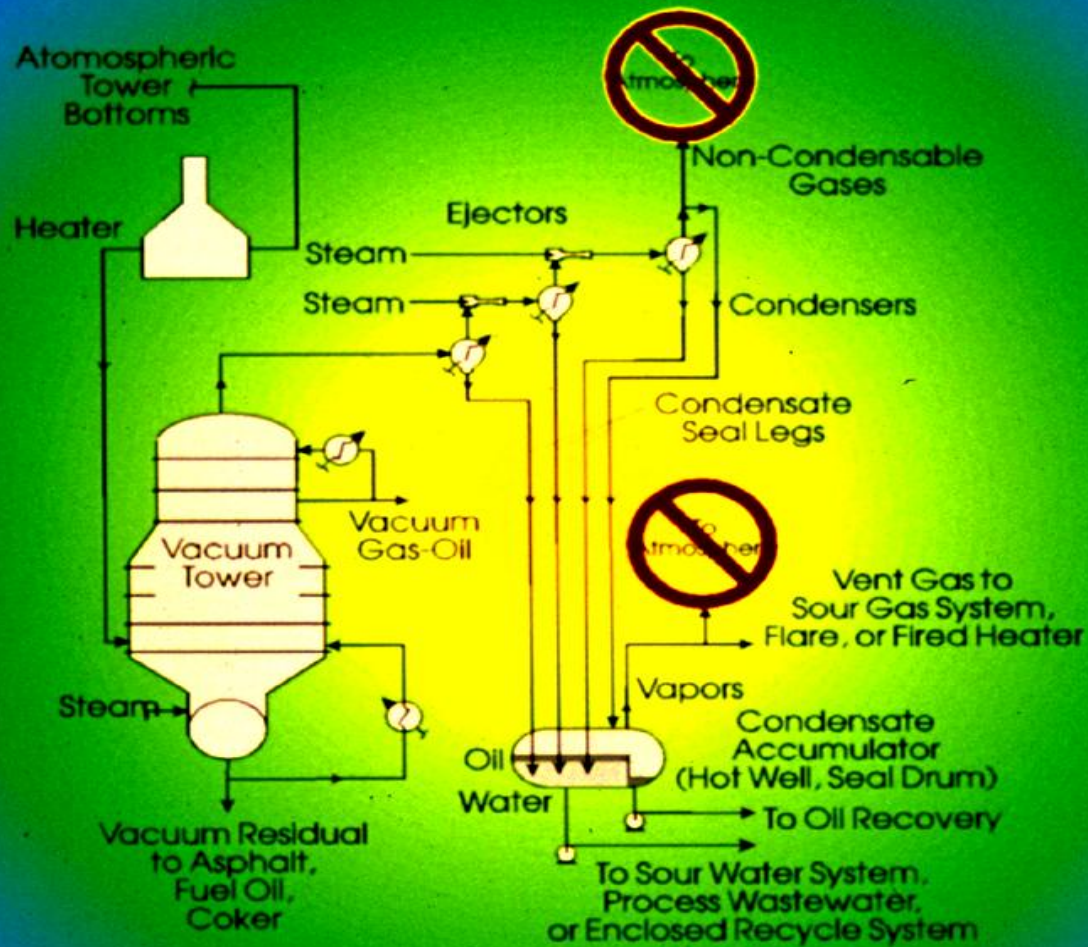
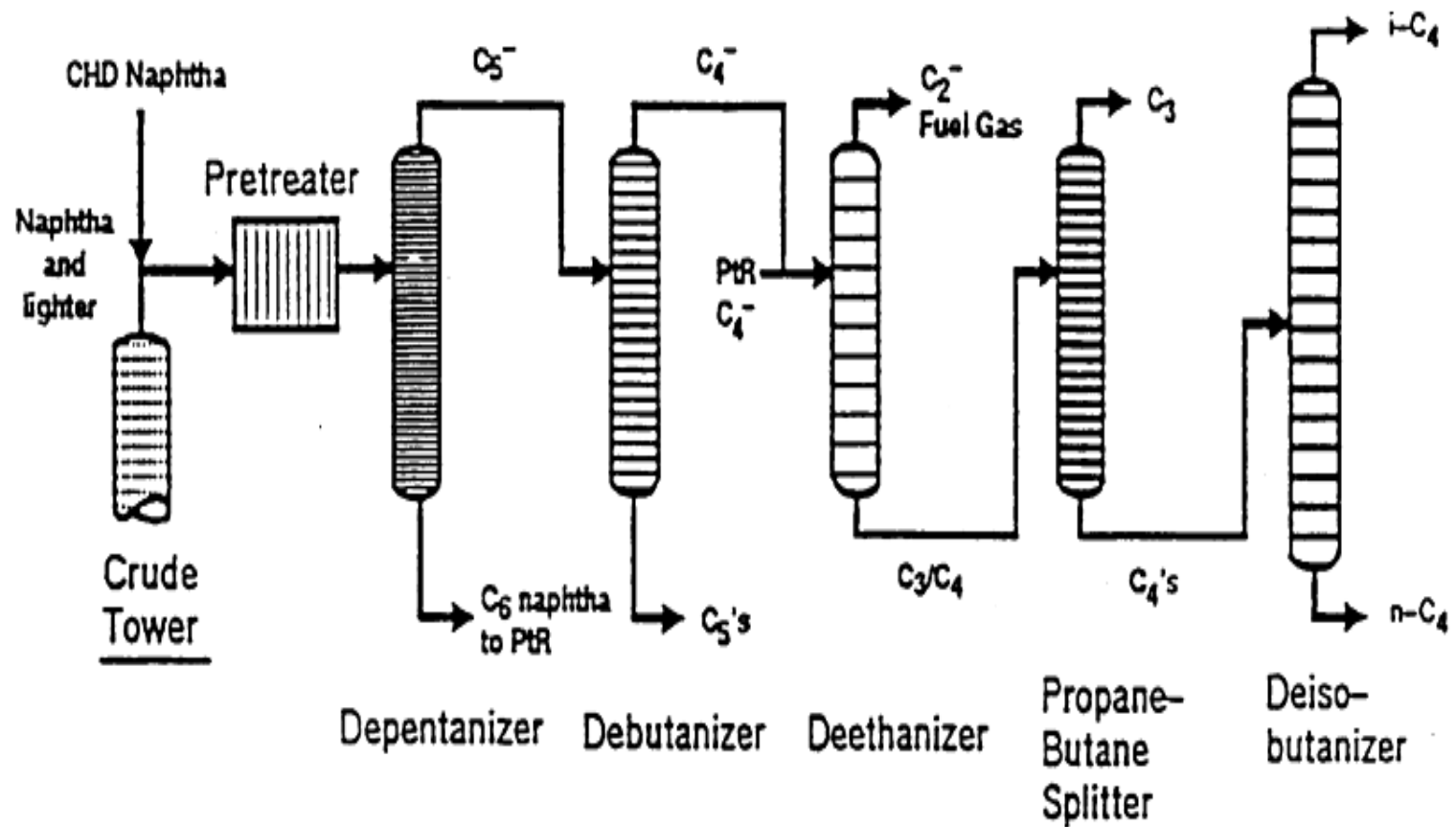
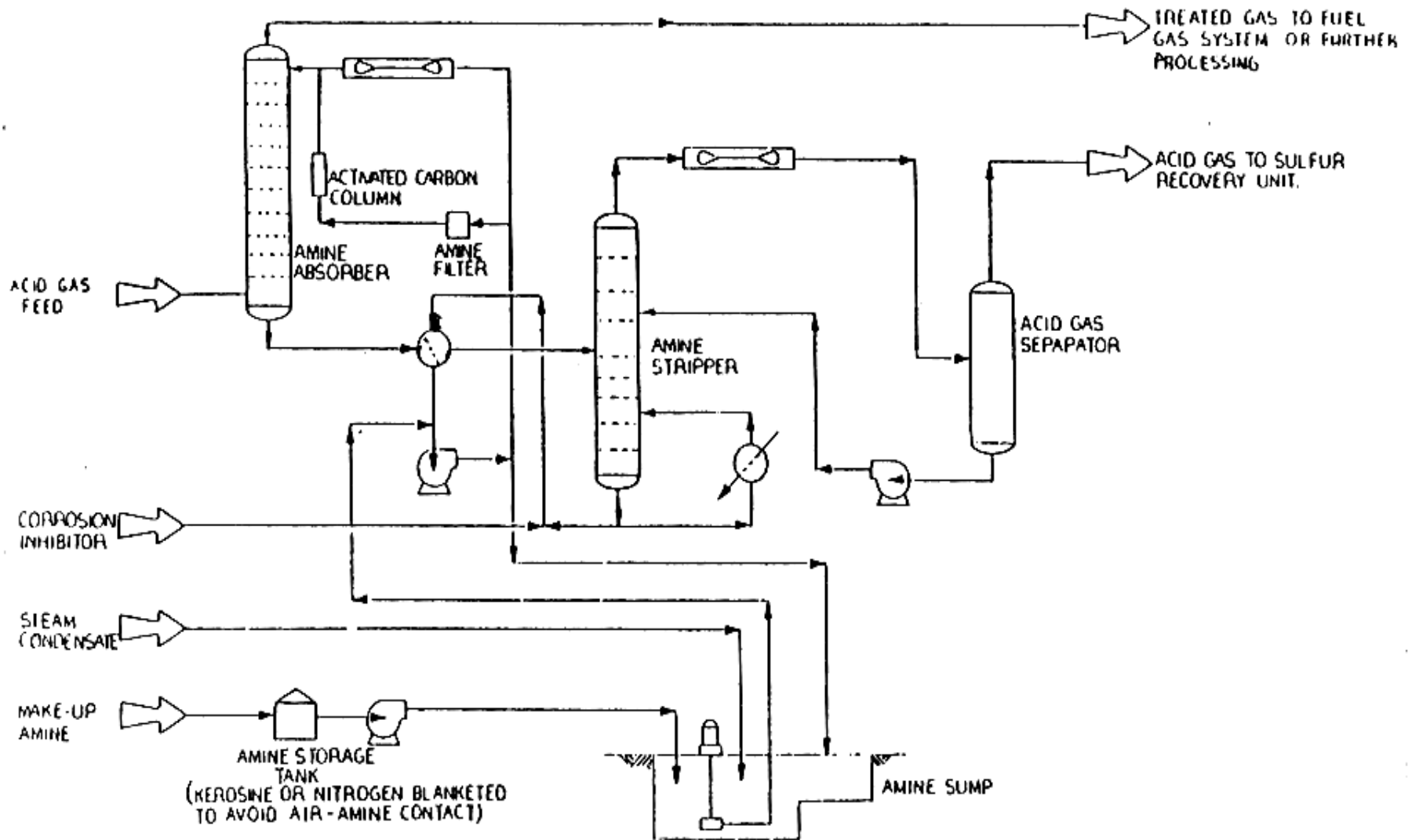


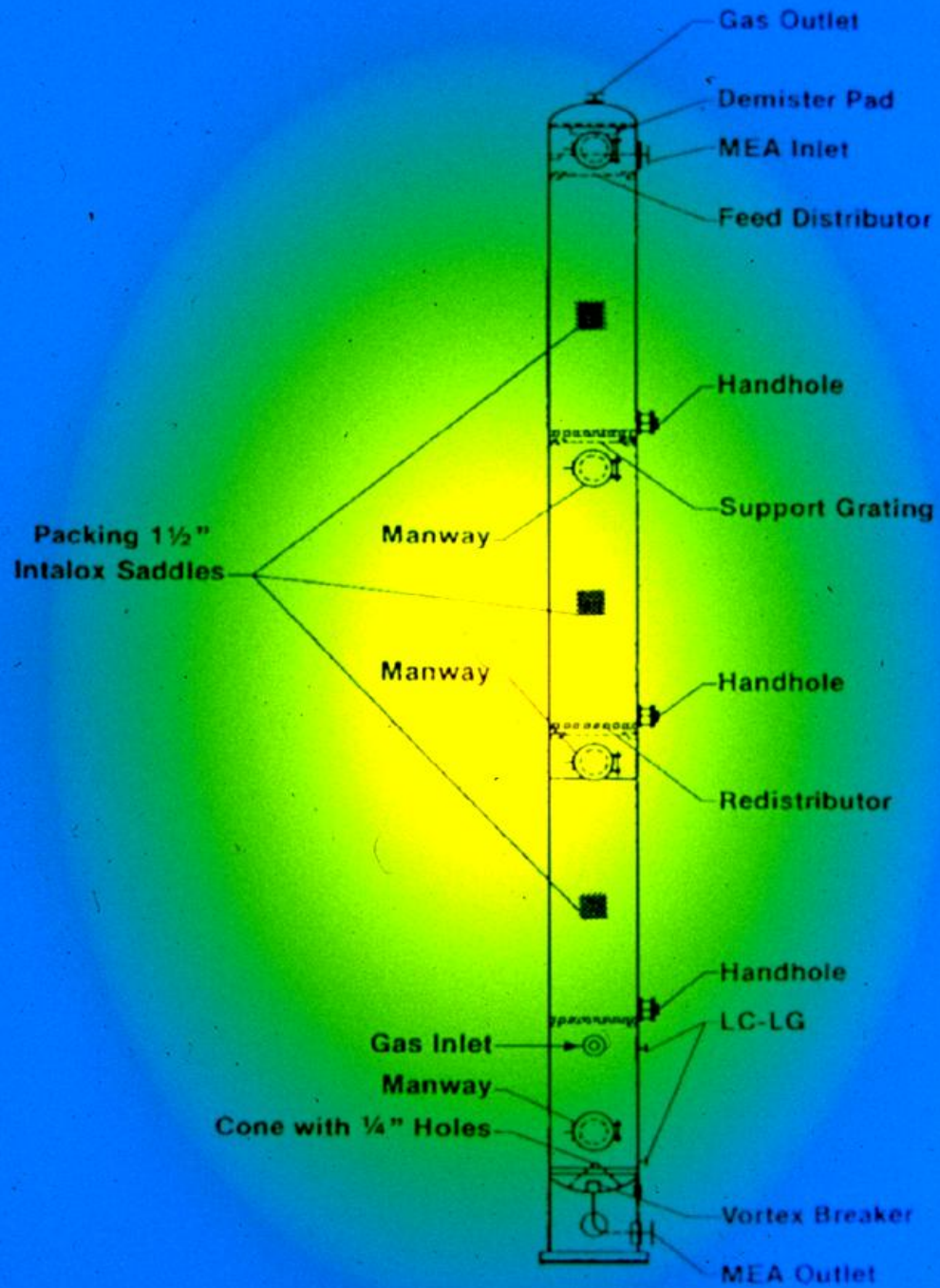
Figure 305.1  
Vacuum Distillation Unit

# SATURATED GAS PLANT



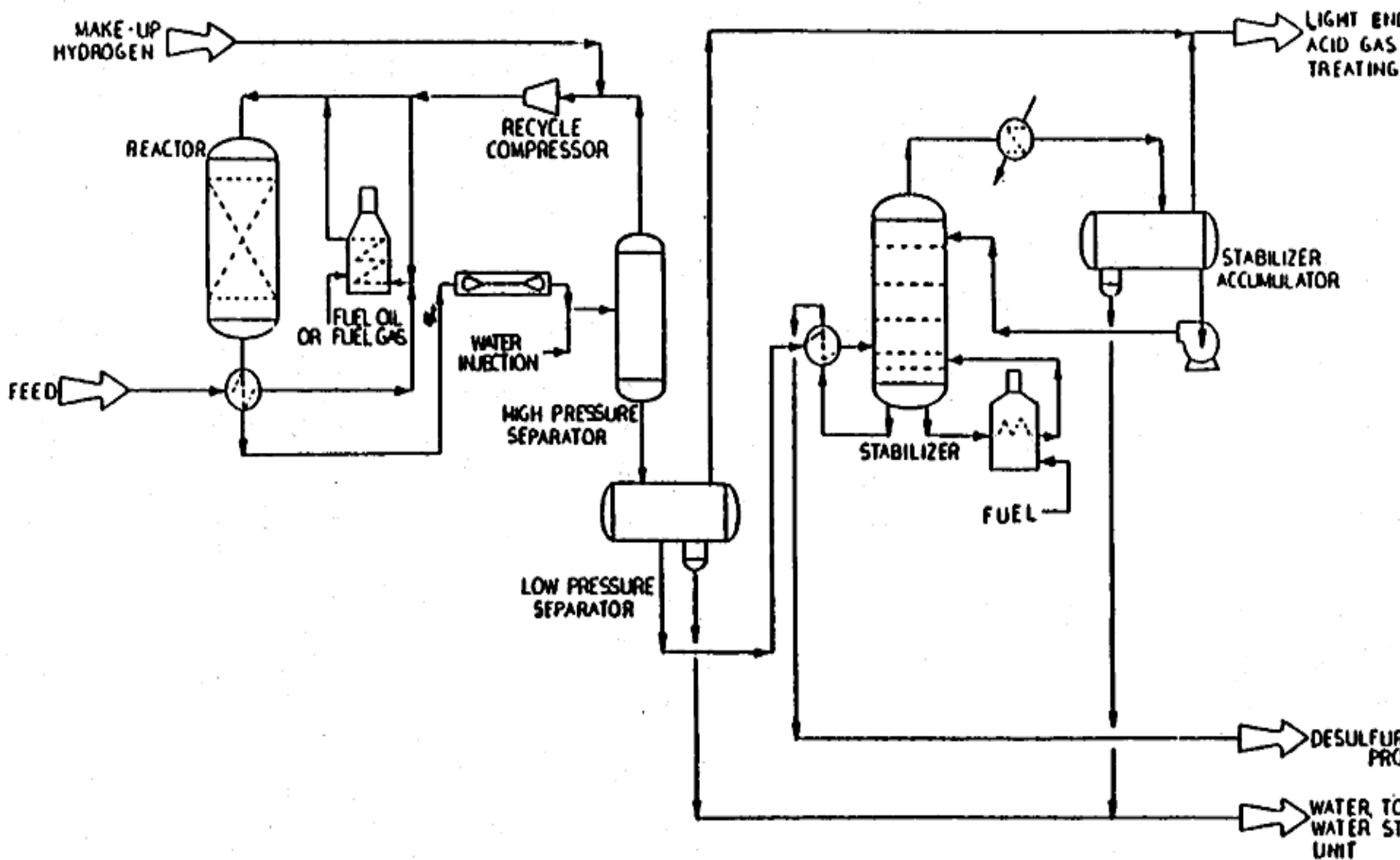
# ACID GAS TREATING UNIT



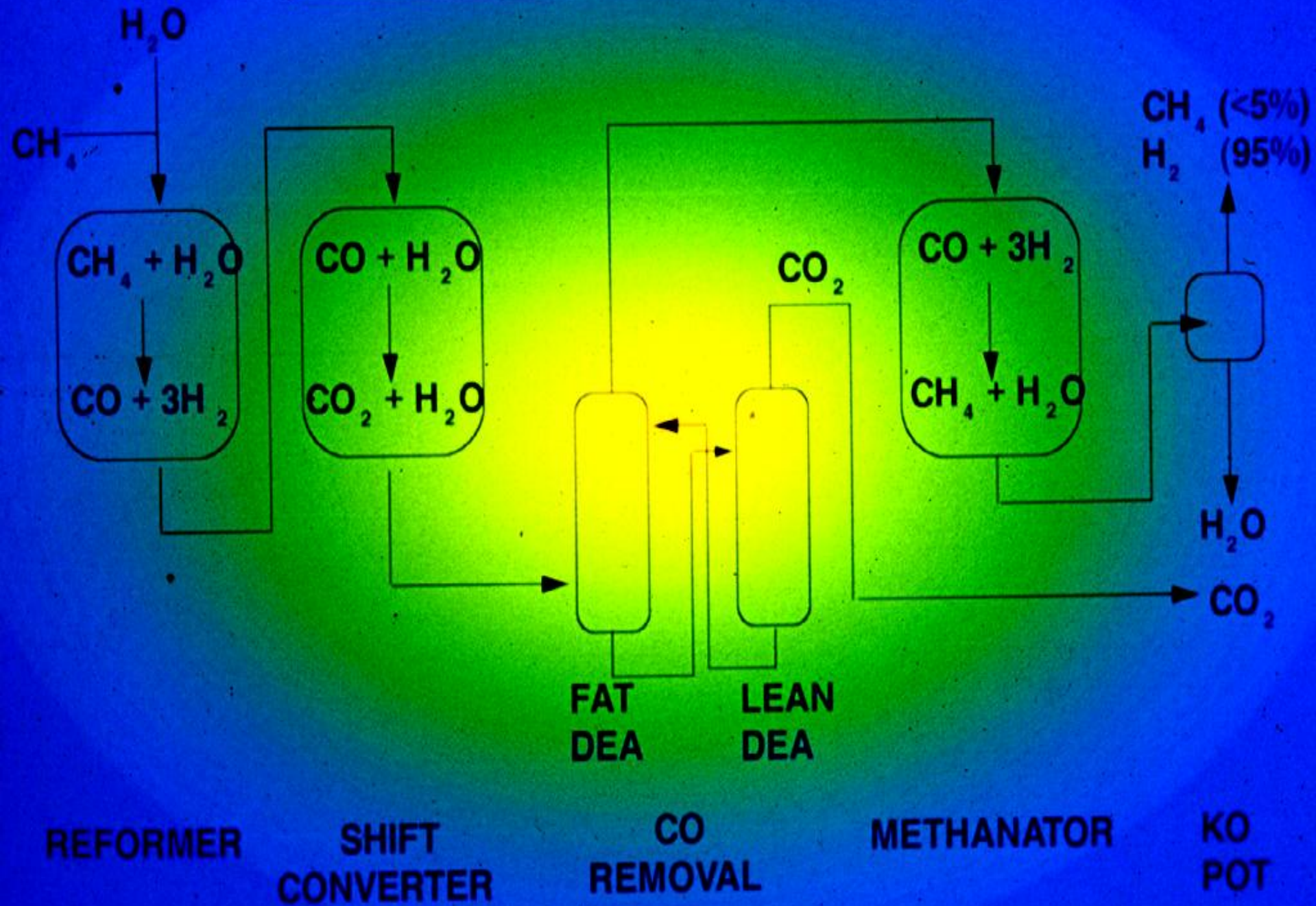




# HYDROTREATING UNIT



# Steam Methane Reformer



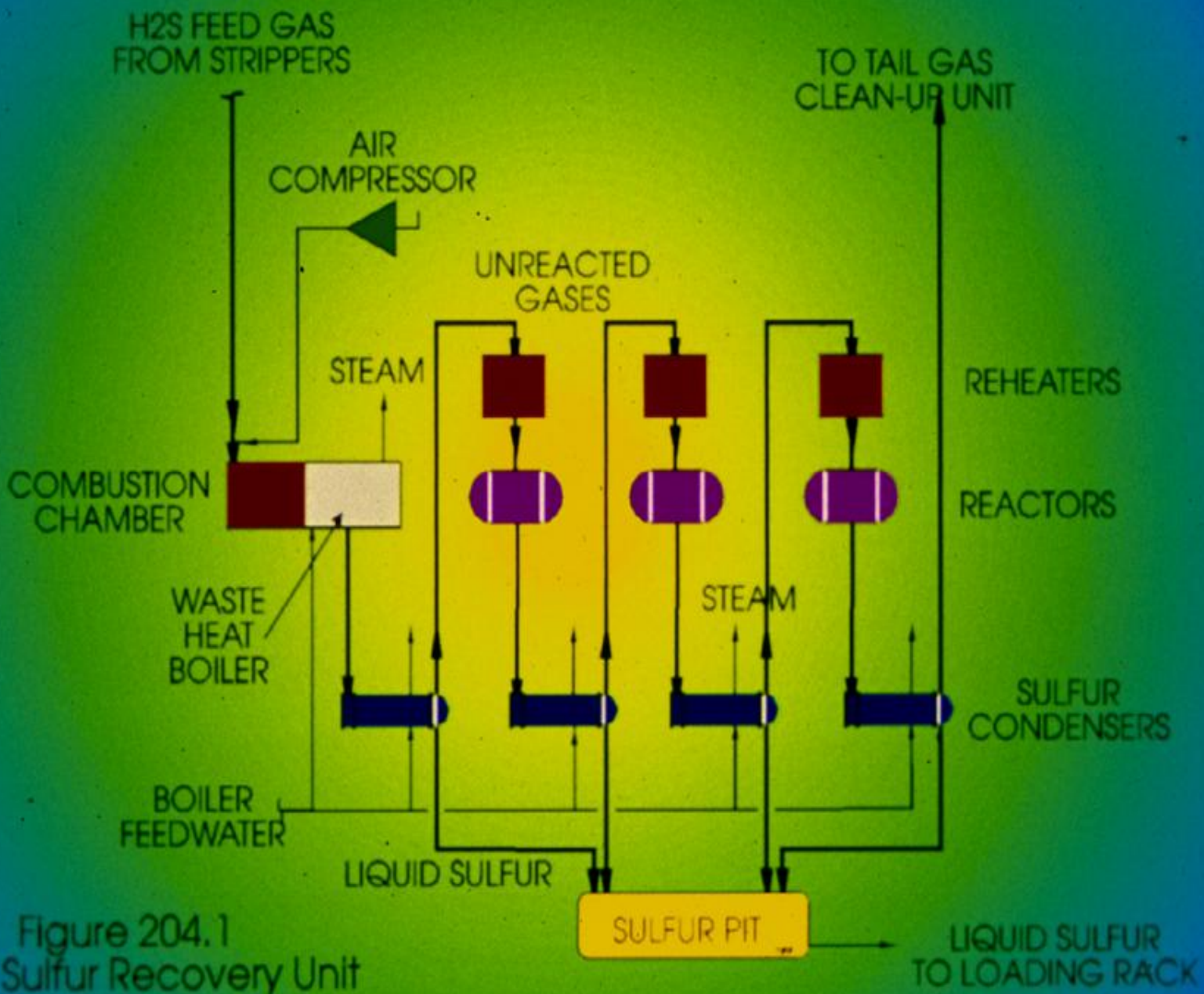


Figure 204.1  
Claus Sulfur Recovery Unit

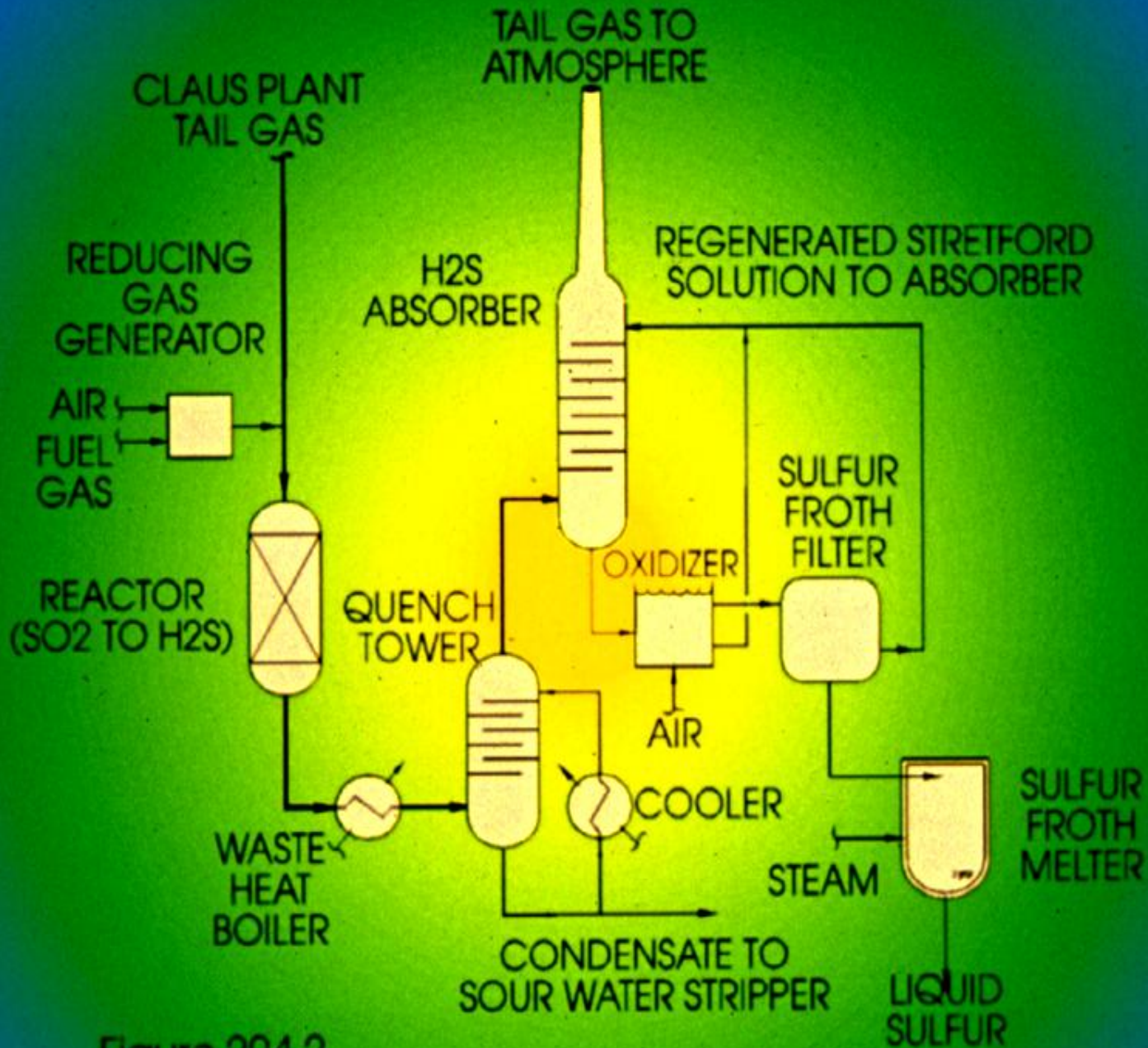
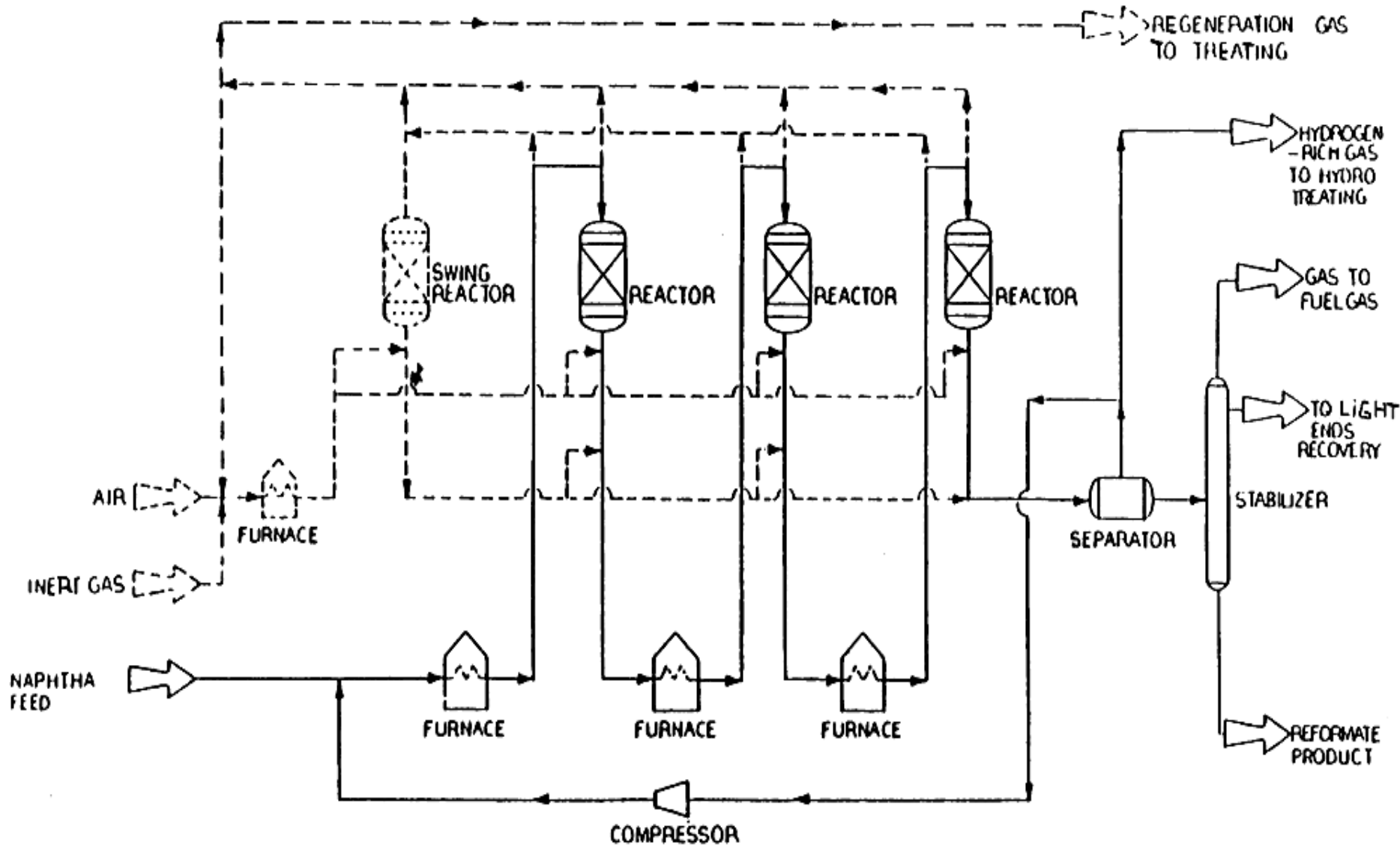
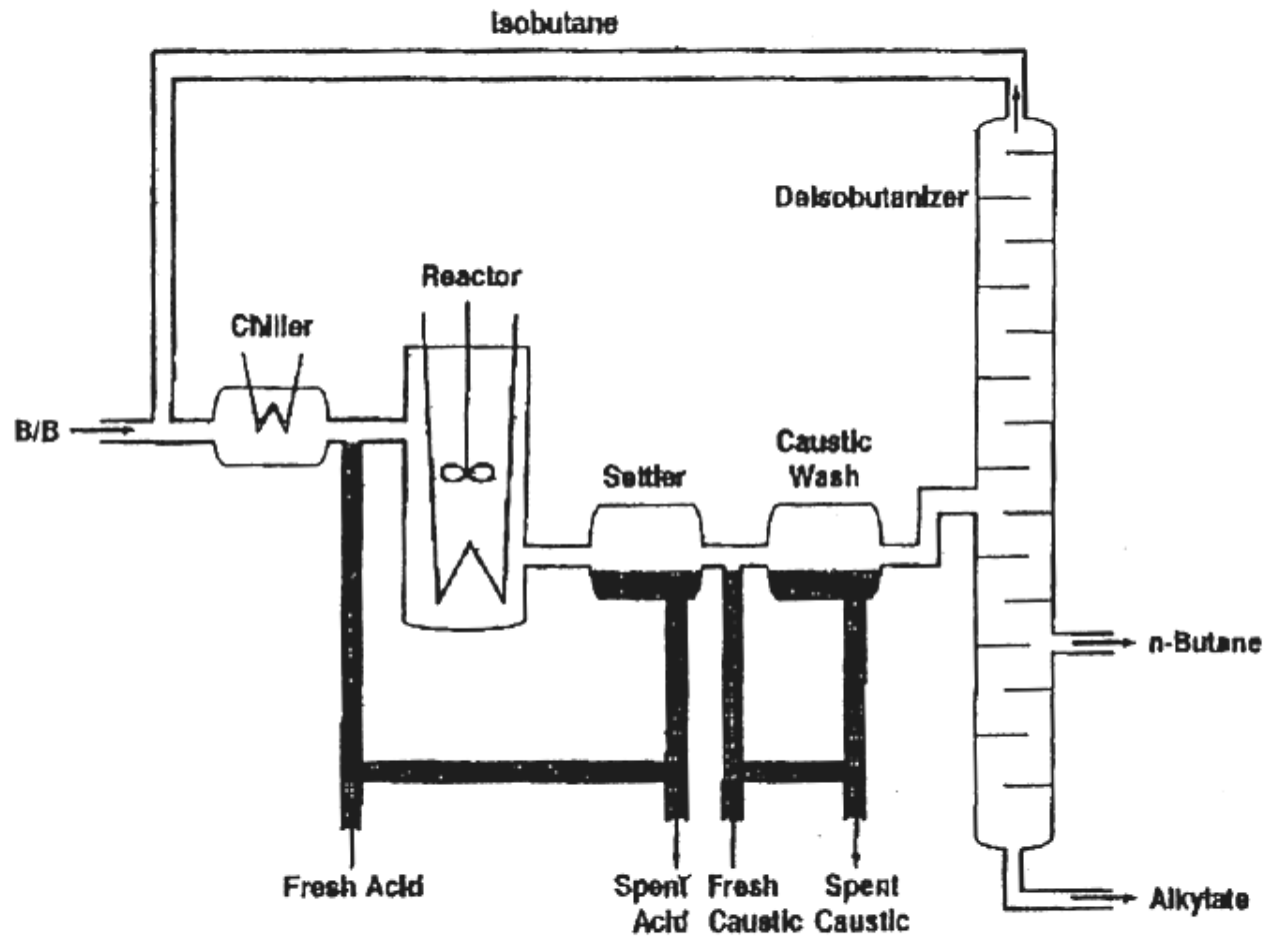


Figure 204.2  
 Beavon Tail Gas Clean-Up Process

# CATALYTIC REFORMING UNIT



# Sulfuric Acid Alkylation



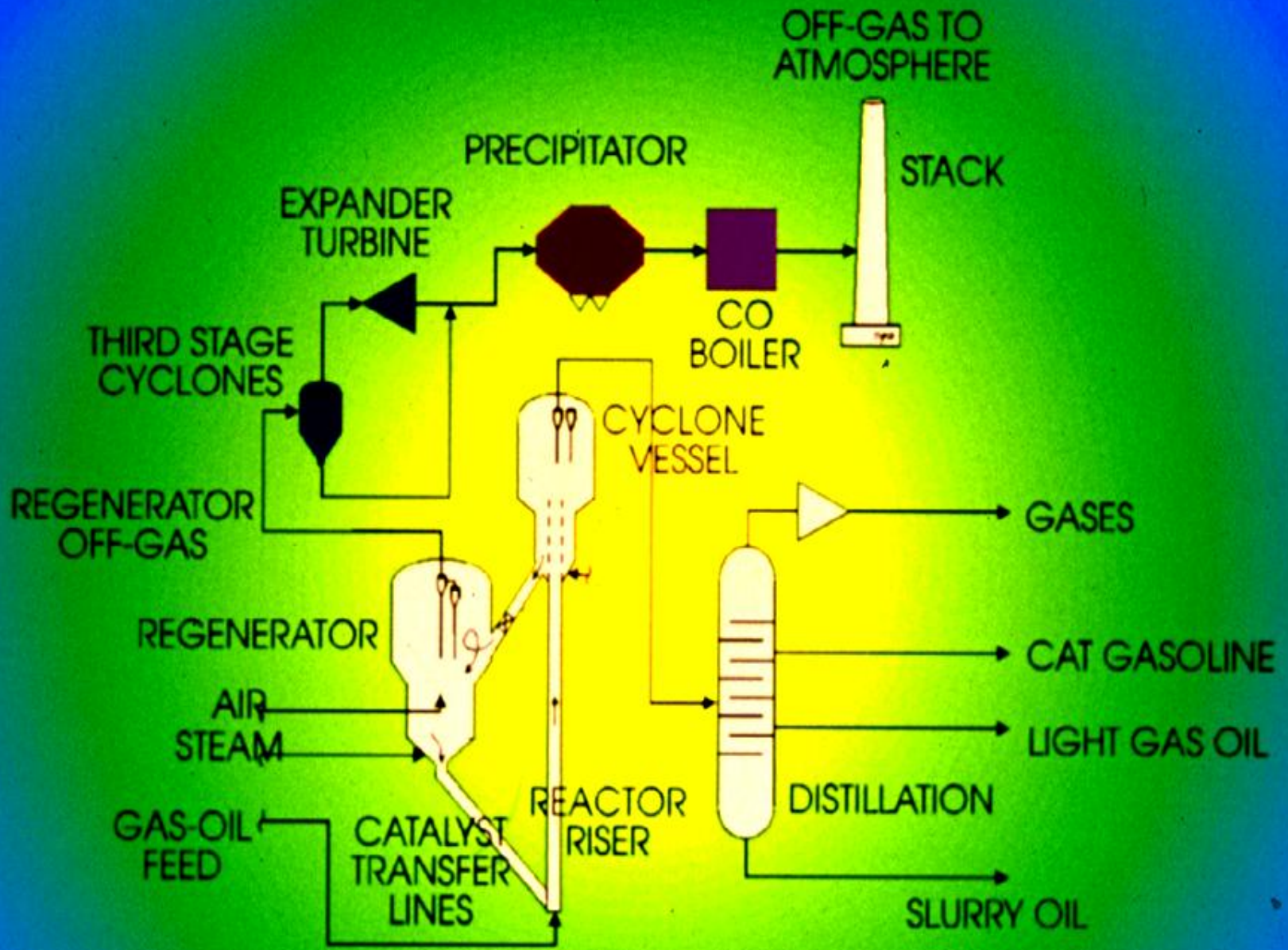
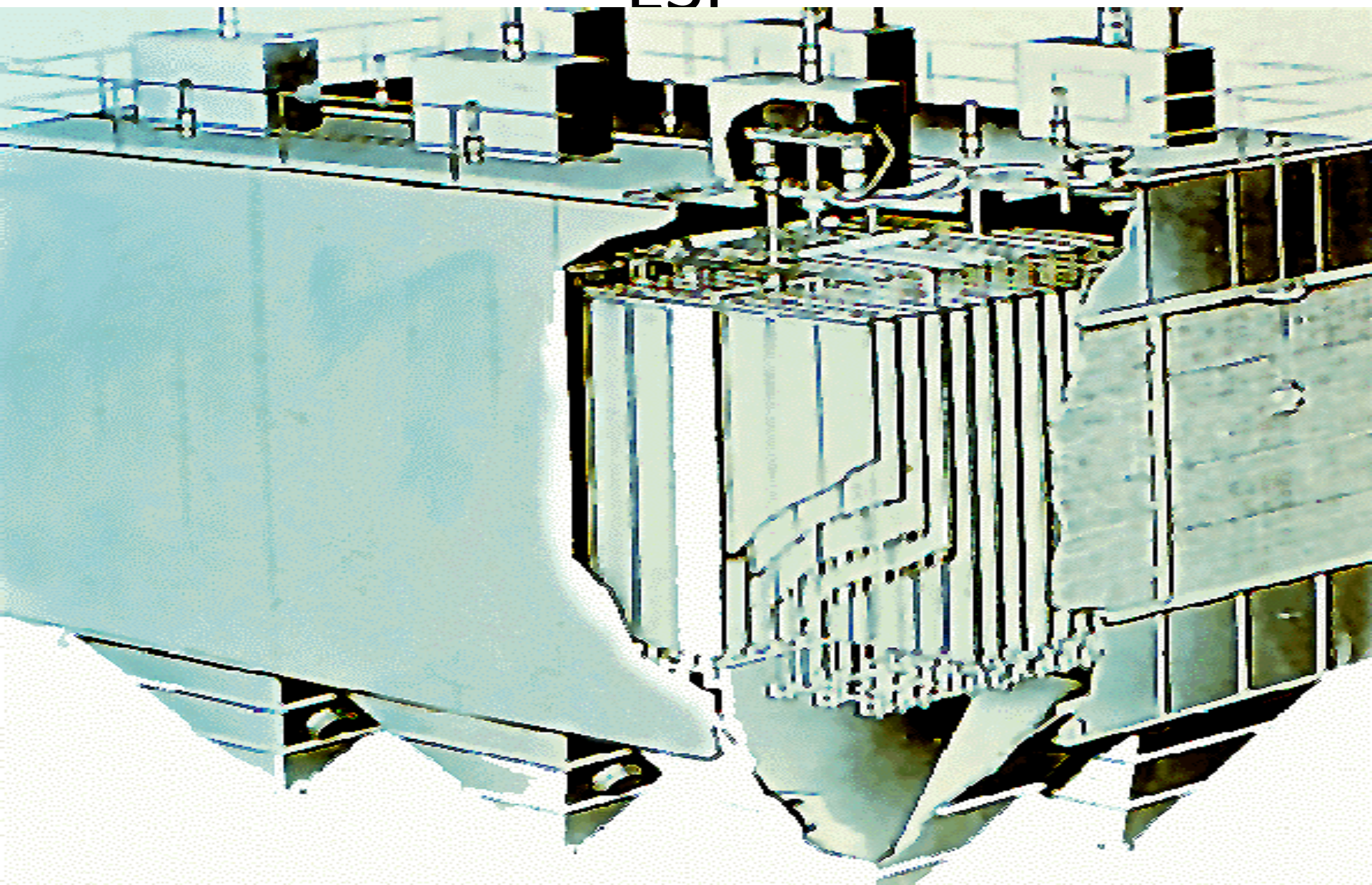


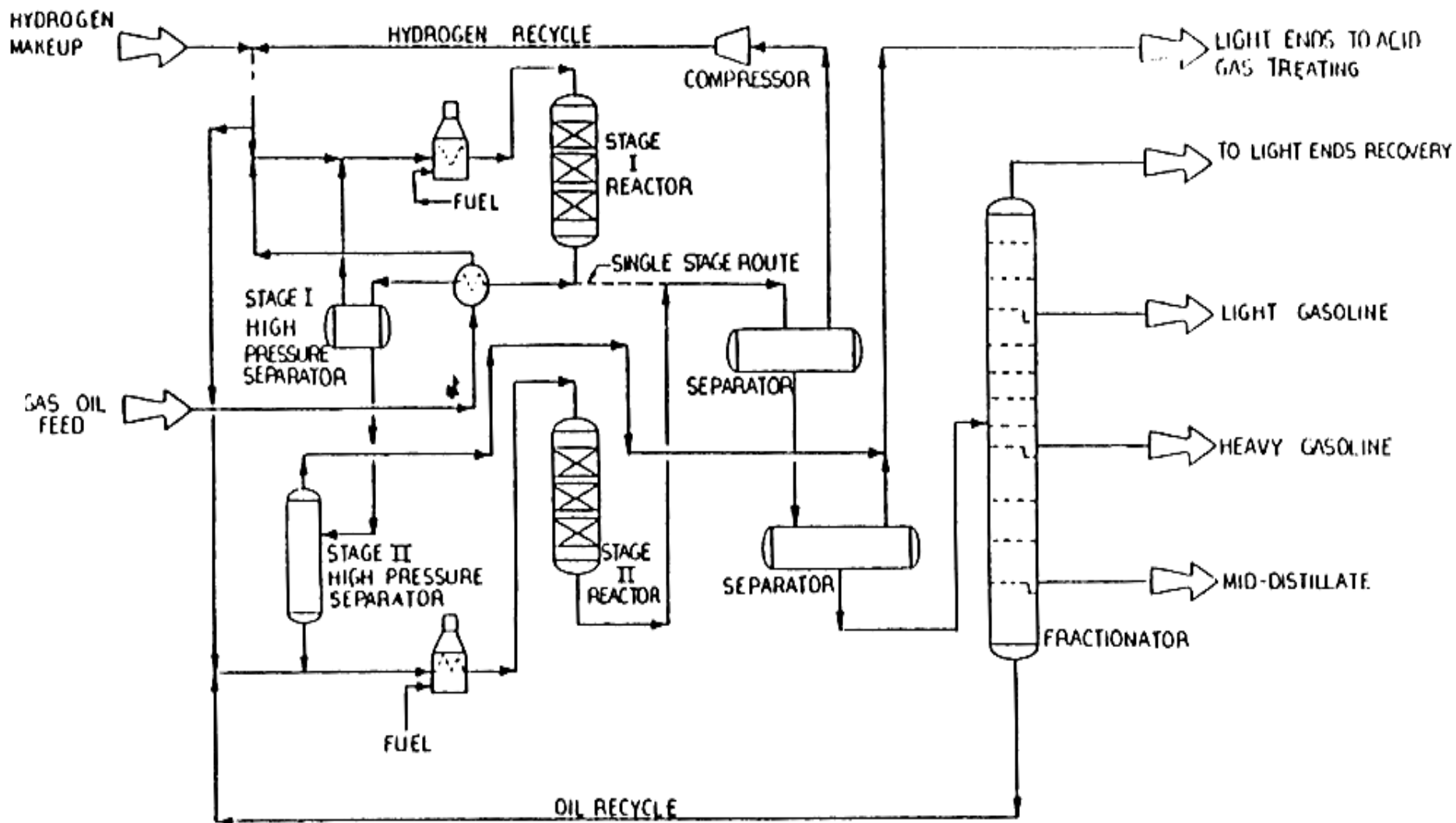
Figure 203.1  
Fluidized Catalytic Cracking Unit

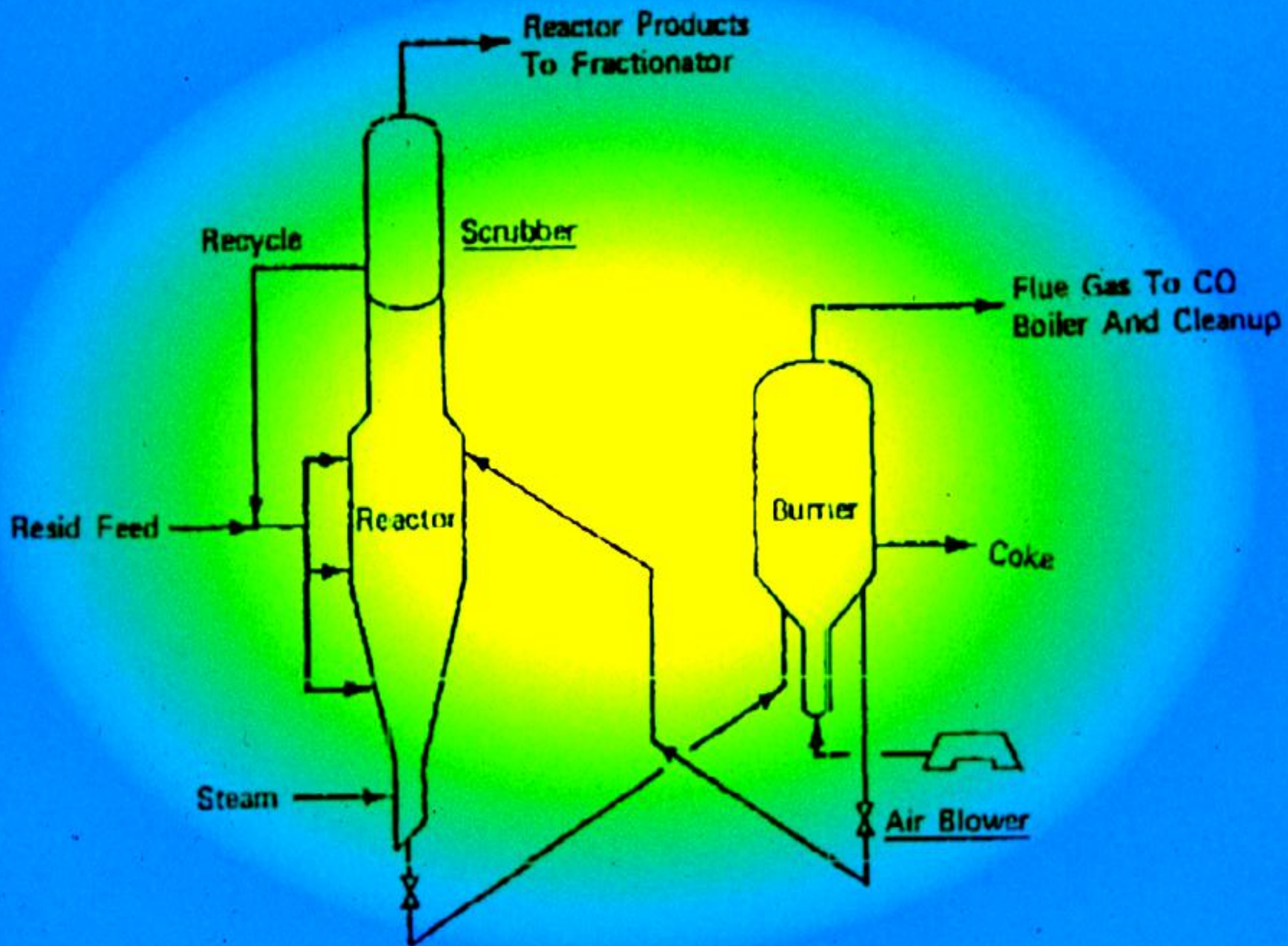
ESP

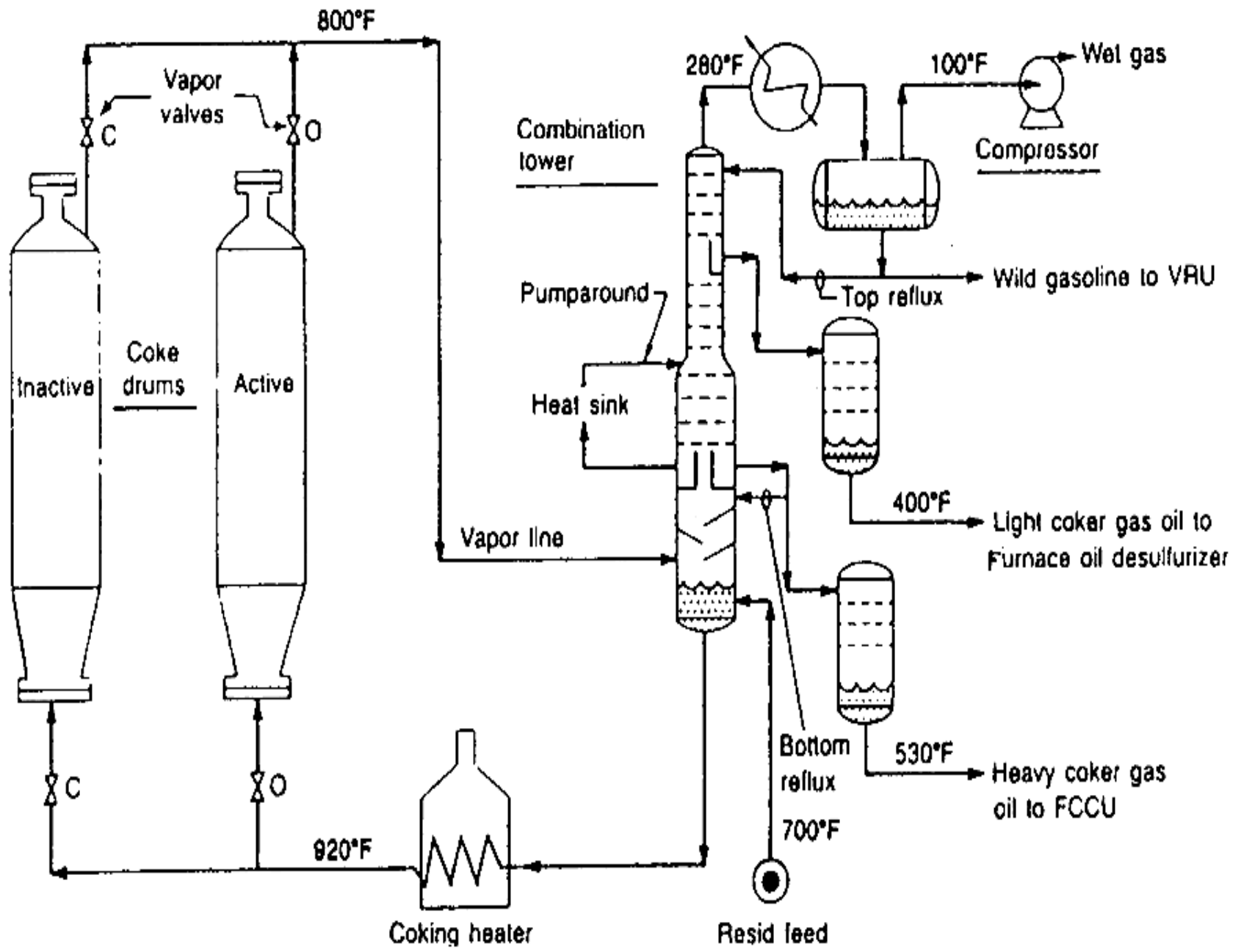




# HYDROCRACKING UNIT







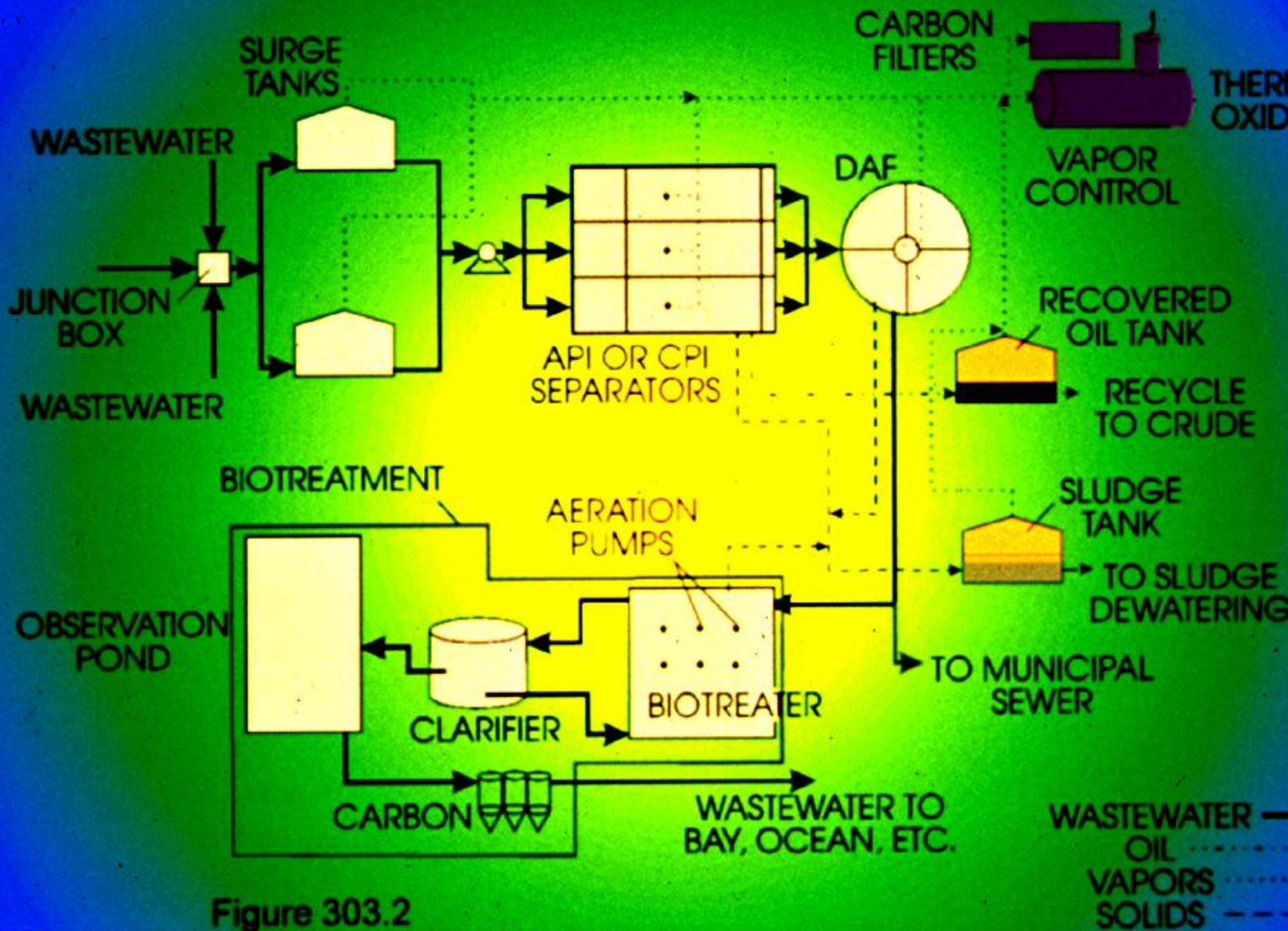


Figure 303.2  
 Main Wastewater Treatment Flows

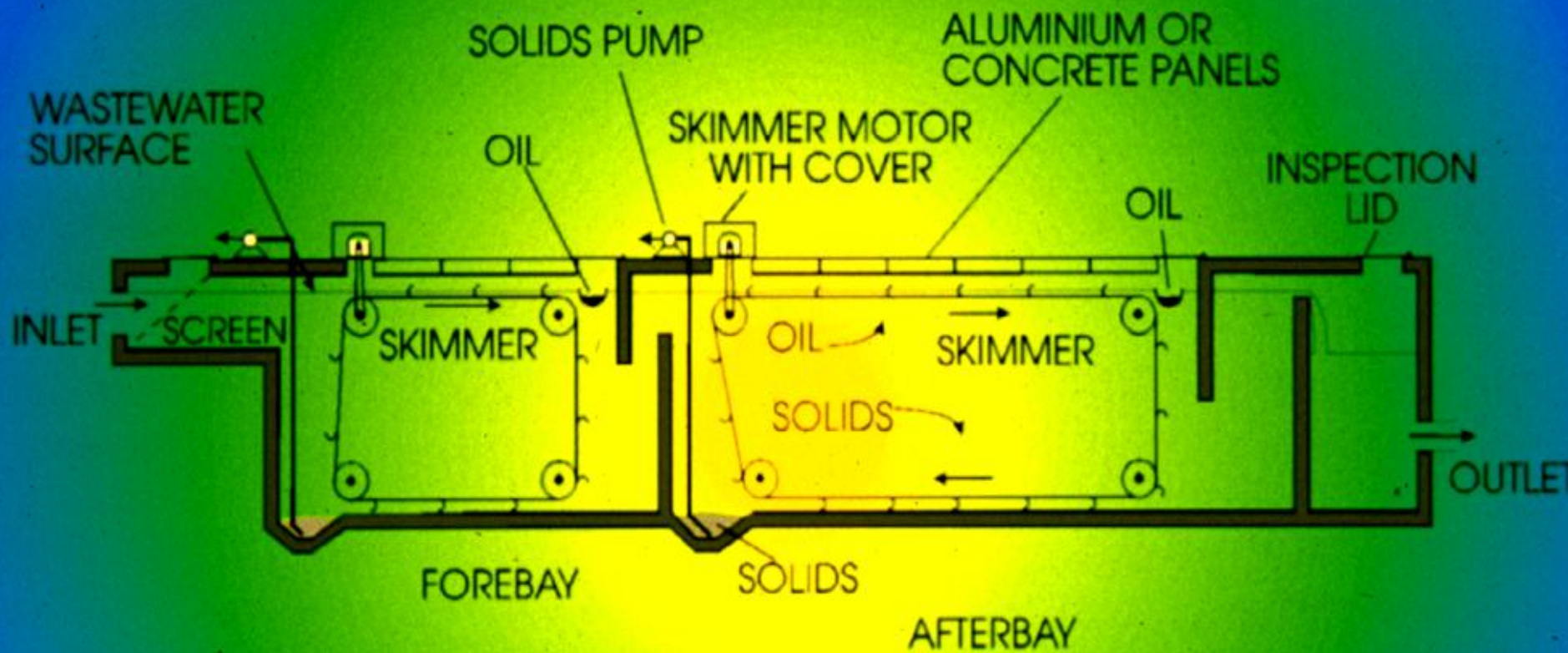


Figure 303.3  
API Separator

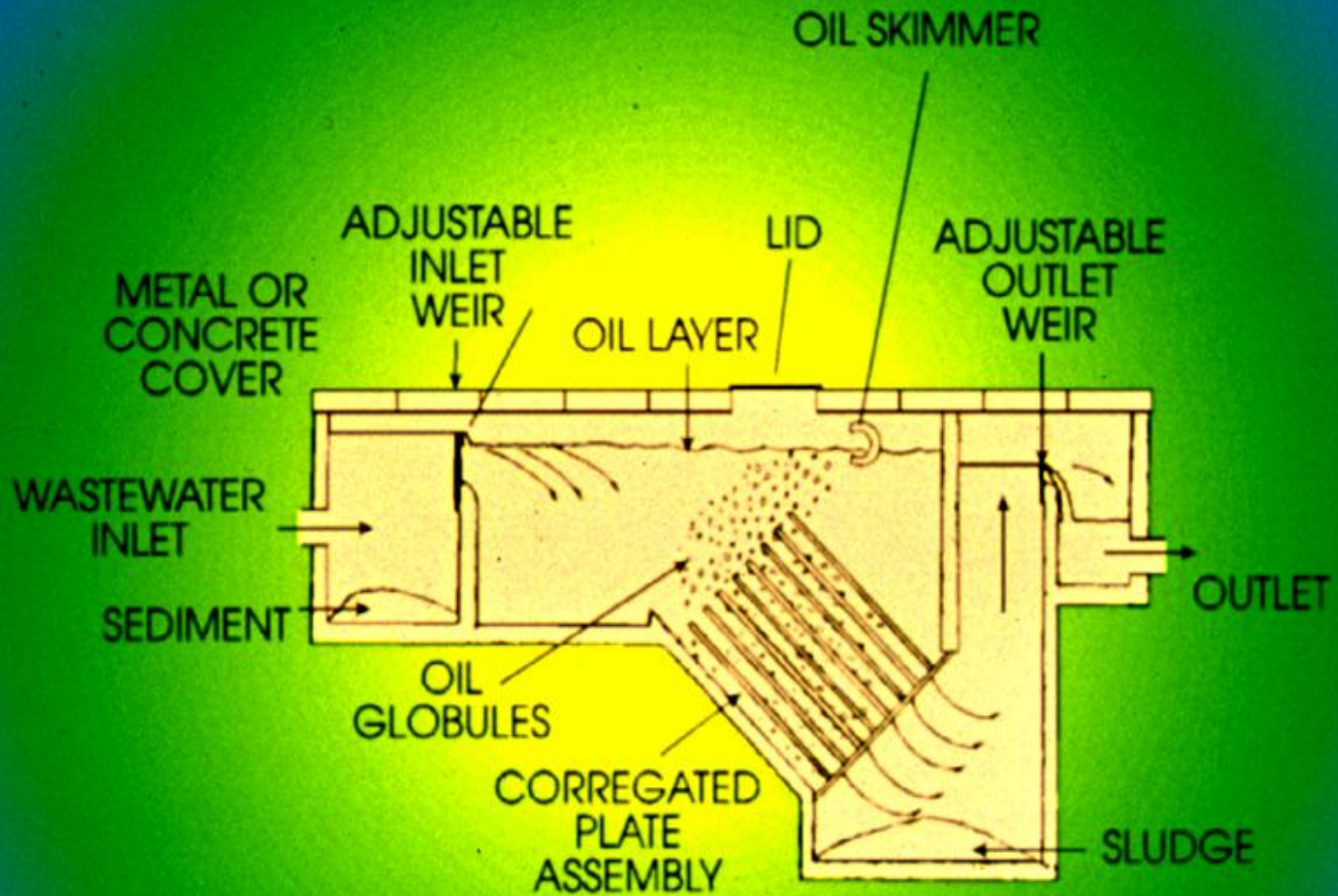


Figure 303.4 CPI Separator

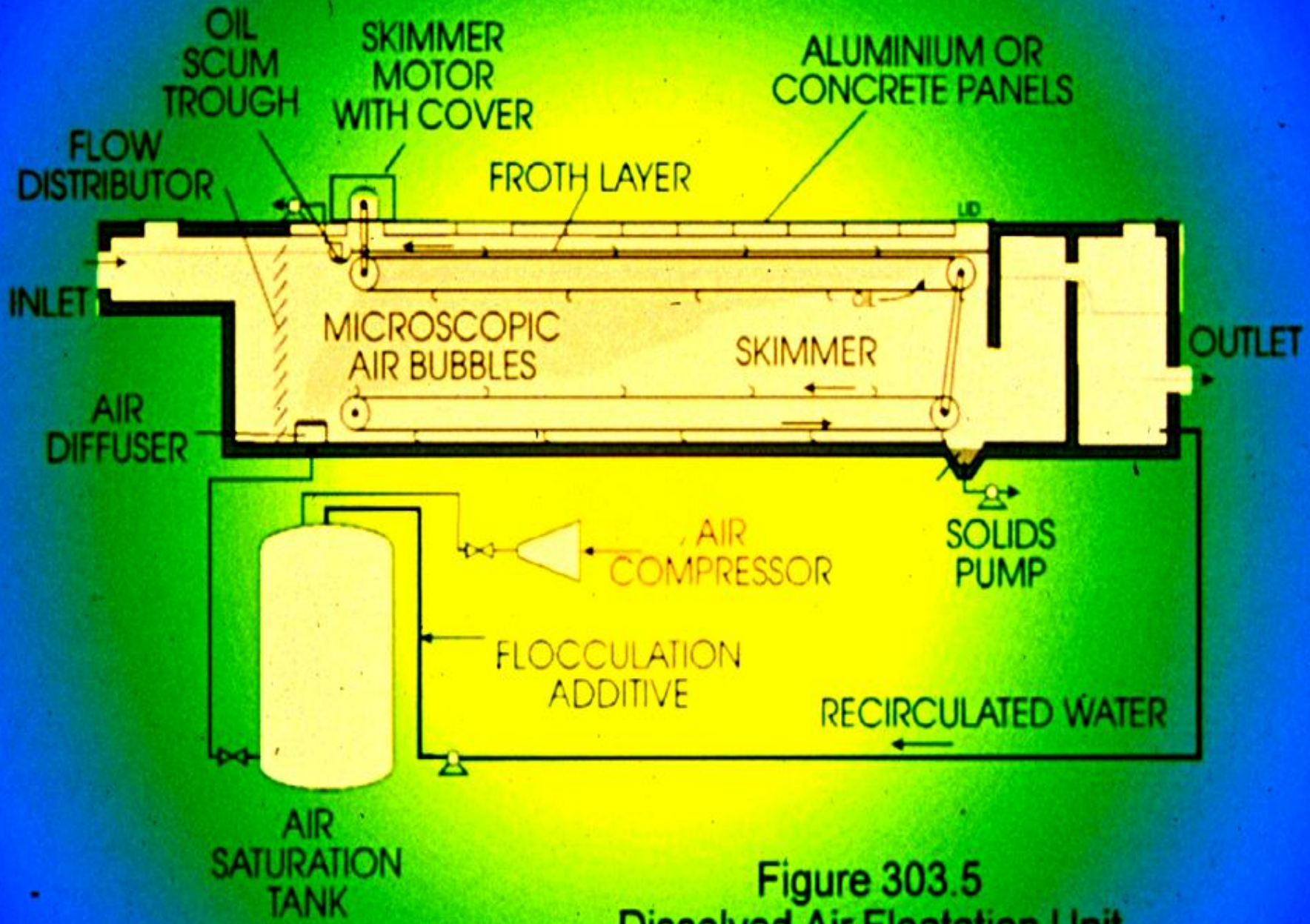


Figure 303.5  
Dissolved Air Flotation Unit