



Waldemar S. Nelson and Company, Incorporated  
*Engineers*

# Oil and Gas Production

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## WALDEMAR S. NELSON *and* COMPANY, INC.

**WALDEMAR S. NELSON AND COMPANY, INC.** is a full-service engineering, architectural and project management firm with offices in New Orleans and Houston serving the oil and gas industry on a broad range of projects worldwide since 1945.

Our staff of over 250 engineers, architects, scientists, construction managers and support personnel blend their many years of experience and expertise with today's technology to deliver state-of-the-art projects fulfilling our clients' scope, schedule and budget needs.

Our ability to provide complete engineering services enables us to work with our clients from the earliest conceptual stage of a project through start-up. We are able to maintain a life-of-the-facility relationship with our clients through continuous support including operator training, regulatory affairs assistance, process upgrades, control software development and many other services.

**NELSON has participated in the design, construction management, start-up and permitting of numerous off-shore and onshore facilities. These projects have included the following:**

- Offshore drilling and production platforms
- Floating production systems
- Offshore receiving, processing and transshipment facilities
- Secondary and tertiary recovery facilities
- Production skids
- Quarters buildings
- Onshore wellhead, gathering and treatment facilities
- Compressor stations
- Pumping stations
- Pipelines
- Power plants

### **Design of Production Facilities of Various Configurations**

These projects have brought NELSON's staff significant specific experience in the following areas:

- Large multi-platform complexes
- Facilities using fixed steel and concrete structures
- Floating production systems (converted tankers, Tension Leg Platforms, barge-mounted)
- Subsea tiebacks to fixed and floating facilities
- Conversion of mobile offshore drilling units to production service

### **Design of Facilities for Unusual Stream Conditions**

- Heavy crude (down to API <10)
- Sour fluids (gas streams up to 25% H<sub>2</sub>S and 10% CO<sub>2</sub>)
- High pressure wellstreams (up to 25,000 PSIG)

### **Large Offshore Electric Generation and Cogeneration Plants**

- Large power plant capacity (up to 40,000KW)
- Gas turbine generators with waste heat recovery
- Gas and diesel engine generators (single and dual-fuel)
- Steam turbines (topping or bottoming cycle)
- High voltage (34.5KV, 13.8KV and 4.16KV) generation/distribution
- Emergency generators/UPS systems (rotary and electronic)

## Our Expertise

### Departments

- Electrical Engineering
- Instrumentation & Controls Engineering
- Chemical & Process Engineering
- Mechanical Engineering
- Civil & Structural Engineering
- Architecture
- Project Management
- Construction Monitoring

## Featured Projects



### LEVIATHAN LIVING QUARTERS

Detailed design and construction support was provided for the Leviathan Living Quarters Building for Noble Energy. This 4.5-story, 21,171-square-foot Quarters Building and Helideck is to be located in the Mediterranean Sea. Accommodations were designed for 100 persons and spaces included both a main Command Center and an Alternate Command Center. Both a conventional marine-grade Galley was designed, and a Kosher Galley was provided. A large Dining Room with serving line, Men's and Women's Change Rooms, Offices and Conference Rooms of various sizes, a Fitness Room and a Medic Station provide for a complete offshore housing installation.

A transit lounge doubled as a team room and muster area with enough room for all persons on board. Electrical and Instrumentation rooms were provided in addition to Telecommunication Rooms, Switchgear and Battery Rooms.

HVAC is provided with a rooftop installed 100% redundant system.

### URSA TLP 114-MAN AND 42-MAN QUARTERS BUILDING

The 114-Man Quarters Building for Shell/BP/Exxon/Conoco, is a USCG certified, three-level, stressed skin structure that spans between hull columns of the URSA Tension Leg Platform. It provides complete housing to accommodate 114 people, food service for 156 persons, laundry, recreation, office, storage and communication and platform control facilities.

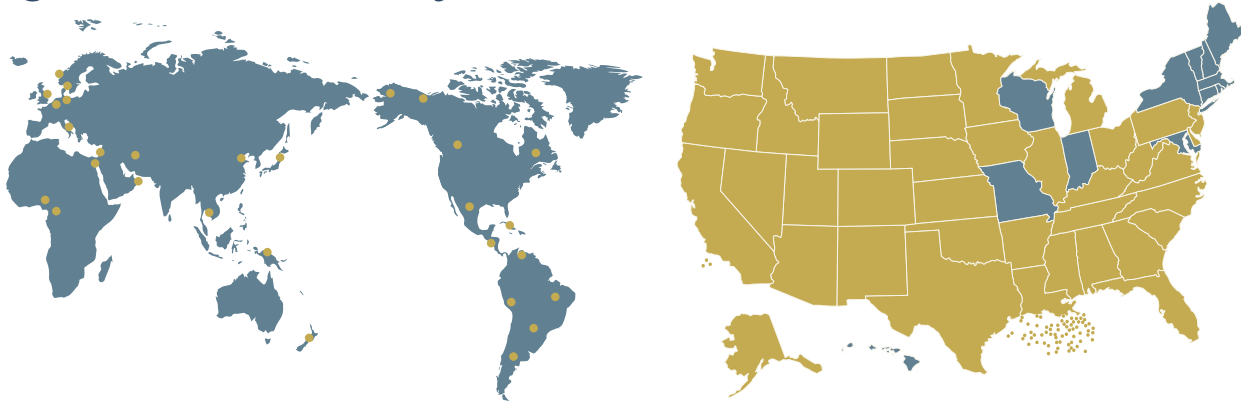
The building is approximately 180 feet long by 46 feet wide. The quarters section occupies 150 feet long by 46 feet wide. Balance of the space accommodates critical storage, some of which occupies conditioned areas.

The building was designed to comply with US Coast Guard regulations, and to meet the intent of the Life Safety code (NFPA 101) and Uniform Building Code (UBC).

The building is provided with up-to-date HVAC, plumbing, fire protection, electrical, communication and emergency systems.

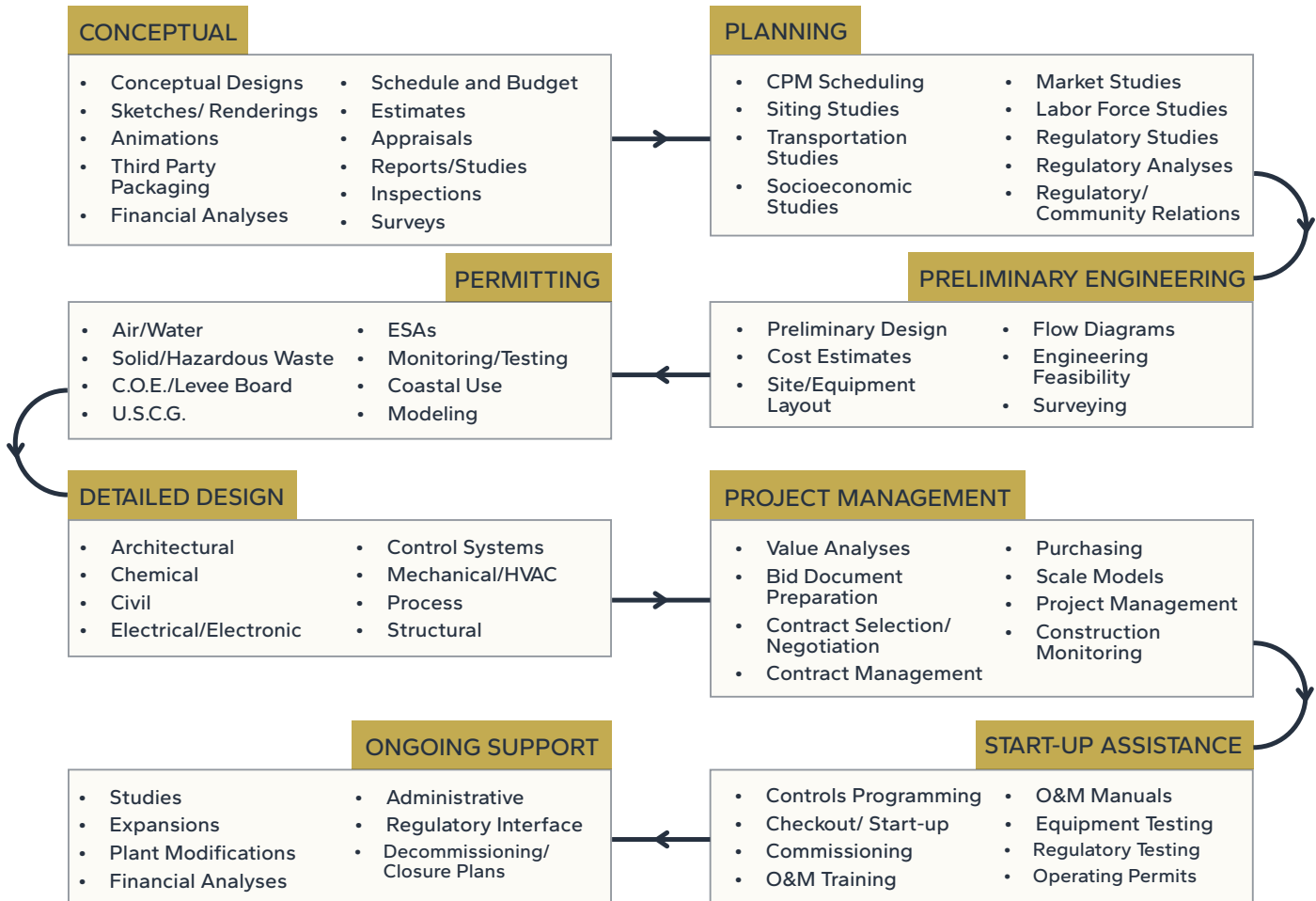


# Serving our Clients Nationally and Worldwide since 1945



**NELSON has provided professional services in more than 40 states and 60 countries.**  
 All services are provided by locally registered engineers.

## Our Process



## 2025 ENR Rankings

- #357 of Top 500 Design Firms
- #134 of Top 225 International Design Firms
- #49 of Top 50 in Oil and Gas
- #16 of Top 25 in Refineries and Petrochemical Plants
- #5 of Top 5 in Offshore and Underwater Facilities
- #5 of Top 10 in Mining



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