

أرامكو السعودية
Saudi Aramco



ALTERNATIVE ETHANE LIQUEFACTION PROCESS AT BGP

Presented by

YAHYA H. AL-FAIFI

Saudi Aramco

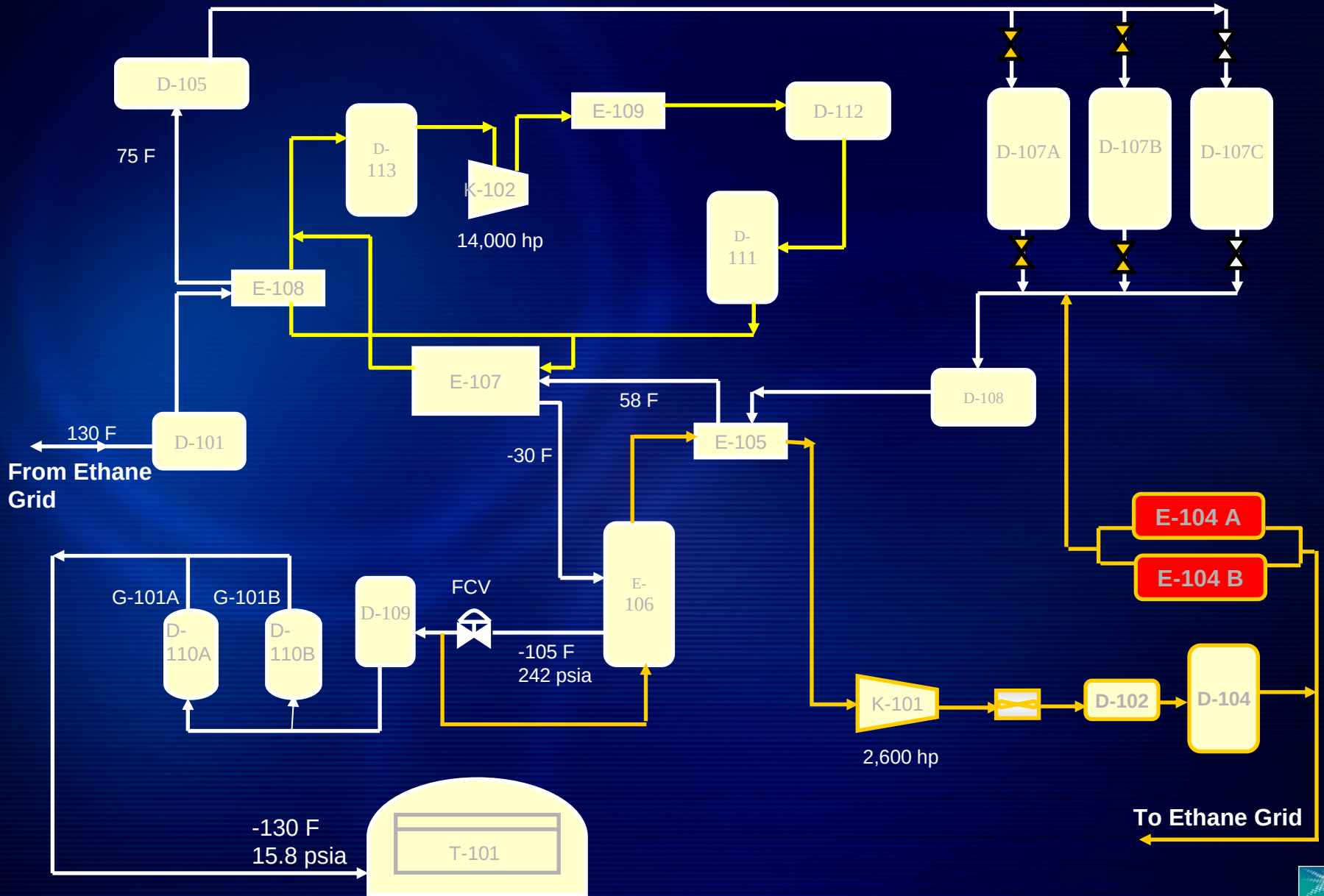


OUTLINE

- Existing System Description
- Inherent System Drawbacks
- A new Liquefaction Process Description
- Advantages
- Conclusion



Existing Liquefaction Process

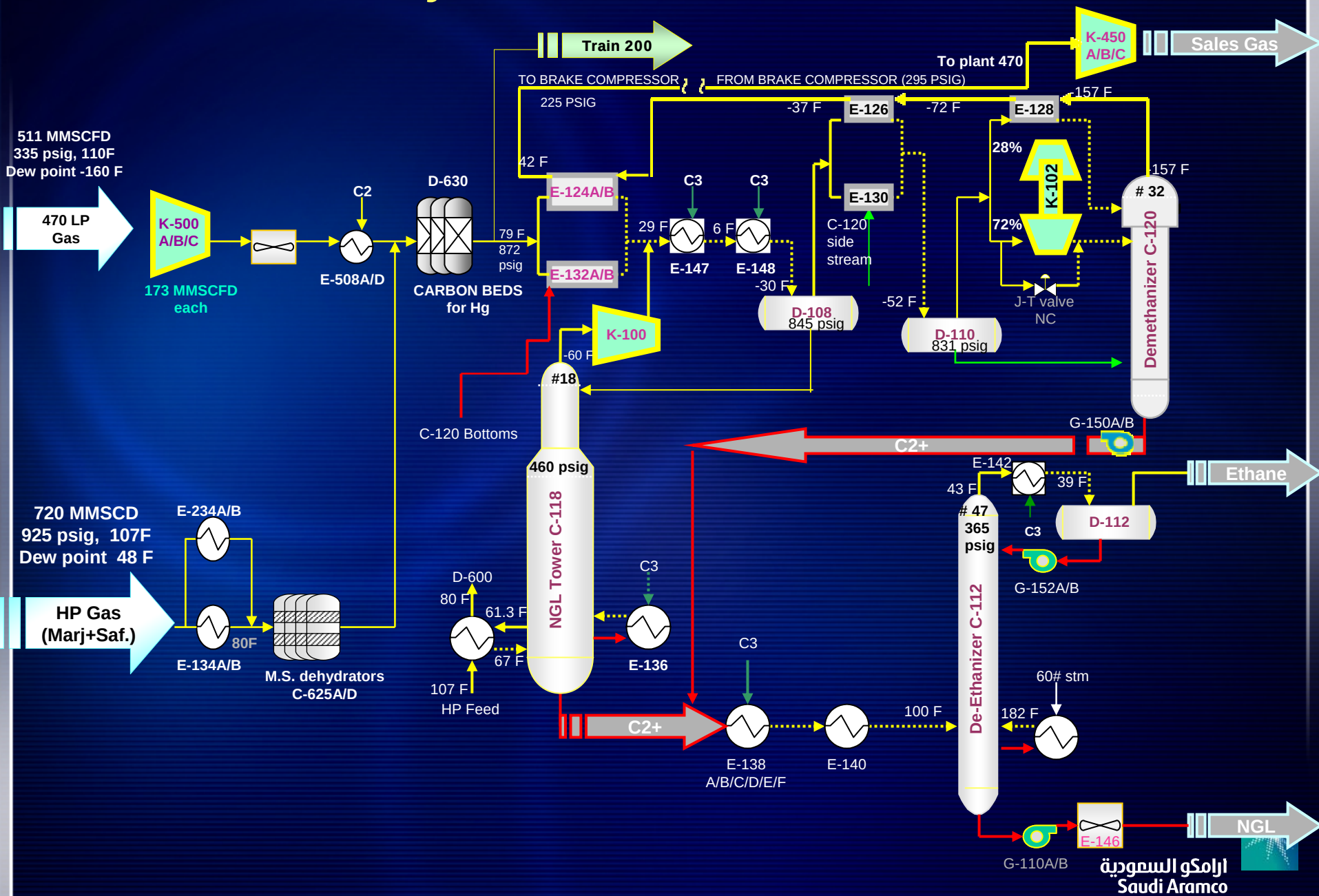


INHERENT SYSTEM DRAWBACKS

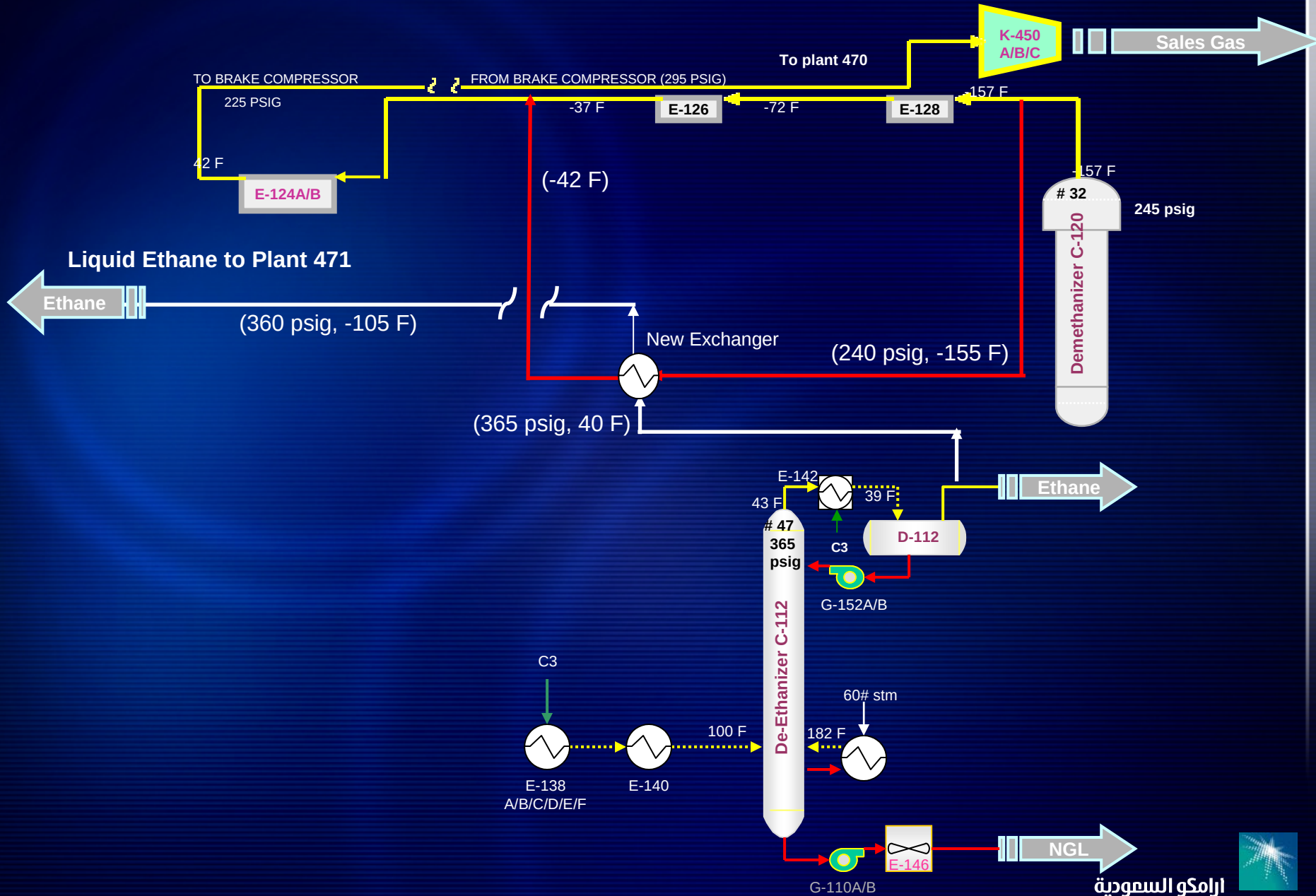
- **Running and maintaining two old rotating equipment (propane compressor, recycle compressor)**
- **High power consumption (16,600 hp)**
- **Maintaining 35 equipments**



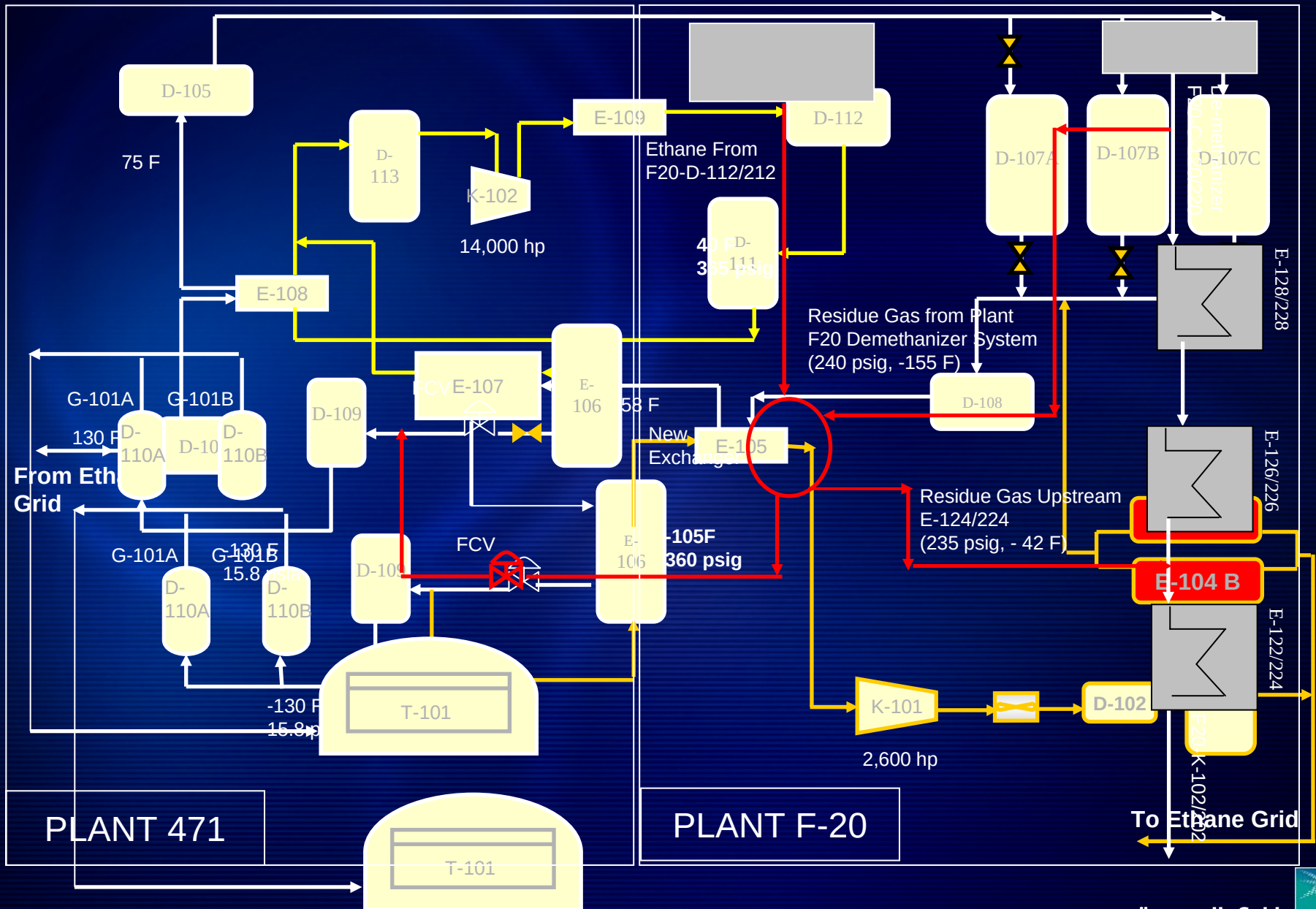
Ethane Recovery Plant F-20 Process Overview



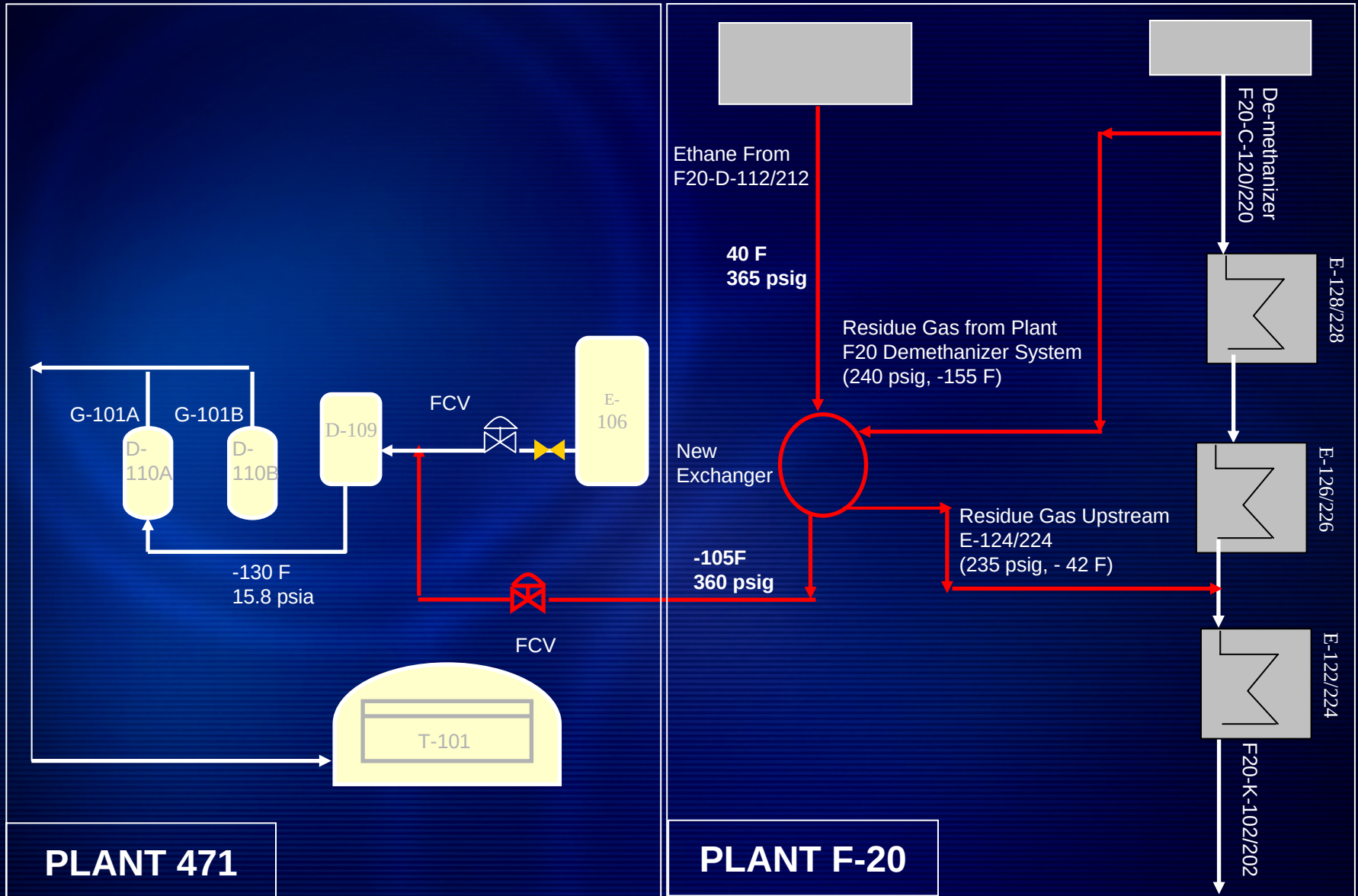
New Ethane Liquefaction Process



New Liquefaction Process



New Liquefaction Process



ADVANTAGES OF NEW SYSTEM

- **Eliminate operating cost of recycle and refrigeration compressors of 16,600 hp (\$9,500/day)**
- **Eliminate the cost of maintaining 35 equipments including two old compressors (\$25,000/month)**
- **Enhance plant reliability by the elimination of operating two old compressors**
- **Increase liquefaction capacity by 25% if required**



CONCLUSION

- New Process will save 16,600 hp of power
- Reduce \$56,000/month on operating and maintenance cost
- Enhance the reliability of the liquefaction unit by minimizing the number of equipment.



Thank You