



**MATRIX SERVICE
COMPANY**

CRYOGENIC STORAGE

Matrix is staffed by dedicated, experienced professional engineers with expertise in the areas of structural design, process design, insulation, stress analysis, civil design, reinforced and prestressed concrete design, metallurgy, welding, gas dynamics, heat transfer, refrigeration, mechanical design, electrical design, controls, and instrumentation.

As standards committee participants, Matrix engineers develop industry codes for project requirements through its representation on major committees such as ACI 376 and API 620, as well as experience with facility owners. Matrix is an expert in storage tank and facility design requirements and safety practices associated with LNG and refrigerated liquids.

Matrix partners with facility owners to develop specific, standard designs suitable to a particular process, or utilization requirement for use on an ongoing basis.

A HIGHER STANDARD IN ENGINEERING



UNMATCHED EXPERTISE

Matrix's capabilities and resources provide customers with complete service from the conceptual development of a project, through economic evaluation and planning, to EPC project execution.

Matrix has considerable experience applying the requirements of the United States Code of Federal Regulations, 49 CFR Part 193, which applies to new LNG facilities subject to the Interstate Pipeline Act. We have permitted, designed, and constructed turnkey facilities per these regulations.

Matrix offers design excellence for single and full containment LNG storage facilities, LPG storage facilities, ammonia storage facilities, LIN / LOX storage tanks and spheres.

Among Matrix's most prominent engineered products are LNG, low temperature and cryogenic storage facilities, as well as the associated process systems. Matrix has executed projects for the storage of refrigerated gases, including LNG, ethane, ethylene, propane, butane, propylene, butadiene, ammonia, chlorine, oxygen, nitrogen, argon, hydrogen and helium.

Engineering expertise

- Feasibility studies
- FEED studies
- P&ID development
- Plot plan development
- Structural design/analysis
- Tank design/analysis
- 3D modeling of facilities
- Piping design/analysis
- Electrical design/analysis
- Instruments/control systems
- Control system programming
- Project cost estimates
- Commissioning/training
- Natural gas processing

Capabilities

- Storage
 - Spheres
 - ASME
 - Section VIII
 - Low-pressure tanks
 - API standard 620
- Impoundment systems
- Truck, rail-car, and ship loading and off-loading
- Boil-off compression and vaporization
- Foundations
- Piping insulation
- Pumping
- Product heating
- Flares
- Fire protection
- Electrical power distribution
- Instrumentation and controls
- Peak shaving
- Liquefaction



For more information
please contact
866 367 6879
matrixservicecompany.com

